Twenty-first annual report. July 1982

Waukesha, Wisconsin: Southeastern Wisconsin Regional Planning Commission, July 1982

1981 ANNUAL REPORT

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2. J. Wise

TWENTY-FIRST ANNUAL REPORT

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Commission Offices
P. O. Box 769
Old Courthouse
916 N. East Avenue
Waukesha, Wisconsin 53187-1607

Telephone (414) 547-6721

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July 1982

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SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

916 NO. EAST AVENUE • P.O. BOX 769 • WAUKESHA, WISCONSIN 53187 • TELEPHONE (414) 547-6721

Serving the Counties of:
KENOSHA
MILWAUKEE
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July 31, 1982

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

In accordance with the requirements of Section 66.945(8)(b) of the Wisconsin Statutes, the Commission each calendar year prepares, publishes, and certifies an annual report to the State Legislature of Wisconsin and to the legislative bodies of the constituent county and local units of government within the Region. This, the 21st annual report of the Commission, summarizes the accomplishments of the Commission in calendar year 1981 and contains a statement of financial position of the Commission certified by an independent auditor.

While the Commission annual report is prepared to meet the specific legislative requirement noted above, the document also serves as an annual report to the federal and state Departments of Transportation concerning activities conducted during the year under the continuing regional transportation study. Similarly, the document is intended to report on activities conducted under other work programs to such federal and state grantor agencies as the U. S. Environmental Protection Agency, the Wisconsin Department of Natural Resources, the Wisconsin Department of Development, and the Wisconsin Department of Administration. Most importantly, however, the Commission annual report is intended to provide state, county, and local public officials and interested citizens with a comprehensive overview of current and proposed Commission activities and thereby provide a focal point for the active participation of interested and concerned parties in regional plan preparation and implementation.

During 1981, the Commission adopted several amendments to the existing regional plans. Of particular significance was the adoption of an amendment to the regional transportation plan involving the Lake Freeway-South from the end of the Daniel Webster Hoan Memorial Bridge in the City of Milwaukee through Milwaukee, Racine, and Kenosha Counties to the Illinois State line. The amendment removes that freeway from the plan and substitutes in its place a surface arterial highway facility that would be substantially less costly, require the taking of very little land and attendant disruption, but that would perform almost as well as the previously proposed freeway, providing a high-speed transit connection between the south shore suburbs and the Milwaukee central business district. In addition, the Commission adopted during 1981 the first of what will be a series of amendments to the adopted regional water quality management plan pertaining to sanitary sewer service areas and attendant determinations of refined and detailed environmental corridors. This first amendment was prepared for the Walworth County Metropolitan Sewerage District and included refined and detailed sanitary sewer service areas for the Cities of Delavan and Elkhorn, the Delavan Lake Sanitary District, and the Walworth County Institutions.

Significant progress was also made during the year on two major transportation studies. The Milwaukee area rapid transit study which is intended to reevaluate the potential for reestablishing some form of rail transit in the Region proceeded to the point where the Commission's advisory committee had, by year's end, selected two final alternative plans for presentation at public hearings scheduled for early 1982. In the second major transportation study—the Milwaukee Northwest Side/Ozaukee County transportation improvement study—work had proceeded to the point where short-range traffic management-type solutions to existing and probable future traffic problems were completed and work on alternative long-range system improvement-type solutions to such problems was underway. Final agreement was reached during the year on the best way in which to complete the Hillside Interchange on IH 43 and connect the "stub ends" of that Interchange into the surface arterial system.

Overall, the Commission is pleased with the progress made during the year through the voluntary cooperative process of making sound, areawide development decisions in the Region. The Commission looks forward to continuing to serve its constituent local units of government and the state and federal agencies concerned through continuation of the regional planning process in the years ahead.

Very truly yours,

Alfred G. Raetz

Alfred G. Raetz
Chairman

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ABOUT THE COMMISSION

AUTHORITY

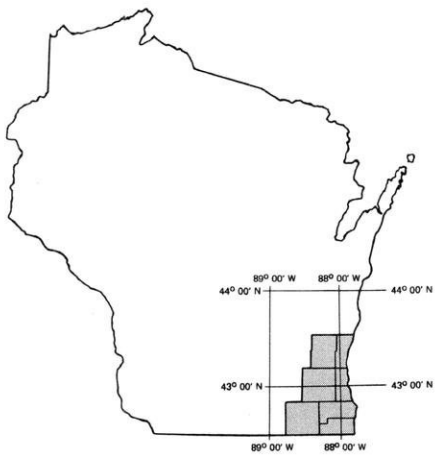
The Southeastern Wisconsin Regional Planning Commission was established in 1960 under Section 66.945 of the Wisconsin Statutes as the official areawide planning agency for the highly urbanized southeastern region of the State. The Commission was created to provide the basic information and planning services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

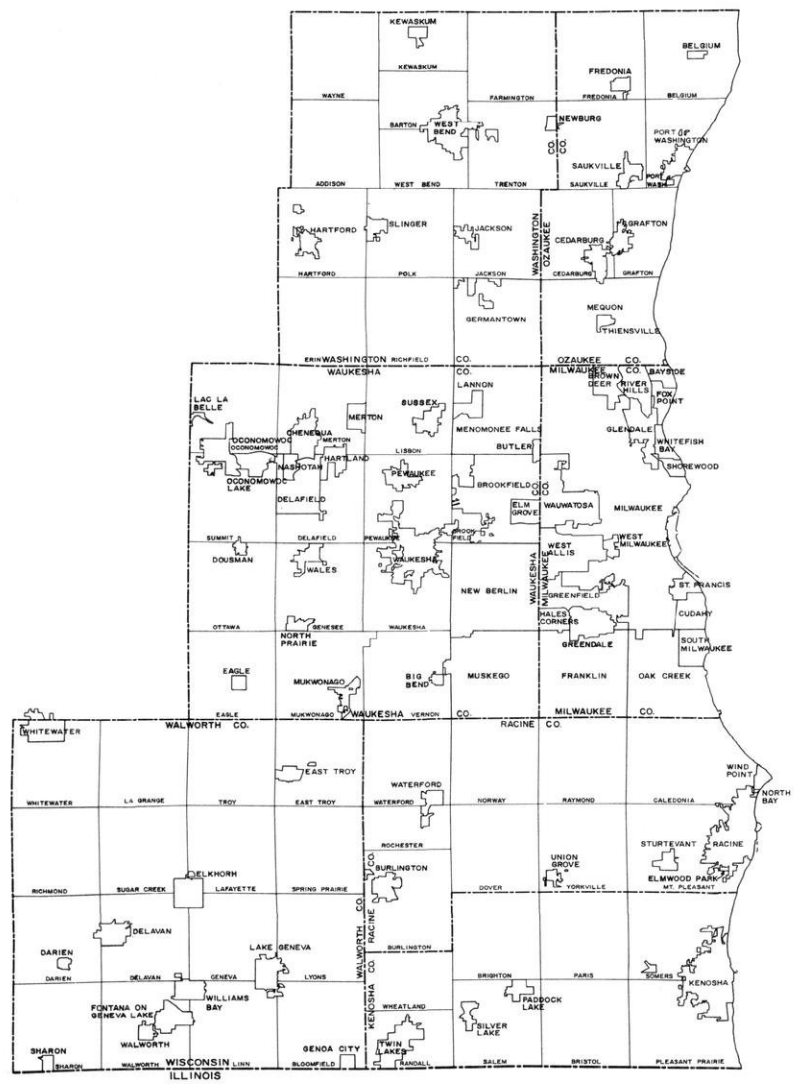
AREA SERVED

The Commission serves a Region consisting of the seven counties of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha. These seven counties have an area of about 2,689 square miles, or about 5 percent of the total area of the State. These counties, however, have a resident population of 1.77 million persons, or about 37 percent of the total population of the State. The seven counties provide about 854,000 jobs, or about 39 percent of the total employment of

Map 1

THE SOUTHEASTERN WISCONSIN REGION





the State, and contain real property worth about $42.2 billion as measured in equalized valuation, or about 37 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, of which all but two—the Town of Vernon in Waukesha County and the Town of Saukville in Ozaukee County—participate in the work of the Commission.

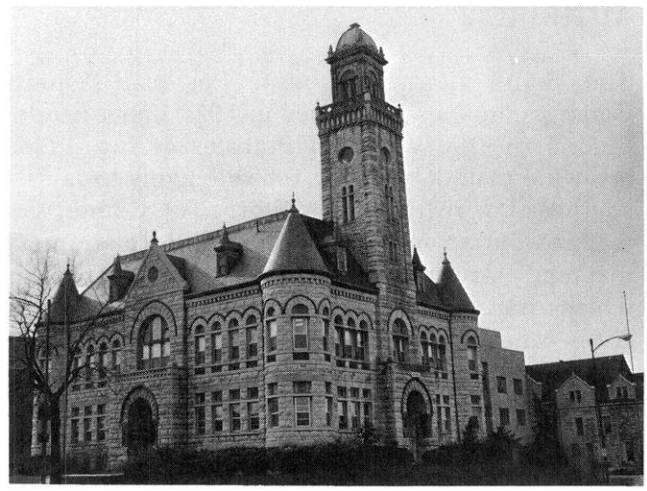
BASIC CONCEPTS

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

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

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

OLD COURTHOUSE
COMMISSION OFFICES
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 the state enabling legislation. While the scope and content of these plans can extend to all phases of regional development, the Commission believes that emphasis should be placed on the preparation of plans for land use and supporting transportation, utility, and community facilities. The third function involves the provision of a center for the coordination of day-to-day planning and plan implementation activities of all of the units and levels of government operating within the Region. Through this function, the Commission seeks to integrate regional and local plans and planning efforts and thereby to promote regional plan implementation.

ORGANIZATION

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

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

The Commission is assisted in its work by 32 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 652 persons, is set forth in Appendix B.

STAFFING

The Commission prepares an annual work program which is reviewed and approved by federal and state funding agencies. This work program is then carried out by a core staff of full-time professional, technical, administrative and clerical personnel, supplemented by additional temporary staff and consultants as required by the various work programs underway. At the end of 1981, the staff totaled 100, including 83 full-time and 17 part-time employees. Interagency staff assignments during the year involved three professional personnel from the City of Milwaukee, the Wisconsin Department of Transportation, and the University of Wisconsin-Extension.

As shown in Figure 1, the Commission is organized into eight divisions. Four of these divisions—Transportation Planning, Environmental Planning, Land Use Planning, and Community Assistance Planning have direct responsibility for the conduct of the Commission's major planning programs. The remaining four divisions—Planning Research, Administrative Services, Data Processing and Systems Engineering, and Cartographic and Graphic Arts—provide day-to-day support of the four 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 heavily supplemented by state and federal aids. Revenues received by the Commission during 1981 totaled about $3.8 million. County tax levies in 1981 totaled $704,400, or about $0.41 per capita. The sources of this revenue for 1981 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.

The Commission has a complete financial audit performed each year by a certified public accountant. The report of this audit for 1981 is set forth

Figure 1

SEWRPC ORGANIZATIONAL STRUCTURE: 1981

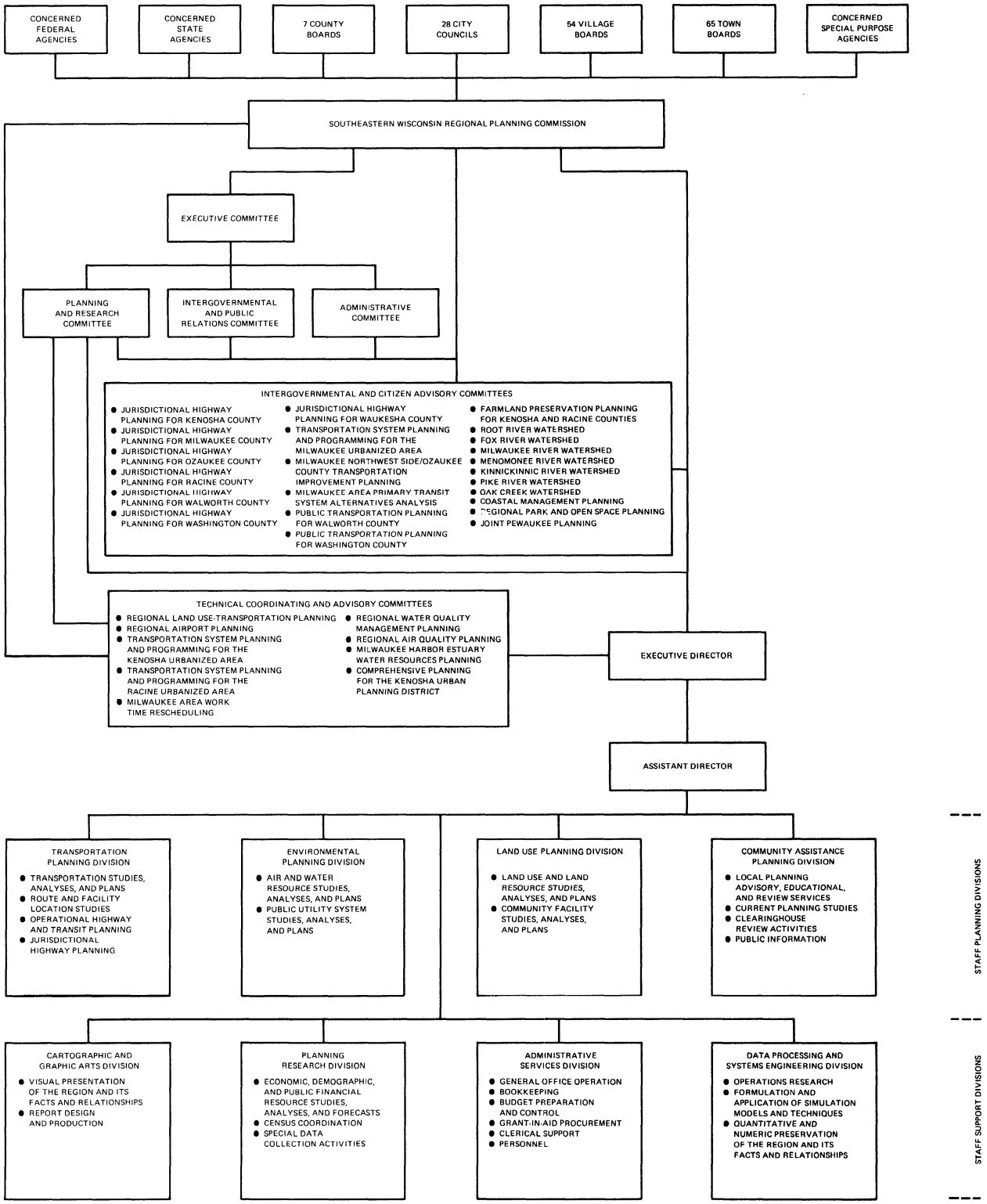


Figure 2

FUNDING TREND: 1961-1981

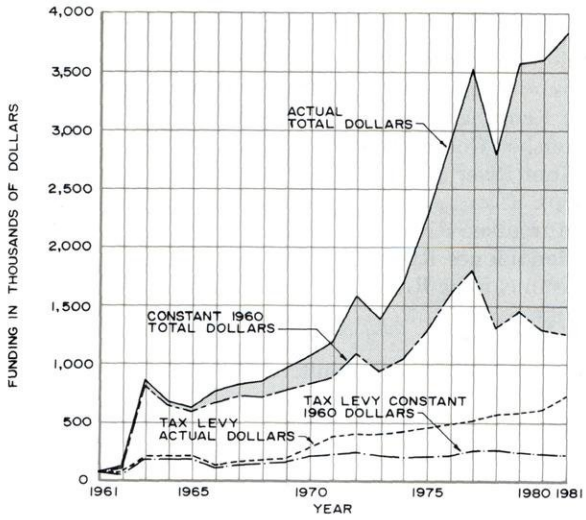


Figure 3

SOURCES OF REVENUES TREND: 1961-1981

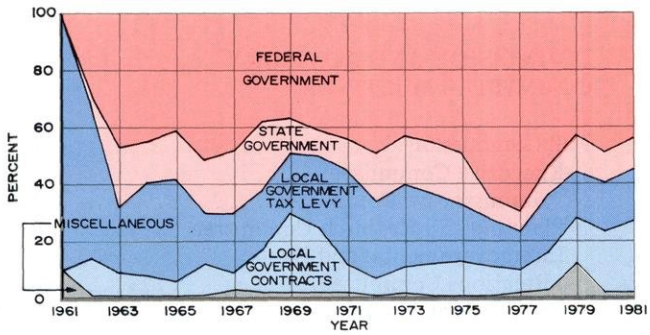


Figure 4

EXPENDITURES TREND: 1961-1981

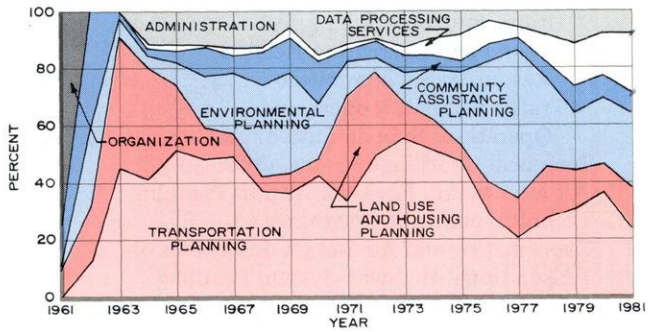
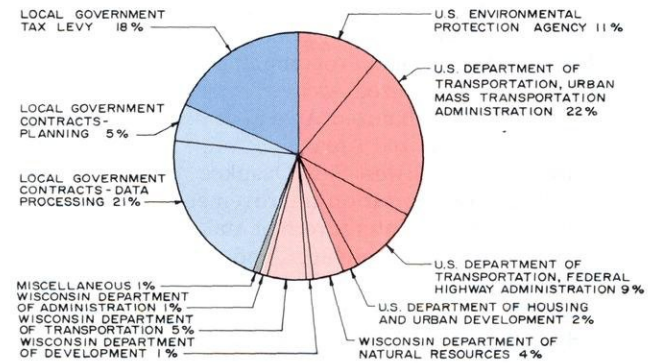


Figure 5

REVENUES AND EXPENDITURES

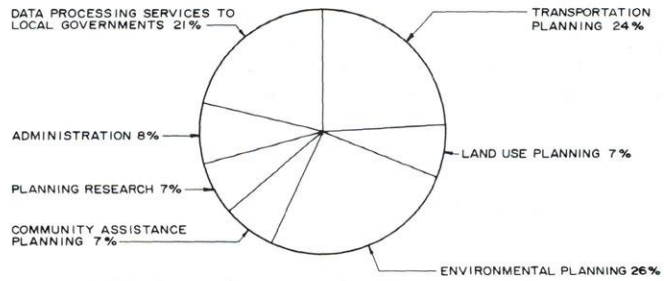
REVENUES

Federal Government	$1,685,250	44%
State Government.	405,473	11%
Local Government Tax Levy	704,400	18%
Local Government Contracts	993,560	26%
Miscellaneous	37,143	1%
Total	$3,825,826	100%



EXPENDITURES

Transportation Planning	$ 914,248	24%
Land Use Planning	266,126	7%
Planning Research.	275,850	7%
Environmental Planning	1,013,817	26%
Community Assistance Planning . .	266,839	7%
Data Processing Services to Local Governments	784,850	21%
Administration	304,096	8%
Total	$3,825,826	100%



1981 MEETINGS

COMMISSION AND ADVISORY COMMITTEE MEETINGS

Full Commission	4
Executive Committee	11
Administrative Committee	9
Planning and Research Committee	3
Intergovernmental and Public Relations Committee	1
Technical Coordinating and Advisory Committee on Regional Land Use-Transportation Planning	
Land Use Subcommittee	0
Highway Subcommittee	0
Transit Subcommittee	0
Socioeconomic Subcommittee	0
Utility Subcommittee	0
Natural and Recreation-Related Resources Subcommittee	0
Traffic Studies, Models, and Operations Subcommittee	0
Technical Coordinating and Advisory Committee on Regional Airport Planning	0
Technical and Intergovernmental Coordinating and Advisory Committees on Jurisdictional Highway System Planning	
Kenosha County	0
Milwaukee County	0
Ozaukee County	0
Racine County	0
Walworth County	0
Washington County	0
Waukesha County	0
Intergovernmental Coordinating and Advisory Committees on Transportation System Planning and Programming	
Kenosha Urbanized Area	1
Milwaukee Urbanized Area	2
Racine Urbanized Area	1
Milwaukee Northwest Side/Ozaukee County Transportation Improvement Study Citizens, Intergovernmental, and Technical Coordinating and Advisory Committee	4
Milwaukee Area Primary Transit System Alternatives Analysis Citizens Intergovernmental and Technical Coordinating and Advisory Committee	6
Milwaukee Area Work Time Rescheduling Study Advisory Committee	1
Intergovernmental Coordinating and Advisory Committee on Public Transportation in Washington County	5
Intergovernmental Coordinating and Advisory Committee on Public Transportation in Walworth County	3
Technical Coordinating and Advisory Committee on Farmland Preservation for Kenosha and Racine Counties	0
Watershed Committees	
Root River	0
Fox River	0
Milwaukee River	0
Menomonee River	0
Kinnickinnic River	0
Pike River	2
Oak Creek	0
Technical Advisory Committee on Areawide Water Quality Management Planning	0
Ad Hoc Technical Task Force for the Milwaukee Harbor Estuary Study Design	5
Technical Coordinating and Advisory Committee on Regional Air Quality Planning	1
Technical and Citizen Advisory Committee on Coastal Management in Southeastern Wisconsin	2
Technical and Citizen Advisory Committee on Regional Park and Open Space Planning	0
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Executive Director	37
Assistant Director	7
Administrative Services Division	3
Community Assistance Planning Division	3
Environmental Planning Division	35
Land Use Planning Division	18
Planning Research Division	3
Transportation Planning Division	18

in full in Appendix E. In addition to the Commission's own audit, the federal and state funding agencies perform periodic independent audits of projects to which they contribute financial support.

DOCUMENTATION

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

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

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

The third type of report in the series is the technical report. Technical reports are intended to make available to various public and private agencies within the Region valuable information assembled by the Commission staff during the course of its planning work on a work progress basis. Technical reports document the findings of such important basic inventories as detailed soil surveys, stream water quality surveys, potential park and open space site inventories, and horizontal and vertical control surveys.

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

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

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

The seventh type of report in the series is the annual report. The annual report has served an increasing number of functions over the period of the Commission's existence. Originally, and most importantly, the Commission's annual report was, and still is, intended to satisfy a very sound

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

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

While many of the Commission's publications are relatively long and are, necessarily, written in 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 with respect to 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

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

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

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

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

ADOPTED PLAN ELEMENTS 1981

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 1970's, this plan design function has included major plan reappraisal as well as the preparation of new plan elements.

By the end of 1981, the adopted regional plan consisted of 20 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—1981

Functional Area	Plan Element	Plan Document	Date of Adoption
Land Use, Housing, and Community Facility Planning	Regional Land Use Plan[a]	Planning Report No. 25, A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings; Volume Two, Alternative and Recommended Plans	December 19, 1977
	Regional Library Facilities and Services Plan	Planning Report No. 19, A Library Facilities and Services Plan for Southeastern Wisconsin	September 12, 1974
	Regional Housing Plan	Planning Report No. 20, A Regional Housing Plan for Southeastern Wisconsin	June 5, 1975
	Regional Park and Open Space Plan	Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000	December 1, 1977
	Amendment—Ozaukee County Park and Recreation Plan	Community Assistance Planning Report No. 23, A Park and Recreation Plan for Ozaukee County	September 14, 1978
Transportation Planning	Regional Transportation Plan[b]	Planning Report No. 25, A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings; Volume Two, Alternative and Recommended Plans	June 1, 1978
	Amendment—Lake Freeway South Corridor	Amendment to the Regional Transportation Plan—2000, Lake Freeway South Corridor	June 18, 1981
	Racine Area Transit Development Plan	Community Assistance Planning Report No. 3, Racine Area Transit Development Program: 1975-1979	September 12, 1974
	Regional Airport System Plan	Planning Report No. 21, A Regional Airport System Plan for Southeastern Wisconsin	March 4, 1976
	Kenosha Area Transit Development Plan	Community Assistance Planning Report No. 7, Kenosha Area Transit Development Program: 1976-1980	June 3, 1976
	Transportation Systems Management Plan	Community Assistance Planning Report No. 50, A Transportation Systems Management Plan for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1981	December 4, 1980
	Elderly-Handicapped Transportation Plan	Planning Report No. 31, A Regional Transportation Plan for the Transportation Handicapped in Southeastern Wisconsin: 1978-1982	April 13, 1978
	Amendment—Racine Area	SEWRPC Resolution No. 78-17	December 7, 1978
	Amendment—Milwaukee County	Community Assistance Planning Report No. 39, A Public Transit System Accessibility Plan, Volume Two, Milwaukee Urbanized Area/ Milwaukee County	June 20, 1980
	Amendment—Kenosha Area	Community Assistance Planning Report No. 39, A Public Transit System Accessibility Plan, Volume One, Kenosha Urbanized Area	September 11, 1980
	Amendment—Racine Area	Community Assistance Planning Report No. 39, A Public Transit System Accessibility Plan, Volume Three, Racine Urbanized Area	September 11, 1980
	Amendment—Waukesha County	Community Assistance Planning Report No. 39, A Public Transit System Accessibility Plan, Volume Four, Milwaukee Urbanized Area/ Waukesha County	September 11, 1980
	Amendment—City of Waukesha	Amendment to the Public Transit Accessibility Plan for the Milwaukee Urbanized Area/ Waukesha County, City of Waukesha Transit System Utility	June 18, 1981
Environmental Planning	Root River Watershed Plan	Planning Report No. 9, A Comprehensive Plan for the Root River Watershed	September 22, 1966
	Fox River Watershed Plan	Planning Report No. 12, A Comprehensive Plan for the Fox River Watershed, Volume One, Inventory Findings and Forecasts; Volume Two, Alternative Plans and Recommended Plan	June 4, 1970
	Amendment—Water Pollution Control Time Schedule	Amendment to the Comprehensive Plan for the Fox River Watershed	September 13, 1973

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Environmental Planning (continued)	Amendment—Lower Watershed Drainage Plan	Community Assistance Planning Report No. 5, Drainage and Water Level Control Plan for the Waterford-Rochester-Wind Lake Area of the Lower Fox River Watershed	June 5, 1975
	Amendment—Pewaukee Flood Control Plan	Community Assistance Planning Report No. 14, Floodland Management Plan for the Village of Pewaukee	June 1, 1978
	Milwaukee River Watershed Plan	Planning Report No. 13, A Comprehensive Plan for the Milwaukee River Watershed, Volume One, Inventory Findings and Forecasts; Volume Two, Alternative Plans and Recommended Plan	March 2, 1972
	Menomonee River Watershed Plan	Planning Report No. 26, A Comprehensive Plan for the Menomonee River Watershed, Volume One, Inventory Findings and Forecasts; Volume Two, Alternative Plans and Recommended Plan	January 20, 1977
	Wastewater Sludge Management Plan	Planning Report No. 29, A Regional Wastewater Sludge Management Plan for Southeastern Wisconsin	September 14, 1978
	Kinnickinnic River Watershed Plan	Planning Report No. 32, A Comprehensive Plan for the Kinnickinnic River Watershed	March 1, 1979
	Regional Water Quality Management Plan[c]	Planning Report No. 30, A Regional Water Quality Management Plan for Southeastern Wisconsin, Volume One, Inventory Findings; Volume Two, Alternative Plans; Volume Three, Recommended Plan	July 12, 1979
	Amendment—Root River Watershed	Community Assistance Planning Report No. 37, A Nonpoint Source Water Pollution Control Plan for the Root River Watershed	March 6, 1980
	Amendment—Walworth County Metropolitan Sewerage District	Community Assistance Planning Report No. 56, Sanitary Sewer Service Areas for the Walworth County Metropolitan Sewerage District	December 3, 1981
	Amendment—Cities of Brookfield and Waukesha	Amendment to the Regional Water Quality Management Plan—2000, Cities of Brookfield and Waukesha	December 3, 1981
	Regional Air Quality Plan	Planning Report No. 28, A Regional Air Quality Attainment and Maintenance Plan for Southeastern Wisconsin: 2000	June 20, 1980
Community Assistance Planning	Kenosha Planning District Comprehensive Plan	Planning Report No. 10, A Comprehensive Plan for the Kenosha Planning District, Volumes One and Two	June 1, 1972
	Racine Urban Planning District Comprehensive Plan	Planning Report No. 14, A Comprehensive Plan for Racine Urban Planning District, Volume One, Inventory Findings and Forecasts; Volume Two, The Recommended Comprehensive Plan; Volume Three, Model Plan Implementation Ordinances	June 5, 1975

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

[b] *The regional transportation plan represents 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, Regional 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.*

[c] *The regional water quality management plan represents a second generation plan. The initial plan was adopted by the Commission on May 13, 1974, and documented in SEWRPC Planning Report No. 16, A Regional Sanitary Sewerage System Plan for Southeastern Wisconsin.*

Six 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 and Racine urbanized areas.

Eight 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, and Kinnickinnic River watersheds.

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

While no new major plan elements were adopted by the Commission in 1981, several important amendments to existing plan elements were completed and adopted. These include an amendment to the regional transportation plan pertaining to the Lake Freeway-South corridor; an amendment to the elderly and handicapped transportation plan pertaining to public transit accessibility for the City of Waukesha transit system; and an amendment to the regional water quality management plan pertaining to sewer service area delineations for the Walworth County Metropolitan Sewerage District. In addition, the regional water quality management plan was amended at the request of the Wisconsin Department of Natural Resources to reflect certain changes in environmental corridor delineations within the Cities of Brookfield and Waukesha. Each of these plan amendments is discussed in appropriate sections of this annual report.

THE CYCLICAL NATURE OF THE PLANNING PROCESS

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

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

The new regional land use plan is based upon the same three basic concepts that formed the basis of the initial regional land use plan; namely, the centralization of new urban land development to the greatest degree practicable, the preservation and protection of primary environmental corridor lands, and the preservation and protection of prime agricultural lands. While the new regional land use plan is thus conceptually identical to the original regional land use plan, it does differ in the detailed application of these concepts throughout the seven-county Southeastern Wisconsin Region, taking into account land use decisions that were made following adoption of the initial plan--sometimes at variance with that plan--as well as forecasts of reduced regional population and household growth. This second generation regional land use plan for the design year 2000 was adopted in December 1977.

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

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

PLAN ELEMENTS UNDER PREPARATION

At the end of 1981, the Commission had underway several programs designed to prepare new plan elements or to refine, detail, and amend existing plan elements. A new regional plan element will be provided upon completion of the Pike River watershed study, anticipated for mid-1982. Also to be completed by mid-1982 is a major work effort to reconsider the mode by which rapid transit services can be best provided in the greater Milwaukee area. This effort, termed the Milwaukee area rapid transit study, may result in the amendment of the adopted regional transportation system plan. At the present time, the adopted long-range regional transportation system plan calls for, and rapid transit service is actually provided by, the operation of motor buses in mixed traffic over the regional freeway system. The study effort now underway reexamines the means of providing rapid transit service, including consideration of commuter rail service provided over existing railway rights-of-way; of "heavy" rail rapid transit service similar to systems built in recent years in Atlanta, San Francisco, and Washington, D. C.; and of "light" rail transit systems similar to systems built in recent years in Buffalo, Edmonton, and San Diego. Bus alternatives are also being considered, including the construction of exclusive busways in certain travel corridors, and the operation of buses over reserved freeway lanes, as well as the operation of buses in mixed traffic on freeways that are operationally controlled in such a manner as to assure free-flowing freeway conditions, and thereby a high level of rapid transit service.

A third major study to be completed by mid-1982 is also designed to refine, detail, and possibly amend the adopted short-range and long-range regional transportation system plans. This study, termed the Milwaukee Northwest Side/Ozaukee County transportation improvement study, was initiated by the Commission in support of the decision made in the adoption of the second generation long-range regional transportation system plan in 1978 to remove the Park Freeway-West and Stadium Freeway-North from the previously adopted first generation plan. The study now underway is to determine what additional arterial street and highway improvements, if any, should be included in the plan in lieu of the previously proposed freeways. The study is also to examine in detail the extent to which short-range traffic engineering and related transportation system management actions can cope with existing and probable future traffic problems in this portion of the Region.

Studies were also underway at the end of 1981 to refine, detail, and amend the regional water quality management plan. A number of community-level sanitary sewer service area plans were being prepared in cooperation with local communities. Such localized planning efforts were underway at the end of 1981 for the communities of Darien, Fredonia, Germantown, Hartland, Hartford, Mequon, Muskego, Oak Creek, Somers, Sussex, Thiensville, West Bend, and Whitewater. In addition, detailed lake management plans were underway for 13 major lakes in the Region. For two of those lakes—Lac La Belle and Okauchee, both in Waukesha County—the plans were completed, published, and transmitted to the appropriate lake management organizations for local adoption during 1981. In addition, such plans were in various stages of preparation for Ashippun, North, Oconomowoc, and Pewaukee Lakes in Waukesha County; Geneva and Wandawega Lakes in Walworth County; George and Paddock Lakes in Kenosha County; Eagle Lake in Racine County; and Pike and Friess Lakes in Washington County.

POSSIBLE FUTURE WORK PROGRAMS

The Commission is committed to carrying out a series of continuing planning efforts designed to ensure that the already adopted plan elements are kept up-to-date. In addition, the Commission follows an established policy of preparing prospectuses and/or study designs prior to the undertaking of any new major regional or subregional planning programs. Prior to 1981, a prospectus had been completed for a study of the flooding, water pollution, and related land use development problems in the Oak Creek watershed. Efforts to fund that study were continuing during 1981. In addition, and as discussed later in this report, during

1981 the Commission completed a prospectus/study design for a comprehensive water resources study of the Milwaukee Harbor estuary. This study, which had been requested in the mid-1970's by the City of Milwaukee and which has become increasingly important in light of certain issues raised in the preparation of a master sewerage facilities plan for the Milwaukee Metropolitan Sewerage District, is intended to address the water quality and flooding conditions and problems of this important estuary. Of particular importance will be an evaluation of the effect of in-place pollutant sources—bottom sediments—on water quality conditions. In addition, the study will formulate water quality objectives and supporting water quality standards for the estuary, and determine in that regard the extent to which combined sewer overflows must be abated if those objectives and standards are to be met. This particular issue, identified as the "level of protection" issue, is expressed in terms of the frequency with which the old combined sewers can be allowed to overflow without causing the agreed-upon water quality standards to be violated. By the end of 1981, attempts were being made to secure funding for beginning this important water resources study early in 1982.

By the end of 1981, funding arrangements were also nearly complete for the conduct by the Commission of a feasibility study of a comprehensive freeway traffic management system in the Milwaukee urbanized area. The prospectus for that study had been completed prior to 1981. Under such a comprehensive system, the present limited freeway ramp meters serving central Milwaukee County would be expanded to an areawide system whereby all ramps on freeways in the Milwaukee urbanized area would be metered to restrain automobile and truck access to the freeways during peak travel periods. The ramp meters would be operated through a central control system using an interconnected series of traffic-sensing devices. As freeway traffic volumes approached the levels beyond which freeway operating speeds may be expected to deteriorate, fewer automobiles and trucks would be permitted to enter the freeway system. Buses, however, would have free access to the system through preferential ramps. Sufficient constraint would be exercised in the operation of the system to ensure uninterrupted traffic flow and operating speeds of at least 40 miles per hour on all freeway segments, thus providing the basis for through rapid transit service over the freeways.

LAND USE PLANNING DIVISION

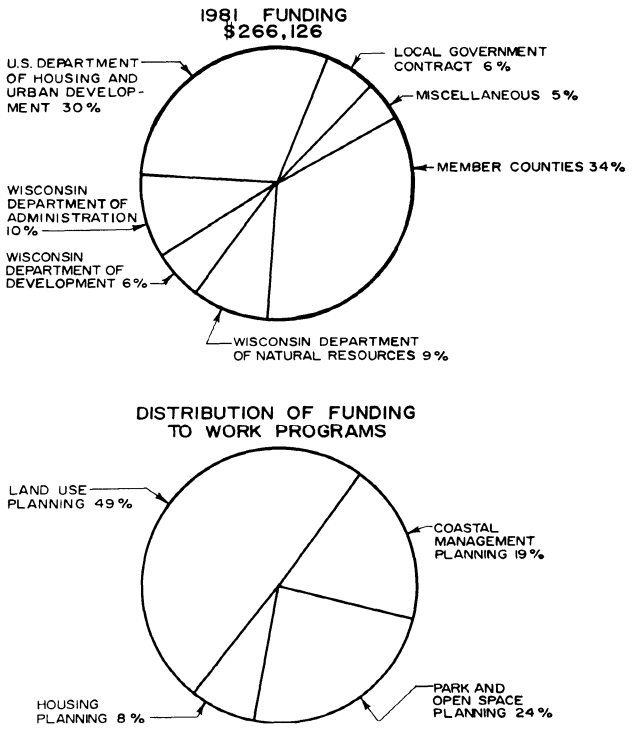
DIVISION FUNCTIONS

The Land Use Planning Division conducts studies and prepares plan recommendations concerning the physical aspects of land use development. The kinds of basic questions addressed by this Division include:

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

Figure 6

LAND USE PLANNING DIVISION



In an attempt to find answers to these and similar questions, the Land Use Planning Division, during 1981, conducted a number of activities in three identifiable areas: land use planning, park and open space planning, and coastal management planning.

From 1969 until 1981, this Division also carried out a regional housing planning effort. Because of the elimination of the comprehensive planning assistance program of the U. S. Department of Housing and Urban Development, the Commission early in 1981 reluctantly discontinued the housing planning function, including the housing outreach program, as well as most housing data collection, analysis, and dissemination activities. The achievements of the regional housing planning program over approximately 10 years of its existence are described in a following section of this report.

LAND USE PLANNING

During 1981, the Division staff efforts in land use planning were directed toward implementation of the regional land use plan for the year 2000. A major effort in this regard involved completion of farmland preservation plans for Kenosha and Racine Counties. In addition, a shoreland development management study for the Lake Michigan shoreland area of Racine County was completed in 1981. The Division staff also continued to monitor residential subdivision platting activity within the seven-county Region during 1981.

Regional Land Use Plan—An Overview

The new regional land use plan for the year 2000, documented in SEWRPC Planning Report No. 25, A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, Volume Two, Alternative and Recommended Plans, was formally adopted by the Commission

in December 1977, published in the spring of 1978, and subsequently certified to various units and agencies of government for adoption and implementation.

The recommended regional land use plan for the year 2000 is shown in graphic summary form on Map 2. The basic concepts underlying the land use plan are essentially the same as those underlying the regional land use plan for the year 1990. That plan had been adopted by the Commission in 1966. Like the adopted 1990 land use plan, the recommended land use plan for the year 2000 advocates a return to the historic development trends that were evident within the Region prior to 1950, with new urban development proposed to occur largely in concentric rings along and outward from the full periphery of the established urban centers of the Region.

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

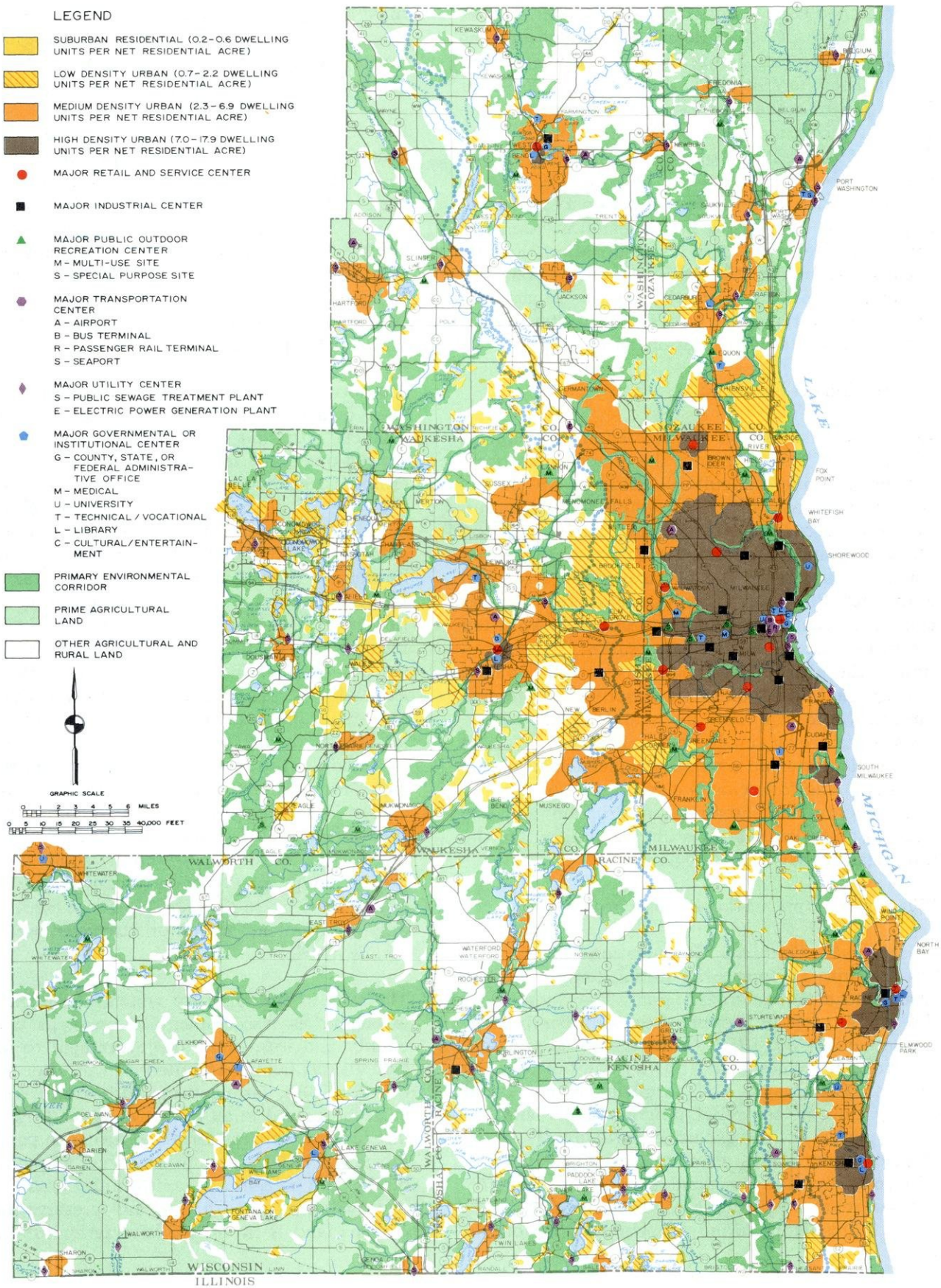
The recommended regional land use plan envisions converting about 113 square miles of land from rural to urban use over the period 1970 through 2000, less than half of the approximately 235 square miles that would have to be converted if decentralization of urban development were allowed to continue unrestrained, and seeks to encourage new urban development to occur primarily in planned neighborhood development units at medium-density population levels—that is, at about four dwelling units per net residential acre, or about 5,000 persons per gross square mile. The plan envisions that by the year 2000, about 92 percent of all urban land and about 93 percent of all the people in the Region will be served with public sanitary sewer service.

The most important elements of the natural resource base of the Region, including the best remaining woodlands; wetlands; wildlife habitat areas; surface waters and associated shorelands and floodlands; areas covered by organic soils; areas containing rough topography and significant geological formations; scenic, historic, and scientific sites; groundwater recharge and discharge areas; existing park sites; and the best remaining potential park and related open space sites, have been found to occur largely together in linear patterns termed primary environmental corridors. Like the 1990 regional land use plan, the year 2000 regional land use plan proposes that these environmental corridors be protected and preserved in essentially natural, open uses. Such protection and preservation is considered essential to the protection and wise use of the natural resource base; to the preservation of the Region's cultural heritage and natural beauty; and to the enrichment of the physical, intellectual, and spiritual development of the resident population. In addition, protecting and preserving the natural resource base serves to prevent the creation of new problems such as flooding and water pollution. The topography, soils, and flood hazards existing in these corridors, moreover, make them poorly suited to intensive urban development of any kind, but well suited to recreational and conservancy uses. Together, the primary environmental corridors encompass about 503 square miles, or 20 percent of the area of the Region.

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

Map 2

REGIONAL LAND USE PLAN: 2000



By the end of 1981, the year 2000 regional land use plan had been adopted by the Kenosha, Racine, and Waukesha County Boards of Supervisors; the Common Councils of the Cities of Burlington and Milwaukee; the Village Board of the Village of River Hills; the Kenosha County Park Commission; the City of Oconomowoc Plan Commission; and the Town of Dover Plan Commission. In addition, the plan had been endorsed by the U. S. Department of Agriculture, Soil Conservation Service; the U. S. Department of Housing and Urban Development; the U. S. Department of Transportation, Federal Highway Administration and Urban Mass Transportation Administration; the Wisconsin Department of Transportation; and the Wisconsin State Board of Soil and Water Conservation Districts.

Preservation of Farmland

As indicated above, 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 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 farmlands. The program is intended to help county and local units of government preserve farmland through local plans and zoning and to provide tax relief, in the form of state income tax credits, to farmland owners who participate in the program. The following is a description of the Wisconsin Farmland Preservation Program and the status of farmland preservation planning within the Southeastern Wisconsin Region.

Wisconsin Farmland Preservation Program

Wisconsin's Farmland Preservation Program is divided into two parts—an initial, temporary program and a permanent program. The duration of the initial program extends from October 1, 1977 to September 30, 1982. Under the initial program, a farmland owner could qualify for tax relief in one of two ways. The farmland owner could qualify for the tax relief program if his land has been placed in an exclusive agricultural zoning district under a local or county zoning ordinance. Alternatively, the farmland owner could qualify for tax relief by signing a contract agreeing not to develop his land during the contract period. In either case, certain other program requirements must be met. For example, the farm in question must be at least 35 acres in size and must have produced a value of farm product of at least $6,000 in the last year or $18,000 in the past three years.

The second, or permanent, phase of the Farmland Preservation Program will begin on October 1, 1982. After this date, farmland owners in southeastern Wisconsin will be eligible for tax credits only if their land is within an exclusive agricultural zoning district under county or local zoning. The aforementioned program requirements regarding the size of the farm and the value of the farm product will continue to apply during the second phase of the program.

The level of income tax credits for which the farmland owner is eligible depends on the personal financial situation of the farmland owner and on the actions taken by county and local units of government to preserve farmland. Under the program, the level of income tax credit for which a farmland owner is eligible is determined in part by a formula which takes into account the owner's household income and the property tax on his farm. In general, the higher the property tax and the lower the household income, the higher the income tax credit. It should be noted that an amendment to the Farmland Preservation Act, enacted in 1981, expands the number of farmland owners eligible for tax relief by making higher income farmland owners eligible for an income tax credit. Thus, certain farmers, previously ineligible for any tax relief because their income exceeded the program income ceiling, may, under the amended act, receive at least a minimum income tax credit in an amount equal to 10 percent of the property tax on the farm, up to a maximum credit of $600. The 10 percent credit applies only to farmland within an exclusive agricultural zoning district.

The level of tax relief for which a farmland owner is eligible is also dependent on steps taken by county and local units of government to preserve agricultural lands. As noted above, after September 30, 1982, farmland in southeastern Wisconsin must be placed in an exclusive agricultural zoning district to enable the farmland owner to participate in the tax relief program. An owner would be eligible for 100 percent of the "formula" amount if the county has adopted a farmland preservation plan and his land is in an exclusive agricultural zoning

district under a county zoning ordinance. An owner would be eligible for 70 percent of the "formula" amount if his land is in an exclusive agricultural zoning district under a county zoning ordinance and the county has not adopted a farmland preservation plan. An owner would also be eligible for 70 percent of the "formula" amount if the county has adopted a farmland preservation plan and his land is in an exclusive agricultural zoning district under a town zoning ordinance. Finally, if a county has taken no action to plan or zone to preserve farmland and a farmland owner's property is in an exclusive agricultural zoning district under town zoning, the owner may receive the 10 percent tax credit described above. It should be noted that the zoning requirements described above relate to the Farmland Preservation Program as it pertains to "urban" counties, defined under the Farmland Preservation Program as counties having an overall population density of at least 100 persons per square mile. All seven counties in the Southeastern Wisconsin Region are classified as urban counties under the Farmland Preservation Program.

During 1981, the Land Use Planning Division continued to monitor participation in the Farmland Preservation Program in southeastern Wisconsin. As indicated in Table 2 and Figure 7, a total of 718 farmland owners in southeastern Wisconsin participated in the Wisconsin Farmland Preservation Program in 1981. Participants in the Farmland Preservation Program owned a total of about 107,900 acres, or 169 square miles, of agricultural land, which represents about 11 percent of the 1,557 square miles of agricultural land in the Region. About 140 square miles, or 83 percent of this total, have been designated as prime agricultural land by the Commission (see Map 3). This represents about 22 percent of the total prime agricultural land in the Region.

Among the seven counties in the Region, Walworth County accounted for the largest number of participants in the state Farmland Preservation Program in 1981 with 560 participants, or 78 percent of the total. Participants in the program in Walworth County owned about 73,500 acres of prime agricultural land, accounting for 82 percent of the regional total. The high level of program activity in Walworth County may be attributed to at least two factors. First, most farmland in Walworth County has been placed in an exclusive agricultural district under the county zoning ordinance. Such land is, therefore, automatically eligible for tax relief assuming that the program eligibility requirements regarding farm size and farm income are met. Second, since Walworth County has adopted both a farmland preservation plan and exclusive agricultural zoning, farmers in Walworth County are eligible for the maximum tax credit available under the program.

Farmland Preservation Planning

Considerable progress has been made in planning for the preservation of farmland within the Southeastern Wisconsin Region. Kenosha, Racine, Walworth, Washington, and Waukesha Counties have prepared, or are in the process of preparing, farmland preservation plans. Within the Region only Ozaukee County and Milwaukee County have not yet embarked upon a farmland preservation planning program.

Farmland Preservation Planning—
Racine and Kenosha Counties

Racine and Kenosha Counties, with the assistance of the Regional Planning Commission, completed farmland preservation plans during 1981. The joint Kenosha-Racine farmland preservation planning program, partially funded through a planning grant from the Wisconsin Agricultural Lands Preservation Board, was carried out under the guidance of the Technical Coordinating and Advisory Committee on Farmland Preservation for Racine and Kenosha Counties, whose membership includes farmland owners from the towns within each County, the county agricultural agents, and representatives from the U. S. Department of Agriculture, Soil Conservation Service and Agricultural Stabilization and Conservation Service.

The farmland preservation plans were prepared primarily to guide the preservation of farmland within Racine and Kenosha Counties, particularly through the application of exclusive agricultural zoning. While the focus of the planning program was on the preservation of farmland, the plans address urban land use development and natural resource preservation objectives as well.

The farmland preservation plans for Kenosha and Racine Counties seek to preserve in agricultural use prime agricultural lands and farmlands of local significance. Prime agricultural lands are defined in the plans as those lands which are well suited for agricultural use, meeting specific mapping criteria

Table 2

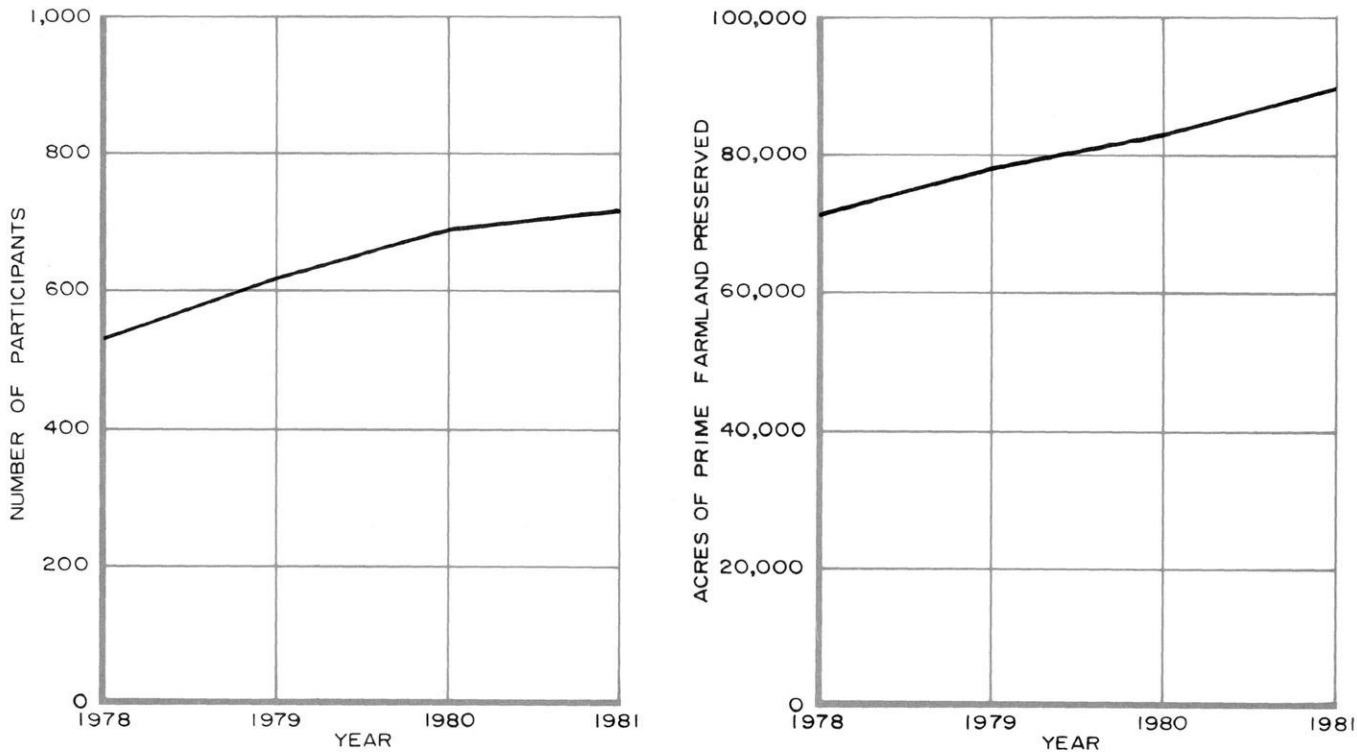
PARTICIPATION IN THE WISCONSIN FARMLAND PRESERVATION PROGRAM IN THE REGION: 1981[a]

County	Participating Farmland Owners		Lands Held by Participating Farmland Owners			
			Total Farmland		Prime Agricultural Land	
	Number	Percent of Region	Acres	Percent of Region	Acres	Percent of Region
Kenosha	36	5.0	6,323	5.9	5,129	5.7
Milwaukee	5	0.7	366	0.3	316	0.4
Ozaukee	9	1.3	1,524	1.4	1,270	1.4
Racine	41	5.7	7,924	7.4	3,599	4.0
Walworth.	560	78.0	80,840	74.9	73,452	81.8
Washington . . .	33	4.6	4,217	3.9	2,856	3.2
Waukesha	34	4.7	6,703	6.2	3,174	3.5
Region	718	100.0	107,897	100.0	89,796	100.0

[a]*Data presented in this table indicate the level of participation in the Farmland Preservation Program under exclusive agricultural zoning and under farmland preservation agreements. The data pertain to farmland owners who applied for contract agreements in 1981 and previous years, enabling them to obtain a tax credit on 1981 state income taxes, as well as to farmland owners whose land is in an exclusive agricultural zoning district and who obtained zoning certificates by the end of 1981 enabling them to receive a tax credit on 1980 state income taxes.*

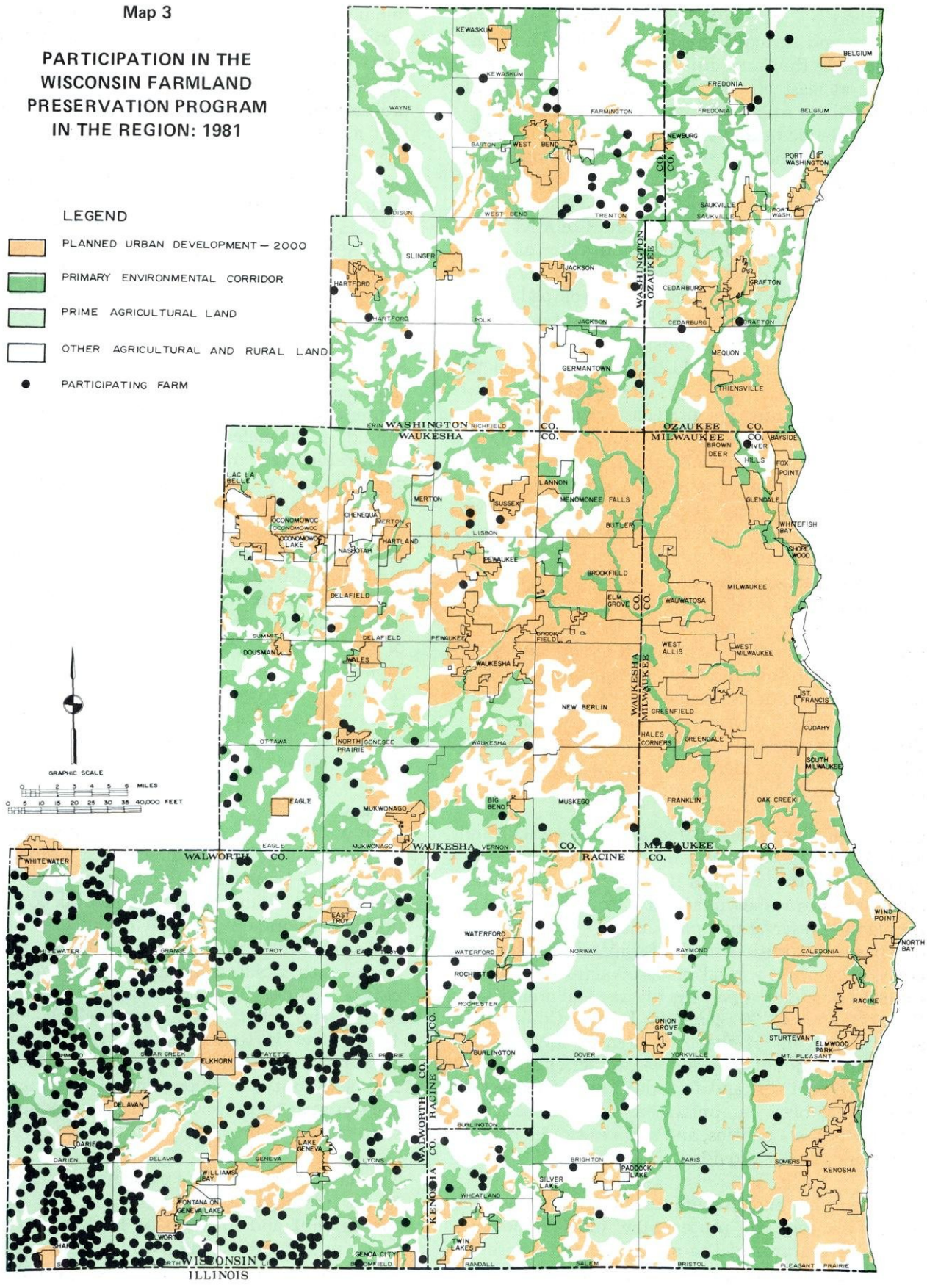
Figure 7

PARTICIPATION IN THE WISCONSIN FARMLAND PRESERVATION PROGRAM IN THE REGION: 1978-1981



Map 3

PARTICIPATION IN THE WISCONSIN FARMLAND PRESERVATION PROGRAM IN THE REGION: 1981



established by the Advisory Committee regarding farm size and agricultural soil capability. These criteria are: 1) the farm must be at least 35 acres in area; 2) at least 50 percent of the farm unit must be covered by soils which meet the U. S. Soil Conservation Service standards for national prime farmland or farmland of statewide importance; and 3) the farm unit should be located in a block of farmland of at least 100 acres in size. Prime agricultural lands in Kenosha and Racine Counties were identified on the basis of the application of these criteria, using information regarding parcel boundaries and agricultural soil capability developed under the inventory phase of the farmland preservation planning program. Farmlands of local significance are defined as lands in addition to prime agricultural lands which represent an important part of the local agricultural resource base. Such lands were identified by the Advisory Committee working with the town plan commissions in a series of meetings held for this purpose in the spring and summer of 1980. The farmland recommended for preservation in the plans includes both prime agricultural lands and farmlands of local significance. The farmland preservation areas, as shown on Maps 4 and 5, encompass a total of 75,000 acres in Kenosha County, or 42 percent of the total area of the County; and 103,000 acres in Racine County, or 47 percent of the total area of the County. Maps 6 and 7 provide examples of township farmland preservation plan maps for Racine and Kenosha Counties, respectively. The plans recommend that all land within the identified farmland preservation areas be preserved for agricultural use.

Certain farmlands designated as prime agricultural land lie in areas which may be expected to be developed for urban use over the next two decades. Such lands are shown as transition land on the farmland preservation plan maps. These lands, which are in addition to the farmland preservation areas, encompass a total of 6,400 acres in Kenosha County, or about 4 percent of the total area of the County; and 4,200 acres in Racine County, or about 2 percent of the total area of the County. Such lands should be preserved in agricultural use until sufficient demand for additional urban development has been demonstrated, and until essential urban utilities, facilities, and services can be readily and economically provided.

The Kenosha and Racine farmland preservation plans also seek to protect the most important remaining features of the natural resource base by preserving in essentially natural, open uses the remaining primary environmental corridors, secondary environmental corridors, and isolated natural areas which have been identified in Kenosha and Racine Counties. Primary environmental corridors are elongated areas in the landscape which represent a composite of the best remaining elements of the natural resource base. The farmland preservation plans recommend that the remaining primary environmental corridors—which encompass 29,600 acres in Kenosha County, or 17 percent of the total area of the County; and 24,200 acres in Racine County, or 11 percent of the total area of the County—be preserved in essentially natural, open uses.

Secondary environmental corridors, while not as significant in terms of size and natural resource content as the primary environmental corridors, should, nevertheless, be preserved to the extent practicable in essentially open, natural uses as urban development proceeds within the Counties, particularly where the opportunity is presented to incorporate such corridors into urban storm water retention areas, associated drainageways, and community and neighborhood parks. Under the plans, secondary environmental corridors—which encompass 5,900 acres in Kenosha County, or 3 percent of the total area of the County; and 6,900 acres in Racine County, or 3 percent of the total area of the County—should be considered by the local units of government concerned for preservation in essentially natural, open uses as urban development proceeds.

In addition to primary and secondary environmental corridors, other, small concentrations of natural resource base elements exist within Kenosha and Racine Counties. These resource base elements are isolated from the environmental corridors by urban development or agricultural uses. Although separated from the environmental corridor network, such isolated natural areas have important natural values. The farmland preservation plans recommend that such areas—which encompass 4,000 acres in Kenosha County, or 2 percent of the total area of the County; and 7,800 acres in Racine County, or 4 percent of the total area of the County—be protected and preserved in a natural state whenever possible.

The farmland preservation plans are also intended to provide a guide for decision-making concerning the amount and location of land to be converted from rural to urban land use in Kenosha and Racine Counties through the plan design year 2000. The

development framework of the plans is based, in part, on population and economic activity forecasts set forth in the plans, and in part on land use development objectives agreed upon by the Advisory Committee. The urban growth recommendations of the farmland preservation plans embody the basic urban development concepts of the regional land use plan previously described in this section. Thus, the farmland preservation plans propose a relatively compact, centralized form of growth, with new urban development recommended to occur adjacent to, and outward from, existing development in areas which are covered by soils suitable for such development, which are not subject to special hazards such as flooding, and into which basic urban utilities and services can be readily and economically extended. To accommodate the anticipated increase in population, the farmland preservation plans call for the conversion of 17,100 acres of land from rural to urban use in Kensoha County, and of about 19,600 acres in Racine County, over the next two decades. Thus, the plan envisions that about 38,400 acres, or 22 percent of the total area of Kenosha County, and about 46,500 acres, or about 21 percent of the total area of Racine County, will be in urban use by the year 2000.

Public hearings on the proposed farmland preservation plans for Kenosha and Racine Counties are scheduled for early 1982. Upon adoption of these plans by the County Boards, application of exclusive agricultural zoning, and approval of both the plans and zoning ordinances by the State Agricultural Lands Preservation Board, farmland owners in towns under county zoning will be eligible to receive the maximum tax credit available under the Farmland Preservation Program. In addition, County Board adoption of the farmland preservation plans will make farmland owners in towns that adopt local exclusive agricultural zoning eligible to receive 70 percent of the maximum tax credits available under the Farmland Preservation Program.

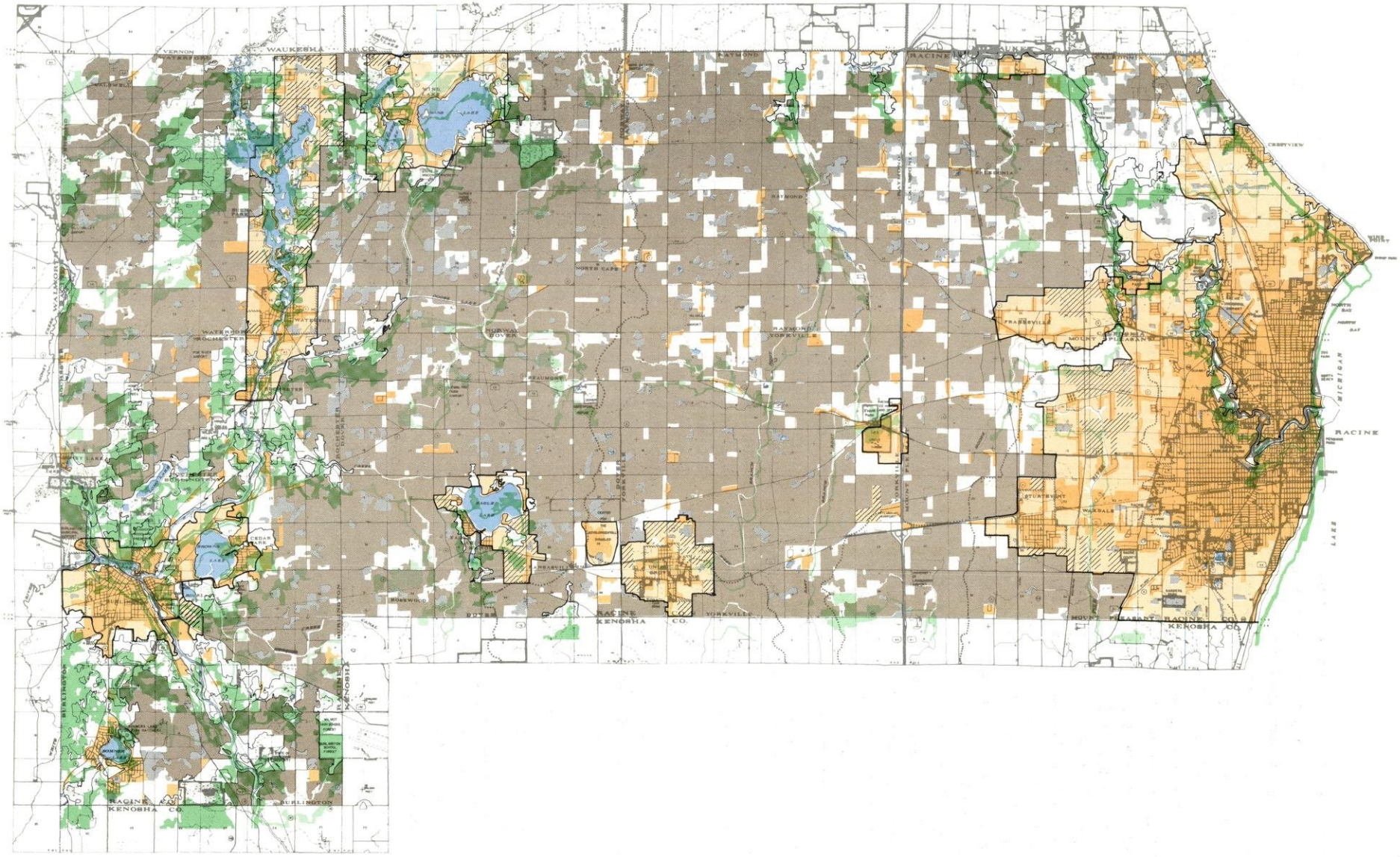
Farmland Preservation Planning— Washington, Waukesha, and Walworth Counties

In addition to the Kenosha and Racine farmland preservation plans, a farmland preservation plan was completed for Washington County and adopted by the Washington County Board in 1981. The plan, which serves to implement the recommendations contained in the Commission's regional land use plan, was prepared by the consulting firm of Stockham & Vandewalle of Madison, Wisconsin, working with the Washington County Park and Planning Commission. The plan is documented in a report entitled Washington County Farmland Preservation Plan. Assisting the consultants was a technical advisory committee composed of representatives of the U. S. Department of Agriculture, Agricultural Stabilization and Conservation Service and Soil Conservation Service, as well as the University of Wisconsin-Extension resource agent and the Washington County agricultural agent. The adoption of this plan by the County Board, together with the use by the towns of the County's exclusive agricultural zoning district to preserve agricultural lands, will make farmland owners participating in the Farmland Preservation Program eligible to receive the maximum tax credit available. The Towns of Barton and Trenton have already adopted and are utilizing the County's exclusive agricultural zoning district. The remaining towns under county zoning in Washington County can now act to initiate zoning changes in cooperation with the county Park and Planning Commission and the County Board in order to implement the plan and ensure full tax credits to farmland owners. It should be noted that the adoption of a county agricultural preservation plan will also make farmland owners in towns currently not under county zoning—the Towns of Germantown, Jackson, Polk, and Richfield—eligible to receive 70 percent of the maximum tax credits available under the Farmland Preservation Program, assuming that these towns adopt local exclusive agricultural zoning. It should also be noted that the Wisconsin Agricultural Lands Preservation Board certified the exclusive agricultural zoning provisions of the Village of Germantown in 1981. Owners of farmland within the exclusive agricultural district in the Village of Germantown are thus eligible for 100 percent of the tax credit available under the Farmland Preservation Program.

During 1981, the draft of a farmland preservation planning report for Waukesha County was prepared by the staff of the Waukesha County Park and Planning Commission. Final report publication and a public hearing on the plan are anticipated for the spring of 1982. County board adoption of this plan, along with the application of exclusive agricultural zoning in accordance with the plan, would contribute significantly to the preservation of farmland in Waukesha County, and facilitate participation in the Farmland Preservation Program by farmland owners in Waukesha County.

Map 4

RECOMMENDED FARMLAND PRESERVATION PLAN FOR RACINE COUNTY: 2000



LEGEND

- EXISTING URBAN, EXTRACTIVE, AND INTENSIVE RECREATION LANDS
- ADDITIONAL URBAN LAND
- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL AREA
- FARMLAND PRESERVATION AREA
- TRANSITION FARM AREA
- OTHER LAND
- WATER
- URBAN SERVICE AREA BOUNDARY

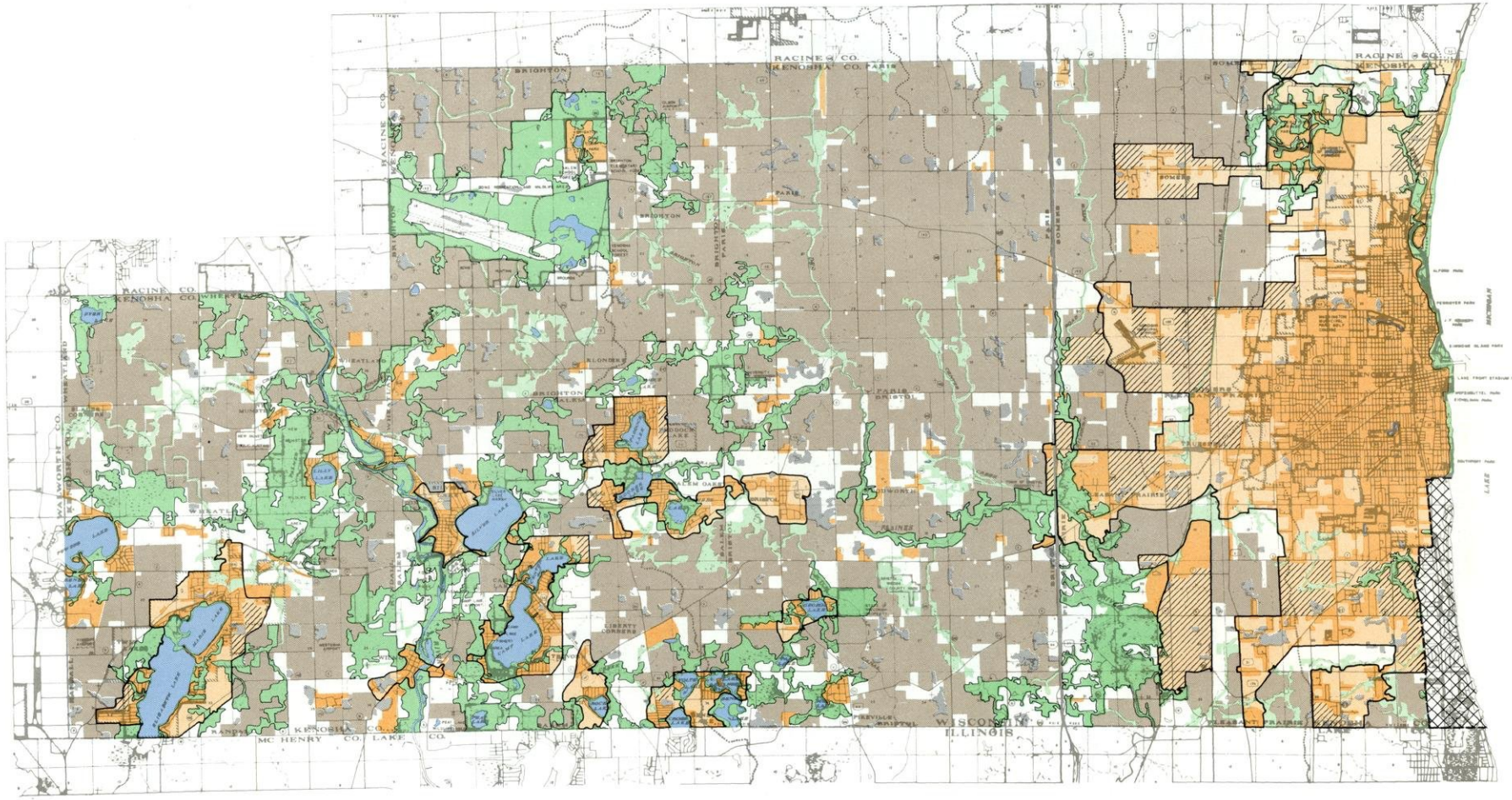
GRAPHIC SCALE

0 1 2 MILES

0 4000 8000 12000 FEET

Map 5

RECOMMENDED FARMLAND PRESERVATION PLAN FOR KENOSHA COUNTY: 2000



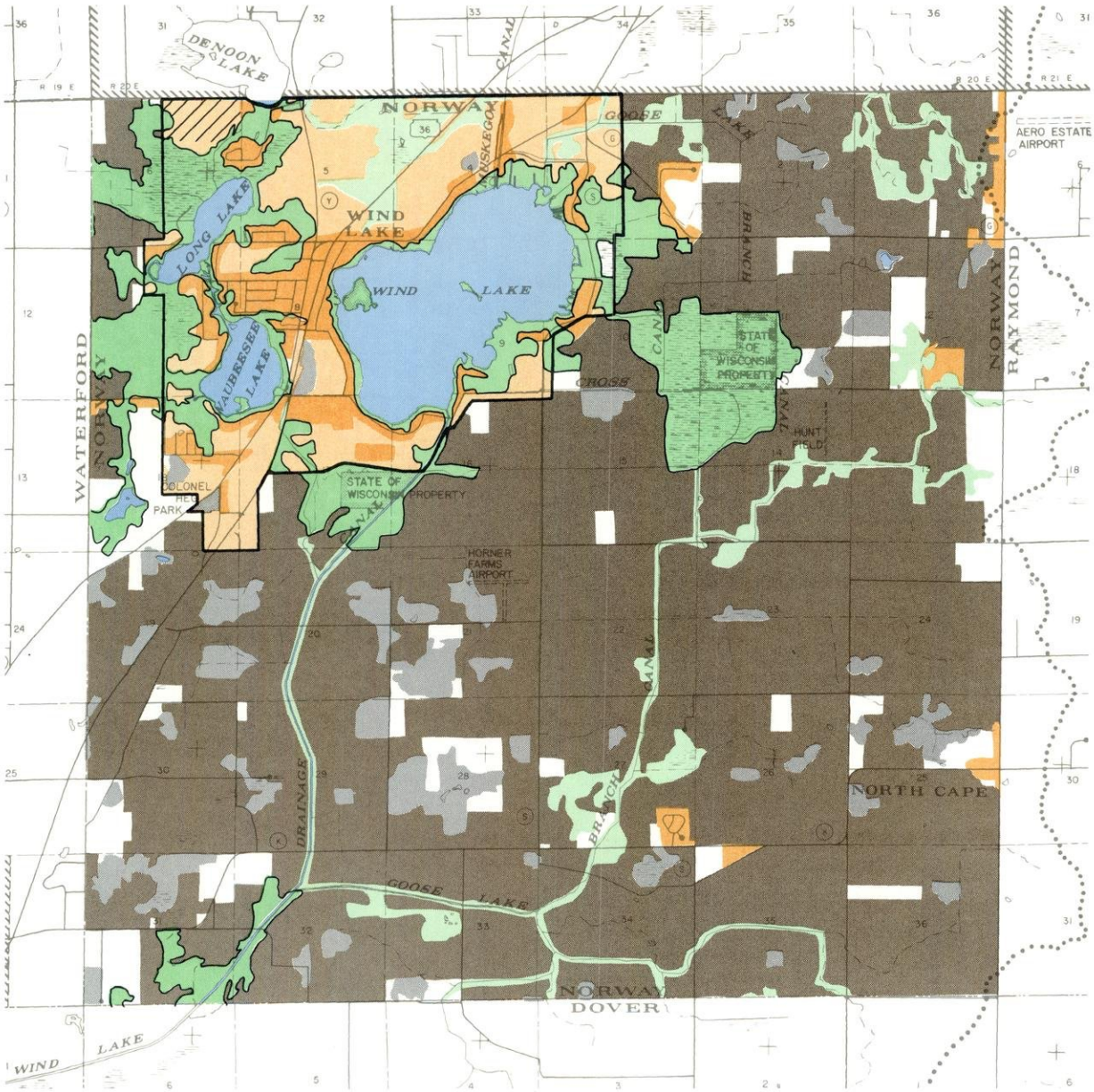
LEGEND

- EXISTING URBAN, EXTRACTIVE, AND INTENSIVE RECREATION LANDS
- ADDITIONAL URBAN LAND
- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL AREA
- FARMLAND PRESERVATION AREA
- TRANSITION FARM AREA
- OTHER LAND
- WATER
- URBAN SERVICE AREA BOUNDARY
- CAROL BEACH-CHIWAUKEE PRAIRIE SPECIAL STUDY AREA

GRAPHIC SCALE
0 1 2 MILES
0 4000 8000 12000 FEET

Map 6

RECOMMENDED FARMLAND PRESERVATION PLAN—NORWAY, RACINE COUNTY



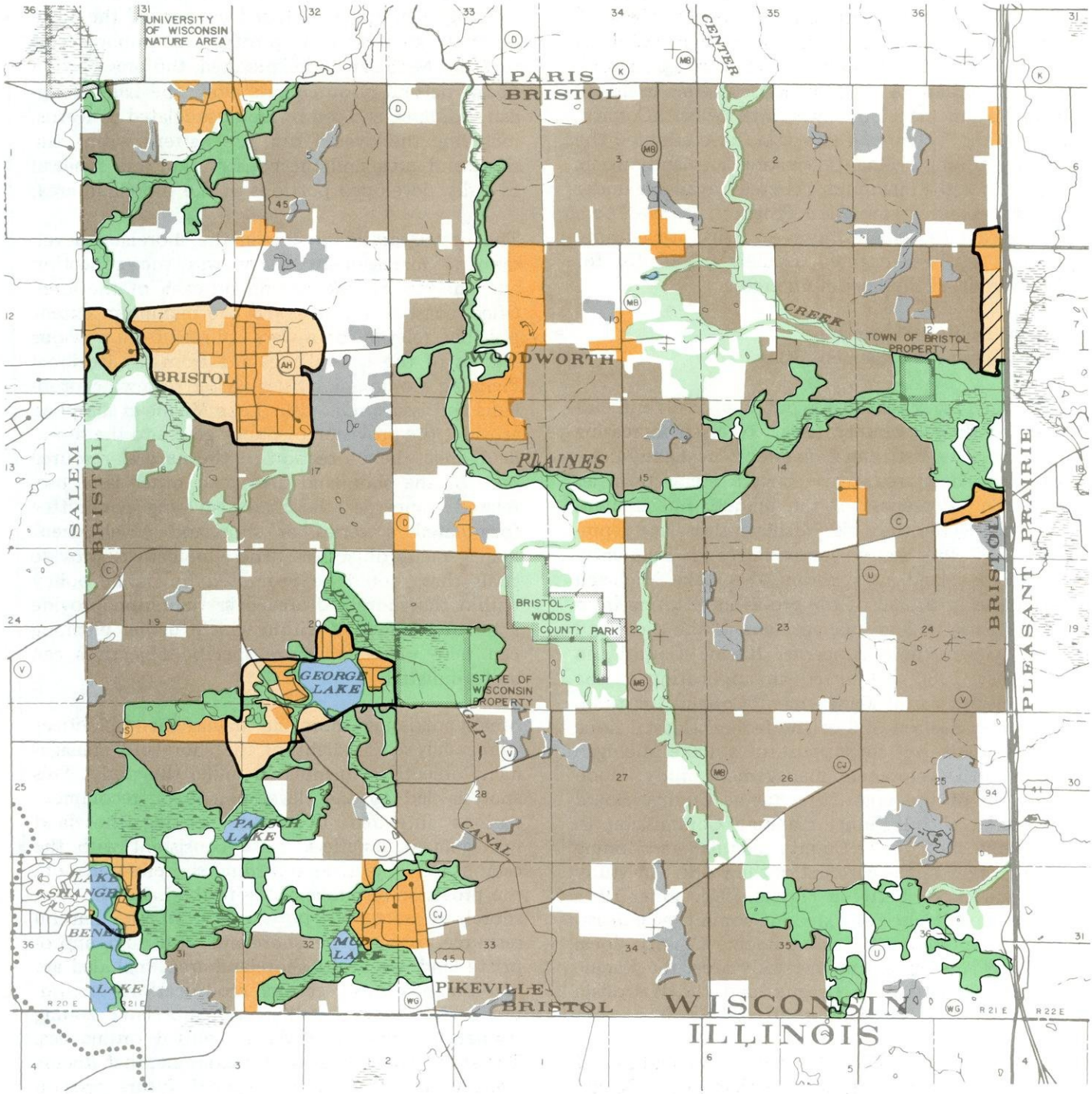
LEGEND

- EXISTING URBAN, EXTRACTIVE, AND INTENSIVE RECREATION LANDS
- ADDITIONAL URBAN LAND
- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL AREA
- FARMLAND PRESERVATION AREA
- TRANSITION FARM AREA
- OTHER LAND
- WATER
- URBAN SERVICE AREA BOUNDARY

GRAPHIC SCALE
0 1/2 1 MILE
0 2000 4000 6000 FEET

Map 7

RECOMMENDED FARMLAND PRESERVATION PLAN–BRISTOL, KENOSHA COUNTY



LEGEND

- EXISTING URBAN, EXTRACTIVE, AND INTENSIVE RECREATION LANDS
- ADDITIONAL URBAN LAND
- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL AREA
- FARMLAND PRESERVATION AREA
- TRANSITION FARM AREA
- OTHER LAND
- WATER
- URBAN SERVICE AREA BOUNDARY

GRAPHIC SCALE
1 MILE
0 2000 4000 6000 FEET

As noted in previous annual reports, Walworth County, following recommendations set forth in the initial SEWRPC land use plan adopted in 1966—has adopted both an exclusive agricultural zoning ordinance and an agricultural farmland preservation plan. All towns in Walworth County, except the Town of LaFayette, have adopted the county zoning ordinance, making farmland owners eligible for the maximum tax credit available under the Farmland Preservation Program. In the Town of LaFayette, where town-exclusive agricultural zoning has been enacted, farmers are eligible for 70 percent of the maximum credit.

Racine County Shoreland Development Management Study

Over the past several years, public officials and citizens of Racine County have expressed increasing concern over the management of the Lake Michigan shoreland area. This concern stems from an increasing awareness of the unique, but limited, resource which the Lake Michigan shoreland represents, of the many competing and frequently conflicting land uses within the Lake Michigan shoreland area, and of the problems resulting from past misuse and mismanagement of the shoreland area. Given these concerns, Racine County, in February 1980, submitted an application to the Wisconsin Coastal Management Council for funding under Section 306 of the federal Coastal Zone Management Act in support of a Lake Michigan shoreland development management study. Upon approval of the grant, the Racine County Board requested the Regional Planning Commission to assist the staff of the County Planning and Zoning Department in the conduct of the work. The study was conducted between May and December 1981 under the guidance of a steering committee consisting of representatives from Racine County, local units of government in the study area, the Racine County Conservation League, and the Wisconsin Department of Natural Resources.

For the purposes of the study, the shoreland area of Lake Michigan was defined as all that area of Racine County lying within approximately 1,000 feet of the ordinary high-water mark of Lake Michigan, as well as certain lands along the Root River east of the Marquette Street bridge in the City of Racine. The study encompasses 2,358 acres, or 1.1 percent of the total area of the County. The study area includes 14.4 miles of Lake Michigan shoreline.

The major coastal concerns identified by the study steering committee included erosion of the Lake Michigan shoreline, the provision of public access to Lake Michigan shoreland area, the preservation of the natural resource base along the Lake Michigan shoreline, and certain land use-related concerns, including the overall land use pattern within the shoreland area and the conservation and renewal of fully developed portions of the shoreland area.

The first operational step in the shoreland development management study was the collection and analysis of information on each of the identified coastal concerns. To the maximum extent possible, relevant data were collated from previous studies of the coastal area and from the Regional Planning Commission files. After reviewing problems and issues related to Lake Michigan shoreline erosion, the provision of public access to the shoreland area, the protection of the natural resource base of the shoreland area, and other land use-related concerns, the study steering committee formulated a series of shoreland development management objectives. These objectives provide goals that should be promoted by public policy within the shoreland area over time, and provide a broad framework within which further planning can take place and more specific objectives can be formulated.

Finally, existing shoreland management practices were analyzed in light of the shoreland management objectives formulated under the study. This analysis led to the development of recommendations intended to make existing shoreland management practices more consistent with the established objectives regarding shoreline erosion, the provision of public access to the Lake Michigan shoreland area, the preservation of the natural resource base of the shoreland area, and appropriate land use in the shoreland area. Included are recommendations regarding modifications to comprehensive zoning ordinances, shoreland zoning regulations, and subdivision control ordinances. The study recommended, for example, that Racine County identify the anticipated future erosion hazard areas along the Lake Michigan shoreline of the County, and incorporate related setback requirements into the county shoreland zoning regulations. The study also recommended that, in preparing its new subdivision control ordinance, Racine County include provisions requiring that Lake Michigan shoreline erosion hazard areas be

shown on land division plat maps, as well as provisions requiring that new lots created along the Lake Michigan shoreline be oriented perpendicular to the shoreline. The perpendicular orientation of the shoreline lots, in conjunction with appropriate development setback requirements, can serve to minimize the threat of shoreline erosion and bluff failure to new shoreline development. The study also set forth specific recommendations regarding modifications to existing comprehensive zoning ordinances to properly protect existing outdoor recreation sites and remaining wetlands and woodlands in the shoreland study area. The study findings and recommendations are presented in SEWRPC Community Assistance Planning Report No. 73, A Shoreland Development Management Study for Racine County, Wisconsin.

RESIDENTIAL SUBDIVISION PLATTING ACTIVITY

The Division staff annually monitors land subdivision activities in the Region. A total of 1,077 residential lots were created in the Region during 1981 through subdivision plats, compared with 1,980 lots platted in 1980. Of the total residential lots created in 1981, 842 lots, or about 78 percent, were served by public sanitary sewers, and the remaining 235 lots, or 22 percent, were designed to be served by onsite septic tank sewage disposal systems (see Table 3 and Map 8). In comparison, in 1980, a total of 562 lots, or about 28 percent of the lots platted, were to be served by onsite sewage disposal systems. Racine County accounted for the greatest number of lots platted in 1981. All 290 lots created in Racine County were designed to be served by public sanitary sewers. The greatest proportion of lots to be served by septic tanks was found in Walworth County, where 63 percent of the 100 lots platted were designed for septic tank use. The historic trend in residential platting activity since 1960 is shown for the Region and by county in Figures 8 through 15. Total residential platting activity in the Region in 1981 was the lowest since 1945.

PARK AND OPEN SPACE PLANNING

The Commission adopted a regional park and open space plan for southeastern Wisconsin on December 1, 1977. The plan consists of two basic elements: an open space preservation element and an outdoor recreation element. The open space preservation element consists of recommendations for the preservation of primary environmental corridors and prime agricultural land. The outdoor recreation element consists of 1) a resource-oriented outdoor recreation plan, which provides recommendations for the number and location of large parks, proposed 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 recreation facilities required in urban areas of the Region. The plan is documented in SEWRPC Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000, and is graphically summarized on Map 9.

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

During 1981, staff efforts on park and open space planning were directed primarily toward the implementation of the regional park and open space plan. Implementation activities consisted of assisting local units of government in refining and detailing primary and secondary environmental corridors and important natural resource features on large-scale, 1 inch = 400 feet aerial photographs; in preparing a detailed inventory of wetlands within the Region; and in preparing detailed local park and open space plans consistent with the guidelines provided by the regional plan.

Primary Environmental Corridor Refinement

One of the most important recommendations of the adopted regional land use, regional water quality management, and regional park and open

Table 3

RESIDENTIAL SUBDIVISION PLATTING ACTIVITY IN THE REGION: 1981

County	Sewered Lots		Unsewered Lots		Total	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Regional Total
Kenosha	34	100.0	0	0.0	34	3.2
Milwaukee	254	100.0	0	0.0	254	23.6
Ozaukee	22	73.3	8	26.7	30	2.8
Racine	290	100.0	0	0.0	290	26.9
Walworth.	37	37.0	63	63.0	100	9.3
Washington . . .	119	61.3	75	38.7	194	18.0
Waukesha	86	49.1	89	50.9	175	16.2
Region	842	78.2	235	21.8	1,077	100.0

Map 8

RESIDENTIAL PLATTING ACTIVITY IN THE REGION: 1981

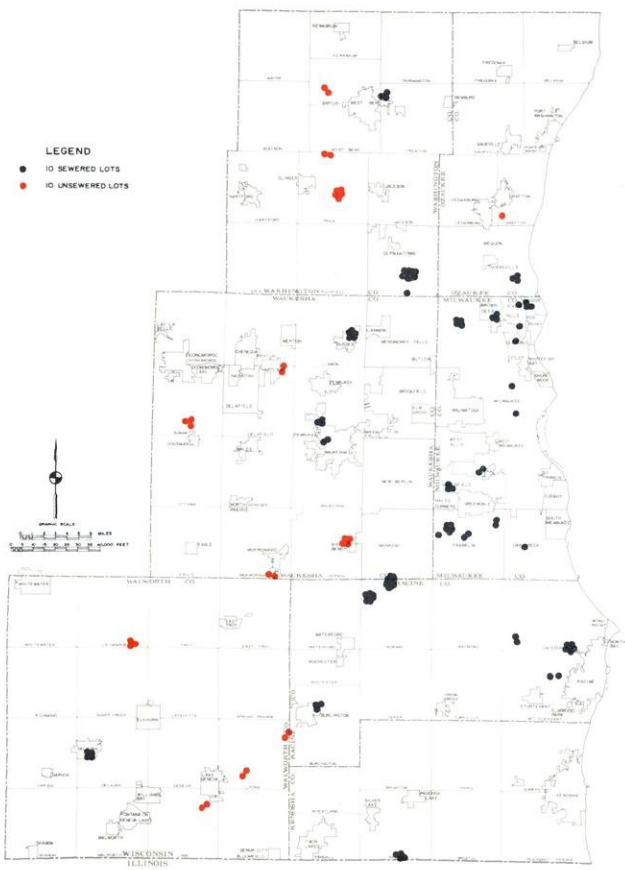


Figure 8

RESIDENTIAL LOTS PLATTED IN THE REGION: 1960-1981

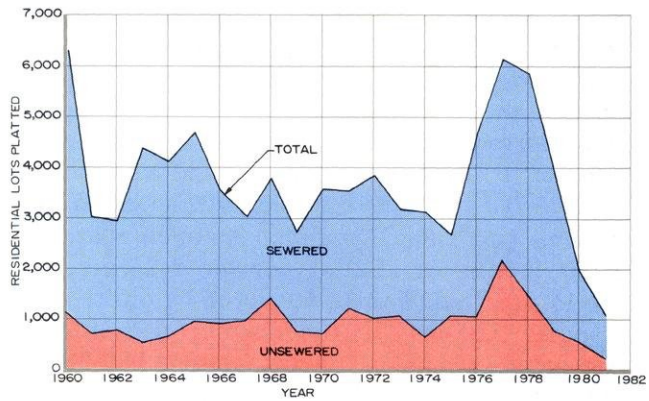


Figure 9

RESIDENTIAL LOTS PLATTED IN KENOSHA COUNTY: 1960-1981

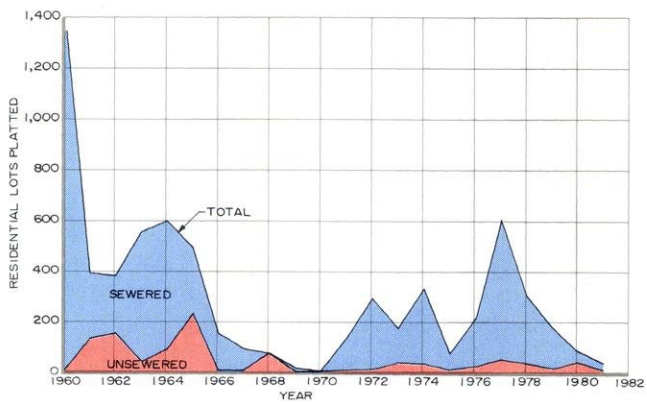


Figure 10

RESIDENTIAL LOTS PLATTED
IN MILWAUKEE COUNTY: 1960-1981

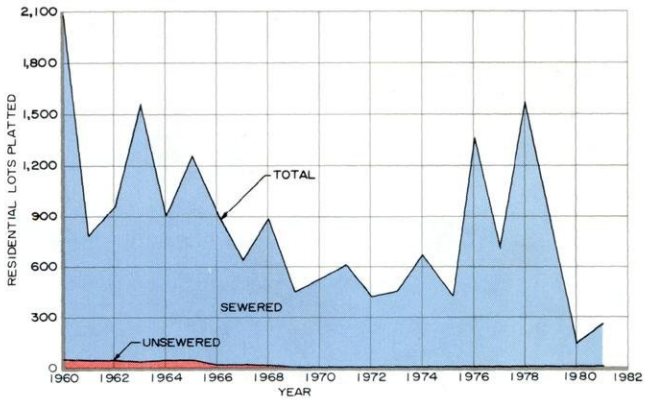


Figure 11

RESIDENTIAL LOTS PLATTED
IN OZAUKEE COUNTY: 1960-1981

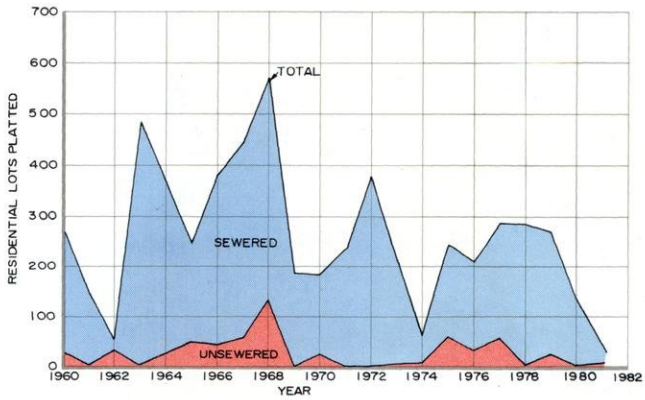


Figure 12

RESIDENTIAL LOTS PLATTED
IN RACINE COUNTY: 1960-1981

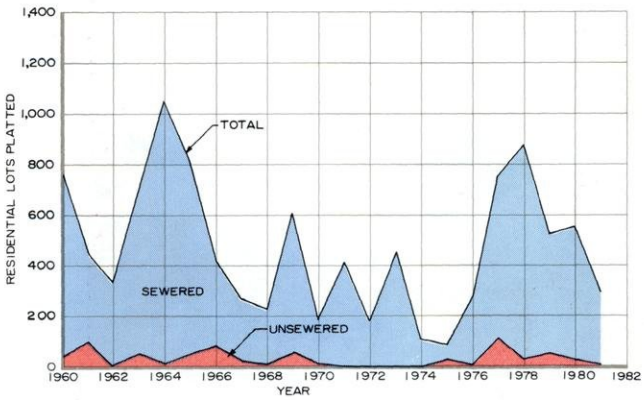


Figure 13

RESIDENTIAL LOTS PLATTED
IN WALWORTH COUNTY: 1960-1981

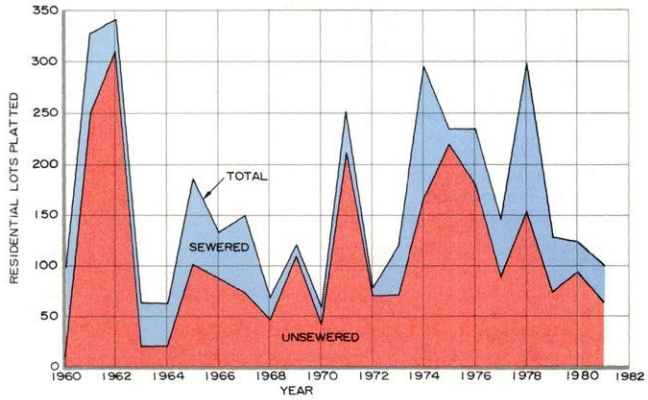


Figure 14

RESIDENTIAL LOTS PLATTED
IN WASHINGTON COUNTY: 1960-1981

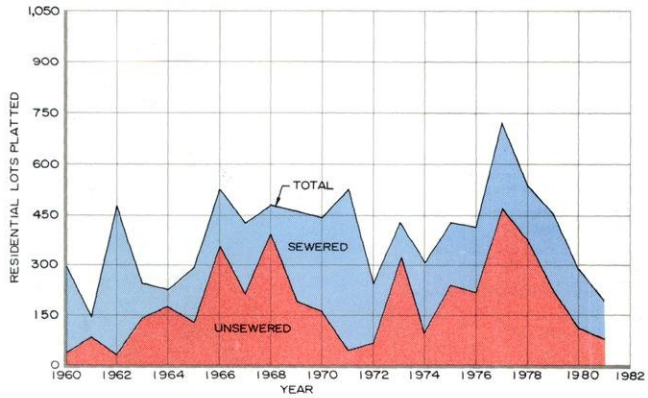
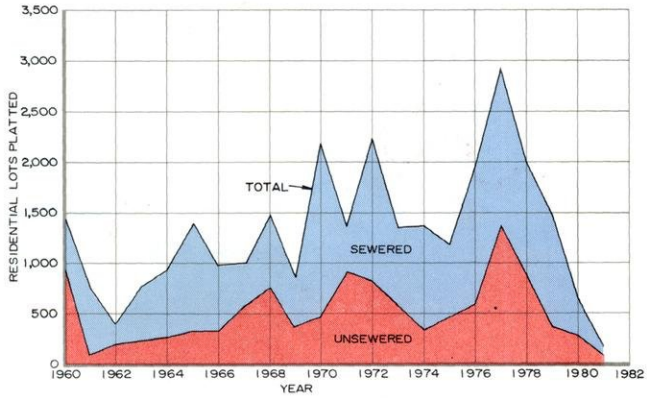


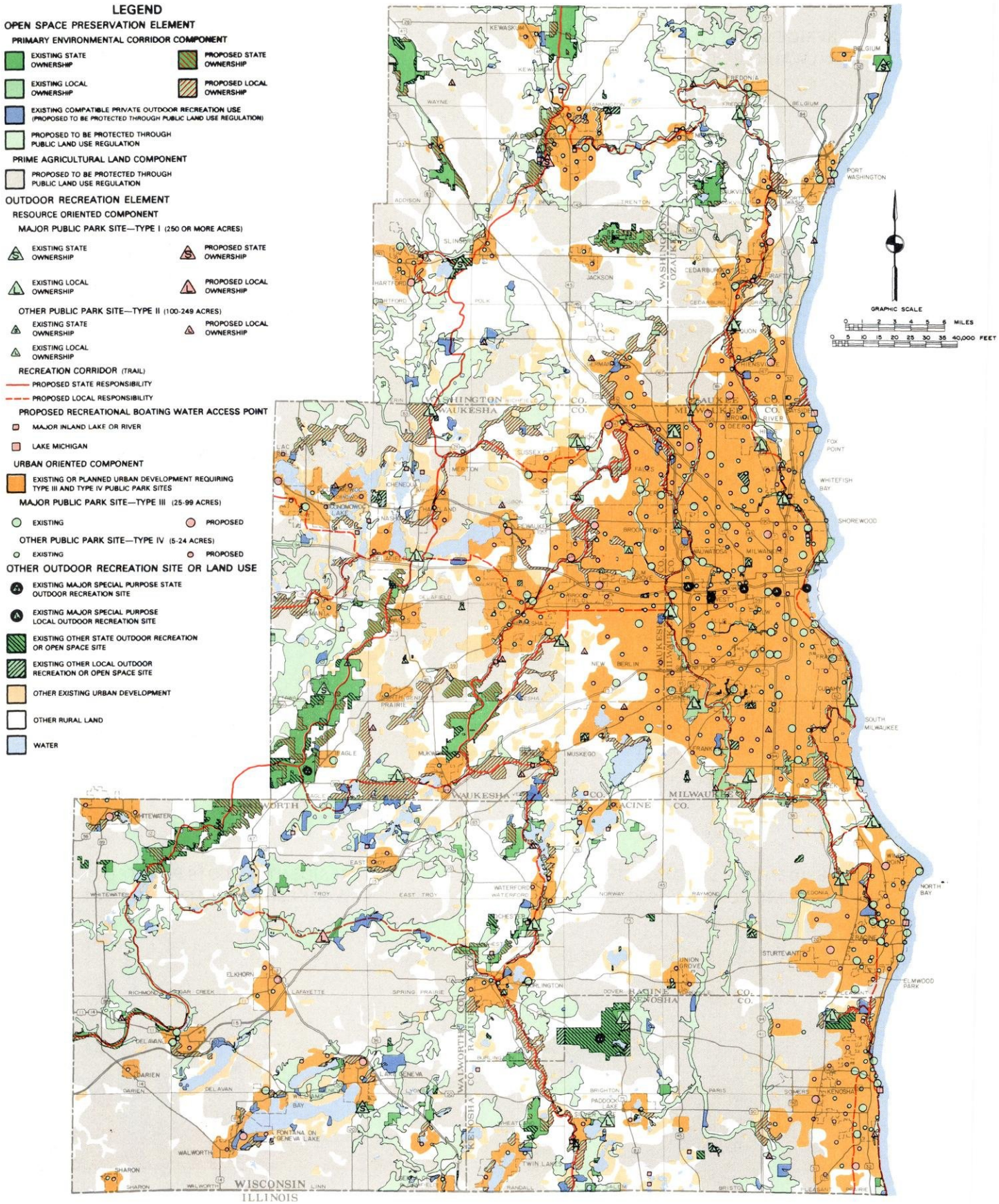
Figure 15

RESIDENTIAL LOTS PLATTED
IN WAUKESHA COUNTY: 1960-1981



Map 9

REGIONAL PARK AND OPEN SPACE PLAN: 2000



space plans is the protection and preservation of the primary environmental corridors of the Region in essentially natural, open uses. Such corridors in southeastern Wisconsin generally lie along the major stream valleys, around major lakes, and in the Kettle Moraine area. The corridors contain the best remaining elements of the natural resource base of southeastern Wisconsin and have immeasurable environmental and recreational value. The preservation of these corridors will do much to ensure maintenance of the overall environmental quality of the Region, and to avoid the creation of new, serious and costly environmental and developmental problems such as surface- and groundwater pollution; poor drainage and flooding; excessive infiltration of clear water into sanitary sewerage systems; settlement and structural failure of roadways, utilities, and buildings; and inadequate park and open space facilities.

During 1981, the Commission continued its environmental corridor refinement process initiated in 1979 utilizing the Commission's 1975 1 inch = 400 feet-scale ratioed and rectified aerial photographs both as base "maps" and as an important data source for the refinement process. This process was developed to meet the need for a more detailed delineation of environmentally significant lands within the Region as an aid to plan implementation, and is described in the article in SEWRPC Technical Record, Vol. 4, No. 2, entitled "Refining the Delineation of Environmental Corridors in Southeastern Wisconsin." In addition, to account for changes in the natural resource base and in land use between 1975 and 1980, the Commission staff expanded the corridor refinement process in 1981 utilizing the Commission's 1980 1 inch = 400 feet-scale ratioed and rectified aerial photographs as an additional data source for the corridor refinement. By the end of 1981, the corridor refinement process using the Commission's 1975 aerial photographs had been completed for about 1,900 square miles of area, or about 71 percent of the total area of the Region, and the expanded corridor refinement process using the Commission's 1980 aerial photographs had been completed for about 884 square miles of area, or about 33 percent of the total area of the Region.

Wetlands Mapping Program

Another important recommendation of the adopted regional land use, regional water quality management, and regional park and open space plans is the preservation of the remaining wetlands within the Region. Wetlands perform important natural functions, and provide valuable recreational and educational opportunities. Wetlands can contribute to the maintenance of good surface- and groundwater quality; act to store water during wet weather and release water during dry weather, thus helping to stabilize the water table and to protect communities against both flooding and drought; protect shoreland areas from erosion by absorbing storm impacts and reducing the scouring action of currents; and provide essential breeding, nesting, resting, and feeding grounds and means for escape from predators for many forms of fish and wildlife. In recognition of these important natural functions, it is important that continued efforts be made to protect wetland resources by discouraging costly—in both monetary and environmental terms—wetland draining and filling, and conversion to more intensive rural and urban uses.

Recognizing the importance of wetlands, the State Legislature in 1978 mandated the mapping of all wetlands in the State. The Commission, in 1981, under contract to the Wisconsin Department of Natural Resources, completed the identification and mapping of wetlands two acres or larger in area within the Southeastern Wisconsin Region. The Commission staff utilized infrared black and white aerial photographs provided by the Wisconsin Department of Natural Resources, as well as the Commission's soils and historic wetland inventories, to identify and classify wetlands according to a system established by the Wisconsin Department of Natural Resources (DNR). Wetlands in southeastern Wisconsin so identified by the Commission were delineated on the Commission's 1980 1 inch = 2,000 feet-scale ratioed and rectified aerial photographs of each survey township in southeastern Wisconsin. The delineations are to provide the basis for the regulation of the wetlands under Chapter NR 115 of the Wisconsin Administrative Code. Only those wetlands in unincorporated shoreland areas must be regulated under Chapter NR 115. By law, shorelands are defined as unincorporated areas located within 1,000 feet of the ordinary high-water mark of a navigable lake, pond, or flowage; or within 300 feet of the ordinary high-water mark of a navigable river or stream, or to the landward edge of the floodplain, whichever distance is greater.

Under the regulatory procedure, a public hearing is to be held in each county on the delineation of the wetlands. Subsequent to those hearings, any necessary changes will be made in the delineations, and

the final delineations will then be certified to the counties by the DNR. The counties will then have a six-month period in which to enact zoning ordinances to protect the delineated wetlands from development. Such zoning and any subsequent proposed amendments are subject to DNR review and approval, thus making the wetland zoning, in effect, joint state-county zoning. These county zoning ordinances can allow the continued cultivation of land that is currently being farmed, as well as the continued pasturing of livestock and building of fences in wetland areas, provided that such lands are not drained, dredged, filled, or flooded. Also, in response to concerns by agricultural groups and the State Board of Agriculture, Trade and Consumer Protection, NR 115 allows the continued operation and maintenance of any existing farm drainage systems in the wetland areas.

More specifically, under the procedures established by the DNR to implement the provisions of NR 115, two sets of wetland maps for each public land survey township within each respective county will be provided by the DNR to the county. The county will then have 90 days to complete its review of the wetland maps. The review period may be extended if 90 days is not enough, but the maximum extension permissible is 90 days, for a total review period of 180 days. As already noted, Chapter NR 115 requires that the county zoning committee hold a public hearing to receive comments on the accuracy and completeness of the preliminary wetland maps. The county zoning committee may choose to hold public hearings for each township, for several townships together, or for the entire county at once. Hearing notices must be mailed to town clerks and must be published as class one notices. After the required public hearings are completed, a preliminary wetland map is to be marked to show areas where the county zoning committee believes the maps are incorrect, and prior to the expiration of the review period one set of the wetland maps, together with a statement of the requested changes, is to be returned to the Wisconsin Department of Natural Resources. The DNR will then schedule a meeting within 30 days of the return of the preliminary maps to discuss the discrepancies. After this meeting between the county zoning committee and the DNR has been held and the county recommendations have been evaluated, final wetland maps will be prepared and certified to the county. The county will then have six months to amend its shoreland-wetland zoning ordinance to protect the mapped wetlands.

Local Park and Open Space Plans

During 1981, the Commission completed a park and open space plan for the City of New Berlin. This plan is documented in SEWRPC Community Assistance Planning Report No. 66, A Park and Open Space Plan for the City of New Berlin, Waukesha County, Wisconsin. This report contains a set of park and open space preservation acquisition development objectives and supporting standards relative to the needs of the City of New Berlin; presents pertinent information on the supply of and the need for park and open space sites within the community; and identifies the actions required to meet park and open space needs. The recommended park and open space plan for the City of New Berlin consists of two basic elements: an outdoor recreation element, which deals with parks and recreation corridors, and a resource preservation element, which deals with the preservation of environmentally important areas—including primary and secondary environmental corridors, isolated natural features, and important agricultural lands.

There are presently three major resource-oriented parks—parks 100 acres or larger in area—in the City: Minooka Park—a county-owned park—and City Park and the New Berlin Golf Course—both of which are city-owned. The recommended park and open space plan proposes the continued maintenance of these parks. In addition, the plan recommends the public acquisition and development of one additional major resource-oriented park, which is proposed to be located in the southwestern portion of the City. The plan also recommends the provision of three recreation corridor segments within the City having a combined length of 21 linear miles.

There are presently eight urban parks—parks 5 to 99 acres in area—intended for intensive, active recreational use within the City. Under the plan, these would continue to be maintained and 13 additional such parks would be provided throughout the urban portions of the City. Three of the existing parks would be expanded to provide additional space for outdoor recreation activities, and additional recreation facilities would be provided at nine of the existing parks, including the two city-owned major parks. It is envisioned that the existing and proposed sites and facilities would serve a total resident urban population in the City of about 55,400 persons, or about double the 1980 population level.

The resource preservation element calls for the preservation and protection of the remaining important natural resource features within the City of New Berlin through a combination of local zoning and public acquisition. The best remaining elements of the natural resource base within the City are encompassed by the primary environmental corridors. Under the recommended plan, all primary environmental corridors would be preserved in essentially natural, open uses. Of the total of 1,508 acres of primary environmental corridor lands in the City, 23 acres, or 2 percent, are presently held in public ownership, while 70 acres, or an additional 4 percent, are held in compatible nonpublic outdoor recreation uses. Under the plan, these areas would continue to be maintained for resource preservation and limited outdoor recreation purposes. The plan also proposes that an additional 1,021 acres, or 68 percent of the primary environmental corridor lands, be acquired over the 20-year plan design period. Finally, the plan recommends that 394 acres, or 26 percent, be preserved through appropriate public land use regulation.

In addition to the preservation of primary environmental corridors, the plan recommends the preservation of the secondary environmental corridors and isolated natural areas in essentially natural, open uses through interim public land use regulations until decisions can be made, as urban development proceeds in the City, concerning the need to acquire such lands for public drainageways and other urban open space purposes, such as urban storm water retention and detention areas or neighborhood parks.

The resource preservation element also calls for the preservation and protection through local zoning of certain important agricultural lands within the City. In 1980, a total of 1,654 acres, or 7 percent of the City, were identified as prime agricultural land. Of this total acreage, about 344 acres, or 21 percent, would be converted to urban uses under the plan, while the remaining 1,310 acres, or 79 percent, would be maintained in agricultural use through the design year of the plan, protected through appropriate land use regulation.

The legal and governmental framework of the City of New Berlin is such that the state, county, and local units of government concerned can readily implement the major recommendations of the park and open space plan for the City. The primary responsibility for the implementation of the park and open space plan lies with the City, the Waukesha County Park and Planning Commission, and the Wisconsin Department of Natural Resources.

HOUSING PLANNING

A decent home within a suitable living environment has been a highly desired but elusive goal for many households residing in the Southeastern Wisconsin Region. Between 1969 and 1981, the Commission carried out a housing planning program to facilitate the attainment of this very important objective. As previously noted, as a result of the elimination of the U. S. Department of Housing and Urban Development comprehensive planning assistance program, the Commission in 1981 was forced to discontinue the housing planning function which it had maintained for more than a decade.

The Commission embarked upon a regional housing planning program in 1969 in response to a specific request from the Mayor of the City of Milwaukee. The first work element of the regional housing planning program was the completion and publication in 1969 of a regional housing study prospectus, which outlined the need for and major work elements of a regional housing study. The regional housing study itself was conducted between 1970 and 1975, following the basic guidelines set forth in this prospectus. Funding for the study was provided by the seven county boards in the Region, the U. S. Department of Housing and Urban Development, and the then Wisconsin Department of Local Affairs and Development. The study was conducted by the Commission with the assistance of the University of Wisconsin-Milwaukee under the direction of a technical coordinating and advisory committee comprised of representatives from the mortgage banking community, private land development firms, the home building industry, real estate, local citizen groups, church groups, and government housing agencies.

The housing study began with the conduct of a number of basic housing-related inventories and analyses. Specifically, the study included the collection and analysis of information on the size and condition of the existing housing stock; the property tax structure; trends in the costs of buying and occupying housing; the financing of housing; the technology of the housing industry; government activity in housing; housing-related land use controls; and constraints on the availability of housing. This work provided the basis for the

development of a set of regional housing objectives, principles, and standards, the identification of existing unmet housing needs, and, ultimately, the formulation of a plan which addressed those needs. The findings of the regional housing study and recommendations of the regional housing plan were documented in SEWRPC Planning Report No. 20, A Regional Housing Plan for Southeastern Wisconsin, published in 1975.

It should be noted that in 1972—prior to the completion of the comprehensive regional housing study—the Commission undertook a special short-term action-oriented housing program which was intended to serve as an interim guide to the location of publicly subsidized housing in the Region prior to completion of the overall regional housing study. The short-term program recommended housing assistance goals for regional subareas over a two-year period (1972-1973), and identified specific sites within those areas suitable for the development of low- and moderate-income housing. The recommendations of this special planning effort were documented in SEWRPC Technical Report No. 12, A Short-Range Action Housing Program for Southeastern Wisconsin: 1972 and 1973.

Regional Housing Plan

The inventory and analysis phases of the regional housing study identified numerous interrelated economic, institutional, and social constraints on the availability of housing in southeastern Wisconsin which cause certain households to experience difficulty in their efforts to secure adequate shelter. For the purposes of the study, housing need was expressed in terms of the number of households which could not secure decent, safe, and sanitary housing at a cost consistent with the household income, as well as those households precluded from obtaining decent, safe, and sanitary housing because of noneconomic constraints in the housing market. An estimated 96,100 households were found to be in housing need in 1970, representing about 18 percent of all households in the Region. Of this total, about 69,600 households were found to be in "economic need only," indicating that they occupied decent, safe, and sanitary housing but were able to secure such housing only at a cost disproportionate to the household income. The housing problems were much more severe for the balance of households in need—namely, the 26,500 households that were found to occupy housing units in violation of the adopted standards relative to decent, safe, and sanitary housing and that were unable to secure adequate housing.

The regional housing plan was adopted by the Commission in 1975 as an overall approach to addressing identified housing needs. The plan included recommendations intended to reduce certain identified constraints on the availability of housing, as well as a subsidized housing allocation strategy intended to guide the provision of publicly subsidized housing in the Region over the period 1975 through 1980.

Housing Plan Recommendations

The regional housing plan included a series of recommendations intended to help remove the economic, social, and institutional constraints on the availability of decent, safe, and sanitary housing to low- and moderate-income households. Considerable progress has been made with respect to certain of the plan recommendations. The regional housing plan recommended, for example, that all counties in the Region establish a county housing authority, or similar county housing agency, to coordinate and administer programs within the county. When the housing plan was adopted, only two counties—Milwaukee and Racine—had established such agencies. Since the adoption of the regional housing plan, Kenosha, Walworth, and Ozaukee Counties have established county housing authorities. The county-level approach can provide for the administration of housing programs in communities too small to support housing agencies of their own, can avoid needless duplication of services, and can reduce problems of interagency coordination.

The regional housing plan also recommended that local units of government in the Region adopt a uniform building code and that the State enact a uniform building code regulating factory-built housing in Wisconsin. This recommendation was substantially achieved in 1980 when the provisions of the state uniform dwelling code governing construction standards and inspection procedures for one- and two-family dwellings and manufactured housing went into effect throughout the State. This code is intended to provide the protection of a uniform building code to purchasers of new housing in all areas of the State, and to facilitate new housing development by eliminating delays and costly confusion associated with the wide range of varying local building standards.

The regional housing plan also recommended the expansion of fair housing legislation to prohibit certain forms of housing discrimination not addressed in federal, state, or local fair housing laws at that time. Specifically, the regional housing plan rec-

ommended that fair housing laws be expanded to prohibit housing discrimination on the basis of sex, marital status, source of income, or family size. Considerable progress in this regard was achieved in 1980 when the State Legislature strengthened the State's fair housing law by prohibiting discrimination in housing on the basis of marital status, source of income, or age and by increasing the level of fines imposed on those convicted of housing discrimination.

While substantial progress toward plan implementation can be documented in the aforereferenced areas, the extent to which other regional housing plan recommendations have been implemented is unknown, and can be determined only through further study. For example, the regional housing plan recommended that urban communities within the Region incorporate provisions for a full range of residential structure types—single-family, two-family, and multiple-family—within their zoning ordinances. The plan further recommended that communities incorporate provisions for a full range of housing sizes and lot sizes within their zoning ordinances. The extent to which these recommendations have been implemented can be determined only through a careful inventory of community zoning regulations similar to that undertaken as part of the regional housing study in 1972.

Housing Allocation Strategy

The regional housing plan recognized that the resolution of existing housing problems would require that housing subsidies be provided to certain households in need. The adopted regional housing plan recommended the provision of about 17,800 publicly assisted housing units during the six-year period 1975 through 1980. An integral part of the adopted regional housing plan was the subsidized housing allocation strategy, which recommended the geographic distribution of the 17,800 housing units to 49 allocation areas in the Region, each consisting of a community or a group of communities (see Map 10). Included in the allocation system are measures relating to each area's need, suitability, and past performance in the provision of low-cost housing.

To monitor progress toward meeting the recommended goals, information concerning the use of housing assistance programs was collected from federal agencies that are instrumental in administering housing assistance programs—namely, the U. S. Department of Housing and Urban Development (HUD) and the U. S. Department of Agriculture, Farmers Home Administration (FmHA). Included in the inventory of assisted housing shown on Map 10 are housing units authorized since the adoption of the regional housing plan under the HUD Section 8, HUD Section 235, HUD Section 236, HUD Section 221(d)(3), FmHA Section 515, and FmHA Section 502 housing assistance programs.

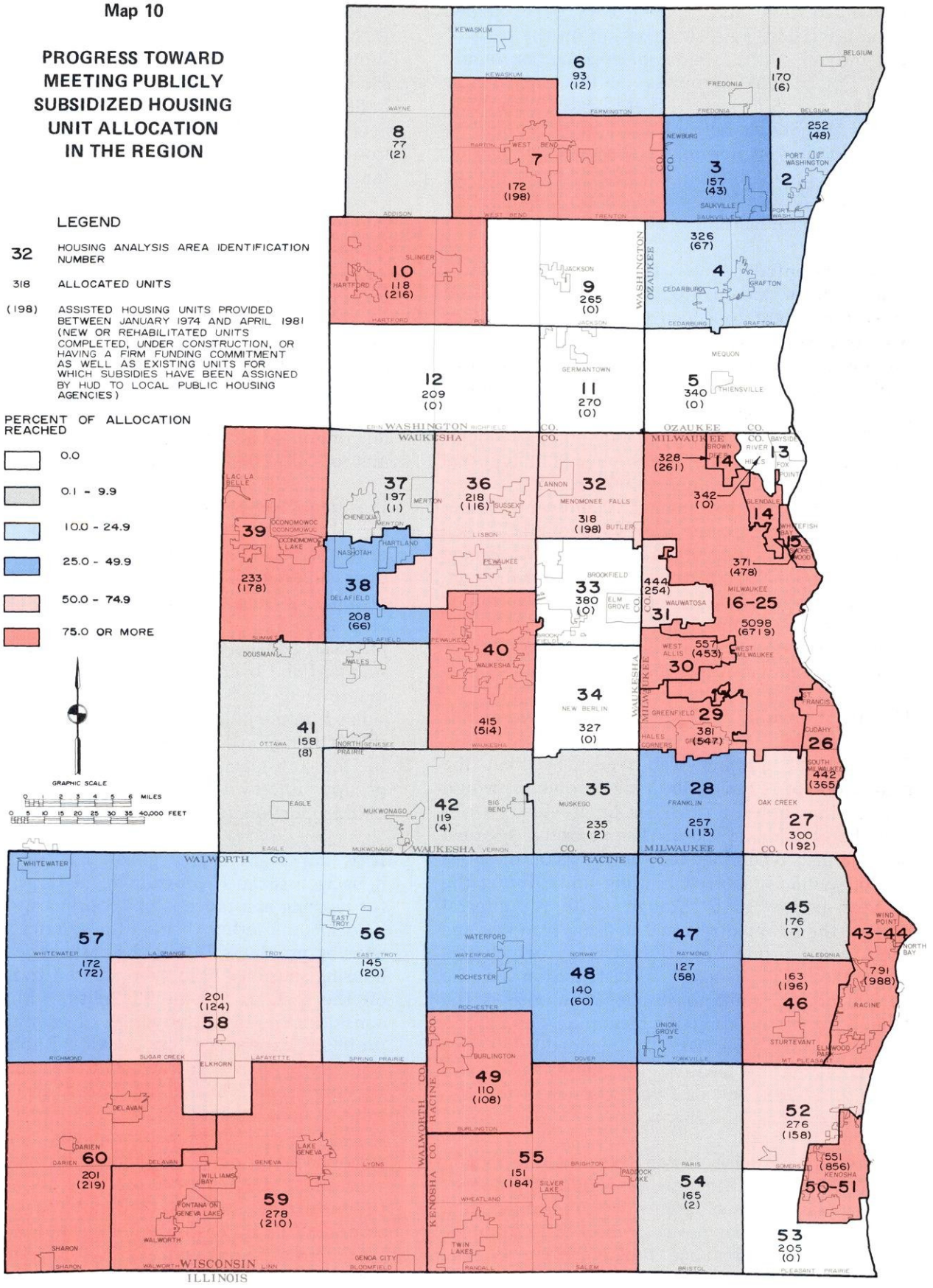
Between the time of the adoption of the regional housing plan and the end of 1980, a total of 14,511 units of publicly assisted housing had been provided in the Region. These 14,511 units represent 82 percent of the total number of units recommended in the plan to be provided in the Region through 1980. As indicated on Map 10, 41 of the 49 allocation areas had shown some progress toward meeting the allocation and 23 areas had met more than half of their goals, with 11 having met or surpassed their recommended allocations.

It is important to recognize that the regional housing allocation strategy was intended to address only a portion of the total housing need identified under the regional housing study. Specifically, the regional housing allocation strategy sought to provide subsidized housing units so as to eliminate physical housing problems as evidenced by substandard and overcrowded living conditions. It was determined that the proper use of 17,800 subsidized units could substantially achieve this objective. The regional housing plan gave lower priority to the subsidization of those households that occupy uncrowded, standard housing but pay a disproportionate share of their income to do so.

It is important to recognize that, under federal housing assistance program regulations, eligibility for housing assistance is based primarily on household income rather than on the severity of existing housing problems. During the past six years, federal housing subsidies have been granted to households on the basis of income eligibility, without direct consideration of the severity of existing housing problems experienced by individual households as evidenced by overcrowded and substandard housing conditions. Thus, while more than 14,500 subsidized housing units have been provided under federal housing assistance programs in the Region since the adoption of the regional housing plan, the extent to which these units have helped families to move out of substandard housing, as opposed to out of overly costly units, is unknown, and can be determined only by an intensive study of the kind made under the initial regional housing planning program.

Map 10

PROGRESS TOWARD MEETING PUBLICLY SUBSIDIZED HOUSING UNIT ALLOCATION IN THE REGION



Housing Outreach Program

In 1971, the Commission initiated the housing outreach program under which the Commission retained one staff member whose sole responsibility was to assist local government housing agencies and neighborhood housing groups in improving housing conditions for the elderly and low- and moderate-income families in accordance with regional housing objectives. Examples of technical assistance provided under the housing outreach program include training in exterior housing condition survey procedures to Racine County, the Village of Shorewood, the Waukesha County Area Agency on Aging, and ESHAC, Inc.; assistance to La Casa de Esperanza in the design and conduct of a needs assessment survey of the Spanish population in Ozaukee, Washington, and Waukesha Counties; and assistance to the Cities of Elkhorn and Oconomowoc and the Villages of East Troy and Mukwonago in the identification of local reinvestment areas to serve as target areas for mortgage financing available under the Community Investment Fund program of the Federal Home Loan Bank. The Commission outreach planner also provided assistance to numerous neighborhood groups and housing interest groups by identifying available funding sources, by assisting with the development of grant applications, and by providing functional guidance in the administration of neighborhood housing rehabilitation programs and other housing services.

Under its housing planning effort, the Commission maintained up-to-date housing files on the number of subsidized housing units within the Region, the availability of various housing assistance programs, residential construction activity as evidenced by local building permits, and residential land subdivision activity, and provided related information to local units and agencies of government, neighborhood housing groups, and private interests in response to both routine and special data requests. In a special effort to increase the awareness of existing housing opportunities in the Region, the Commission in 1980 prepared and published SEWRPC Community Assistance Planning Report No. 52, Housing Opportunities Guide for the Southeastern Wisconsin Region. This guide provides key information on all publicly assisted rental housing in the Region, as well as on the eligibility requirements of federal housing programs, and was prepared primarily as an informational resource for housing authorities and housing agencies to enable them to better assist the elderly and low- and moderate-income families in identifying existing housing resources.

As previously indicated, as a result of the elimination of the comprehensive assistance planning program of the U. S. Department of Housing and Urban Development, the Commission discontinued its housing outreach program in 1981 and significantly reduced its housing data collection, analysis, and dissemination activities. Only those housing data which are necessary for other on-going Commission work programs—for example, information on residential land subdivision and building permit authorizations—continue to be collected.

Because of the elimination of federal housing planning funds, the Commission will not be able to undertake the work necessary to revise and extend the regional housing allocation strategy over a new planning period. There is, nevertheless, a need to reassess the extent and severity of existing housing problems in southeastern Wisconsin—taking into account changes in the total housing stock and the stock of subsidized housing, changes in the number of households and related household characteristics, and changes in general economic conditions since 1970—and a need to revise the regional housing allocation strategy based on such an analysis. The lack of supporting federal planning funds, however, precludes such an effort at the present time. Should federal planning funds for housing activities again become available in upcoming years, the Commission could seek the funds necessary to again embark on a housing planning program which would work toward achieving the goal of a decent home within a suitable living environment for all households in the Southeastern Wisconsin Region.

COASTAL MANAGEMENT PLANNING

During 1981, the Division staff continued to provide assistance to the Wisconsin Department of Administration's Bureau of Coastal Management in the conduct of the Wisconsin coastal management program. This program is intended to coordinate governmental activities in order to achieve the objective of better management of the resources of Wisconsin's Lake Michigan and Lake Superior coastal zone. The program is being carried out by the State of Wisconsin pursuant to the Federal Coastal Zone Management Act of 1972 through the Wisconsin Coastal Management Council.

Under an agreement with the Wisconsin Department of Administration, Bureau of Coastal Management, the Commission has formed and staffed a Technical and Citizen Advisory Committee on Coastal Management in Southeastern Wisconsin. This 29-member Committee represents a variety of interests, including local elected officials, the Uni-

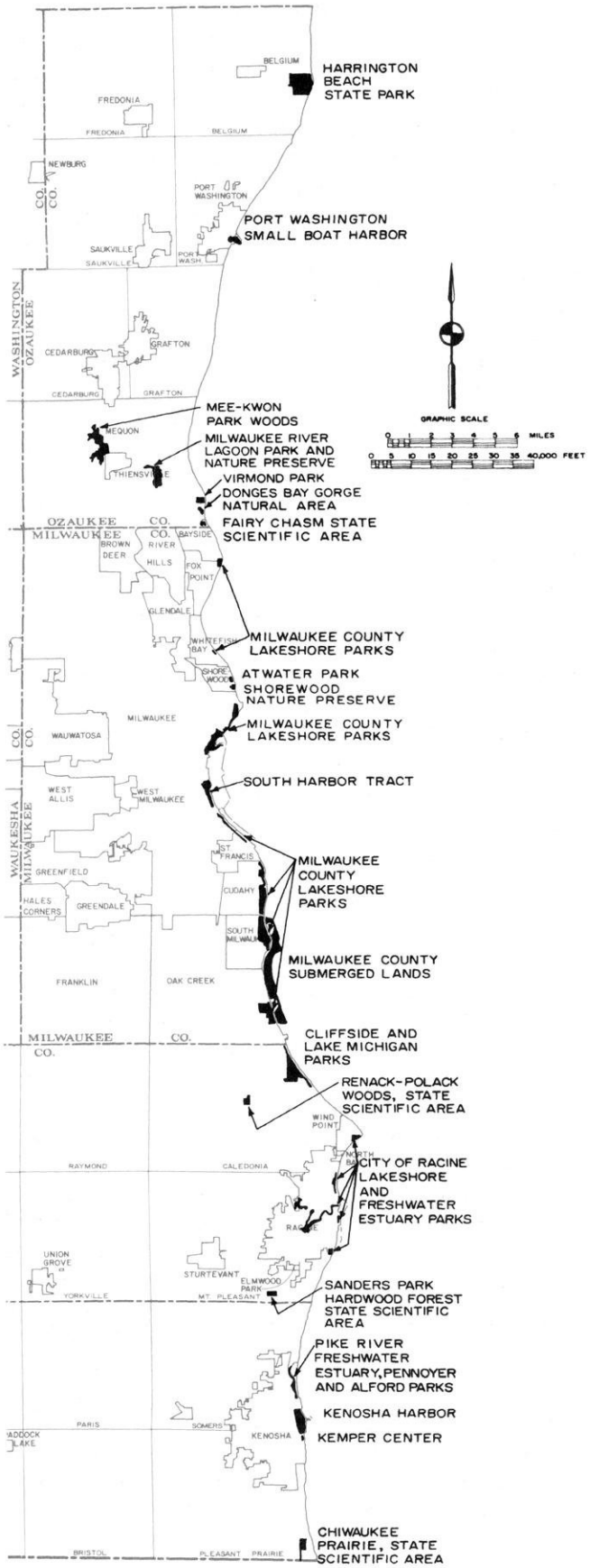
versity community, and recreational, navigational, and environmental interest groups. The primary function of this Committee is to review and comment on state coastal studies and reports as they are proposed and produced.

One of the continuing functions of the Division under the coastal management program is the designation of special coastal areas. In 1981, three additional areas in the Region were formally designated as special coastal areas: the Donges Bay Gorge, Mee-Kwon Park woods, and the Milwaukee River Lagoon Park and Nature Preserve, all located in the City of Mequon. These three areas, along with other, previously certified, Lake Michigan shoreline special coastal areas, are shown on Map 11. These designations include coastal areas which have special 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, increases the area's priority for funding through other public agencies and programs, and focuses attention on a valuable coastal resource.

As part of the coastal management efforts in the Region, the Commission staff assists local units of government along the Lake Michigan shoreline in developing and submitting coastal management-related projects for funding under the coastal management program. In 1981, 20 such projects were submitted from the four coastal counties in the Region. Of those, eight projects were approved and funded by the Wisconsin Coastal Management Council in 1981: the preparation of a Port of Milwaukee Master Plan; a Milwaukee County coastline topographic mapping project; the Racine County Coastwatch Program, which is a continuing citizen involvement effort to observe and record physical changes as a result of such coastal processes as wave action, wind direction, and erosion along the Lake Michigan shoreline in Racine County; a Lake Michigan public access study for Racine County; a mapping project to identify high-risk erosion areas and amend the shoreland ordinance for Racine County; a waterfront-oriented park system addition and management plan for the City of Racine; and acquisition and management plans for the Donges Bay Gorge and for the Mee-Kwon Park woods extension for the City of Mequon. Both the Donges Bay Gorge and the Mee-Kwon Park woods extension contain natural plant communities which have been designated as natural areas of countywide or regional significance in the Natural Area Inventory: Wisconsin's Great Lakes Coast (Revised 1980), prepared by the Wisconsin Departments of Administration and Natural Resources.

Map 11

DESIGNATED SPECIAL COASTAL AREAS IN SOUTHEASTERN WISCONSIN: 1981



DATA PROVISION AND ASSISTANCE

The land use and park and open space data files are extensively used by local governmental units and agencies and by private interests. Examples of the provision of land use and park and open space-related data during 1981 include the following:

- Provision of basic land use, economic, demographic, and natural resource information to the Housing and Land Use Committees of the Goals for Greater Milwaukee—2000 Task Force.

- Provision of detailed land use and natural resource data for that area east of STH 32 along the Lake Michigan shoreline in the Town of Pleasant Prairie to the Kenosha County Planning and Zoning Office for its use in local planning efforts.

- Provision of detailed primary and secondary environmental corridor delineations within Walworth County to the Walworth County Planning, Zoning and Sanitation Office for its use in planning for the preservation of environmental corridors in the County.

- Provision of technical assistance, including the preparation of a site analysis and general site development plan for an undeveloped village park, to the Village of Big Bend.

- Provision of technical assistance, including the preparation of a site analysis and general site development plan for an undeveloped town park, to the Town of Randall.

- Provision of plant and wildlife habitat data to the Racine County Planning and Zoning Department for its use in evaluating the forest management plan for property located in the Town of Burlington, Racine County.

- Provision of technical assistance, including the provision of wetland and wildlife habitat data and the preparation of a route analysis, in evaluating the alternative new alignments of CTH F between STH 190 and CTH K to the Waukesha County Highway and Transportation Commission.

- Provision of plant inventory and wildlife habitat data to the Wisconsin Department of Natural Resources for use in evaluating the potential environmental impacts of a proposed channel dredging project in the Trevor Creek wetland complex located in the Town of Salem, Kenosha County.

- Provision to the Village of Saukville of plant inventory data, including the delineation of the areal extent of wetland and floodland area, for use in evaluating an application for a conditional use permit to fill a portion of the Village's floodplain fringe overlay district.

- Provision to the City of Franklin of plant community inventory data, including the delineation of the areal extent of wetland area, on a Mission Hills East neighborhood development parcel.

- Provision of technical assistance to the Town of Mt. Pleasant concerning the management of a prairie restoration site.

TRANSPORTATION PLANNING DIVISION

DIVISION FUNCTIONS

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

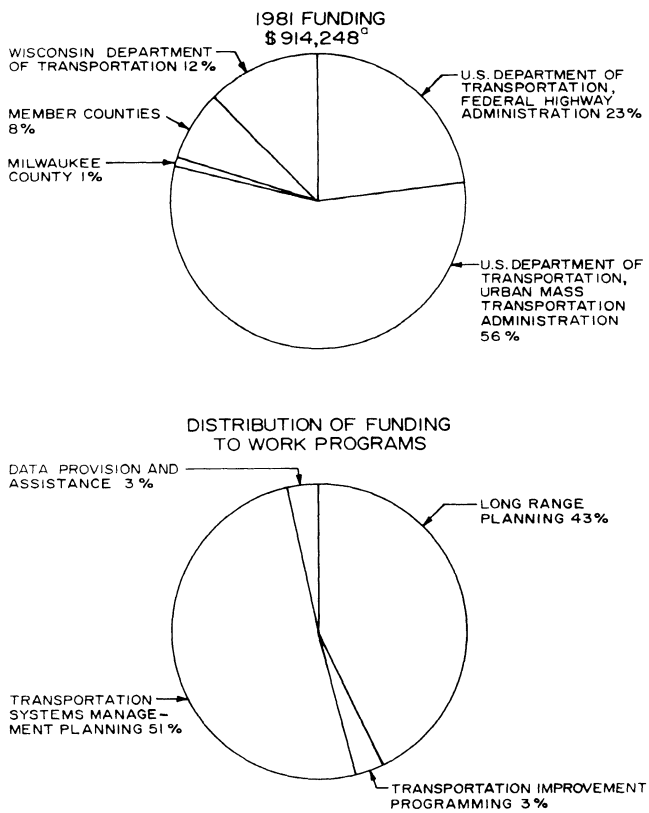
- What are the travel habits and patterns in the Region? How are these changing over time?
- What is the existing supply of transportation facilities?
- How much travel in the future will likely be accommodated by the various travel modes, particularly the private automobile and public transit?
- How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

In attempting to find sound answers to these and other questions, to make plans containing recommendations concerning these questions, and to monitor transportation system development activities in the Region, the Transportation Planning Division during 1981 conducted a number of activities in eight identifiable areas: data collection, collation, and development; long-range planning; transportation systems management planning; transportation improvement programming; rail transportation planning; air transportation planning; and data provision and 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 some cases federal funds for the conduct of these subregional planning efforts "pass through" the Commission to other agencies. Through monitoring of work progress and service on task forces and advisory committees, the Commission is ultimately respon-

Figure 16

TRANSPORTATION PLANNING DIVISION



[a] *Includes $176,000 for agencies other than SEWRPC to conduct subregional transportation planning activities identified in the 1981 SEWRPC Overall Work Program.*

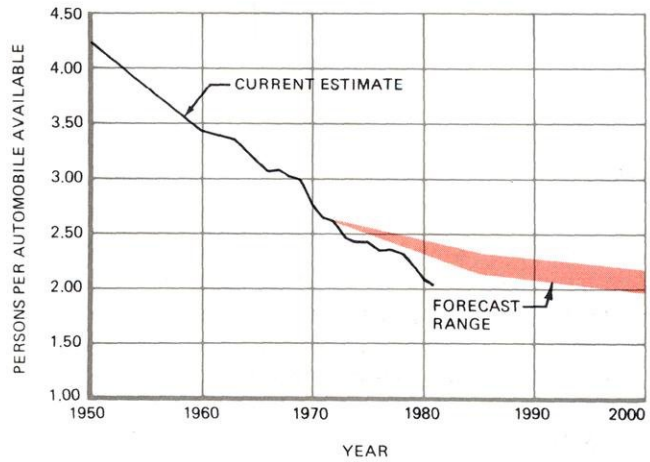
Table 4

AUTOMOBILE AVAILABILITY

County	1963	1980	1981
Kenosha	35,162	57,686	61,827
Milwaukee	304,123	446,112	458,038
Ozaukee	14,319	35,222	36,939
Racine	47,583	82,892	86,574
Walworth.	19,437	33,193	35,397
Washington . . .	16,235	40,198	42,323
Waukesha	61,899	147,182	155,414
Total	498,758	842,485	876,512

Figure 17

PERSONS PER AUTOMOBILE AVAILABLE



sible for all of this transportation-related planning work. Accordingly, all transportation planning activities bearing upon the Commission's overall work program are reported herein irrespective of whether they are directly conducted by the Commission.

DATA COLLECTION, COLLATION, AND DEVELOPMENT

During 1981 the Division staff continued to monitor secondary data sources for changes in automobile and truck availability, mass transit ridership, carpool parking facilities, and traffic volumes.

Automobile and Truck Availability

The number of automobiles available to residents of the Region in 1981 totaled 876,500. This represents an increase of 34,000, or about 4 percent, over the 1980 level of 842,500 (see Table 4). It continues the departure from nearly stable automobile availability observed over the period 1974 through 1978, when the increase in automobile availability averaged only 0.4 percent per year. The 4 percent growth rate is, however, substantially lower than the 5 percent rate of increase experienced in 1980, and the 5.7 percent rate of increase experienced in 1979, and represents a return to the 3.7 percent average annual rate of growth observed between 1963 and 1974. The average annual rate of growth in automobile availability between 1963 and 1981 was 3.2 percent.

The number of persons per automobile within the Region was estimated to be 2.02 in 1981, lower than the estimate of 2.09 in 1980 (see Figure 17).

The estimated number of automobiles available in 1981 may be compared to the forecast range of automobile availability as developed under the long-range regional transportation system plan, as shown in Figure 18 which depicts the historical growth in automobile availability. The 1981 forecast automobile availability ranged from 798,900 automobiles under the adopted regional transportation system plan to 830,400 automobiles under the "no build" alternative, respectively. The 1981 regional automobile availability level of 876,500 is higher than the "no build" forecast by 5.6 percent, and is 9.7 percent higher than automobile availability envisioned under the adopted regional transportation system plan.

The number of motor trucks available in the Region increased during the year to a total of about 133,600, an increase of 1,100 trucks, or 0.8 percent, over the 1980 level of 132,500 trucks (see Table 5). As shown in Figure 19, the increase in trucks over time has been confined almost entirely to the increase in light-duty trucks, which now comprise about 76 percent of total trucks available. Light trucks accounted for about 60 percent of all trucks in 1970 and for about 57 percent of all trucks in 1960. The number of light trucks increased from 97,800 in 1980 to 101,800 in 1981, an increase of 4,000, or 4.1 percent, about the

Figure 18

FORECAST RANGE OF AUTOMOBILE AVAILABILITY

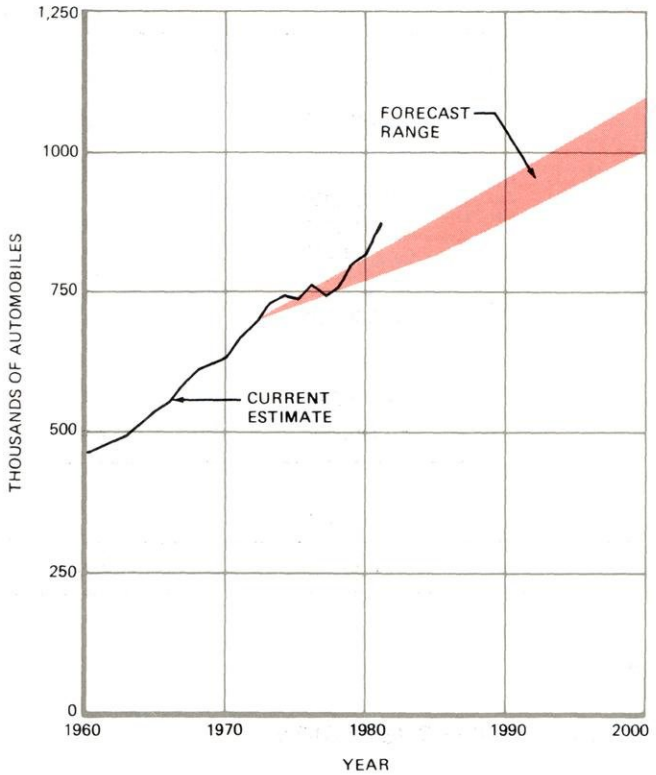
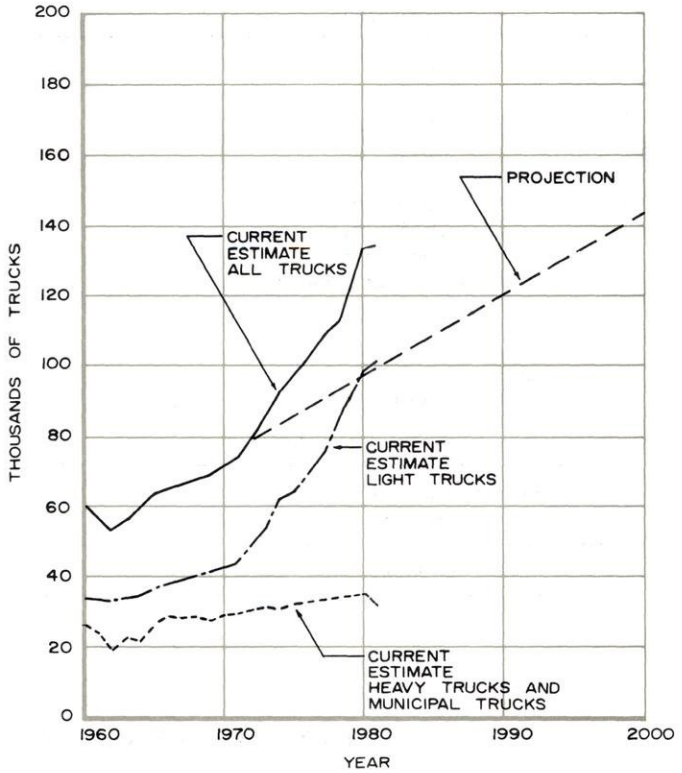


Figure 19

TRUCK AVAILABILITY



same as the 4.0 percent increase in automobile availability. In contrast, the number of heavy trucks and municipal trucks decreased from 34,800 in 1980 to 31,800 in 1981.

Public Transit Ridership

Publicly owned mass transit service is provided in the Region in the Kenosha, Racine, and Milwaukee urbanized areas, and in nonurbanized portions of the Region in the City of Hartford (see Table 6 and Figure 20). In the Kenosha urbanized area, ridership on the fixed route public transit system serving the City of Kenosha declined during 1981, breaking a trend of increasing transit ridership which began in September 1971 with the reestablishment of the Kenosha Transit System under public ownership (see Figure 21). Ridership during the year approximated 1,248,000 revenue passengers, a decrease of about 7 percent from the 1980 ridership level of about 1,342,900 revenue passengers. The decline in ridership can be attributed, in part, to an increase in passenger fares in May 1981 from $0.30 to $0.35 per adult trip, and a reduction in transit service in June 1981, when 30-minute

Table 5

TRUCK AVAILABILITY

County	1963	1980	1981
Kenosha	4,855	12,128	12,117
Milwaukee . . .	25,867	50,629	50,517
Ozaukee	2,286	5,867	5,883
Racine	6,201	15,812	16,441
Walworth. . . .	4,490	10,169	10,415
Washington . .	3,413	10,041	10,207
Waukesha . . .	8,283	27,888	27,996
Total	55,395	132,534	133,576

operating headways provided throughout the service day, as established in early 1980, were eliminated and the system returned to providing transit service with 30-minute peak-period operating headways and 60 minute operating headways during the remainder of the service day. As a result of the service reduction, the number of bus miles operated in revenue service during the year decreased by

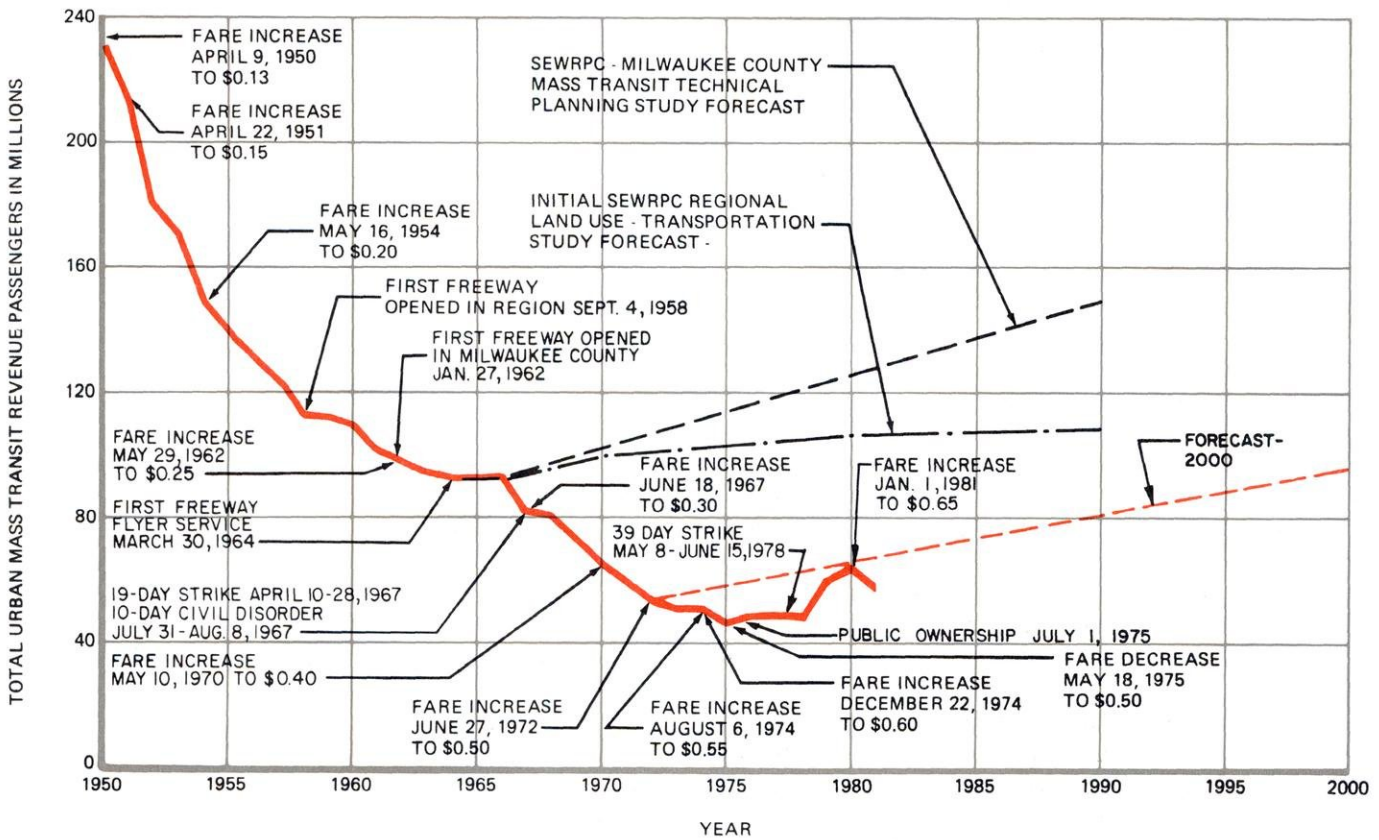
Table 6

PUBLIC TRANSIT RIDERSHIP

Transit Operators by Area	1980	1981	Percent Change
Urbanized Areas			
Kenosha			
City of Kenosha	1,342,900	1,248,000	- 7.1
Milwaukee			
Milwaukee County	57,680,000	53,426,000	- 7.4
Waukesha County	222,200	308,000	38.6
City of Waukesha	--	59,500	--
Wisconsin Coach Lines, Inc.	156,900	147,300	- 6.1
Subtotal	58,061,100	53,940,800	- 7.1
Racine			
City of Racine	2,313,200	2,418,500	4.6
Urbanized Area Totals	61,717,200	57,634,000	- 6.6
Nonurbanized Area			
City of Hartford	--	13,300	--
Total Region	61,717,200	57,620,600	- 6.6

Figure 20

HISTORICAL TREND IN MASS TRANSIT RIDERSHIP IN THE REGION



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

Figure 21

MASS TRANSIT RIDERSHIP
KENOSHA URBANIZED AREA

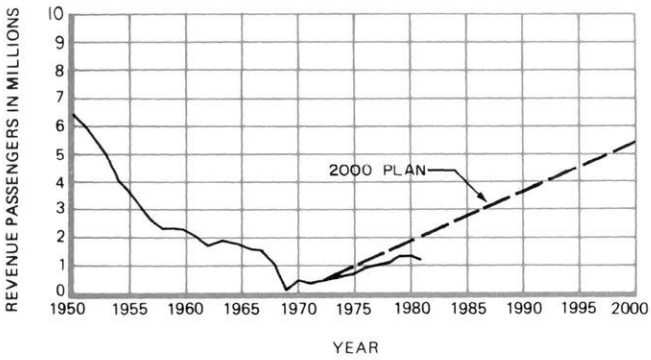
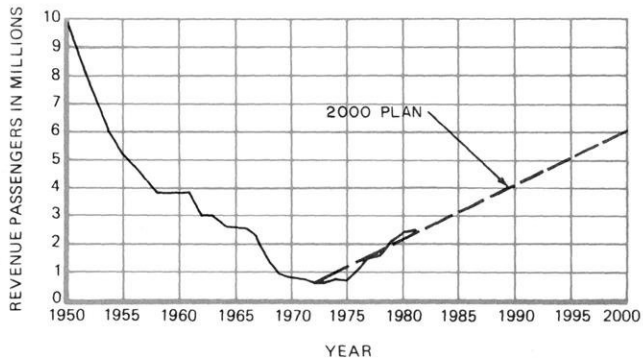


Figure 22

MASS TRANSIT RIDERSHIP
RACINE URBANIZED AREA



about 14 percent from the previous year, from about 871,900 bus miles in 1980 to about 751,500 bus miles in 1981.

In the Racine urbanized area, ridership levels on the fixed route public transit system serving the City of Racine continued to grow. Public transit ridership increased during 1981 to approximately 2,418,500 revenue passengers—an increase of about 105,300 revenue passengers, or nearly 5 percent, over the 1980 level of 2,313,200 passengers (see Figure 22). No significant changes in fares, transit routes, or service levels were made on the Racine system during 1981. The number of bus miles operated in revenue service during 1981 totaled about 1,025,300 which represented an increase of about 1 percent over the 1,013,500 bus miles operated during 1980.

In the Milwaukee urbanized area, publicly subsidized fixed route transit service was provided during 1981 by the Milwaukee County Transit System, Waukesha County, and the City of Waukesha. In addition, fixed route transit service was provided without public subsidy by Wisconsin Coach Lines, Inc., a private transit operator, between the Milwaukee central business district and the Cities of Racine and Kenosha. During the year, several significant changes occurred in the fixed route public transit services available within the urbanized area.

On January 1, 1981, passenger fares for transit service provided by the Milwaukee County Transit System, the primary transit operator within the urbanized area, were increased for the first time since the assumption of public ownership and operation of the transit system on July 1, 1975. Adult cash fares for local and freeway flyer transit service were increased from $0.50 to $0.65 and $0.60 to $0.85, respectively. Several changes were also made to the route structure of the transit system, including the addition of two new express routes to the Milwaukee central business district—one operating primarily over W. Fond du Lac Avenue and one operating primarily over W. Forest Home Avenue—and the institution of a new industry-oriented bus service (IBUS) provided over a single route operated from central Milwaukee County to a major industrial area in the City of Oak Creek.

Waukesha County significantly expanded its publicly supported, fixed route bus service by initiating bus service on April 1, 1981 over seven new bus routes, as recommended by the Commission in SEWRPC Community Assistance Planning Report No. 44, Proposed Public Transit Service Improvements: 1980, Waukesha County, Wisconsin. Operated for Waukesha County on a contract basis by both the Milwaukee County Transit System and Wisconsin Coach Lines, Inc., the seven bus routes included four routes providing modified rapid, or "Freeway Flyer," transit service between the Milwaukee central business district and the Village of Menomonee Falls, the City of Brookfield, the City of Oconomowoc, and the Village of Mukwonago. The other three bus routes provided local bus service from Milwaukee County to the Village of Butler, the Brookfield Square Shopping Center, and the New Berlin Industrial Park. In addition to the new bus services, Waukesha County continued

to provide the commuter-oriented bus service provided in previous years between the Milwaukee central business district and the Cities of Waukesha and Oconomowoc. The new freeway flyer bus routes serving the City of Oconomowoc and the Village of Menomonee Falls, and the local bus route serving the Brookfield Square Shopping Center were successful in attracting significant transit ridership during the year. However, low transit ridership resulted in the modification, during October 1981, of the freeway flyer bus route serving the City of Brookfield, and the cancellation at the end of September and October 1981 of the local bus routes serving the Village of Butler and the New Berlin Industrial Park, respectively. At the end of 1981 changes in the freeway flyer bus route serving the Village of Mukwonago were also under consideration in response to continued low ridership levels.

During 1981, local bus service was reestablished in the City of Waukesha when the City placed into full scale operation a new fixed route transit system as recommended in SEWRPC Community Assistance Planning Report No. 31, Waukesha Area Transit Development Program: 1981-1985. The community had previously been without local bus service since June 1976 when local bus service provided by a private transit operator was discontinued. Using a fleet of 11 leased 45-passenger buses, the new transit system began operation on August 31, 1981 and consists of 10 fixed routes originating at the outer limits of the Waukesha area and terminating at a common transfer point in the Waukesha central business district. At year's end, average weekday ridership on the new transit system had reached about 750 revenue passengers, which exceeded the average weekday ridership of 650 revenue passengers for the system during the first year of operation as forecast in the transit development program.

The number of bus miles operated in revenue service in the Milwaukee urbanized area during the year totaled about 22.4 million, an increase of about 4 percent over the approximately 21.6 million bus miles operated during 1980. This increase in bus miles operated reflects the improvements in transit service which were made during the year. Despite the improvements in transit service, total transit ridership within the Milwaukee urbanized area decreased by about 7 percent from the 1980 ridership level of about 58 million revenue passengers to about 54 million revenue passengers in 1981 (see Figure 23). The major portion of this ridership decrease can be attributed to the decline in ridership experienced by the Milwaukee County Transit System during the year, a decline due in part to the fare increases instituted in January 1981.

Figure 23

MASS TRANSIT RIDERSHIP
MILWAUKEE URBANIZED AREA

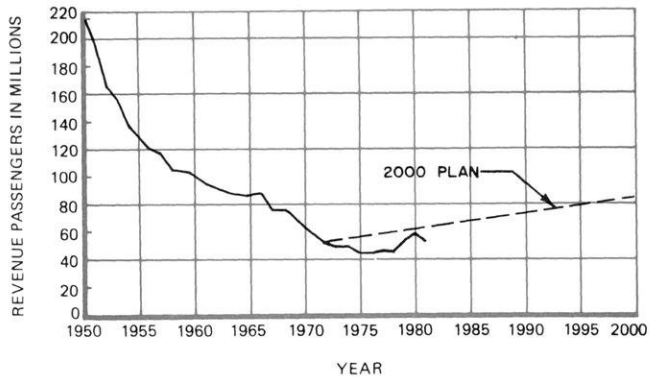
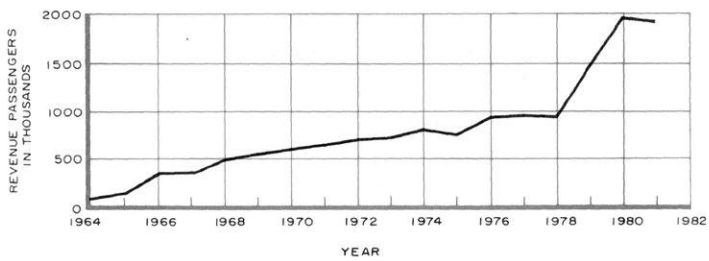


Figure 24

MILWAUKEE URBANIZED AREA
FREEWAY FLYER RIDERSHIP



During 1981, primary transit service in the Milwaukee urbanized area was provided by freeway flyer bus service operated by both Milwaukee and Waukesha Counties from 23 outlying parking terminals to the Milwaukee central business district. Ridership on the freeway flyer bus service totaled about 1,934,300 passengers in 1981, representing a decrease of about 3 percent over the 1,984,700 passengers carried in 1980 (see Figure 24).

Progress in providing the public transit stations recommended in the adopted year 2000 transportation plan is summarized on Map 12. No new public transit stations recommended under the adopted plan were opened during 1981. Table 7

Map 12

PRIMARY TRANSIT SYSTEM PLAN FOR THE MILWAUKEE URBANIZED AREA

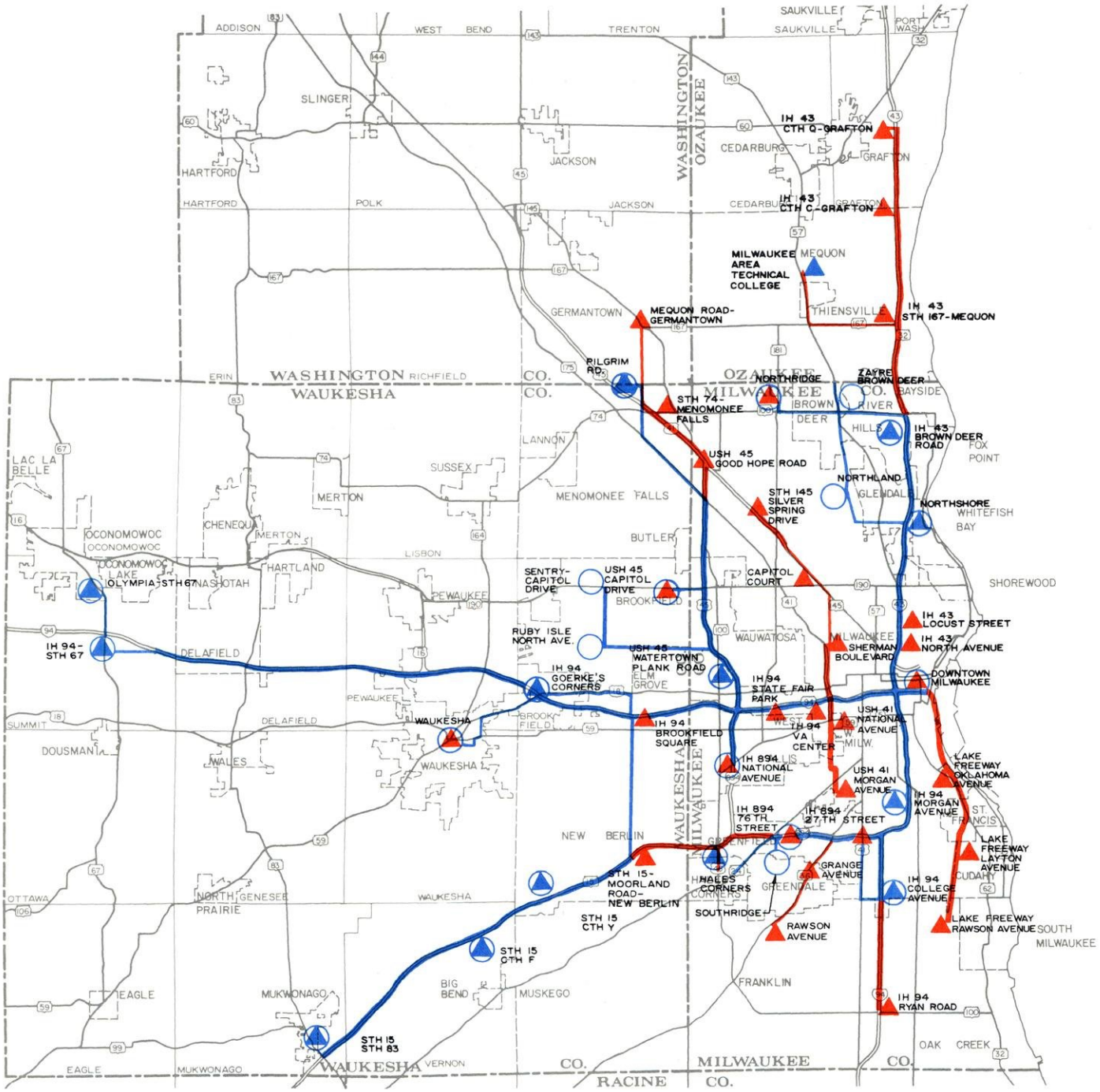


Table 7

USE OF PARKING AT FREEWAY FLYER TERMINALS

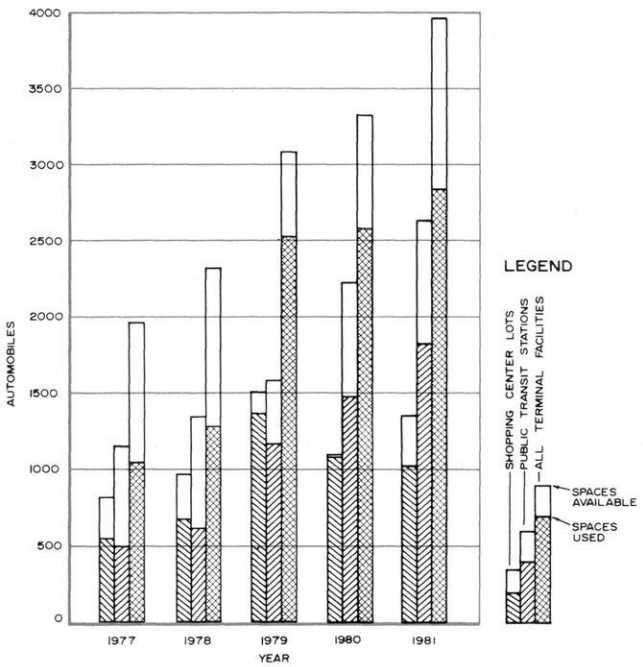
Location	Available Parking Spaces	Autos Parked on an Average Weekday—Fourth Quarter: 1981	Percent of Spaces Used
Public Transit Stations			
W. College Avenue (Milwaukee)	530	426	80
W. Watertown Plank Road (Wauwatosa)	200	177	89
North Shore (Glendale)	190	182	96
Brown Deer (River Hills)	250	188	75
Goerkes Corners (Brookfield)	250	152	61
Milwaukee Area Technical College (Mequon)[a]	200	11	6
W. Holt Avenue (Milwaukee)	240	104	43
Whitnall (Hales Corners)	360	293	81
Pilgrim Road (Menomonee Falls)	70	42	60
STH 67 and IH 94 (Summit)	80	40	50
STH 83 and STH 15 (Mukwonago)	95	82	86
CTH F and STH 15 (Big Bend)	100	65	65
CTH Y and STH 15 (New Berlin)	60	45	75
Subtotal	2,625	1,818	69
Shopping Center Lots			
Northland (Milwaukee)	100	41	41
Zayre-Kohls (West Allis)	250	190	76
Zayre (Brookfield)	200	179	90
Spring Mall (Greenfield)	300	268	89
Southridge (Greendale)	125	85	68
Northridge (Milwaukee)	100	70	70
Zayre (Brown Deer)	125	108	86
Ruby Isle (Brookfield)	50	15	30
Sentry (Brookfield)	50	18	36
Olympia (Oconomowoc)	50	40	80
Subtotal	1,350	1,014	75
Total	3,975	2,832	71

[a]*Public transit service to this station was terminated by the Ozaukee County Board of Supervisors on June 10, 1978.*

and Figure 25 provide data on both the number of parking spaces available and the number of parking spaces used on an average weekday in 1981 by patrons of freeway flyer bus service and carpoolers. As shown in the table, transit service was provided at 12 of the 13 public transit/park-ride stations and at 10 shopping center lots, representing an increase of 9 freeway flyer terminal facilities over the 13 served during 1980. Included in the 13 public transit/park-ride stations are five stations formerly used exclusively as carpool parking lots and provided with freeway flyer bus service for the first time during 1981. These stations are located at USH 41 and Pilgrim Road in the Village of Menomonee Falls, STH 67 and IH 94 in the Town of Summit, STH 83 and STH 15 in the Town of Mukwonago, CTH F and STH 15 in the Town of Vernon, and CTH Y and STH 15 in the City of Muskego. Freeway flyer bus service was also initiated during 1981 to four of the 10 shopping center lots listed in the table, including the Southridge lot in the Village of Greendale, the Ruby Isle lot and Sentry lot in the City of Brookfield, and the Olympia lot in the City of Oconomowoc. The number of spaces available in 1981 at public transit/park-ride stations increased by 405 spaces to a total of 2,625 spaces with the addition of the five carpool parking lots. The number of parking spaces provided at shopping center lots also increased during 1981 by 255 spaces to a total

Figure 25

FREEWAY FLYER PARKING LOT USE



of 1,350 spaces due to the expansion of freeway flyer bus service to the four additional shopping center lots.

Of the 2,625 spaces available at the 13 public transit/park-ride stations, 1,818 spaces were used on an average weekday during the fourth quarter of 1981 representing a utilization rate of 69 percent. Of the 1,350 spaces available at the 10 shopping center lots, 1,014 spaces were utilized during the last quarter of 1981, representing a utilization rate of 75 percent. In total about 71 percent of all available parking spaces were used on an average weekday during the last quarter of 1981.

Publicly operated transit service was also provided in the nonurbanized portion of the region during 1981. In January 1981, the City of Hartford in Washington County initiated operation of a shared ride taxicab service. Operated by the City of Hartford Municipal Recreation Department, the taxicab service is available to the public seven days a week for travel primarily within the Hartford area. One-way adult and student fares for the service were established at $1.00 per one-way trip with a half-fare program provided for elderly and handicapped users. The service was initiated, using federal funds available for capital and operating assistance under the federal Section 18 rural transportation assistance program. During 1981, the Hartford taxicab service carried approximately 13,300 revenue passengers and operated about 17,000 vehicle miles of revenue service.

Transit operating subsidies during 1981 totaled almost $34 million as compared to about $29 million in 1980. The operating subsidies were distributed by urbanized and nonurbanized area as shown in Table 8. The overall public operating subsidy per ride in the Kenosha and Milwaukee urbanized areas increased from about $0.92 in 1980 to about $1.17 in 1981, and from about $0.45 in 1980 to about $0.58 in 1981, respectively (see Figure 26 and 27). The change in Milwaukee reflects the net effect of both an increase in fares and an increase in the level of service. In the Racine urbanized area, the overall operating subsidy per ride increased from about $0.50 in 1980 to about $0.53 in 1981 (see Figure 28). The overall operating subsidy per ride for the taxicab service operated by the City of Hartford during 1981 was about $3.03.

Carpool Parking Facilities

During 1980, the Commission collected data on the use of available parking supply at carpool parking facilities within the Region. As shown in Table 9, 14 publicly owned carpool parking facilities were in operation at key freeway interchanges in the outlying areas of the Region in 1981. Of the 14 lots in operation, three lots are new facilities completed and placed into service during 1981, including the lot located at USH 41 and Lannon Road in Washington County, and the lots located at USH 41 and Pilgrim Road and STH 16 and CTH P in Waukesha County. The completion of these lots and the expansion of the lots at IH 94 and STH 67, and STH 15 and CTH F added 305 parking spaces to the available supply (see Figure 29). During the fourth quarter of 1980, about 468 of the total 957 parking spaces available were used on an average weekday. This represents a utilization rate of 49 percent, and, more significantly, an increase of about 24 percent in the number of parked vehicles from 1980 to 1981. The progress in providing the carpool parking lots recommended in the adopted year 2000 regional transportation plan is summarized on Map 13.

Table 8

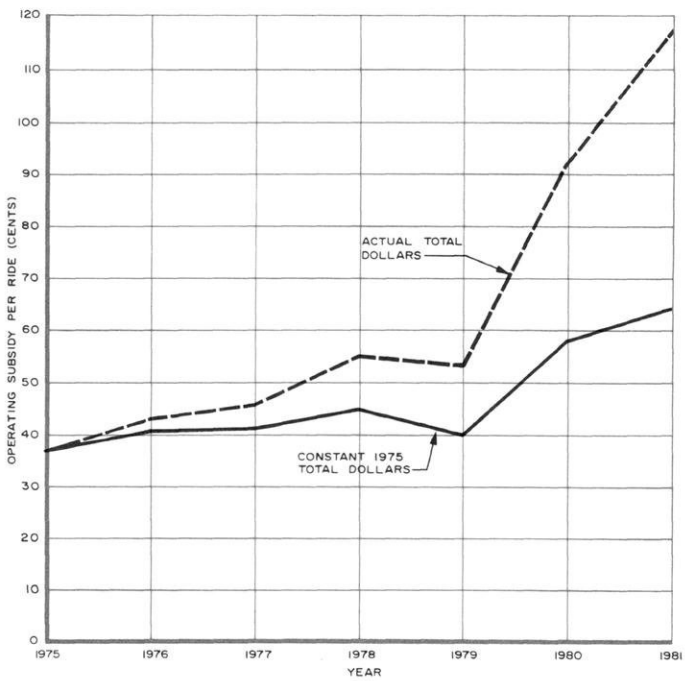
PUBLIC TRANSIT OPERATING SUBSIDIES

Area	Public Transit Operating Assistance (dollars)							
	1980				1981			
	Federal	State	Local	Total	Federal	State	Local	Total
Urbanized Areas								
Kenosha	674,908	343,185	218,657	1,236,750	727,759	443,580	290,443	1,461,782
Milwaukee	10,323,051	11,223,233	4,583,592	26,129,876	9,108,177	15,681,262	6,410,676	31,200,115
Racine	574,836	339,444	238,068	1,152,348	631,430	391,363	256,161	1,278,954
Subtotal	11,572,795	11,905,862	5,040,317	28,518,974	10,467,366	16,516,205	6,957,280	33,940,851
Nonurbanized Areas								
Hartford	--	--	--	--	8,068	11,111	21,105	40,284
Total	11,572,795	11,905,862	5,040,317	28,518,974	10,475,434	16,527,316	6,978,385	33,981,135

Area	Operating Subsidy per Ride (cents)							
	1980				1981			
	Federal	State	Local	Total	Federal	State	Local	Total
Urbanized Areas								
Kenosha	50.2	25.6	16.3	92.1	58.3	35.5	23.3	117.1
Milwaukee	17.8	19.3	7.9	45.0	16.9	29.2	11.9	58.0
Racine	24.8	14.7	10.3	49.8	26.1	16.2	10.6	52.9
Nonurbanized Areas								
Hartford	--	--	--	--	62.6	83.5	158.7	302.9

Figure 26

MASS TRANSIT OPERATING SUBSIDIES IN THE KENOSHA URBANIZED AREA: 1975-1981



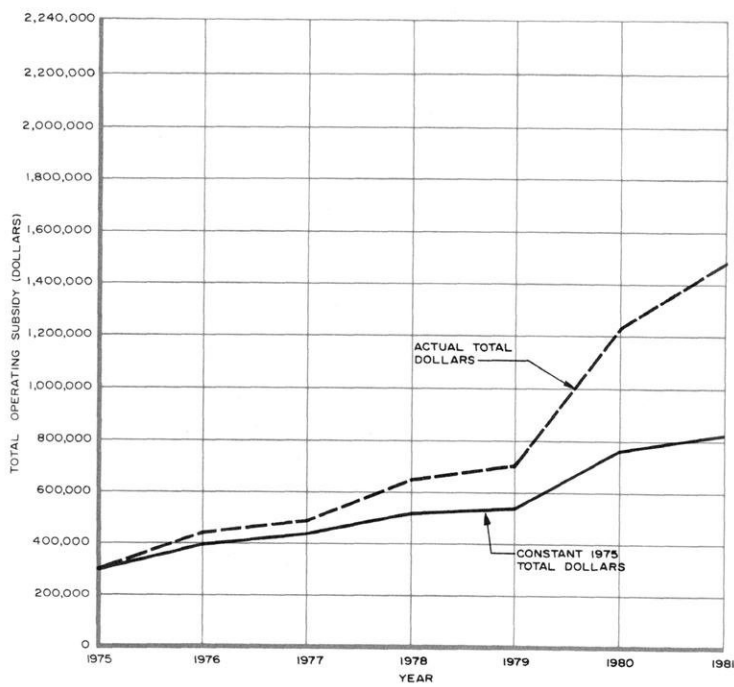
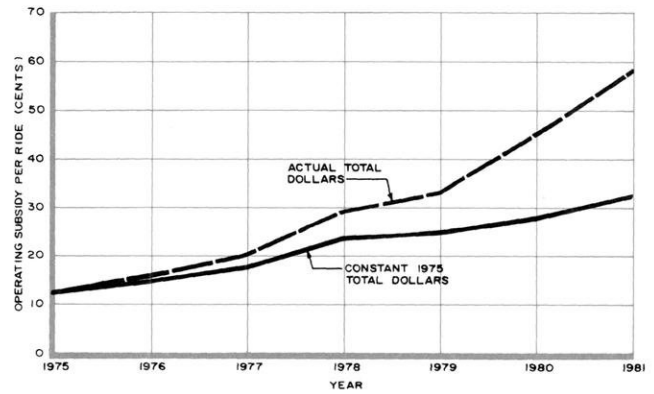


Figure 27

MASS TRANSIT OPERATING SUBSIDIES IN THE MILWAUKEE URBANIZED AREA: 1975-1981



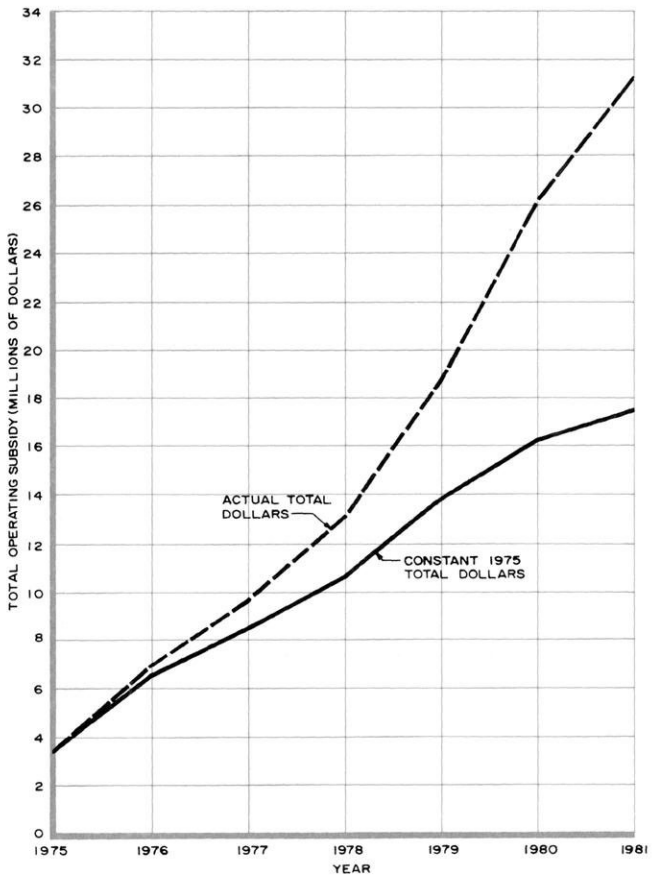
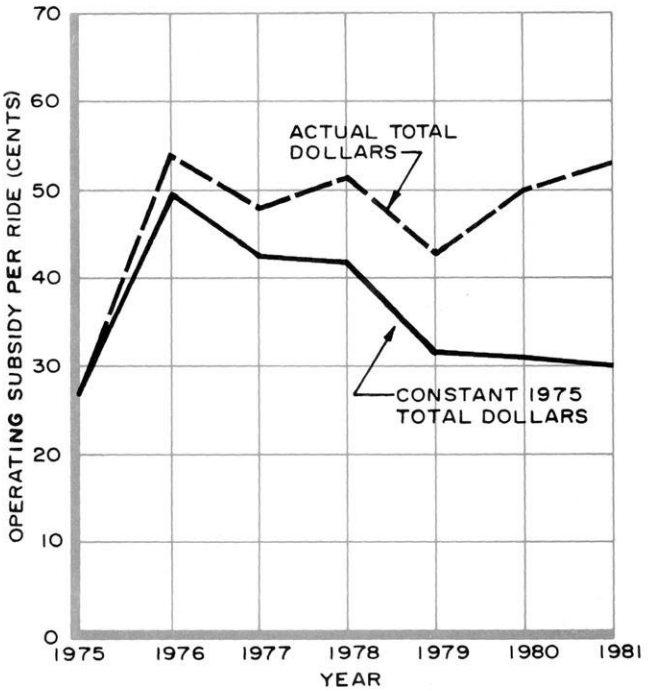
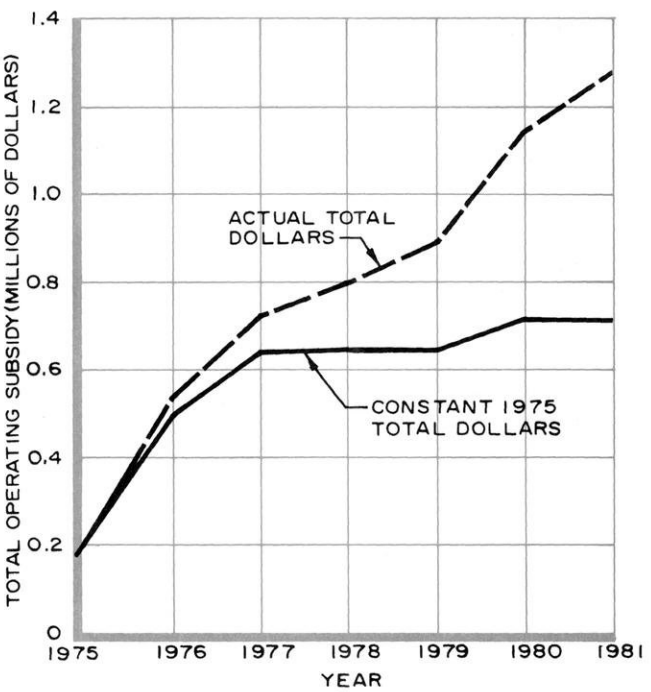


Figure 28

MASS TRANSIT OPERATING SUBSIDIES IN THE RACINE URBANIZED AREA: 1975-1981





Traffic Count Data

The Commission collated traffic count data collected by other state, county, and local agencies during the year. These data are essential to monitoring changes in travel occurring in the Region and to calculating estimates of levels of, and trends in, vehicle miles of travel. During 1981 traffic volume data were collected from the Wisconsin Department of Transportation, the Milwaukee County Department of Public Works, and the City of Milwaukee, all of which operate regular traffic counting programs. These data will be used in 1982 to develop estimates of vehicle miles of travel and to measure the level of congestion occurring on the arterial street and highway system. In

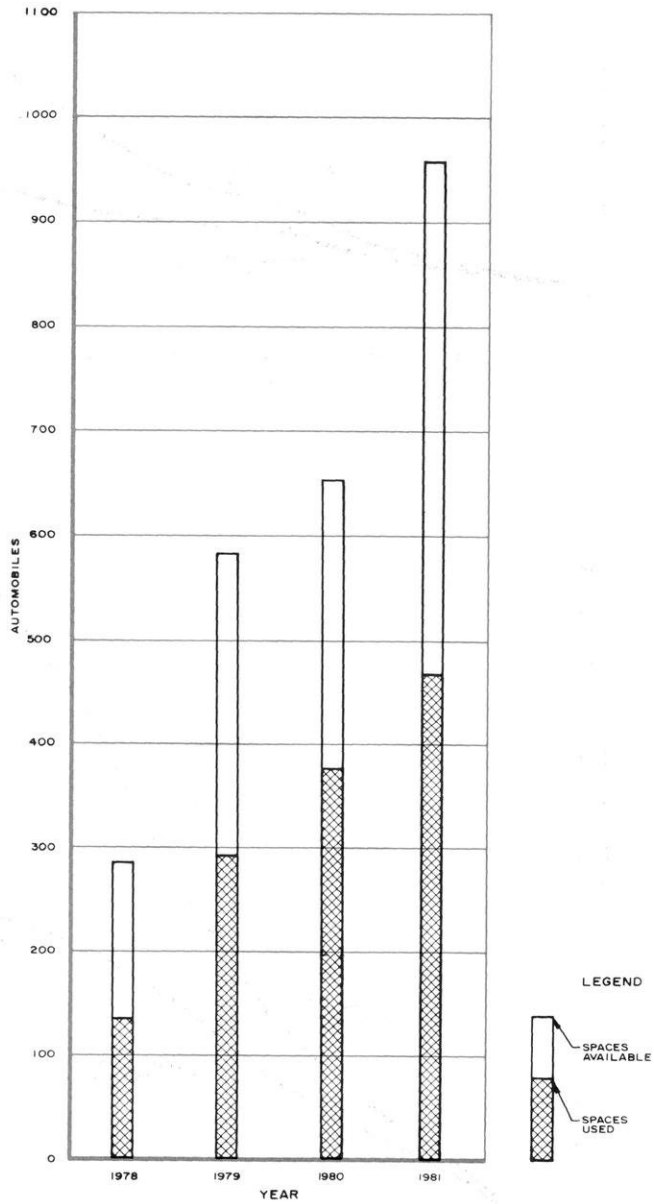
Table 9

USE OF PARKING SUPPLY AT CARPOOL PARKING LOTS

Location	Available Parking Spaces	Autos Parked on an Average Weekday—Fourth Quarter 1981	Percent of Spaces Used
Ozaukee County			
Saukville			
IH 43 and STH 57	100	35	35
Grafton			
IH 43 and CTH C	50	43	86
Fredonia			
STH 57 and STH 84	20	8	40
Washington County			
Germantown			
USH 41 and CTH Y	120	19	16
Waukesha County			
Nashotah			
STH 16 and CTH C	50	21	42
Chenequa			
STH 16 and STH 83	65	15	23
Oconomowoc			
IH 94 and STH 67	80	40	50
STH 16 and CTH P	40	15	38
Delafield			
IH 94 and CTH CC	30	21	70
Pewaukee			
IH 94 and STH 164	77	59	77
Mukwonago			
STH 15 and STH 83	95	82	86
Big Bend			
STH 15 and CTH F	100	65	65
New Berlin			
STH 15 and CTH Y	60	45	75
Menomonee Falls			
USH 41 and Pilgrim Road	70	42	60
Total	957	468	49

Figure 29

CARPOOL PARKING LOT USE



addition, during the year, the Commission staff conducted specialized traffic counts for use in the analysis and planning activities related to 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.

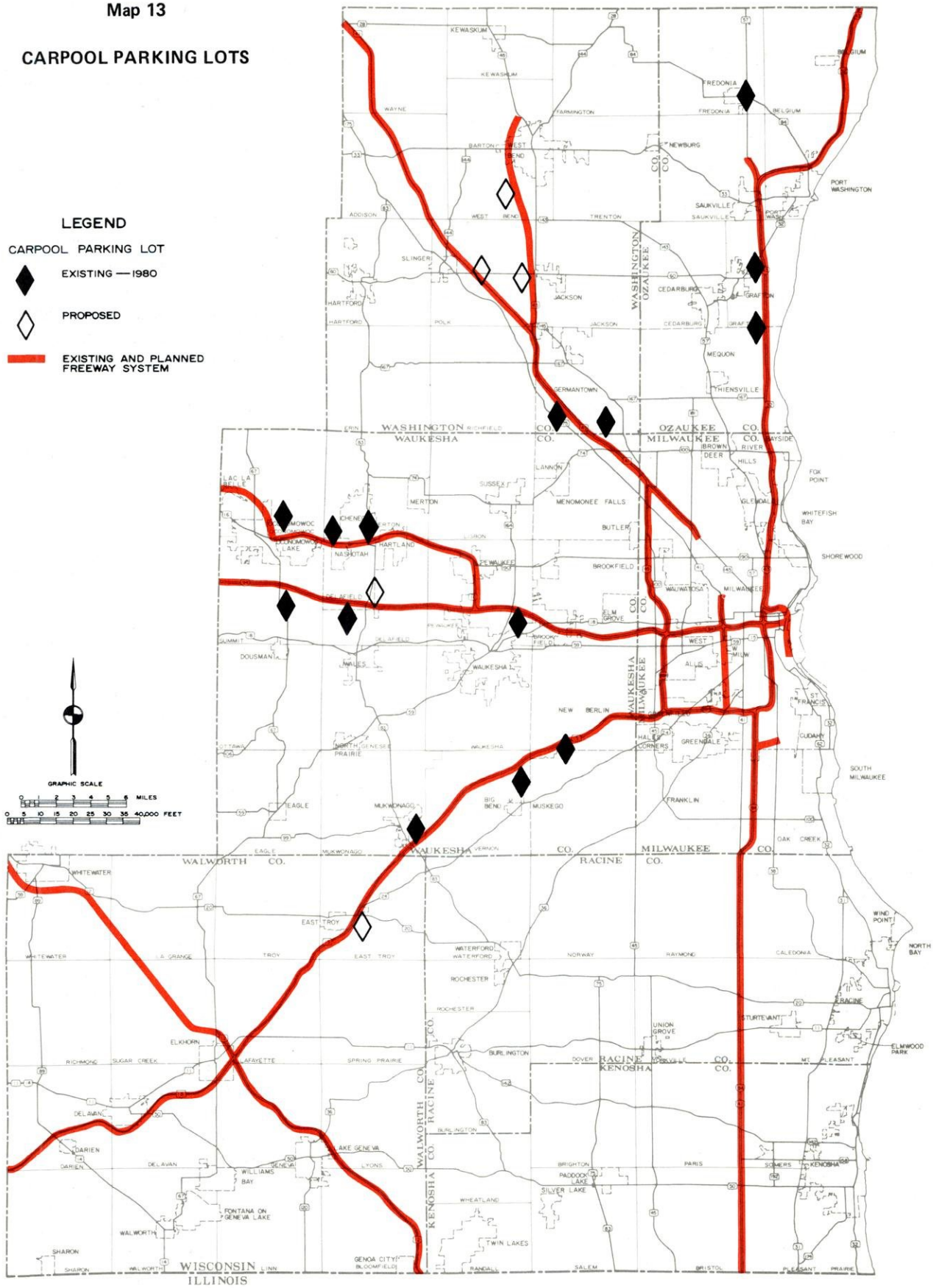
LONG-RANGE PLANNING

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

Map 13

CARPOOL PARKING LOTS



Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, Volume Two, Alternative and Recommended Plans, which extends and amends the regional transportation system plan for the design year 1990, adopted in 1966. The newly adopted plan is graphically summarized on Map 14. The new long-range regional transportation system plan was prepared to accommodate the existing and probable future travel demand in the Region. Such demand is expected to increase by about 28 percent—from a total of about 4.5 million person trips per average weekday in 1972 to about 5.7 million such trips by the year 2000. Total vehicle miles of travel on an average weekday is anticipated to increase by more than 49 percent—from about 20.1 million to about 30.1 million. The design year 2000 regional transportation system plan seeks to provide the Region with a safe, efficient, and economical transportation system which can effectively serve the existing and probable future travel demand within the Region, which will meet the recommended regional transportation system development objectives, and which will serve and promote implementation of the adopted regional land use plan.

With respect to freeways, the plan does not include a number of previously planned freeways, including the Metropolitan Belt Freeway, the Bay Freeway from Pewaukee to Whitefish Bay, the Stadium Freeway-North, the Park Freeway-West, and the Racine Loop Freeway. The remaining previously proposed freeways were included in the new plan in one of two tiers. In the lower tier are the following freeways recommended for construction in the relatively near-term future: the Stadium Freeway-South to W. Lincoln Avenue, the West Bend Freeway (USH 45), the USH 41 Freeway conversion in Washington County, the USH 16 Freeway in Waukesha County, and the USH 12 Freeway in Walworth County. The remaining proposed freeways in Milwaukee County, including the Stadium Freeway-South from W. Lincoln Avenue to the Airport Freeway (IH 894) and the Downtown Loop Freeway, were placed in the upper tier of the plan. These proposed freeways represent facilities which Commission studies indicate will be needed if regional population, employment, urban development, and travel demand increase in accordance with the forecasts on which the long-range system plan is, in part, based. One other previously proposed freeway—the Lake Freeway-South—was included in both the lower and upper tiers of the plan, that portion south to E. Layton Avenue in the lower tier and that portion from E. Layton Avenue to the Illinois-Wisconsin State Line in the upper tier. As discussed below, during 1981 the plan was amended to replace the Lake Freeway-South with a four-lane limited access surface arterial.

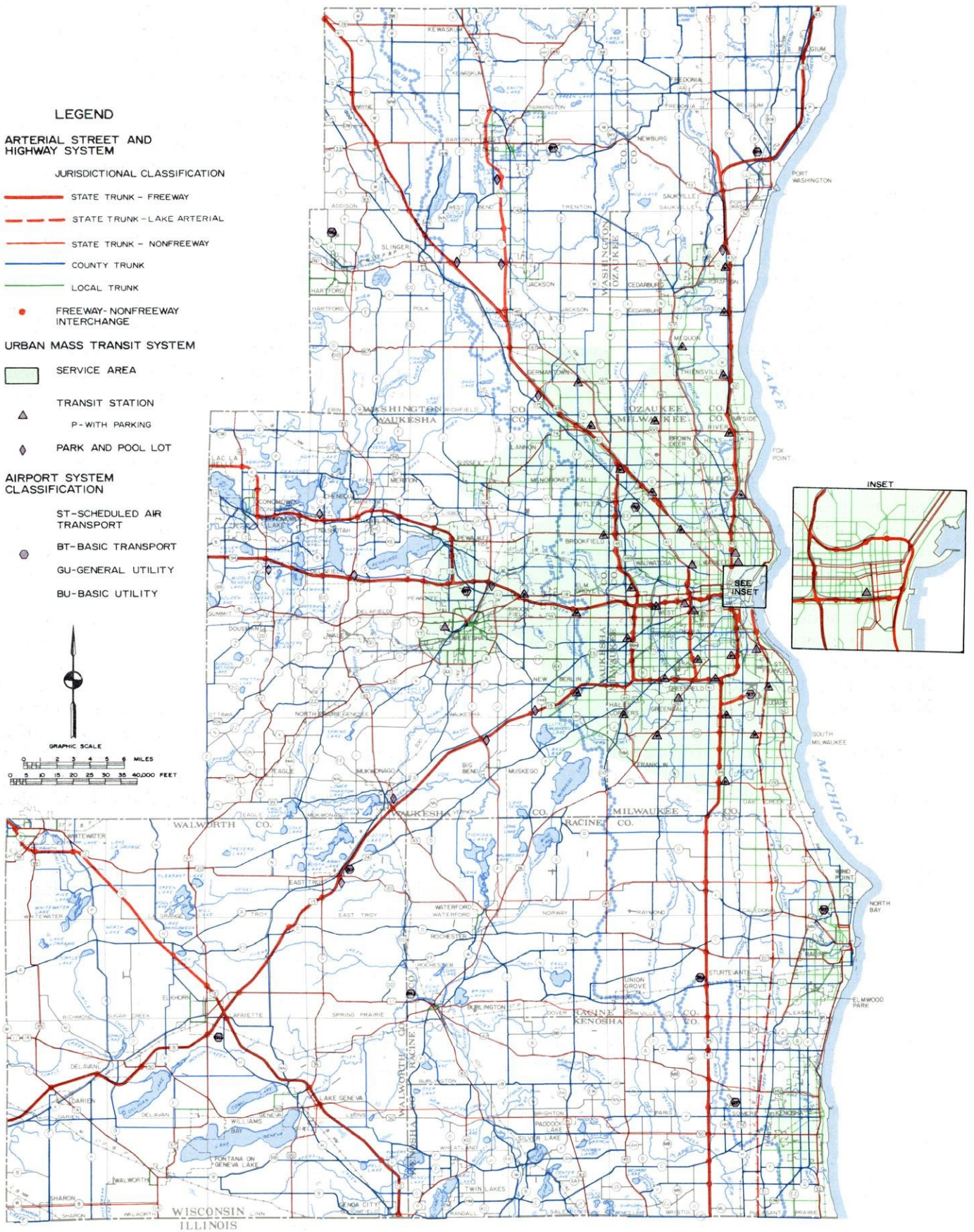
The plan also recommends that attempts be made to reduce vehicular travel demand through transportation system management actions, including the institution of auto use disincentives, particularly in terms of the parking rate structure in downtown Milwaukee, extensive freeway ramp metering, increased carpooling and vanpooling, work time rescheduling, and improved mass transit service. The plan envisions that if such management measures encourage a sufficient shift from the automobile mode to transit and other high-occupancy vehicle modes of travel, it may never be necessary to construct those freeway segments placed in the upper tier of the plan. Along with these recommendations, the adopted regional transportation plan recommends that certain freeway modifications and ramp improvements be made to effect better transitions between existing "stub ends" of the freeway system and the surface arterial system.

The adopted regional transportation plan also contains extensive recommendations relative to the maintenance and improvement of the standard surface arterial streets and highways in the Region, as well as recommendations directed at improving public transit facilities and services. The adopted plan envisons undertaking a series of extensive transportation system management actions, including the institution of a freeway traffic management system, work time rescheduling, the elimination of curb parking facilities, changing the parking rate structure in downtown Milwaukee, and the promotion of ridesharing. These management recommendations would be designed to accomplish five objectives: to ensure that maximum use is made of existing transportation facilities before commitments are made to new capital investment; to encourage the use of high-occupancy vehicles, including buses, vans, and carpools; to reduce vehicle use in congested areas; to effect motor fuel savings; and to reduce air pollutant emissions.

A more complete description of the adopted year 2000 regional transportation plan is set forth in the Commission 1978 Annual Report. By the end of 1981, this new plan had been adopted by the Kenosha, Ozaukee, Racine, and Waukesha boards of supervisors; by the common councils of the Cities of Burlington and Milwaukee; by the Vil-

Map 14

REGIONAL TRANSPORTATION SYSTEM PLAN FOR SOUTHEASTERN WISCONSIN REGION: 2000



lage Board of the Village of River Hills; and by the plan commissions of the City of Oconomowoc and the Town of Dover. In addition, the new plan had been accepted and/or endorsed by the U. S. Department of Transportation, Federal Highway Administration and Urban Mass Transportation Administration, and by the Wisconsin Department of Transportation.

At the time of its endorsement of the plan in August 1978, the Wisconsin Department of Transportation advised the Commission that funding constraints would likely preclude the construction of the Lake Freeway-South for at least the next decade. The Department, therefore, suggested that nonfreeway alternatives to effecting an appropriate connection to the southerly terminus of the Daniel Webster Hoan Memorial Bridge be considered by the Commission and the local units of government concerned.

Accordingly, the Commission, under the aegis of its Vice-Chairman Harout Sanasarian, held numerous meetings on this matter with representatives of the business, industrial, and labor communities, and with appointed and elected officials of the Cities of Cudahy, Milwaukee, Oak Creek, St. Francis, and South Milwaukee. The most widely accepted nonfreeway alternative emerging from these meetings called for the construction of a four-lane, limited access surface arterial extending from the southerly terminus of the Hoan Bridge through Milwaukee, Racine, and Kenosha Counties.

A preliminary feasibility report was cooperatively prepared by the staffs of the Milwaukee County Board, the Milwaukee County Department of Public Works, the Wisconsin Department of Transportation, and the Commission pertaining to that portion of the Lake Freeway-South corridor from the Hoan Bridge south to E. Layton Avenue. The report concluded that a limited access, four-lane surface arterial facility could be constructed along the Chicago & North Western Railway right-of-way south of the Hoan Bridge to E. Layton Avenue without significant community disruption and for approximately one-third of the estimated cost of construction of the planned Lake Freeway in the same corridor. Consequently, the Milwaukee County Board of Supervisors, with the approval of the Milwaukee County Executive, requested and recommended in May 1981 that the Commission remove the Lake Freeway-South from the adopted regional transportation system plan for the year 2000 and substitute in its place the proposed four-lane, surface arterial facility. The Commission subsequently acted in June 1981 to amend the adopted transportation plan to reflect the replacement of the Lake Freeway-South facility with a four-lane, limited access surface arterial extending from the south end of the Hoan Bridge through Milwaukee, Racine, and Kenosha Counties along the alignment previously defined for the Lake Freeway-South and in general accord with the preliminary feasibility report prepared by Milwaukee County. At the same time, the Commission also requested the Wisconsin Department of Transportation to conduct a preliminary engineering study for that portion of the recommended facility addressed by the Milwaukee County report, and a feasibility study for that portion of the facility extending south from E. Layton Avenue, the latter study to help define a desirable southern terminus as well as a location and configuration for the proposed facility.

Milwaukee Northwest Side/Ozaukee County Transportation Improvement Study

When the Commission deleted the Park Freeway-West and the Stadium Freeway-North from the regional transportation system plan in 1978, it directed that a special study be undertaken in cooperation with the Wisconsin Department of Transportation, Ozaukee County, Milwaukee County, the concerned local units of government within those counties, and concerned citizens of the best way to meet the existing and probable future transportation needs of the subarea of the Region proposed to have been served by these two freeways in the absence of such freeways. Such a study would have two distinct and related purposes: first, to identify in a definitive manner the effect of the removal of the two freeways from the long-range plan on the northwestern quadrant of the Milwaukee urbanized areas of Ozaukee and Milwaukee Counties; and second, to explore alternative means, including low-capital intensive systems management measures and more capital-intensive surface arterial improvements, of providing an improved level of transportation service to the affected area within acceptable limits of cost and negative social, economic, and environmental impacts.

The Milwaukee Northwest Side/Ozaukee County transportation improvement study is being conducted with the help of an 18-member Technical and Citizens Advisory Committee, whose membership is set forth in Appendix B. During 1981 the

interagency study staff and the Advisory Committee completed the following work activities under this study:

1. The development and evaluation of alternative short-range traffic management actions for each congested intersection along 20 identified problem arterial street segments. Actions to abate the congestion were selected from among the alternatives evaluated. Such actions would abate congestion at 70 intersections along the 20 arterial street reaches and would abate either inefficient signal timing or inadequate turn lane storage capacity problems at 20 additional intersections.

2. The completion of a prototype analysis of congestion and accident problems which occur between signalized intersections at median openings along divided portions of arterial streets. The prototype arterial selected involved a median-divided portion of N. 76th Street from W. Grantosa Drive to W. Bradley Road.

3. The development and evaluation of alternative short-range plans addressing identified public transit system problems in the study area. A short-range plan for public transit was selected featuring two additional park-ride lots, two new express bus routes, and one new transit transfer center.

4. The completion of all planning work relative to the "stub end" treatment of the Park Freeway-West and Park Freeway-West northern spur at the Hillside Interchange on IH 43. Under the recommended alternative, a freeway on-ramp would be provided to both the southbound lanes of IH 43 and the eastbound lanes of the Park Freeway-East, and a freeway off-ramp would be provided from both the northbound lanes of IH 43 and the westbound lanes of the Park Freeway-East. Both the freeway on- and off-ramps would connect directly to the arterial street system at the intersection of W. Fond du Lac Avenue and W. Walnut Street. Also under the recommended plan, the existing ramp bridges and ramps previously constructed for the Park Freeway-West northern spur would be removed in order to facilitate the provision of three continuous lanes for through traffic both northbound and southbound on IH 43 through the Hillside Interchange.

5. Preliminary work was completed on 10 alternative plans for the "stub end" treatment of the Stadium Freeway-North into the surface arterial street system. At year's end the Advisory Committee had not selected a recommended alternative for this matter.

6. Initiation of work on the preparation of a long-range transportation system plan to resolve any transportation system problems and deficiencies that cannot be resolved in the short-range plan implementation efforts.

At year's end work on the study was continuing on the long-range planning efforts. It is expected that this last phase of the planning effort will be completed late in 1982 with public hearings on the entire plan to be scheduled at that time.

MILWAUKEE AREA PRIMARY TRANSIT SYSTEM ALTERNATIVES ANALYSIS

The Commission continued, during 1981, to work on a study of alternative means of providing rapid transit service throughout the Region. This study was undertaken by the Commission at the request of Milwaukee County Executive William F. O'Donnell, who was particularly interested in determining whether or not it would be feasible to establish some form of light rail transit in the greater Milwaukee area. To meet federal planning guidelines and to meet a specific request of Congressman Henry S. Reuss, the scope of the study was expanded to also consider the feasiblity of providing rapid transit service by bus-on-freeway, bus-on-metered freeway, bus-on-reserved freeway lanes, bus-on-busway, heavy rail rapid transit, and commuter rail transit, as well as by light rail transit. The objectives of this study are, first, to identify those corridors within the greater Milwaukee area which can best support rapid transit facility development and, second, to identify those transit modes which can best provide the rapid transit service within those corridors.

As reported in the Commission's 1980 Annual Report, the results of this detailed and complex study are being presented in a series of four Commission technical reports and one summary planning report. Two of the four technical reports present the findings of the inventories conducted under the study. The first—SEWRPC Technical Report No. 23, Transit-Related Socioeconomic, Land Use, and Transportation Conditions and Trends in the Milwaukee Area—presents data pertinent to sound rapid transit system planning in the greater Milwaukee area, including data on

demographic and economic characteristics; land use development; travel habits and patterns; public financial resources; the location, capacity, and utilization of existing and proposed transportation facilities; and the potential for existing right-of-ways in the area to readily accommodate the development of rapid transit facilities. This technical report was published in 1980.

The second of the two inventory technical reports, SEWRPC Technical Report No. 24, State-of-the-Art of Primary Transit System Technology—identifies those transit technologies which can be considered to be proven and available for application in the provision of rapid transit service in the greater Milwaukee area within the next 20 years and summarizes and compares their geometric design, performance, and operational and economic characteristics. This report was completed and published during 1981.

The third technical report—SEWRPC Technical Report No. 25, Alternative Futures for Southeastern Wisconsin—describes the range of future development conditions that may be expected in the greater Milwaukee area over the next 20 years. This range of future development conditions was used as a basis for the design, testing, and evaluation of those rapid transit technology alternatives determined to be proven and available for use. This report was published in 1980.

The fourth technical report—SEWRPC Technical Report No. 26, Milwaukee Area Alternative Primary Transit System Plan Preparation, Test, and Evaluation—documents procedures used in, and the results of, the design, test, and evaluation of alternative rapid transit systems under the study. This report also summarizes the decisions and recommendations of the Commission's Advisory Committee guiding the conduct of the study with respect to rapid transit system development in the Region up to the point where public review and comment was sought. This report was completed and readied for the printer by the end of 1981.

The summary planning report—SEWRPC Planning Report No. 33, A Primary Transit System Plan for the Milwaukee Area—was also nearly completed during 1981. At year's end the Advisory Committee had determined that two final plans should be prepared and presented at a series of public informational meetings and at a public hearing. One of the two plans would be a bus-on-freeway plan and would represent a continued public commitment to the provision of rapid transit service in the Milwaukee area exclusively through the bus-on-freeway mode. The other plan would recognize the importance of the intangible advantages inherent in light rail transit technology and would recommend implementation of that technology in the Milwaukee area in at least one important travel corridor. This would be done by dividing that second plan into lower and upper tiers. The lower tier would seek to implement a basic bus-on-freeway system plan, together with a light rail transit facility in the northwest travel corridor of the Milwaukee area—one of the corridors not served by existing or proposed freeway facilities. Under the upper tier of that plan, certain of the bus-on-freeway routes would eventually be converted to light rail transit or commuter rail operation depending upon future conditions.

The results of the Commission's primary transit system alternatives analysis were summarized in two issues of the Commission Newsletter—Vol. 21, Nos. 5 and 6. These newsletters were widely distributed late in 1981 and formed the basis for public information and review accomplished through informational meetings and hearings scheduled in early 1982.

TRANSPORTATION SYSTEMS MANAGEMENT PLANNING

The Commission also continued during 1981 a number of planning efforts designed to result in recommendations to better manage the Region's transportation system. Generally, these consist of short-term planning and management efforts carried out not only by the Commission but also by other agencies, particularly Milwaukee County. All of these planning activities were recommended in the Commission's transportation systems management plan adopted in 1978. The following provides a discussion of Commission and related agency work efforts in this area.

Work Time Rescheduling

Work time rescheduling—flexible work hours, staggered work hours, shifted work hours, and shortened work hours—represents one way to reduce peak travel demands on the transportation system. Accordingly, a study of the potential of work time rescheduling to reduce peak travel demands, including the development of a plan for its most effective implementation, was recommended in the regional transportation systems management plan. In accor-

dance with a prospectus published in 1978, the Commission initiated the conduct of a Milwaukee area work time rescheduling study late in 1979 and continued to conduct the study throughout 1980. During 1981, work on the study was completed and the final report published as SEWRPC Technical Report No. 27, Milwaukee Area Work Time Rescheduling Study.

The study included inventories 1) of the existing degree of highway and transit congestion by hour during the three-hour morning and afternoon Milwaukee area peak travel periods; 2) of Milwaukee area employees current work schedules and the existing extent of the use of work time rescheduling; and 3) of managerial attitudes towards, and other constraints on, the implementation of additional work time rescheduling. The following is a summary of the findings of these inventories:

- In 1978, approximately 93 miles of arterials, or 7 percent of the total arterial system, were operating over design capacity in the Milwaukee area during the morning peak highway travel hour of 7:00 to 8:00 a.m. In addition, approximately 88 miles, or 7 percent of the total arterial system, were operating at design capacity during the morning peak hour. The traffic congestion during the morning peak travel hour accounted for over 71 percent of the total mileage of arterial facilities operating over design capacity in the Milwaukee area during the three-hour morning peak travel period—which includes the peak hour and the hour preceding and following that peak hour—and over 57 percent of the mileage of arterials operating at design capacity in the three-hour morning peak periods.

- During the afternoon peak highway travel hour, approximately 112 miles of arterials in the Milwaukee area, or 9 percent of the total arterial system, were operating over design capacity. In addition, approximately 136 miles, or 10 percent of the total arterial system, were operating at design capacity during the afternoon peak hour. The traffic congestion in the afternoon peak hour accounted for about 45 percent of the total mileage of arterials in the Milwaukee area operating over and at design capacity during the three-hour afternoon peak travel period.

- The demand for, and operation of, transit service in the Milwaukee area was even more peaked in the morning and afternoon than the demand for arterial street and highway facilities. In the winter of 1978 nearly 10,600 passengers passed the maximum load points on the Milwaukee County Transit System local bus routes between 7:00 a.m. and 7:30 a.m. and about 10,100 passengers passed local bus route maximum load points between 3:30 and 4:00 p.m. In a typical half-hour midday period, the number of passengers passing maximum load points total only about 3,500 passengers. As a result, as many as 500 buses were required to be in operation during the peak periods, while fewer than 300 buses were required to be in operation during the midday period. This period of transit service, besides affecting total bus fleet and driver needs, created a need for complex driver schedules and split shifts to provide adequate transit service during the peak and off-peak time periods.

The amount of potential congestion abatement in the Milwaukee urbanized area was measured under the study by determining whether sufficient traffic on congested segments of the arterial street and highway system during the peak highway travel hours could be shifted to hours preceding and/or following the peak hours to abate peak-hour congestion without causing an increase in traffic congestion in those adjacent hours. This demonstration of the maximum potential of work time rescheduling was accomplished in three steps. First, the major problem segments of arterial facilities operating at or over design capacity during the morning and afternoon peak highway travel hours of 7:00 a.m. to 8:00 a.m. and 4:00 p.m. to 5:00 p.m. in 1978 were identified. Second, the number of work trips made by automobile on each problem segment during the peak hours was determined to establish the maximum number of trips which could potentially be shifted to reduce traffic congestion through work time rescheduling. Third, work-related automobile traffic in the peak hours was hypothetically shifted to adjacent hours and the attendant effect on traffic congestion in these hours was determined.

Seven hypothetical work time rescheduling programs were tested to determine the maximum potential of work time rescheduling to abate peak-

hour, work-related automobile traffic to the preceding or following hours, as shown in Table 10. Five of the programs were designed to determine the impact of shifted, staggered, and flexible work hour programs. Two of these five programs were designed to eliminate the at-design capacity, peak-hour operation of arterials as well as the more severe over-design capacity, peak-hour operation of arterials. Three of these five programs sought to abate only the over-design capacity, peak-hour operation of the arterials. The remaining two of the seven programs tested were designed to provide a measure of the potential benefits of shortened work week programs. One of these programs had the ambitious objective of reducing both at- and over-design capacity operation, while the other had the more limited objective of reducing only the over-design capacity operation.

All seven hypothetical work time rescheduling programs were found to provide some reduction of peak-hour arterial highway congestion in the Milwaukee area and of attendant fuel consumption and air pollution emissions. However, each of the programs was also found to result in increases in traffic congestion and attendant fuel consumption and air pollutant emissions during the hours preceding and following the peak hours.

Those work time rescheduling programs with the more limited objectives of minimizing only over-design capacity, peak-hour arterial operation were found to result in from 21 to 42 percent reductions in the total mileage of arterial facilities operating at over-design capacity during those three-hour morning and afternoon peak periods. However, the total mileage of arterial facilities operating at design capacity during those three-hour peak periods was found to increase with the percentage of increase being greater than the percentage of decrease in the mileage of arterials operating at over-design capacity.

Those work time rescheduling programs with the more ambitious objective were determined to have a greater potential for congestion reduction; in fact, they approached a total abatement of peak-hour congestion without substantially increasing congestion during the surrounding hours. During the three-hour morning peak period, the total mileage of arterials operating at over-design capacity could be reduced by 22 to 29 percent and the total mileage of arterials operating at design capacity could be reduced by 13 to 56 percent. In the afternoon peak period, a substantial reduction in congestion could also be expected, but only in the mileage of these arterials operating at design capacity.

Under both the ambitious and the more limited programs, fuel consumption and carbon monoxide and hydrocarbon air pollutant emissions would generally be reduced on the problem segments. During the morning peak travel period, motor fuel consumption could be expected to be reduced by an average of 7 percent, carbon monoxide emissions by 11 percent, and hydrocarbon emissions by 10 percent. During the afternoon peak travel period, motor fuel consumption could be expected to be reduced by an average of 1 percent, carbon monoxide emissions by 2 percent, and hydrocarbon emissions by 2 percent. However, even the greatest of these reductions in the peak periods on the problem segments would be no more than 4 percent of the total emissions and fuel consumption over the entire Milwaukee arterial system during the peak periods and no more than 1 percent of the same on an average weekday.

Work time rescheduling was found to have somewhat greater potential public transit benefits. Averaging of transit demand over the three-hour morning and afternoon peak periods was determined to provide a potential reduction in the total peak bus fleet and driver requirements of about 20 percent and, accordingly, an attendant reduction in transit system operating and capital cost. The magnitude of the potential savings in capital cost is indicated by the fact that a replacement of 20 percent of the Milwaukee County transit system fleet in 1979 would require 115 buses at a total estimated cost of $16,100,000 in 1979 dollars. The magnitude of the potential savings in operating costs is indicated by the difference in cost between strictly peak-hour service on the Milwaukee County transit system—$25 per bus hour—and the off-peak service currently operated—$20 per bus hour—is $5 per bus hour, expressed in 1978 dollars.

The study concluded, however, that it is unlikely that the potential benefits of work time rescheduling discussed above could be obtained within the Milwaukee area given the practical degree of employer participation determined to be possible in the area under study. To achieve the maximum highway congestion reduction impacts, the more ambitious work time rescheduling programs would require an average shifting of 20 percent of the work trips made on both the 177 miles of morning

Table 10

HYPOTHETICAL WORK TIME RESCHEDULING SHIFT PATTERNS OF PEAK-HOUR WORK TRIPS TO ADJACENT HOURS

Shift Pattern	Peak-Hour Trips Shifted if Peak-Hour Traffic Volumes Equals or Exceeds:[a]	Peak-Hour Trips Shifted Until Peak-Hour Traffic Volumes Reaches:[a]	Distribution of Trips Shifted from Peak Hour[b]
1	At-design capacity	Under-design capacity	Half to preceding hour and half to following hour
2	Over-design capacity	At-design capacity	Half to preceding hour and half to following hour
3	At-design capacity	Under-design capacity[c]	Half to preceding hour and half to following hour
4	Over-design capacity	At-design capacity[c]	Half to preceding hour and half to following hour[c]
5	Over-design capacity	At-design capacity[c]	Trips shifted first to preceding hour until it reaches the upper limit of at-design capacity operation and then any remaining trips are shifted to the following hour[c]
6	At-design capacity	Under-design capacity	All to preceding hour in morning and all to following hour in evening (trips shifted are reduced by 20 percent as the pattern represents a shortened work week program)
7	Over-design capacity	At-design capacity	All to preceding hour in morning and all to following hour in evening (trips shifted are reduced by 20 percent as the pattern represents a shortened work week program)

[a] *The number of trips shifted cannot exceed the estimated number of work trips on a segment.*

[b] *Additional peak-hour trips cannot be shifted if they would cause the preceding or following hours to be assigned traffic volumes exceeding maximum capacity.*

[c] *If the number of peak-hour trips shifted would cause the preceding or following hour to operate at over-design capacity, the total peak-hour trips to be shifted would be evenly distributed among the peak-hour and adjacent preceding and following hours.*

peak-hour and the 248 miles of afternoon peak-hour problem segments. The more limited work time rescheduling programs would require an average shifting of 17 percent of the work trips made on the 93 miles of morning peak-hour, over-design capacity problem segments, and of 12 percent of the work trips made on the 112 miles of the afternoon peak-hour, over-design capacity problem segments. Achievement of the 20 percent maximum potential reduction in bus fleet requirements through work time rescheduling would require the shifting of nearly 50 percent of the work-related trips made on public transit out of the morning peak transit travel hour of 7:00 a.m. to 8:00 a.m., and of 60 percent of the work-related trips on public transit out of the afternoon peak transit travel hour of 3:00 p.m. to 4:00 p.m.

A survey conducted as part of the study of the current work schedules and attitudes of Milwaukee area employers towards work time rescheduling indicated that the feasible shift of morning and afternoon peak-hour travel to surrounding hours was substantially less than that required to achieve these maximum potential work time rescheduling benefits. All of the 295 employers in the Milwaukee area estimated to have 100 or more employees and work hours requiring peak-period travel were

mailed survey questionnaires. Also included in this survey was a sample of 100 smaller employers located in parts of the Milwaukee area with higher than average employment densities, such as the Milwaukee central business district. Slightly more than one-half of the surveyed firms, representing nearly 122,000 employees, or about 20 percent of the Milwaukee area employment, responded to the survey. Of these 122,000 employees, 86,000, or 71 percent, were found to already be participating in a work time rescheduling program, and of these 86,000, over 80 percent were in staggered work hour programs. Thirty-seven percent of the employers responding to the survey indicated a willingness to consider implementing new or additional work time rescheduling. The surveyed employment that would be affected by such programs approaches 30,000 jobs, or nearly 25 percent of the employment of the employers responding to the survey.

The impact this new work time rescheduling would have on peak-hour work travel in the Milwaukee area was analyzed by determining the aggregate change in the work schedules of the employment of the surveyed employers that would result from the implementation of work time rescheduling. It was assumed in this analysis that every employer indicating a willingness to consider implementing new or additional work time rescheduling would, in fact, implement such programs. The result of this analysis indicated that fewer than 6,000 employers, or 5 percent of the surveyed employment, would not be involved in a future work time resheduling program.

The analysis, as summarized in Table 11, indicated that the number of employees traveling during the 7:00 a.m. to 8:00 a.m. peak hour would only be reduced by up to 5 percent, and during the 4:00 p.m. to 5:00 p.m. peak hour by up to 2 percent. This estimated attainable reduction in peak-hour, work-related travel is about one-fourth that necessary to achieve the maximum potential benefits of shifting arterial street and highway work travel out of the morning peak hour, and less than one-tenth the reduction necessary to achieve the maximum potential benefit for shifting arterial street and highway work travel out of the afternoon peak hour. Furthermore, the estimated obtainable reduction is substantially less than that necessary to achieve the maximum potential benefits of shifting any transit work-related travel from the peak hour. It can also be noted in Table 11 that any attempt to work time rescheduling to shift travel from the afternoon peak travel hour to surrounding hours will be complicated by the differences between the highway afternoon peak travel hour—4:00 p.m. to 5:00 p.m.—and the afternoon peak transit travel hour—3:00 p.m. to 4:00 p.m.

With regard to the practicality of obtaining congestion abatement in the Milwaukee area by reducing peak travel during the peak hour, it was determined from the analysis of the survey of employers that only a small reduction in the areawide peaking of the number of employees scheduled to begin work at the most common starting times and to leave work at the most common quitting times during the peak travel hours would be feasible.

Therefore, because work time rescheduling could be expected to have little impact as a practical matter on congestion and transit fleet size in the Milwaukee area, it was recommended that no areawide work time rescheduling plans for the abatement of traffic congestion and reduction of transit vehicle needs in the Milwaukee area be prepared, tested, and evaluated at this time, and that the study be terminated. However, because of the potentially large benefits of work time rescheduling and because any such rescheduling would constitute one step toward these benefits, it was recommended that work time rescheduling be promoted in the Milwaukee area and specifically be given consideration on a case-by-case basis, along with other traffic management measures, as part of the continuing traffic management planning of the Commission and local units and agencies of government in the Milwaukee area. Work time rescheduling may be feasible for congestion reduction in small areas where larger than average employer participation in work time rescheduling is feasible or a smaller than average shift of work trips from or within the peak travel hour is required to effect improved traffic conditions. Work time rescheduling may also warrant consideration in a major emergency in which transportation system capacity is limited or travel must be curtailed.

The work time rescheduling implemented in such cases should attempt to shift work trips made by automobile from the peak hours of 7:00 a.m. to 8:00 a.m. and 4:00 p.m. to 5:00 p.m. These shifts could be made through implementation of any of the four types of work time rescheduling programs: flexible work hours, staggered work hours, shifted work hours, or shortened work weeks. If work starting and quitting times cannot be rescheduled to times which will permit travel to and from work to occur outside of the present peak hours, starting times should be rescheduled within the peak hours to times other than 7:00, 7:30, or 8:00 a.m.,

Table 11

COMPARISON OF POTENTIAL AND FEASIBLE BENEFITS OF WORK TIME RESCHEDULING IN THE MILWAUKEE AREA

Type of Benefits	Basis of Analysis	Shift in Peak-Hour Work-Related Travel Attendant to Analysis	Benefits						
			Arterial Street and Highway System						Public Transit System
			Congestion—Peak-Period Over- and At-Design Capacity Arterial Facility Mileage	Air Pollutant Emissions			Motor Fuel Consumption	Motor Bus Fleet Requirements
				Carbon Monoxide	Hydrocarbons	Nitrogen Oxides		
Maximum Potential Benefits of Work Time Rescheduling in the Milwaukee Area	Maximum shifts of peak-hour, work-related travel within peak travel periods on arterial street and highway system from peak hours of 7:00 a.m. to 8:00 a.m. and 4:00 p.m. to 5:00 p.m. with objective of eliminating peak-hour, over- and at-design capacity operation of arterials. Maximum shifts on public transit system from peak hours of 7:00 a.m. to 8:00 a.m. and 3:00 p.m. to 4:00 p.m. with objective of minimizing bus fleet requirements	Arterial Street System Congested Facilities Morning Peak Hour—21 percent Afternoon Peak Hour—21 percent Public Transit System Morning Peak Hour—50 percent Afternoon Peak Hour—60 percent	Morning Peak Period—Reduction of 38 miles, or 29 percent, in mileage of over-design capacity arterials, and reduction of 81 miles, or 56 percent, in mileage of at-design capacity arterials Afternoon Peak Period—Reduction of 180 miles, or 60 percent, in mileage of at-design capacity arterials	Morning Peak Period—4 percent reduction Afternoon Peak Period—No change	Morning Peak Period—3 percent reduction Afternoon Peak Period—1 percent reduction	Morning Peak Period—1 percent reduction Afternoon Peak Period—1 percent reduction	Morning Peak Period—2 percent reduction Afternoon Peak Period—1 percent reduction	Morning Peak Period—19 percent reduction Afternoon Peak Period—15 percent reduction
Practicable Benefits of Work Time Rescheduling in the Milwaukee Area	Aggregate work schedules of employers surveyed under study. All employers indicating willingness to consider work time rescheduling were assumed to implement work time rescheduling	Arterial Street System Morning Peak Hour—5 percent Afternoon Peak Hour—2 percent Public Transit System Morning Peak Hour—5 percent Afternoon Peak Hour—9 percent	Morning Peak Period—Reduction of 9 miles, or 7 percent, in mileage of over-design capacity arterials, and 18 miles, or 12 percent, in mileage of at-design capacity arterials Afternoon Peak Period—Reduction of 15 miles, or 5 percent, in mileage of at-design capacity arterials	Morning Peak Period—1 percent reduction Afternoon Peak Period—No change	Morning Peak Period—1 percent reduction Afternoon Peak Period—No change	Morning Peak Period—No change Afternoon Peak Period—No change	Morning Peak Period—No change Afternoon Peak Period—No change	Morning Peak Period—2 percent reduction Afternoon Peak Period—2 percent reduction

and quitting times should be rescheduled to other than 4:30 or 5:00 p.m. to provide some reduction of the peaking within the peak hour. Work time rescheduling should attempt to shift work trips made by transit out of the morning hour of 7:00 a.m. to 8:00 a.m. and the afternoon hours of 3:00 p.m. to 5:00 p.m. Again, these shifts could be made through implementation of any of the four types of work time rescheduling programs. Through these shifts, peak-hour crowding between 7:00 a.m. and 8:00 a.m. and between 3:00 p.m. and 5:00 p.m. would be decreased, and opportunities for passengers to obtain a seat on buses during the peak hours would be increased. Furthermore, if the spreading of transit passenger demand was large enough, the size of the necessary transit motor bus fleet as currently established by peak-hour bus requirements during the 7:00 a.m. to 8:00 a.m. and 3:00 p.m. to 4:00 p.m. transit peak hours may be reduced. Spreading of transit passenger demand over a longer period of time may also improve the efficiency with which buses and drivers can be scheduled by reducing the need for split shifts, thereby reducing the cost of peak-hour service.

Freeway Traffic Management Study

As reported in the 1980 Annual Report, the Commission, in cooperation with the Wisconsin Department of Transportation, has completed a prospectus for a proposed Milwaukee area freeway traffic management planning and preliminary engineering study. The study was recommended in both the new design year 2000 regional transportation system plan and the regional transportation systems management plan. A freeway traffic management system would control access to the freeway system in the Milwaukee urbanized area in order to maximize and smooth traffic flow and thereby avoid the inefficiencies attendant to breakdowns in flow. Controlled-access would also be beneficial in that it would provide reasonable operating speeds for buses providing modified rapid transit service and other high-occupancy vehicles that would be accorded preferential access to the freeway system.

It was proposed in the prospectus that the study prepare, test, and evaluate alternative plans for the six major elements of a freeway traffic manage-

ment system. The six elements include: 1) the freeway operational control strategy specifying the degree to which freeway volumes are to be maintained below capacity on all parts of the freeway system through ramp metering; 2) the number and location of freeway ramp meters and high-occupancy vehicle preferential access lanes; 3) the freeway ramp-meter control strategy; 4) the freeway ramp-meter control and intercommunication system, or the physical system to be used to control the ramp meters—in particular, the central operational control system which would utilize a preprogrammed digital computer to establish and continuously assess and, if necessary, modify ramp-meter entry rates; 5) the freeway advisory information systems, including changeable message signs, special highway advisory radio frequencies, or information provision to existing commercial radio stations; and 6) the freeway incident management and surveillance strategy.

During 1981 the Commission succeeded in securing most of the planning and engineering funds necessary to conduct the freeway traffic management study from the Federal and State Departments of Transportation. It is anticipated that work on the study will begin in late 1982 following the completion of the Milwaukee area primary transit alternatives analysis study.

Ridesharing Programs

One of the recommendations of the regional transportation systems management plan is the continued promotion of ridesharing. A formal Milwaukee area carpooling program had been conducted by Milwaukee County over a three-year period in the mid-1970's. The Commission assisted in that effort, including conduct of an evaluation of the effectiveness of the carpooling project and determination of the extent of carpooling in the Milwaukee metropolitan area. The results of that initial effort are published in SEWRPC Technical Report No. 20, Carpooling in the Metropolitan Milwaukee Area. That initial carpooling effort indicated a significant latent demand for carpooling programs and concluded that a continued carpooling promotion program would be effective in reducing motor fuel consumption and automobile traffic. Late in 1979, Milwaukee County received approval of a funding request for federal urban aid funds to conduct a three-year continuing carpooling promotion program. This program includes media promotion of ride-sharing activities, direct contact with major employers to encourage carpooling on an industry-by-industry basis, and a computerized matching program for potential carpoolers. The Commission is assisting in this effort by providing the computer facilities necessary to conduct the matching program. In the spring of 1982, the Commission will again conduct a survey to determine the extent to which such ridesharing efforts have been effective and the extent of carpooling in the Milwaukee area.

Milwaukee County Transit Development Program

During 1981 a new transit development program was prepared for the Milwaukee County Transit System. A five-year program of transit improvements is documented in a published report entitled Transit Development Program for the Milwaukee County Transit System: Milwaukee County, Wisconsin, 1981-1986, prepared by the Milwaukee County Department of Public Works and adopted by the Milwaukee County Board of Supervisors during 1981. The transit development program was prepared in conformance with short-range transit planning guidance issued by the U. S. Department of Transportation, Urban Mass Transportation Administration (UMTA), in March 1981. The preparation of the program was financed in part with UMTA planning monies made available to Milwaukee County through the Commission.

The proposed five-year program includes recommendations in four separate program areas. These consist of: a program of transit service improvements which incorporates the complete program of short-range transit service improvements prepared in 1980 under the Milwaukee County Transit System service study; a program of revenue vehicle fleet expansion which includes the rehabilitation of existing vehicles as well as the purchase of both standard design and articulated design vehicles; a program of facility improvements which includes the reconstruction or replacement of all existing maintenance and garage facilities of the transit system and, the construction of an additional bus operating garage; and a financial projection of the funding requirements associated with the implementation of the service improvement, bus fleet expansion, and facility improvement programs.

The report sets forth a series of recommendations in each of these four identified areas. All these recommendations serve to refine, detail, and implement the transit service improvement recommendations contained in the adopted regional transportation system plan.

Milwaukee County Transit System Fleet Maintenance and Administrative Facility Review

In 1981 a special task force was created by the Chairman of the Milwaukee County Mass Transit Committee to investigate transit fleet maintenance requirements and alternative locations for a proposed new major bus maintenance and administrative facility for the Milwaukee County Transit System. The special task force was comprised of representatives from the Commission, the Milwaukee County Department of Public Works, the Park-West Redevelopment Task Force, Milwaukee Transport Services, Inc., and the Mass Transit Committee of the Milwaukee County Board of Supervisors. The Commission's Executive Director served as Chairman of the Task Force. The special task force study is documented in a report entitled Milwaukee County Transit System Fleet Maintenance and Administrative Facility Review, completed during 1981.

In its deliberations, the task force made a number of findings and drew a number of conclusions relating to the size and location of the transit fleet maintenance and administration facilities. The findings and conclusions were set forth with respect to the following items of consideration: transit fleet size; the rehabilitation potential for the existing transit system heavy maintenance/administration facility; the construction of a new facility either on the grounds of the Milwaukee County Institution complex or at a site located near the Park-West Freeway Hillside Interchange; and the location of the service function for automobiles and trucks used to support the transit operations.

With respect to the size of the proposed major maintenance facility, the task force concluded that the facility should be designed to initially serve a fleet size of about 850 buses, with the facility being located on a site capable of accommodating an ultimate bus fleet size of up to 1,000 buses. With regard to the existing heavy maintenance/administration facility, the task force concluded that no further consideration should be given to major rehabilitation of this facility since it would not be possible to remodel the existing buildings to accommodate an ultimate bus fleet of 1,000 vehicles. The task force concluded that a fleet maintenance and administrative facility of the recommended size could be accommodated both in terms of physical space and transit operations at alternative locations on the grounds of the Milwaukee County Institutions complex or on lands cleared for the former Park-West Freeway near the Hillside Interchange on IH 43. A decision on the final location of the facility, according to the task force, should consider differences in capital and annual utility operating costs for the alternative sites along with other intangible considerations such as the impact of the fleet maintenance facility on the surrounding neighborhoods, central city redevelopment objectives, and the proximity of jobs to low-income and minority individuals. Finally, the task force concluded that, regardless of the final location of the facility, the service functions with respect to automobiles and trucks necessary to operate the transit system should continue to be conducted at the major transit fleet maintenance site. The task force submitted its report to the Milwaukee County Board Transit Committee.

Traffic Circulation Plan for the West Bend Central Business District

At the request of the City of West Bend, the Commission undertook in 1981 a special study of alternative arterial street systems for the West Bend central business district. The purpose of the study was to determine the best means of accommodating the changes in traffic conditions which could be expected to result from the development of a downtown shopping mall on a portion of Main Street (USH 45) located immediately south of Washington Street (STH 33). The results of that study were documented in SEWRPC Community Assistance Planning Report No. 62, A Traffic Circulation Plan for the West Bend Central Business District.

The study included a comparative evaluation of the existing arterial street system in the West Bend central business district and six alternative arterial street system plans designed to accommodate the changes which may be expected to accompany implementation of the West Bend downtown redevelopment plan. The results of this evaluation show that the existing arterial street system is the most efficient system to serve the West Bend area from the standard of efficiency in traffic movement. However, in order to accommodate the development of a downtown mall, the study recommends the implementation of modifications to the existing arterial street system consisting of: the closure of that segment of Main Street between Washington Street and Seventh Avenue and its attendant reconstruction as an off-street parking facility; the closure of Main Street from Walnut

Street to Washington Street and its attendant reconstruction as a shopping mall, with a two-way traffic operation permitted and with the provision of northbound right-turn-lane exit from Main Street onto Washington Street; and the implementation of such traffic engineering measures as exclusive turn lanes, signing, and signalization for preferential traffic progression to encourage those vehicles diverted from Main Street to use relocated Island Avenue. The study indicated that the recommended arterial street system resulting from these changes is the next most efficient arterial street system when compared with the existing street system.

Rural Transit Feasibility Studies

In 1980, the Washington County Committee on Aging and the Walworth County Department of Aging formally requested that the Commission undertake separate studies to determine the feasibility of providing countywide transit service for the public within the respective Counties. The requests were made in response to the passage of the Surface Transportation Act of 1978, which provides federal aid for operation and capital assistance projects for public transportation in rural and small urban areas, and discussions held by representatives of the Commission and the Wisconsin Department of Transportation with representatives of both Counties. Of concern to each County was the possibility of reducing the need for specialized transportation services by providing a public transportation service not aimed at any specific subgroup of the population.

Accordingly, the Commission undertook the preparation of public transit service plans for both Washington and Walworth Counties during 1981. The public transit service plans are intended to provide a sound basis for addressing three significant transit-related public policy questions: 1) is an improved level of public transit service warranted in each county, 2) if so, should the County provide it, and 3) in what form can such improved service best be provided? The plans are also intended to support applications for available transit capital and operating assistance funds from state and federal sources. To advise and assist the Commission staff in the conduct of the requested studies, a separate Intergovernmental Coordinating and Advisory Committee on Public Transportation was established for each County.

The public transit service plan for Washington County was completed during 1981 and the recommendations published in SEWRPC Community Assistance Planning Report No. 61, A Public Transportation Service Plan for Washington County. During the course of the study, several alternatives for alleviating the deficiencies of the existing transit services within the County were considered by the Advisory Committee. Briefly, the alternatives considered included: 1) maintaining the status quo and, in effect, doing nothing to provide improved countywide public transit service; 2) promoting countywide ridesharing activities; 3) providing door-to-door advance-reservation public transportation service by either expanding the eligibility requirements for use of the existing county-sponsored specialized transportation program to include the general public, or by replacing the existing county-sponsored specialized transportation program with a greatly expanded countywide advance-reservation transit service for the public; 4) providing fixed route, fixed schedule public transit service by either connecting all urban and rural community centers within the County with fixed route bus service, or by connecting the major urban and rural community centers within the County with fixed route bus service; or 5) providing a combination of advance reservation and fixed route transit service.

Although the Advisory Committee recognized that the alternative calling for an expanded countywide advance-reservation public transit service would provide a high level of service, it rejected this alternative as too costly to implement in this era of fiscal constraint. The alternatives proposing fixed route bus services were similarly found to be too costly for implementation, as well as to be ineffective in meeting the transportation needs of the total county population. The Committee therefore recommended that the eligibility requirements of the existing county-sponsored specialized transportation program be relaxed to permit the public to use the existing specialized transportation service, and that a countywide ridesharing program be implemented. The Committee further recommended that specialized transportation services currently being provided within Washington County be coordinated to avoid duplication of service and improve their effectiveness. The Committee indicated that, in its opinion, implementation of these recommendations would provide the County with an adequate level of basic transportation service, while at the same time serving to concentrate limited financial resources on the most important areas of need. The Committee's recommendations were unanimously adopted by the Washington County Board of Supervisors on December 10, 1981.

At year's end, work on the public transit service plan for Walworth County had progressed through the point where the analyses of the need for public transit service in Walworth County and of the existing public transit services within the County had been completed, and a set of public transit service alternatives, similar to those examined in Washington County, were under review by the Advisory Committee. It is anticipated that this study will be completed in early 1982.

Elderly and Handicapped Transportation Planning

During 1978 the Commission adopted a transportation plan for transportation handicapped people in the Region. The plan is documented in SEWRPC Planning Report No. 31, A Regional Transportation Plan for the Transportation Handicapped in Southeastern Wisconsin: 1978-1982. The plan is designed to reduce, and sometimes to eliminate, the existing physical and/or economic barriers to independent travel by transportation handicapped individuals. In accordance with the thrust of the federal rules then in effect, the plan recommended that the local bus systems serving the Milwaukee, Kenosha, and Racine urbanized areas be equipped with wheelchair lifts and ramps or other conveniences to the extent that the nonpeak-hour bus fleets would be fully accessible to wheelchair users and semiambulatory persons. For those transportation handicapped persons in the three urbanized areas who would continue to be unable to use public bus systems, the instituion of a user-side subsidy program was recommended. Such a program would enable eligible transportation handicapped persons to arrange for their own transportation by taxi or private chair car carrier, with the local transit operator subsidizing the cost of the trip. For transportation handicapped persons living outside the three major urban areas, the plan recommended that each county implement a demand-responsive transportation service administered through the county and operated by either an interested privately owned transportation service provider or a social service transportation service 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 Transition Plans

The adopted transportation plan for the transportation handicapped was amended during 1980 following the completion of "transition plans" for each of the public transit operators within the Region. These planning efforts were designed to identify activities necessary to ensure that the planning and provision of public transit service in the Region is fully in accordance with Section 504 of the federal Rehabilitation Act of 1972. That act prohibits discrimination on the basis of handicap in all programs and activities receiving federal financial assistance. These planning efforts were conducted in accordance with rules promulgated by the Secretary of the U. S. Department of Transportation and issued in 1979. Recommendations for making the federally assisted public transportation systems within the Region accessible to handicapped persons are set forth in SEWRPC Community Assistance Planning Report No. 39, A Public Transit System Accessibility Plan, Volume I, Kenosha Urbanized Area; Volume II, Milwaukee Urbanized Area/Milwaukee County; Volume III, Racine Urbanized Area; and Volume IV, Milwaukee Urbanized Area/Waukesha County. The four transition plans were submitted during 1980 for review by the U. S. Department of Transportation, Urban Mass Transportation Administration (UMTA), and were approved by this agency in early 1981. As a part of a required annual review process, status reports documenting the progress in implementing plan recommendations were completed and forwarded to UMTA in July 1981 by the Commission.

On July 20, 1981, the U. S. Department of Transportation issued a new interim revised regulation on transportation for elderly and handicapped persons which amended the Department's former regulation on Section 504 of the Rehabilitation Act of 1972. In direct contrast to requirements established under the former Section 504 regulation, the new regulation no longer required that buses for fixed route transit systems be equipped with wheelchair lifts or facilities for transit systems to be retrofitted with accessibility features as the sole means of making transit systems accessible to wheelchair-bound handicapped persons. Instead, the new rule adopts the "special efforts" approach originally employed in a federal rule issued during 1976 which requires transit operators receiving

federal funds to certify that special efforts to provide transportation that handicapped persons can effectively use are being made in their service area. The new regulation also eliminates the requirement regarding the preparation of transit operator transition plans and the submission of subsequent status reports thereon. It is anticipated that once a final, permanent rule is in place, the Commission and the public transit operators will have to review, and possibly amend, the adopted transportation plan for the transportation handicapped.

Review of Milwaukee County Accessible Transportation Programs

In response to the new federal regulations issued by the U. S. Department of Transportation regarding nondiscrimination on the basis of handicap in the provision of public transit services, as noted above, and also acute funding problems facing Milwaukee County in the provision of public transit services, a special task force was created during 1981 by the Mass Transit Commiteee of the Milwaukee County Board of Supervisors. The task force, which included the Commission's Executive Director who served as Chairman, was created to review Milwaukee County's current programs for providing transportation for the mobility-restricted residents of Milwaukee County and investigate responsible, realistic, and economically affordable alternatives to the County's special efforts strategy which consisted of both lift equpping the buses in the regular transit system to provide mainline accessible bus service, and supporting a relatively unconstrained user-side subsidy program to provide door-to-door transportation to mobility-restricted Milwaukee County residents. The task force was also charged with determining an appropriate basis for relief from a federal court injunction issued in 1975 in favor of a coalition of handicapped persons which prohibited Milwaukee County from acquiring new buses without wheelchair lifts. The results of the special task force study were compiled and published in late 1981 in a report entitled Milwaukee County Transit System: Review of Programs to Provide Transportation for Mobility-Restricted Residents of Milwaukee County.

In reviewing the programs provided under the current special efforts strategy, the task force found that, while total annual subsidy costs for the mainline accessible bus program were significantly less than those for the user-side subsidy program, far fewer wheelchair users had used the wheelchair lifts on the buses of the regular transit system than had been hoped for. Conversely, the user-side subsidy program had proven to be more popular among the mobility-restricted residents of Milwaukee County. However, the unconstrained use of this program in the past had resulted in total annual costs for the program exceeding the budgeted funding, resulting in requests for additional money at the end of the year. In light of the new federal rules governing this matter which restore flexibility to the local transit operator on how best to meet the transportation needs of mobility-restricted residents, the task force examined several alternatives to the current special efforts strategy, including: maintaining the current programs; meeting the minimum requirements of the new federal guidelines with either the mainline accessible bus program or the user-side subsidy program; or discontinuing the mainline accessible bus program but continuing the user-side subsidy program at various levels of funding.

The task force concluded that an appropriate special-efforts strategy, which would also be a basis for relief from the current federal court injunction prohibiting Milwaukee County from acquiring new buses without wheelchair lifts, would be the abandonment of the current dual special-efforts strategy in favor of a single strategy of a nondiscriminatory user-side subsidy program. Under this approach, Milwaukee County would not continue to offer lift-equipped buses; rather, the lifts would be locked in place or removed, handrails repositioned as necessary, and the currently excessive rise on the steps of some buses reduced. The task force determined that the measure of the level of funding of such a program could be a percentage of the annual transit operating budget, or such other level as may be negotiated between the parties involved in the federal court injunction. The task force concluded that the current program of providing lift-equipped buses was ineffective in terms of improving the mobility of significant numbers of wheelchair bus users when the costs are weighed against the benefits; that the reduction of stair height on the buses would help elderly and transportation handicapped individuals by reducing the excessive rise on the steps of these buses when the lifts are locked up or removed; that the operating cost of the lifts when applied to the user-side subsidy program would allow a reasonable increase in service to offset that lost to regular wheelchair bus users; and that the demand for user-side subsidy service exhibited in 1981 is a reasonable demonstration of the level of demand which will continue to be demonstrated by the transportation handicapped residents of Milwaukee County.

TRANSPORTATION IMPROVEMENT PROGRAM

In December 1981, the Commission completed an updated five-year transportation improvement program (TIP) for the Kenosha, Milwaukee, and Racine urbanized areas of the Region as required by the U. S. Department of Transportation. This program is set forth in a document entitled A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1982-1986. The program was developed with the assistance of the Wisconsin Department of Transportation staff and through the cooperation of various local units and agencies of government in the three urbanized areas of the Region, and of the Cities of Kenosha and Racine and the Counties of Milwaukee and Waukesha as the operators of special mass transportation systems in these urbanized areas. The 1982-1986 TIP document identifies all planned highway and mass transportation projects in the three urbanized areas programmed for implementation during this five-year period with the aid of U. S. Department of Transportation funds administered through the Federal Highway Administration (FHwA) and the Urban Mass Transportation Administration (UMTA). Following approval of the 1982-1986 TIP by the Intergovernmental Coordinating and Advisory Committees on Transportation System Planning and Programming for the Kenosha, Milwaukee, and Racine Urbanized Areas, the Regional Planning Commission formally adopted the program on December 3, 1981.

The program contains 457 projects for the five-year programming period, representing a total potential investment in transportation improvements and services of about $777 million. Of this total, $389 million, or about 50 percent, is proposed to be provided in federal funds; $166 million, or about 21 percent, in state funds; and $222 million, or about 29 percent, in local funds.

While the entire five-year program is an important planning tool, it is the annual element which is of primary interest for it represents those projects that are intended to be implemented over the 12- to 24-month period beginning January 1, 1982. The annual element for federal aid highway funding support is a 21-month element to match the federal fiscal year funding allocation and is broken into the first nine months of calendar year 1982 and the federal 1983 fiscal year beginning October 1, 1981, and extending through September 30, 1983. For federally funded transit projects involving transit system operating assistance, the annual element consists of a 24-month period, calendar years 1982 and 1983. All other federally assisted transit projects within the transportation improvement program have an annual element consisting of a 12-month period of calendar year 1982. A cost summary for these projects is shown in Table 12. Cost data presented in this table represent the proposed annual element expenditures for a total of 289 projects.

In order to provide a basis for a better understanding of the types of transportation improvements proposed to be undertaken in the three urbanized areas, projects have been gathered into nine categories: 1) highway preservation—that is, reconstruction of existing facilities to maintain present capacities; 2) highway improvement—that is, reconstruction of existing facilities to expand present capacities; 3) highway expansion—that is, the construction of new facilities; 4) highway safety; 5) highway-related environmental enhancement projects; 6) off-federal aid system highway improvements; 7) transit preservation; 8) transit improvement; and 9) transit expansion projects. Figure 30 graphically reflects the proposed expenditures in the annual element of these nine project categories for each of the three urbanized areas. At least three of the expenditure patterns apparent in the figures deserve some comment:

- A substantial share of the investment proposed in the 1982 annual element is for the preservation of transportation facilities, with over 67 percent of the total investment in the Milwaukee urbanized area, over 52 percent in the Racine urbanized area, and over 50 percent in the Kenosha urbanized area being used for this purpose. This level of effort is especially notable when it is realized that virtually none of the funding for routine highway maintenance activities—snowplowing, ice control, grass cutting, power for street lighting, and litter pickup—is included in the TIP.

- A substantial share of the investment proposed in the 1981 annual element is for the provision of public transit facilities and services, with over 42 percent of the total investment in the Kenosha urbanized area, almost 43 percent in the Milwaukee urbanized area, and almost 30 percent in the Racine urbanized area being used for this purpose.

Table 12

COST SUMMARY OF PROJECTS WITHIN THE ANNUAL ELEMENT BY URBANIZED AREA

Funding	Urbanized Area						Total	
	Kenosha		Milwaukee		Racine			
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Federal	$6,084,700	66.5	$125,321,300	49.6	$10,884,900	68.7	$142,290,900	51.2
State	1,531,400	16.7	52,839,700	20.9	2,718,000	17.1	57,089,100	20.6
Local	1,540,700	16.8	74,520,600	29.5	2,259,400	14.2	78,320,700	28.2
Total	$9,156,800	100.0	$252,681,600	100.0	$15,862,300	100.0	$277,700,700	100.0

- Highway expansion is nearly nonexistent in the urbanized areas of the Region, with none of the expenditures in the Kenosha urbanized area, 5 percent in the Milwaukee urbanized area, and 0.6 percent in the Racine urbanized area being used for this purpose.

A comparison of the 1982 annual element of the TIP with the 1981 annual element of the 1981-1985 TIP as reported in the Commission's 1980 Annual Report indicated the following:

- In the Kenosha urbanized area, total expenditures are proposed to increase by about 74 percent—from about $5.2 million to about $9.1 million. Expenditures for highways, which comprised about 47 percent of total expenditures in 1981, are proposed to comprise about 58 percent of total expenditures in 1982. Expenditures for transit comprised about 53 percent of total expenditures in 1981, and are proposed to account for about 42 percent of expenditures in 1982.

- In the Milwaukee urbanized area, total expenditures are proposed to increase by about 7 percent—from about $237.1 million to about $252.7 million. Expenditures for highways, which comprised about 50 percent of total expenditures in 1981, are proposed to comprise about 57 percent of total expenditures in 1982. Expenditures for transit also comprised about 50 percent of total expenditures in 1981, and are proposed to account for about 43 percent of expenditures in 1982.

- In the Racine urbanized area, total expenditures are proposed to decrease by less than 1 percent—from about $16.0 million to $15.9 million. Expenditures for highways, which comprised about 68 percent of total expenditures in 1981, are proposed to comprise about 70 percent of total expenditures in 1982. Expenditures for transit comprised about 32 percent of total expenditures in 1981, and are proposed to account for about 30 percent of expenditures in 1982.

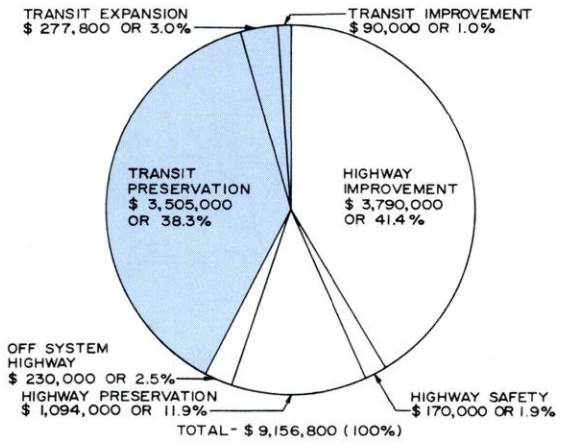
RAILWAY TRANSPORTATION PLANNING

During 1981, the Commission's participation in the railway planning process entailed the provision of technical assistance to local governmental units, responding to questions and requests for information from private individuals and concerns both within and outside the Region, and the continued monitoring of various railway-related issues. In addition, the Commission conducted a special survey relating to goods movement needs. Monitoring of these issues is important because of the rapid changes presently occurring within the industry, along with the impact those changes may have on the structure of railway services and facilities within southeastern Wisconsin. These changes, in turn, may affect other transportation, as well as nontransportation-related plan elements within the Region. Map 15 shows the location of common carrier railway facilities at the end of 1981. Table 13 shows the extent of main line railway mileage in each of the seven counties. Identified below are those railway issues considered to be especially important during 1981.

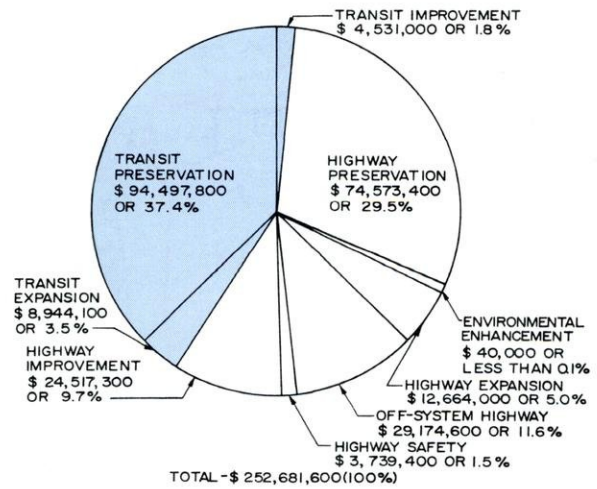
Figure 30

DISTRIBUTION OF EXPENDITURES IN THE ANNUAL ELEMENT OF THE 1982-1986 TRANSPORTATION IMPROVEMENT PROGRAM BY PROJECT CATEGORY

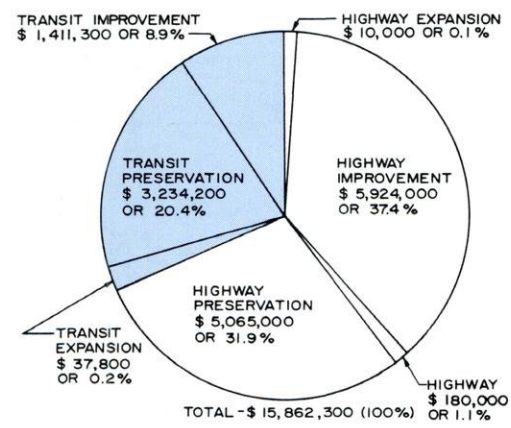
KENOSHA URBANIZED AREA



MILWAUKEE URBANIZED AREA



RACINE URBANIZED AREA



Short Line Railroad Activity

Three short line railroads operated within the Region during 1981, those being the Wisconsin & Southern Railroad Company, the Central Wisconsin Railroad Company, and the Municipality of East Troy Wisconsin Railroad. The Wisconsin & Southern Railroad Company, in cooperation with the East Wisconsin Counties Railroad Consortium, progressed towards completing track rehabilitation on the 147-mile railroad, about 34 miles of which is located within the Region. The purpose of this rehabilitation project is to comply with Federal Railroad Administration Class II track safety standards, which allow maximum freight train operating speeds of 25 miles per hour.

The Village of East Troy marked the official completion of the Municipality of East Troy Wisconsin Railroad track rehabilitation project with a dedication ceremony on May 23, 1981. This project was summarized in SEWRPC Newsletter Vol. 20, No. 5, and included extensive technical and advisory assistance on the part of the Commission. During the remainder of the year, the Village Board began consideration of alternative methods of managing the railway and consideration of replacing the 40-year-old diesel locomotive currently in use.

Milwaukee Road Reorganization

On September 15, 1981, the Trustee for the Chicago, Milwaukee, St. Paul & Pacific Railroad Company (the Milwaukee Road) filed a revised plan for reorganization with the Interstate Commerce Commission and the Reorganization Court. Under the revised reorganization plan, freight operations would be terminated over several railway line segments in southeastern Wisconsin, including Racine to Waxdale, Burlington to Beloit, and Walworth to Fox Lake, Illinois. Coincident with the filing of this plan, the Trustee retained an outside traffic consultant to develop and evaluate alternatives for possible retention of service on these segments. A decision as to the status of those line segments could be expected during early 1982.

Abandonment Actions

As in many other areas of Wisconsin and the Midwest, railway line abandonments continue to remain an important issue. In the seven-county Southeastern Wisconsin Region, as of the end of 1981, there were six railway line segments which were subject to some kind of active or possible abandonment actions, as sum-

Map 15

COMMON CARRIER RAILWAY FREIGHT LINES IN SOUTHEASTERN WISCONSIN: DECEMBER 31, 1981

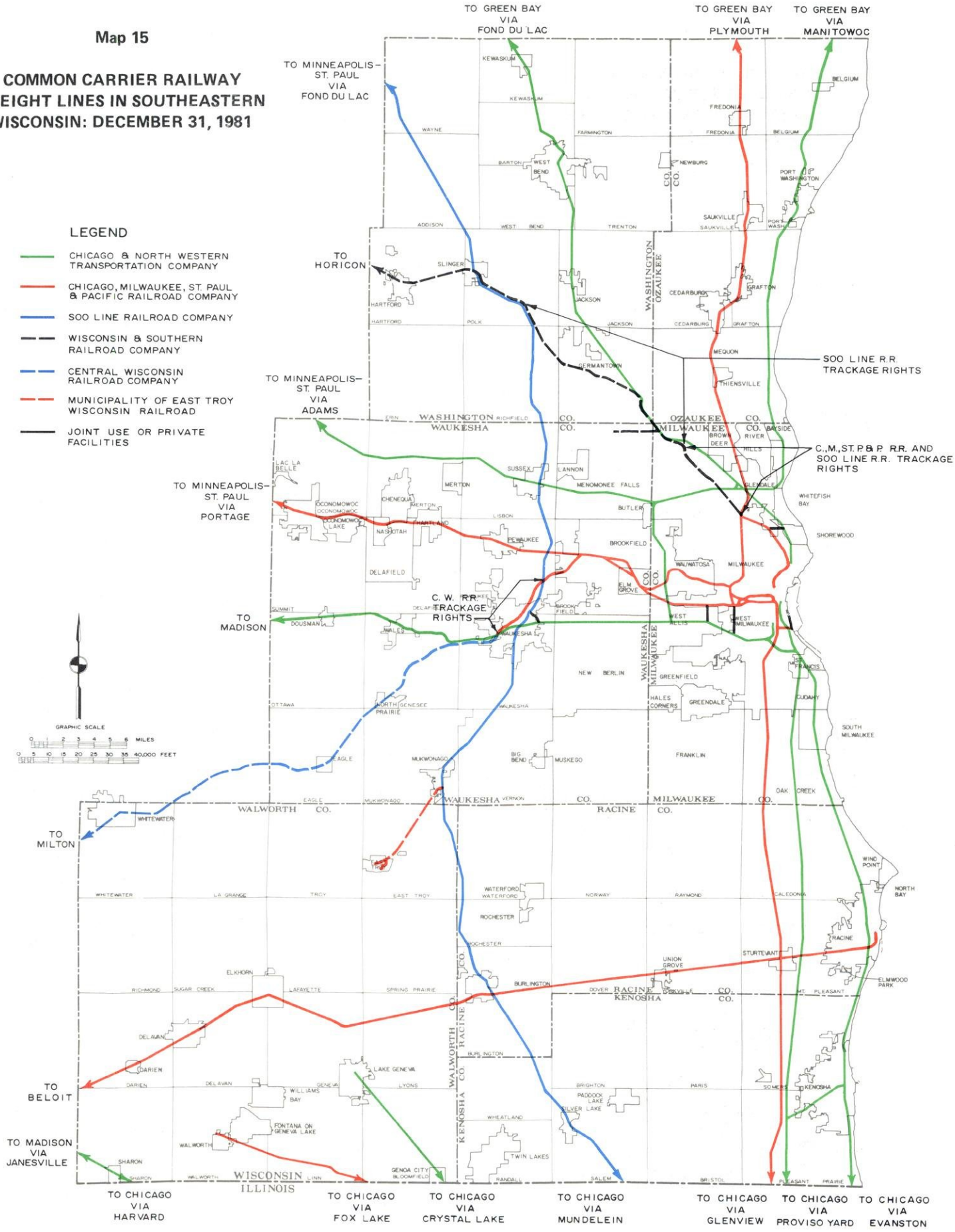


Table 13

COMMON CARRIER RAILWAY MAIN LINE MILEAGE IN SOUTHEASTERN WISCONSIN: DECEMBER 31, 1981

County	Chicago & North Western Railway		Chicago, Milwaukee, St. Paul & Pacific Railroad Company		Soo Line Railroad Company		Wisconsin & Southern Railroad Company		Central Wisconsin Railroad Company		Municipality of East Troy Wisconsin Railroad		Total	
	Mileage	Percent of Total in Region	Mileage	Percent of Total in Region	Mileage	Percent of Total in Region	Mileage	Percent of Total in Region	Mileage	Percent of Total in Region	Mileage	Percent of Total in Region	Mileage	Percent of Total in Region
Kenosha	28.5	5.1	12.2	2.2	10.2	1.8	--	--	--	--	--	--	50.9	9.1
Milwaukee	61.2	11.0	37.2	6.7	--	--	9.1	1.6	--	--	--	--	107.5	19.3
Ozaukee	25.8	4.6	25.1	4.5	--	--	--	--	--	--	--	--	50.9	9.1
Racine	24.5	4.4	40.2	7.2	13.5	2.4	--	--	--	--	--	--	78.2	14.0
Walworth	13.0	2.3	35.4	6.4	4.0	0.7	--	--	6.5	1.2	5.0	0.9	63.9	11.5
Washington[a]	27.3	4.9	--	--	25.3	4.5	22.5	4.0	--	--	--	--	75.1	13.5
Waukesha	47.6	8.6	33.0	5.9	26.5	4.8	2.4	0.5	18.6	3.3	1.3	0.2	129.4	23.3
Region	227.9	41.0	183.1	32.9	79.5	14.3	34.0	6.2	25.1	4.5	6.3	1.1	555.9	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. Percentage figures may not sum exactly because of rounding.

[a] *Does not include 9.7 miles of former Milwaukee Road railway trackage which was purchased by the Wisconsin Department of Transportation but is currently not in use.*

marized in Table 14. In addition to these, the preliminary findings of the Milwaukee Area Railroad Operations Study[1] have identified two major areas within Milwaukee County where further study concerning facility rationalization may be warranted. These two areas include:

1. The corridor extending from the City of Glendale and North Milwaukee area to the City of Milwaukee's lower east side along the Milwaukee River. This corridor includes the Chicago & North Western Railway's Capitol Drive Spur Track and the Milwaukee Road Chestnut Street Line.

2. Within the City of Milwaukee, the area in and around the Menomonee River Valley and inner harbor area. Extensive switching, classification yard, and industrial trackage is located here, much of which may become redundant due to various possible changes in railway operations.

[1] *This study was initiated by the City of Milwaukee Department of City Development. The study advisory committee includes a representative from the Commission.*

Goods Movement Need Survey

During 1981, the Commission investigated the need for a study to prepare a goods movement plan for southeastern Wisconsin. Recognizing that an understanding of problems facing shippers and receivers of goods in southeastern Wisconsin is essential to any sound determination of the needs for and required scope of a goods movement study, a survey of such shippers and receivers was undertaken. A complete description of the survey findings are contained in a SEWRPC Staff Memorandum entitled "Goods Movement Needs Study—1981."

The survey was administered to a cross-section of those businesses and industries for which the shipping and receiving of goods may be expected to be an important factor in their operation. The design of the mail survey questionnaire was guided by the Milwaukee Area Railroad Operations Study Committee.

In total, 31 SIC groups were identified as businesses and industries for which the shipping and receiving of goods was expected to be an important factor in their operation. The types of businesses and industries selected to be surveyed can be grouped into four classifications: manufacturing, wholesaling, retailing, and other. Within these four classifications, all firms having 100 or more employees

Table 14

RAILWAY SEGMENTS IN SOUTHEASTERN WISCONSIN SUBJECT TO ABANDONMENT AS OF DECEMBER 31, 1981

Railroad Company	Segment	Counties Served within Region	Length within Region (miles)	Status
Chicago, Milwaukee, St. Paul & Pacific Railroad Company	Racine-Waxdale	Racine	6.1	Not included in revised reorganization plan
Chicago, Milwaukee, St. Paul & Pacific Railroad Company	Burlington-Beloit	Racine, Walworth	27.1	Not included in revised reorganization plan
Chicago, Milwaukee, St. Paul & Pacific Railroad Company	Walworth-Fox Lake	Walworth	9.4	Not included in revised reorganization plan
Chicago & North Western Transportation Company.	Lake Geneva-Ringwood	Walworth	9.2	Application approved but decision under appeal
Chicago & North Western Transportation Company.	Butler Junction-Adams	Milwaukee, Waukesha	23.0	Subject to abandonment within three years
Chicago & North Western Transportation Company.	Waukesha-Jefferson Junction	Waukesha	16.6	Subject to abandonment within three years

within the seven-county Region—as listed on the 1975 Wisconsin Department of Industry, Labor and Human Relations file—were selected to be surveyed. Since many of these larger firms had more than one site of operation, only the headquarters or, in the event the headquarters was located outside the seven-county Region, the major operational sites within the Region were sent a questionnaire. Smaller firms, those with an employment of fewer than 100, were surveyed at varying sample rates such that a minimum of 70 such firms in each county were surveyed. Thus, of the 13,999 places of business in the seven-county Region, 1,276, or 9 percent, were selected to be surveyed, and 346, or 27 percent of those sampled, returned completed questionnaires.

The needs survey was intended to provide a basis for recommendations concerning the need for a goods movement study in southeastern Wisconsin and, if such a study was found to be necessary, to determine its scope. The survey results did not indicate that serious problems exist in those areas of concern that have traditionally been addressed by the Commission. Major areas of concern identified by surveyed shippers included both the high rates and the transit time required to move freight. Further analysis of the data indicated that time required to move freight was not primarily a function of inadequate or lack of transportation facilities, but rather was attributable to operating schedules and procedures employed by the transportation carrier. Both areas of concern—rates and transit times—are considered to be beyond the scope of the Commission work program. Historically, and as a matter of policy, the Commission has not undertaken studies where clear and definite physical problems do not exist. Based on analyses of the data collected, it was concluded that the Commission need not undertake a study of goods movement problems at this time.

The Commission concluded that the manufacturing, wholesale, and retail firms interviewed in the survey have been, and may be expected to be, able to solve their transportation problems. Therefore, the main concerns of surveyed business types—high rates and lengthy transit times—although complex, are probably best handled by the individual shippers.

AIR TRANSPORTATION PLANNING

During 1981, Commission activities in air transportation planning included continued monitoring through secondary data sources of aviation activities in the Region and assisting in the preparation of airport master plans. Such plans are prepared as a step toward implementation of the regional airport system plan adopted by the Commission in 1976. This plan is documented in SEWRPC Planning Report No. 21, A Regional Airport System Plan for Southeastern Wisconsin, and is graphically summarized on Map 16.

Airport Master Planning

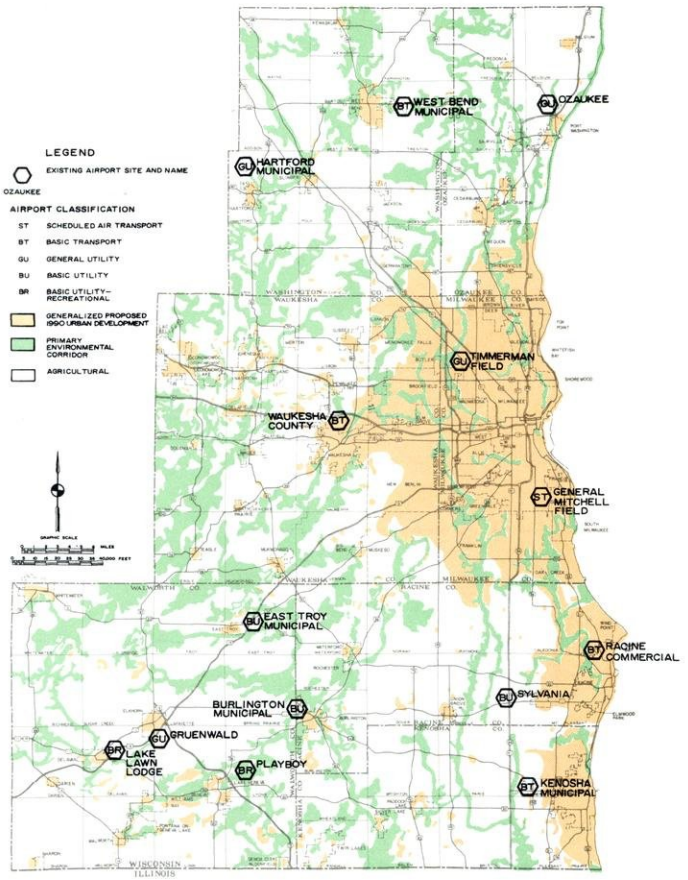
As noted in previous annual reports, airport master plans have been completed and adopted for the Kenosha (1977), West Bend (1977), and Hartford (1980) Municipal Airports. These plans refine and detail the systems level recommendations contained in the regional airport system plan. Master plans have been completed but have not yet been adopted for General Mitchell Field and for the Waukesha County Airport, with the latter master plan currently at variance with the regional airport system plan recommendations with respect to runway configuration.

Aviation Activity

The Commission continued to monitor aviation activity in 1981 in order to compare such activity with the forecasts of based aircraft, aircraft operations, and passenger enplanements as set forth in the adopted regional airport system plan. One set of forecasts deals with anticipated total annual aircraft operations at General Mitchell Field in Milwaukee, the Region's only scheduled air carrier airport. As shown in Figure 31, aircraft operations at General Mitchell Field totaled about 204,000 in 1981, or about 24 percent less than the 267,000 operations forecast to occur at Mitchell Field during 1981 in the regional airport system plan, and a 15 percent decrease from the 240,000 operations experienced in 1980. The level of operations at General Mitchell Field during 1981 was affected by the air traffic controllers' strike which began August 3, 1981. This strike resulted in a reduction in air traffic control personnel with attendant aircraft operations restrictions being placed in effect to maintain safe aviation conditions. Total aircraft operations at the airport are comprised of air carrier, general aviation, and military operations.

Map 16

REGIONAL AIRPORT SYSTEM PLAN: 1995



Air carrier operations totaled about 79,400, a decrease of 5,600 operations from the 1980 level of about 85,000.

General aviation operations at General Mitchell Field totaled about 116,800 in 1981, a decrease of nearly 18 percent from the 1980 level of 142,000 operations. In addition to the previously noted air traffic controller strike, general aviation operations have also been affected by the increased costs of aviation fuel which results in fewer operations.

Military aircraft operations, as noted in Figure 31, totaled about 8,200 in 1981, a decrease of about 3,900, or nearly 32 percent from the 1980 level of 12,100. This reduction in operations reverses the trend of increasing operations observed in 1980.

Figure 31

ANNUAL AIRCRAFT OPERATIONS AT GENERAL MITCHELL FIELD–MILWAUKEE

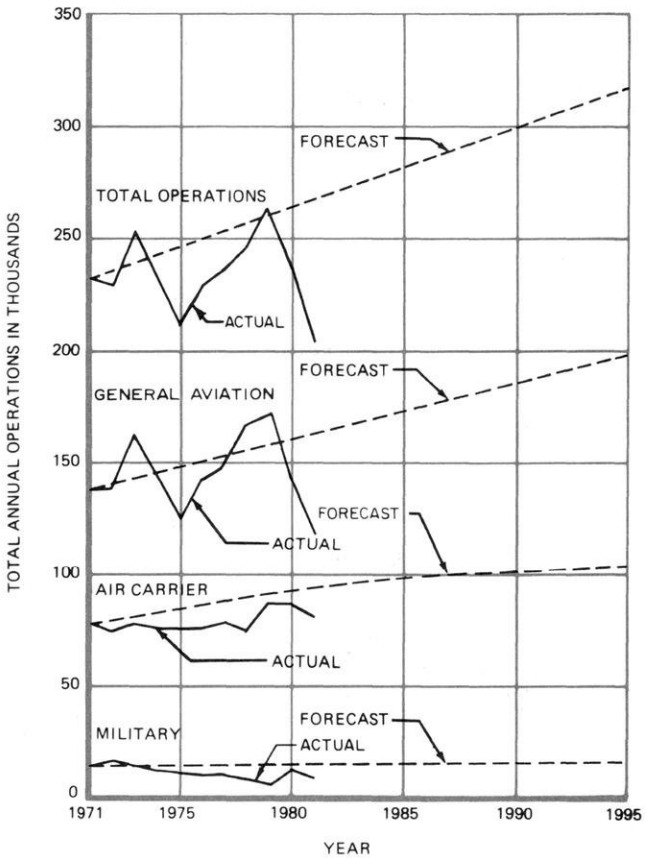
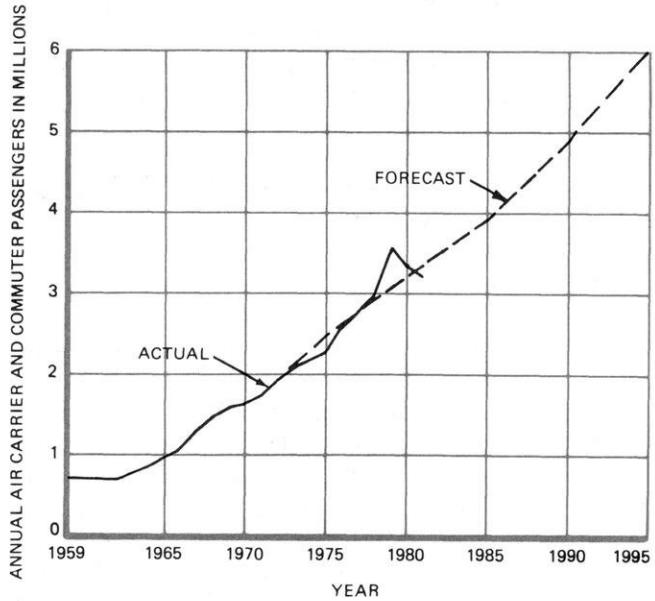


Figure 32

ANNUAL AIR CARRIER AND COMMUTER ENPLANING AND DEPLANING PASSENGERS GENERAL MITCHELL FIELD–MILWAUKEE



Air carrier and commuter enplaning and deplaning of passengers at General Mitchell Field, as shown in Figure 32, totaled about 3.1 million in 1981, a decrease of about 180,000, or about 5 percent, from the 1980 level of passenger activity. This represents the second consecutive year of a decline in passengers; however, this reduction in passengers is much less than might have been expected on the basis of the reduced number of air carrier operations at Mitchell Field. The 1981 level of passenger activity is about 0.2 million, or about 7 percent, less than the 3.4 million passengers forecast for the year 1981 in the regional airport system plan.

Aircraft based in the Region in 1981 totaled about 1,247, a decrease of about 11 percent from the 1980 total (see Figure 33 and Table 15). The number of based aircraft in 1981 was approximately 25 percent lower than the forecast of 1,660 aircraft by 1981.

DATA PROVISION AND ASSISTANCE

The Commission spends a considerable amount of time and effort each year in answering requests for transportation data. The following list is indicative of the types of requests responded to in 1981.

- The Commission provided Milwaukee County with the data necessary to support the analysis of its long-range needs for a heavy maintenance facility for its transit system. In addition to a range of transit fleet requirements estimated under other Commission work programs, the data included estimates of anticipated transit ridership. The data was utilized by a Milwaukee County task force established to review the potential of the vacated Park Freeway right-of-way for a transit maintenance and administration facility.

- A review and analysis of existing travel data, accident information, and community plans was prepared by the Commission for the Village of Lac La Belle to ascertain the need to construct a new facility to replace existing Lac La Belle Drive. This analysis resulted in the preparation of a traffic circulation plan for the Village.

Table 15

AIRCRAFT BASED IN THE REGION

County	1960	1965	1970	1975	1980	1981
Kenosha	28	60	76	148	250	150
Milwaukee	338	362	356	371	352	367
Ozaukee	19	13	32	28	30	27
Racine	65	89	108	151	195	168
Walworth.	23	31	48	82	109	88
Washington	45	63	118	136	157	150
Waukesha	118	163	243	255	308	297
Total	636	781	981	1,171	1,401	1,247

- The Commission conducted an analysis of, and prepared recommendations on, the proposed extension of a local street to intersect with STH 57 for the City of Cedarburg.

- The Commission conducted a review and analysis of the adopted regional land use plan and the Village of Hartland land use plan for the anticipated impact on travel on STH 83 between IH 94 and STH 16 in Waukesha County for the Wisconsin Department of Transportation.

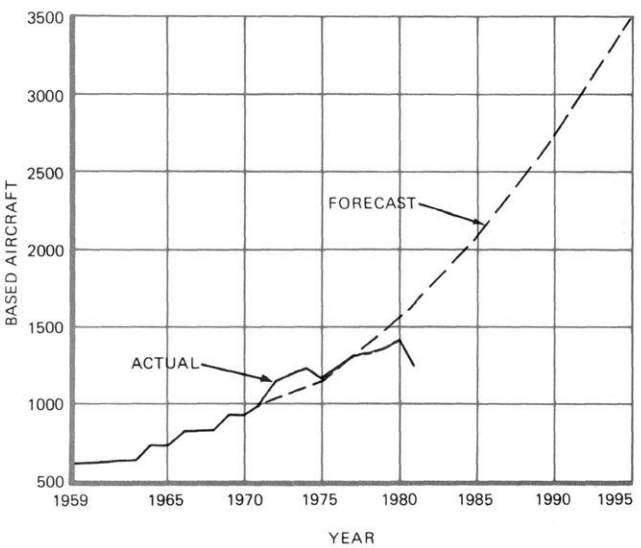
- A review was conducted by the Commission of current freeway operating conditions during peak hours to provide information for use in the analysis of the impact of ramp metering on the operation of future alternative transit systems.

- The Milwaukee County Transit System was provided with summaries of data from the air quality survey sponsored by the Wisconsin Lung Association.

- Technical assistance was provided by the Commission to the Milwaukee Area Technical College in the preparation and printing of survey forms and cover letters for use in a transportation needs study at the College's north campus service area.

Figure 33

AIRCRAFT BASED IN THE REGION



- The University of Washington was provided with population, employment, and land use data for an urban development research program.

- The University of Ohio was provided with 1963 and 1972 travel data for a trip generation study.

ENVIRONMENTAL PLANNING DIVISION

DIVISION FUNCTIONS

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

- What is the existing quality of lakes, streams, and groundwaters of the Region? Is water quality getting better or worse over time?
- What are the sources of water pollution? How can these sources best be controlled to abate water pollution and meet water quality objectives?
- What is the extent of the natural floodlands along lakes and streams?
- What are the best ways to resolve existing flooding problems and to ensure that new flooding problems are not created?
- What is the existing air quality in the Region? Is air quality getting better or worse over time?
- What are the sources of air contaminants? What can be done to control the emissions of these contaminants?
- Will future emissions of air contaminants result in air clean enough to meet the air quality standards? If not, what strategies can be employed to ensure that the standards are met?
- 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?

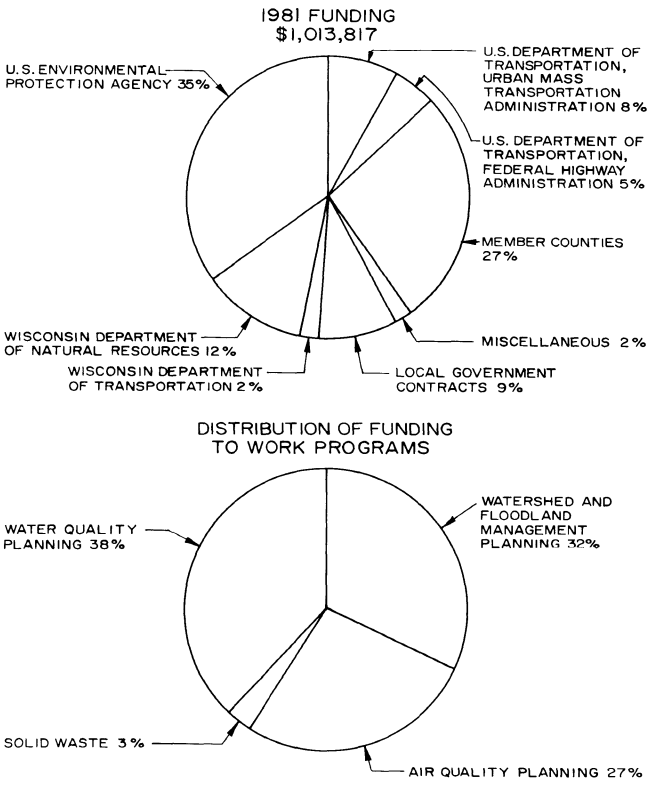
In attempting to find sound answers to these and related questions, develop recommendations concerning environmental protection and enhancement, monitor levels of environmental quality in the Region, and respond to requests for data and technical assistance, activities were conducted in 1981 in four identifiable program areas: water quality planning, watershed and floodland management planning, air quality planning, and solid waste management planning. In addition, in an effort to actively seek input from the public on the Commission's ongoing environmental work programs, the Commission continued a strong public participation/education program during 1981.

WATER QUALITY PLANNING

During 1981, Commission water quality planning efforts were focused primarily on activities relating to the implementation of the adopted regional water quality management plan. Such activities included the preparation of more detailed and

Figure 34

ENVIRONMENTAL PLANNING DIVISION



refined nonpoint source pollution abatement plans, inland lake water quality management plans, and local sanitary sewer service area plans. In addition, the Commission continued to assist local units of government in completing detailed sewerage facilities plans in preparation for the construction of point source pollution abatement facilities identified as needed in the adopted regional plan. The Commission also continued to conduct reviews of proposed sanitary sewer extensions. During 1981, the Commission also completed a study of potential upland disposal methods for dredged materials from the Port of Milwaukee. Finally, the Commission initiated a comprehensive Milwaukee Harbor estuary water resources planning program.

Regional Water Quality Management Plan

In 1979, the Commission completed and adopted a regional water quality management plan. The plan, designed in part to meet the Congressional mandate that the waters of the United States be made to the extent practicable "fishable and swimmable" is set forth in SEWRPC Planning Report No. 30, A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings; Volume Two, Alternative Plans; and Volume Three, Recommended Plan. The plan provides recommendations for the control of water pollution from point sources—such as sewage treatment plants, points of separate and combined sewer overflow, and industrial waste outfalls—and from nonpoint sources—such as urban and rural storm water runoff.

This regional plan element is one of the more important plan elements adopted by the Commission for, in addition to providing clear and concise recommendations for the control of water pollution, it provides the basis for the continued eligibility of local units of government for federal and state grants in partial support of sewerage system development and redevelopment, for the issuance of waste discharge permits by the Wisconsin Department of Natural Resources (DNR), for the review and approval of sanitary sewer extensions by the DNR, 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 specific nonpoint source pollution control practices that should be applied to specific lands. The recommendation for this more detailed level of planning was made 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 which affect the landowners concerned.

During 1981, the Commission staff prepared nonpoint source pollution control plans for Ashippun Lake, North Lake, and Okauchee Lake. These plans—prepared in the form of staff memoranda—identify and quantify the principal sources of nonpoint water pollution contributing to the water quality problems within each lake and set forth recommended actions for reducing the pollutant loading from such nonpoint sources. It is envisioned that these nonpoint source water pollution control plans will be implemented by the lake districts established for Ashippun, North, and Okauchee Lakes.

In 1980, the Commission assisted the Racine County Soil and Water Conservation District and 22 other concerned nonpoint source management agencies in completing and publishing SEWRPC Community Assistance Planning Report No. 37, A Nonpoint Source Water Pollution Control Plan for the Root River Watershed. This plan contains specific nonpoint source pollution abatement recommendations related to onsite sewage disposal systems, construction site erosion control, cropping practices, livestock waste management, and stream bank erosion control. By the end of 1981, 15 grass waterways, 15 grade stabilization structures, 1,420 feet of diversion structures, 2,645 feet of stream bank protection measures, and the planting of 23 acres of vegetation in critical erosion-prone areas had been completed in conformance with the plan recommendations. The aforementioned projects cost approximately $140,000 to implement during 1981.

State funding for the implementation of nonpoint source water pollution control projects and practices in the Root River watershed was provided on a cost-sharing basis under the Wisconsin Fund Pollution Abatement Grant Program. In 1981, the Commission assisted the Wisconsin Department of Natural Resources for the third year in the selection of additional "priority watersheds" for further nonpoint source pollution abatement planning and funding assistance. In consultation and cooperation with the seven soil and water conservation districts in the Region, the Commission nominated three watersheds as candidates for special studies and funding—the "Upper" subwatershed of the Fox River watershed, the Oak Creek watershed, and the Turtle Creek watershed. The Turtle Creek watershed was one of eight watersheds in the State added to the list of "priority watersheds" during 1981. No funding commitments for detailed planning and project implementation were made during the year, however, because of uncertainties concerning the state budget situation.

During 1981, the Commission, in cooperation with the U.S. Geological Survey and the Wisconsin Department of Natural Resources, participated in the conduct of an urban nonpoint source runoff study. This study—which is part of a nationwide urban runoff program—is intended to evaluate the potential effects of increased street sweeping practices on the quality of urban storm water runoff in eight paired catchment areas in the Cities of Milwaukee and West Allis. Specifically, during 1981 the Commission provided the other participating agencies with descriptions of the eight catchment areas and prepared an economic evaluation of the public works expenditures associated with the program, including street sweeping costs. The study is scheduled for completion during 1982 and should provide information important to the design of urban nonpoint source pollution abatement programs.

Lake Water Quality Management Planning

During 1981, the Commission continued studies of six major inland lakes in southeastern Wisconsin. These studies, which are intended to result in recommendations for the better management of the lake water quality, represent a joint effort by the Commission, the Wisconsin Department of Natural Resources, and the lake protection and rehabilitation districts concerned. The six inland lakes for which comprehensive studies were completed in draft form at year's end are: Geneva Lake in Walworth County; and Ashippun Lake, Lac La Belle, North Lake, Okauchee Lake, and Pewaukee Lake in Waukesha County.

The Commission published the lake management studies for Lac La Belle and Okauchee Lake during 1981. The results and findings of these studies are set forth in SEWRPC Community Assistance Planning Report No. 43, A Water Quality Management Plan for Lac La Belle, Waukesha County, Wisconsin, and SEWRPC Community Assistance Planning Report No. 53, A Water Quality Management Plan for Okauchee Lake, Waukesha County, Wisconsin. These reports describe the existing chemical, biological, and physical water quality conditions of the respective lakes; the existing and proposed uses of each lake and attendant water quality objectives and standards; required land management and land use measures in each lake watershed; and required point and nonpoint source pollution abatement measures. Similar reports for Ashippun Lake, Geneva Lake, North Lake, and Pewaukee Lake were in draft form at year's end.

In addition to the six lakes for which lake management studies have been completed by the Commission, it is anticipated that seven other major inland lakes will be similarly investigated in the future. These seven lakes are: George Lake and Paddock Lake in Kenosha County, Eagle Lake in Racine County, Lake Wandawega in Walworth County, Friess Lake and Pike Lake in Washington County, and Oconomowoc Lake in Waukesha County. These seven lake management studies are scheduled to be completed over the next several years as budget/work program conditions permit.

Local Sewerage Facilities Planning

During 1981, the Commission continued to work extensively 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 Department of Natural Resources in support of the administration of the Wisconsin Fund established by the State Legislature in 1978, and good preliminary engineering practice. Work activities during 1981 included the provision of basic economic, demographic, land use, and natural resource base data for use in preparation of the facilities plans; the extension of the findings and recommendations of the regional water quality management plan, in particular those regarding recommended sanitary

sewer service areas, trunk sewer configurations, treatment plant locations, capacities and levels of treatment, and the review of, and comment on, the preliminary plans.

During 1981, such facilities plans were completed for sewage treatment plants for the greater Racine area, including the North Park Sanitary District, the Town of Pleasant Prairie Sewer Utility District D, and the Town of Yorkville Sewer Utility District No. 1. These three reports set forth final recommendations for the construction of new or expanded sewage treatment plants and related trunk sewers in accordance with the recommendations set forth in the adopted regional water quality management plan. As such, the three reports were recommended by the Commission to the State for approval. At year's end, similar facility plans were under development for the entire Geneva Lake area, including the City of Lake Geneva and the unincorporated community of Lake Como, at the eastern end of the lake and at the western end of the lake the Villages of Fontana, Walworth, and Williams Bay; the Village of Lac La Belle and the Town of Oconomowoc; the City of Muskego; the Wallace Lake Sanitary District; and the Town of Waterford Sanitary District No. 1.

The sewerage facilities planning and design effort being conducted by the Milwaukee Metropolitan Sewerage District again during 1981 required substantial support services from the Commission. The Commission staff served on several district advisory committees, including the Technical Coordinating Committee, the Grants Policy Committee, and the Environmental Impact Statement Coordinating Committee. During 1981, the Commission also provided to the District assistance in the preparation and final review of facilities planning and environmental impact statement documents.

Sanitary Sewer Extensions and Sewer Service Area Refinement Process

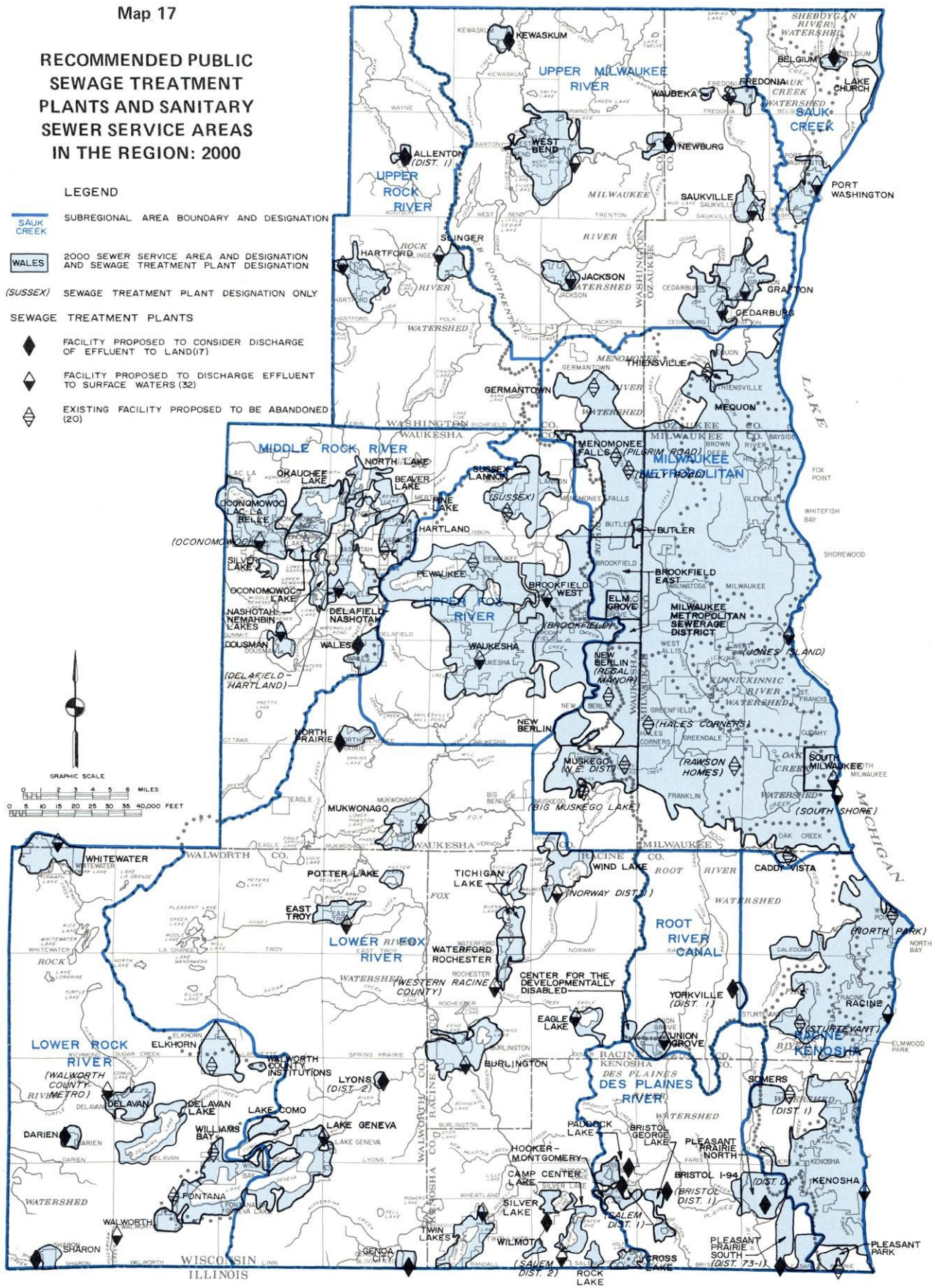
The adoption during 1979 of a regional water quality management plan for southeastern Wisconsin set into motion a process whereby, under rules promulgated by the Wisconsin Department of Natural Resources, the Commission must review and comment on all proposed sanitary sewer extensions. Such review and comment must relate a proposed 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 sanitary sewer extensions unless such extensions are found to be in conformance with an adopted areawide water quality management plan.

The adopted regional water quality management plan includes preliminary recommended sanitary sewer service areas tributary to each recommended public sewage treatment facility in the Region. There are in the adopted plan a total of 85 such sanitary sewer service areas (see Map 17). These recommended sanitary sewer service areas are based upon the adopted regional land use plan for the year 2000. As such, these preliminary delineations are necessarily general in nature and do not reflect detailed local planning considerations. Accordingly, the Commission determined that, upon adoption of the regional water quality management plan, steps be taken to refine and detail each of the 85 sanitary 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 a refined and detailed sewer service area. Such a service area map would identify the location and extent of the primary environmental corridors lying within the service area, such primary environmental corridors containing the best and most important elements of the natural resource base within the sewer service area. Preserving the environmental corridor lands in essentially natural, open land uses is not only important to the maintenance of the overall quality of the environment, but also helps avoid the creation of serious and costly developmental problems. Accordingly, the service area plan should recognize that urban development should be discouraged from occurring within the corridors, an important factor which is to be considered in the future extension of sanitary sewer service.

Each refined and detailed sanitary sewer service area plan, including the detailed delineations of primary environmental corridors, was to be documented in a Commission community assistance planning report. That report would be formally adopted by the operator of the affected sewage treatment facility 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.

Map 17

RECOMMENDED PUBLIC SEWAGE TREATMENT PLANTS AND SANITARY SEWER SERVICE AREAS IN THE REGION: 2000



By the end of 1981, the refinement process had been completed for the four sanitary sewer service areas served by the Walworth County Metropolitan Sewerage District—the Cities of Delavan and Elkhorn, the Delavan Lake Sanitary District, and the Walworth County Institutions (see Map 18). These four final sanitary sewer service area plans are set forth in SEWRPC Community Assistance Planning Report No. 56, Sanitary Sewer Service Areas for the Walworth County Metropolitan Sewerage District. That report was adopted by the Commission as an amendment to the regional water quality management plan on December 3, 1981, following adoption by the Walworth County Metropolitan Sewerage District and the affected communities. Similar sewer service area refinement reports were in various stages of completion during 1981 for the West Bend, Muskego, Hartford, Sussex, Somers, Germantown, Mequon, Thiensville, Oak Creek, and Whitewater service areas.

Pending the completion of the refinement process in cooperation with the local units of government concerned, the Commission will use the more general sewer service area recommendations set forth in the adopted plan as a basis for reviewing and commenting on individual proposed sanitary sewer extensions. During 1981, such review comments were provided on 166 such extensions displayed by county distribution in Table 16.

Study of Potential Upland Disposal Methods for Dredged Materials from the Port of Milwaukee

During 1981, the Commission completed a study of potential methods for disposing of or using in an environmentally safe manner at upland sites materials dredged from the Milwaukee Harbor area. The findings of this study, which was undertaken by the Commission at the request of the Port of Milwaukee made in April 1981, are set forth in SEWRPC Community Assistance Planning Report No. 68, Upland Disposal Area Siting Study for Dredged Materials from the Port of Milwaukee. The report describes the physical characteristics of the Milwaukee Harbor, presents a summary of existing and historic dredging and dredged material disposal practices, provides a general evaluation of the methods available for the disposal of dredged materials at upland sites, and sets forth alternative methods and associated costs for disposal of dredged material from the Milwaukee Harbor at such upland sites.

The report evaluates five alternative methods for the potential disposal of dredged materials in upland sites: disposal of the dredged material in a new landfill or lagoon; disposal of the dredged material in an existing landfill; application of the dredged material on agricultural or silvicultural lands as a soil conditioner; the use of dredged materials as a fill material for general construction activities; and the disposal and reuse of dredged materials by a combination of methods. The costs of these upland disposal methods were estimated to range from about $4.20 per cubic yard for use of the material as construction fill to more than $9.00 per cubic yard for the landfill, lagooning, or land application alternatives. Based upon a comparison of the alternatives considered, the study concluded that the disposal and reuse of dredged materials by a combination of methods would provide the most practical means of disposing of dredged materials from the Port of Milwaukee at upland sites. The combination of methods would include reuse of the dredged material as fill for general construction, disposal in existing sanitary landfills, and use as a soil conditioner on agricultural lands. The combination alternative would provide a highly flexible as well as environmentally safe approach to the disposal of the wide variety of materials that may be encountered in dredging the Milwaukee Harbor. In addition, under this alternative one or more of the disposal methods could be utilized at any time of the year that dredging occurs.

The inventory information, alternatives assessment, and recommendations presented in this report constitute a necessary first phase in the investigation of feasible methods for the disposal of dredged materials from the Milwaukee Harbor on upland sites. The ultimate selection of a specific method or methods of disposal and/or reuse of dredged materials from the harbor will require the conduct of more detailed studies to evaluate the recommended means for disposal or reuse of the dredged material with respect to economic, social, environmental, technological, and regulatory considerations.

Milwaukee Harbor Estuary Comprehensive Water Resources Planning Program

During 1981, the Commission completed a study design for a comprehensive Milwaukee Harbor estuary water resources planning program. This

Map 18

REFINED AND DETAILED SANITARY SEWER SERVICE AREAS IN THE WALWORTH COUNTY METROPOLITAN SEWERAGE DISTRICT

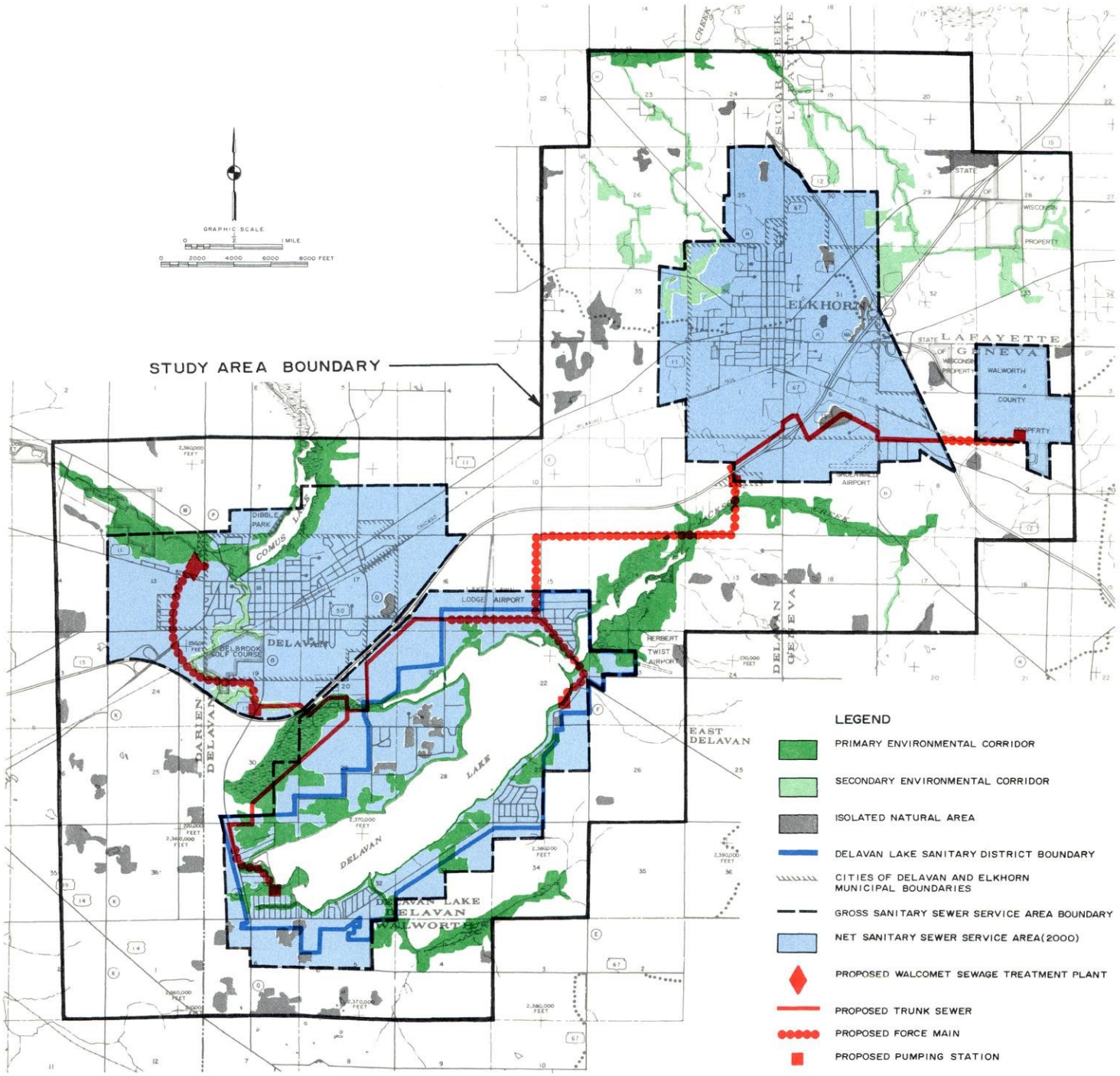


Table 16

SANITARY SEWER EXTENSION REVIEWS: 1981

County	Number
Kenosha	10
Milwaukee	44
Ozaukee	7
Racine	24
Walworth	17
Washington	17
Waukesha	47
Total	166

effort, which was undertaken at the request of the Common Council of the City of Milwaukee, is a cooperative effort between the U. S. Environmental Protection Agency, the U. S. Geological Survey, the Milwaukee Metropolitan Sewerage District, and the Commission. The primary objectives of the Milwaukee Harbor study are: to assess the existing and historic water quality, flooding, and storm damage problems in the inner and outer harbors of the estuary; to identify and quantify sources of water pollutants—including in-place sediments; to review water uses and supporting water quality objectives and standards; to formulate and evaluate alternative means to attain those objectives and standards; and to recommend a cost-effective water resources management plan for the Milwaukee Harbor estuary. The study will have particularly important implications for the selection of the level of protection to be provided by the combined sewer overflow abatement measures, and for the need to provide in-stream treatment measures, including sediment removal.

By year's end, the Milwaukee Metropolitan Sewerage District had secured the funding necessary to proceed with the comprehensive Milwaukee Harbor estuary study. The Milwaukee Metropolitan Sewerage District requested that the Commission be the agency primarily responsible for conducting the study, including responsibilities for study organization, retaining and directing the consultants required to undertake certain work items, coordinating all governmental activities, and ensuring citizen participation. Contracts necessary for the conduct of the study were under preparation late in 1981, as was the process of selecting the technical consultants. In addition, at year's end, the Commission was in the process of forming a technical advisory committee to oversee the conduct of the study, such committee to be comprised of representatives of federal, state, and local units of government concerned, recreational interest groups, private industries, and the academic community.

WATERSHED AND FLOODLAND MANAGEMENT PLANNING

During 1981, Commission efforts in watershed and floodland management planning were concentrated primarily on the preparation of a comprehensive plan for the Pike River watershed. In addition, the Commission also initiated a reevaluation and revision of the Lincoln Creek flood control plan. Map 19 indicates the status of watershed studies conducted by the Commission by the end of 1981. Other work conducted during 1981 included the provision of hydrologic and hydraulic data—including flood flow and stage data—to consulting engineers and governmental agencies for use in the development of federal flood insurance rate studies. Finally, the Commission continued to promote the conduct of a cooperative stream gaging program.

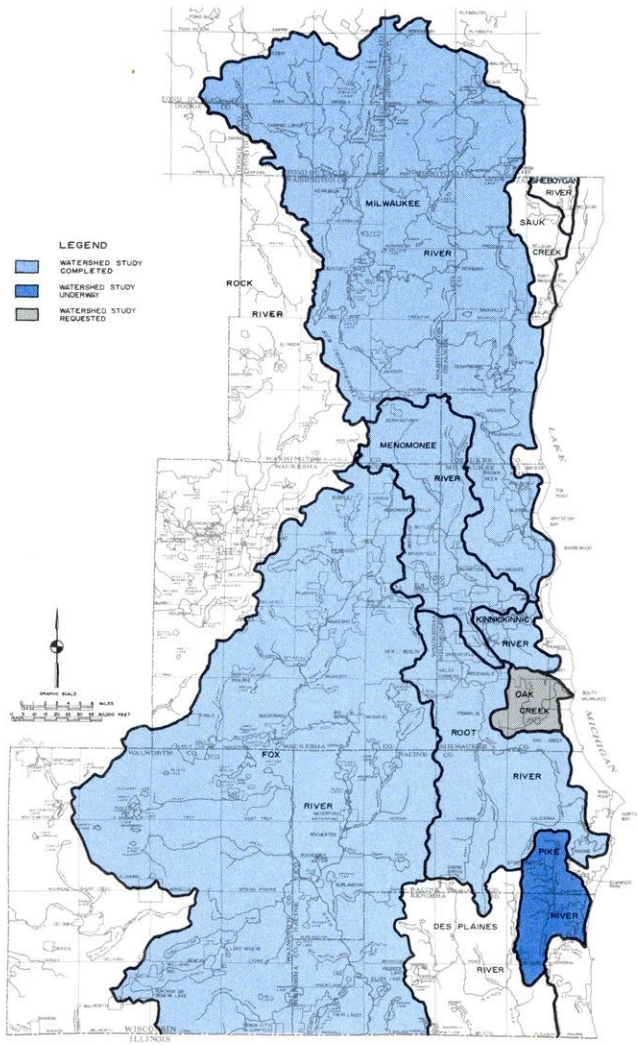
It was reported in the 1980 Annual Report that funding arrangements to permit the conduct of the Oak Creek watershed study were under discussion at the end of 1980. At the end of 1981, funding arrangements between the Milwaukee Metropolitan Sewerage District, Milwaukee County, the City of South Milwaukee, and the Commission had not yet been completed. Accordingly, the Commission did not conduct any activity relating to the Oak Creek watershed study during 1981.

Pike River Watershed Study

Work continued during 1981 on the preparation of a comprehensive plan for the Pike River watershed. This work effort, which is being undertaken at the request of the County Boards of the Counties of Kenosha and Racine, is being guided by the Pike River Watershed Committee. This Committee, the membership of which is identified in Appendix B, is comprised of federal, state, and local officials and concerned citizen leaders from throughout the watershed. Funding for the study is being provided by the two County Boards concerned.

Map 19

SEWRPC WATERSHED STUDY STATUS: 1981



During 1981, the Pike River Watershed Committee met twice to consider and review materials prepared by the Commission staff for inclusion in the final planning report. The Committee reviewed and approved the report chapter concerning historic flooding problems in the watershed, and reviewed and approved the first portion of the chapter evaluating alternative floodland management measures. At year's end, the Commission staff had completed the necessary hydrologic and hydraulic analyses under existing year 1980, and planned year 2000 land use conditions. Also by year's end, the Commission staff had initiated the design and evaluation of alternative floodland management measures and had completed the technical analyses for the tributaries to the Pike River and Pike Creek. The Pike River watershed study is scheduled for completion in 1982.

Lincoln Creek Flood Control Study

During 1981, the Commission initiated a reevaluation and revision of the flood control plan for Lincoln Creek as originally completed by the Commission in 1977. Lincoln Creek is a first order tributary of the Milwaukee River. The Creek is located entirely within, and its tributary watershed is located largely within, the City of Milwaukee. This plan reevaluation effort is being conducted using recently developed topographic information to confirm or revise, as necessary, the flood flows and stages set forth, and the flood control recommendations made in the initial plan which was conducted in the absence of large-scale topographic mapping. Financial support for this study is being provided by the City of Milwaukee, Department of City Development, and data are being provided by the City of Milwaukee, Department of Public Works and the Milwaukee Metropolitan Sewerage District. The initial plan was prepared for and funded by the District.

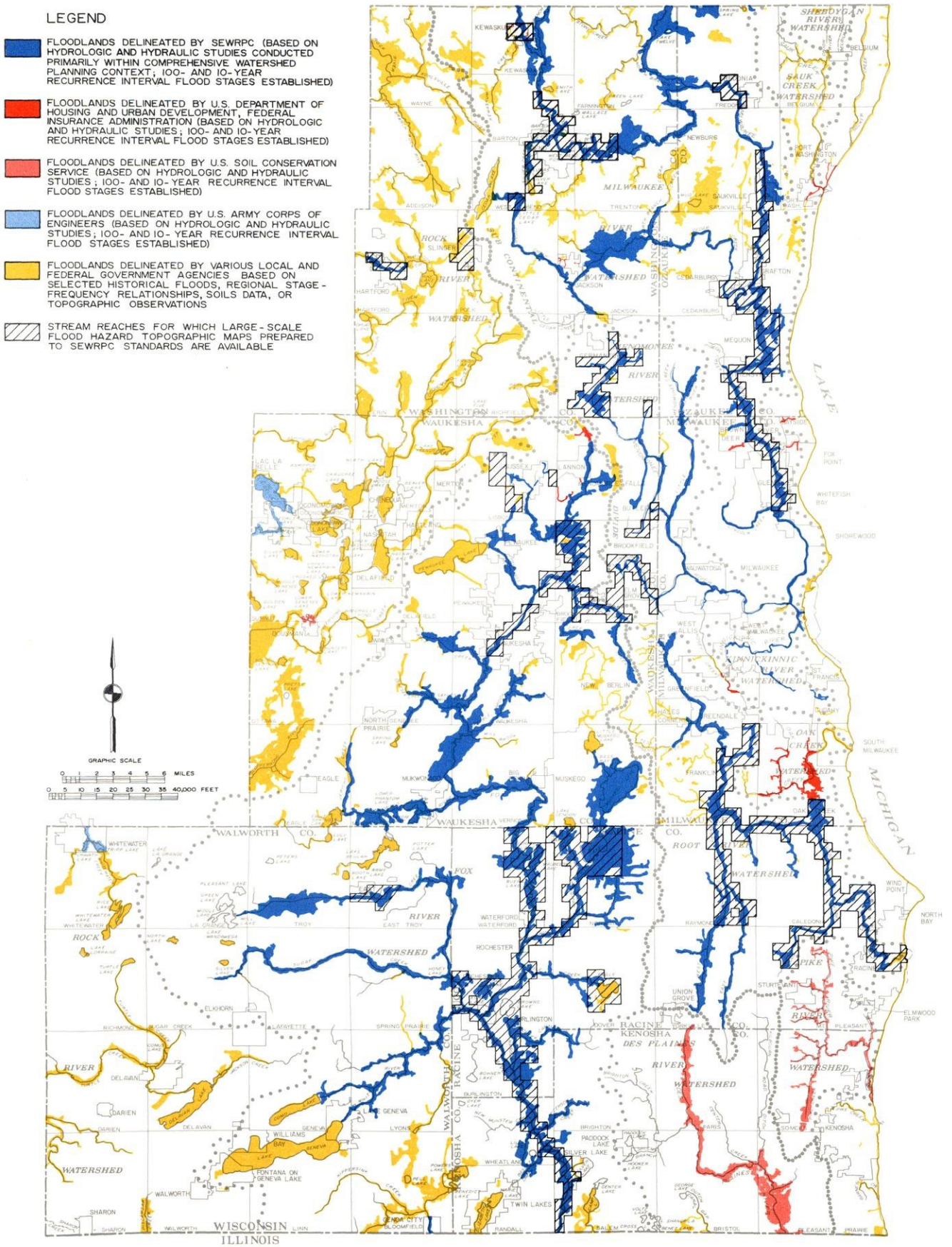
One of the important issues to be addressed in the plan review effort is an evaluation of the potential flood control benefits of a proposed multipurpose wetland basin located at the Havenwoods Urban Environmental Education Center. The Commission was specifically requested to examine this issue by the Friends of Havenwoods, a citizen group concerned with the sound development of the Havenwoods site, and by the Havenwoods Ad Hoc Advisory Committee, which was established by the Secretary of the Department of Natural Resources in 1979. It is anticipated that the review and revisions to the Lincoln Creek flood control plan will be completed in 1982.

Flood Plain Data Availability

The status of existing flood hazard data in the Region is shown on Map 20. The Commission has completed comprehensive watershed studies for the Root, Fox, Milwaukee, Menomonee, and Kinnickinnic River watersheds, resulting in the development of flood hazard data for about 631 miles of major stream channels, not including stream channels in the Milwaukee River watershed lying outside the Region in Sheboygan and Fond du Lac Counties. In addition, a special Commission flood-

Map 20

DELINEATION OF FLOODLANDS: 1981



land management study completed in 1974 for the City of Hartford has resulted in the delineation of floodlands for another four miles of stream channel. Large-scale flood hazard maps prepared to Commission specifications are available for about 255 miles, or about 40 percent, of the 635 miles of major stream channel for which the Commission has developed flood hazard data.

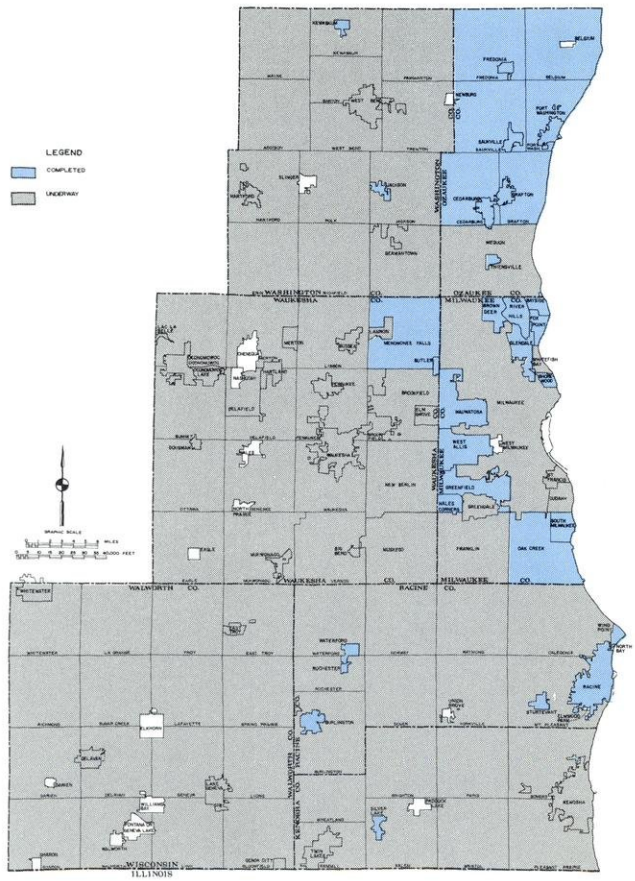
Flood Insurance Rate Studies

Under the National Flood Insurance Act of 1968, the U. S. Department of Housing and Urban Development 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 Department 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 Department for the conduct of such studies, the Commission does cooperate with all of the engineering firms and federal 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 of 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 Department 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.

By the end of 1981, federal flood insurance rate studies had been completed and were underway, respectively, for 30 and 39 civil divisions in the Region (see Map 21). Of the 39 studies in progress, reports presenting the findings of 25 studies were in draft form by the end of 1981. The Commission was involved not only in providing available data from the Commission files to the contractors conducting such studies, but also in delineating regulatory floodways and attending meetings with local officials to discuss the conduct and results of the flood insurance rate studies. The Commission also assists the local communities concerned in the enactment of sound local floodland regulations as required by the federal flood insurance program and State Statutes.

Map 21

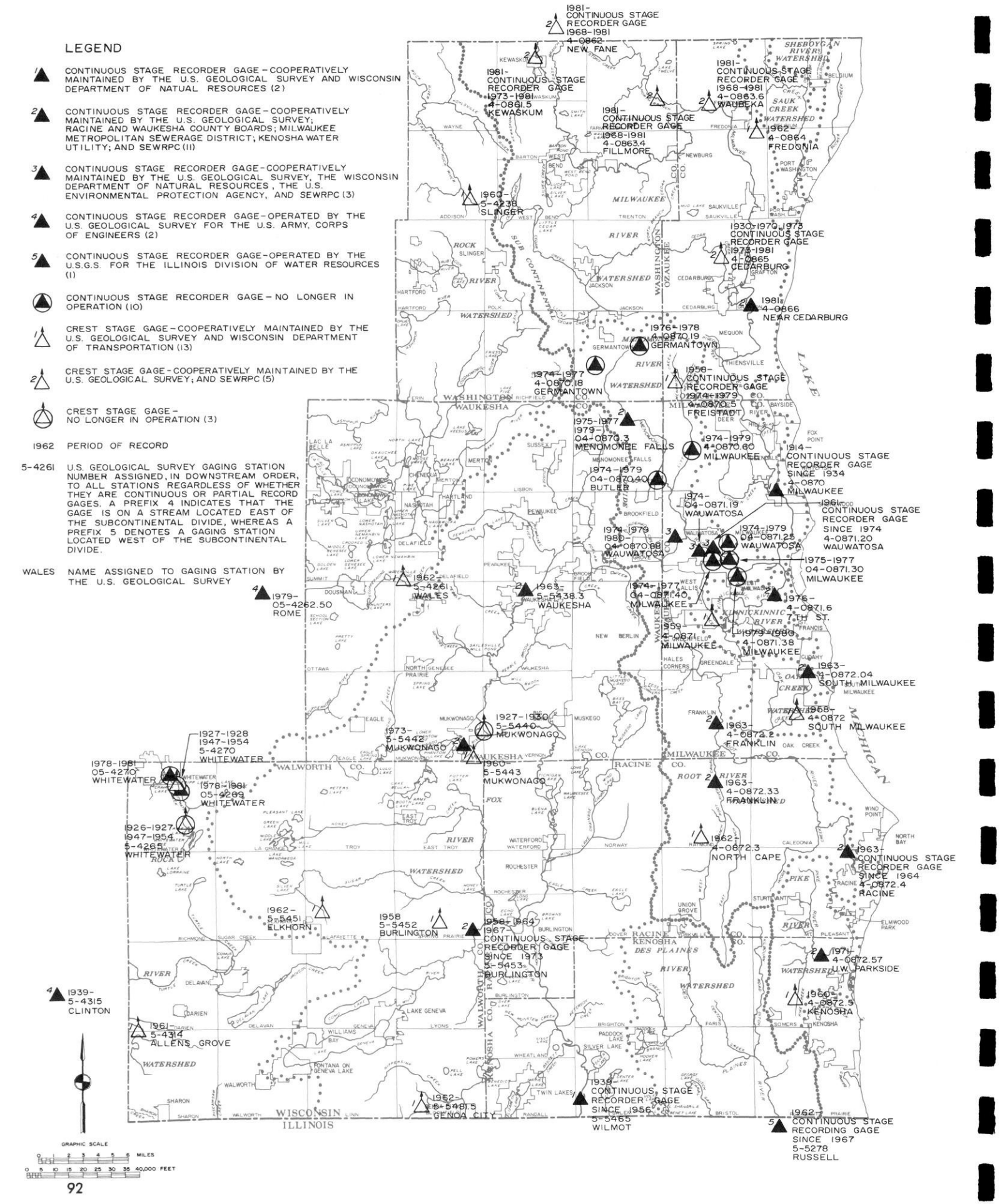
STATUS OF FLOOD INSURANCE RATE STUDIES



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, 19 additional recording streamflow gages (see Map 22). All of these gages are maintained by

LOCATION OF U. S. GEOLOGICAL SURVEY STREAM GAGING STATIONS: 1981



the U. S. Geological Survey under a contract with the Commission. The U. S. Geological Survey publishes the data obtained. Local funds to support the operation of the gages in 1981 were provided by the Racine and Waukesha County Boards of Supervisors, the Milwaukee Metropolitan Sewerage District, and the Kenosha Water Utility.

REGIONAL AIR QUALITY PLANNING

During 1981, the principal focus of the regional air quality planning effort was directed towards implementation of the regional air quality attainment and maintenance plan, particularly as that plan addresses the abatement of hydrocarbon/ozone levels in southeastern Wisconsin. In addition, during 1981 the Commission also provided technical assistance to the City of Milwaukee, Department of City Development in the completion of a study of the sources and impacts of fugitive dust emissions in the heavily industrialized portion of the Menomonee River Valley. Finally, the Commission provided financial assistance, using funds made available from the U. S. Environmental Protection Agency, to the Wisconsin Department of Transportation to enable the Department to establish a Bureau of Motor Vehicle Inspection and Maintenance for the purpose of testing air pollutant emissions from automobiles and light-duty trucks in southeastern Wisconsin.

Regional Air Quality Management Plan

In 1980, the Commission completed and adopted a regional air quality management plan. This plan, which is set forth in SEWRPC Planning Report No. 28, A Regional Air Quality Attainment and Maintenance Plan for Southeastern Wisconsin: 2000, prescribes a series of recommended actions designed to provide for the near-term attainment and long-term maintenance of the established federal and state ambient air quality standards. The plan consists of five major elements: a particulate matter pollution control plan, a sulfur dioxide pollution control plan, a carbon monoxide pollution control plan, a hydrocarbon/ozone pollution control plan, and recommendations for a continuing and expanded ambient air quality monitoring network. A descriptive summary of the regional air quality management plan is provided in the Commission's 1980 Annual Report.

Hydrocarbon/Ozone Plan Revisions

In addition to being an important regional plan element, the regional air quality plan also provided important contributions to the Wisconsin State Implementation Plan (SIP) to achieve the ambient air quality standards developed by the Wisconsin Department of Natural Resources (DNR) under the requirements and provisions of the federal Clean Air Act as amended in 1977. In particular, the regional air quality management plan provided the federally mandated pollutant emission inventories and forecasts and the air quality simulation modeling analyses necessary for the sound evaluation and careful design of alternative actions for the abatement of excessive hydrocarbon/ozone levels in southeastern Wisconsin. Analyses conducted under this planning effort indicated that even with the implementation of reasonably available control technology on existing air pollution sources, the ozone ambient air quality standard could not be attained in the Region by the mandated date of December 31, 1982. Under such circumstances the federal Clean Air Act provides that an extension for the attainment of the ozone standard may be granted by the U. S. Environmental Protection Agency (EPA) until December 31, 1987, if certain predefined requirements are met. Among the specified requirements for an attainment date extension is the preparation and submittal to the EPA by July 1, 1982, of revisions to the ozone portion of the Wisconsin State Implementation Plan. These revisions represent a reevaluation, refinement, and extension of the initial hydrocarbon/ozone control plan.

During 1981, the principal focus of the regional air quality management planning effort was directed towards the preparation of revisions to the ozone portion of the Wisconsin State Implementation Plan. The Commission staff, in cooperation with the DNR, assumed the responsibility for the collation of a comprehensive inventory of volatile organic compound and nitrogen oxide emissions in the Region for the year 1980 and the preparation of an emissions forecast for the same pollutant species for the year 1987. In total, the Commission prepared or had underway inventories and forecasts for 22 area source categories of volatile organic compound and nitrogen oxide emissions. In addition, during 1981 the Commission began the process of substantially modifying the procedures for estimating the air pollutant emissions from motor vehicles in conformance with the revisions and changes to the federally recommended methodologies published by the EPA. At year's end, all source emission inventories and forecasts had been completed and the preparation of the mobile source inventories and forecasts had been initiated.

Also, as a part of the revision process for the ozone portion of the Wisconsin State Implementation Plan, the Commission assumed responsibility for the air quality simulation modeling analysis of existing and forecast ozone levels in southeastern Wisconsin. The model to be used by the Commission for this effort is the Ozone Isopleth Plotting Package (OZIPP), the computer program associated with the EPA-approved Empirical Kinetics Modeling Approach (EKMA). At year's end, the Commission staff had installed and successfully tested the OZIPP program on the Commission's computer facilities. It is anticipated that the emission inventory and forecast work effort and the air quality simulation modeling work effort necessary for the preparation of revisions to the ozone portion of the Wisconsin State Implementation Plan will be completed during the first half of 1982.

Plan Implementation

During 1981, the Commission also assisted the DNR in the selection of a carbon monoxide monitoring site in the vicinity of the Marquette Interchange in the City of Milwaukee. The placement of a carbon monoxide monitor in this area was recommended in the adopted regional air quality management plan in order to ascertain whether or not the ambient air quality standards for this motor vehicle-related pollutant were being exceeded in the vicinity of this most heavily traveled highway facility in the Region and the State. Previous air quality simulation modeling efforts had suggested that the carbon monoxide standards may be exceeded in this area. A carbon monoxide monitor was subsequently installed by the DNR at 915 W. Wisconsin Avenue and made operational during November 1981.

The adopted regional air quality management plan also recommended that nonattainment areas having no monitored violations of an ambient air quality standard over eight quarters of record be promptly redesignated as attainment areas. During 1981, the DNR recommended, and the EPA approved, one such redesignation in the Region attainment based upon the absence of monitored violations of the ambient air quality standards and supplemented, in part, by analyses provided to the DNR by the Commission. On December 15, 1981, the EPA reduced the areal extent of the carbon monoxide nonattainment area in Milwaukee County from about 85 square miles to an area of less than one square mile in the vicinity of N. 76th Street and W. Appleton Avenue in the City of Milwaukee. At the same time, the EPA redesignated an area of less than one square mile around the Marquette Interchange from nonattainment to unclassifiable until a more intensive carbon monoxide monitoring effort becomes available. With the placement of a carbon monoxide monitor within this presently unclassifiable area, the status of existing carbon monoxide levels around the Marquette Interchange can be firmly established within eight quarters of satisfactory operation.

During 1981, the Commission also assisted the DNR in its evaluation of potential sources contributing to the existing particulate matter and sulfur dioxide nonattainment areas in the Region. The Commission prepared special sulfur dioxide emission inventories and forecasts for Milwaukee County and special particulate matter emission inventories and forecasts for all of Milwaukee County and portions of Kenosha, Racine, and Waukesha Counties. In addition, the Commission prepared inventories and forecasts of lead emissions in Milwaukee County to enable the DNR to evaluate the attainment/nonattainment status of this pollutant species.

Menomonee River Valley Fugitive Dust Study

During 1981, the Commission also assisted the City of Milwaukee, Department of City Development, in the completion of a four-year study of the impact of fugitive dust emissions on particulate matter levels in the heavily industrialized portion of the Menomonee River Valley. The purpose of this study, which is documented in a report entitled Fugitive Dust Emissions: Their Sources and Their Control in Milwaukee's Menomonee River Valley, was to identify the major sources of emissions contributing to the consistently high levels of particulate matter monitored in the Valley, and to evaluate potential abatement measures for alleviating such excessive pollution levels. The conduct of this study involved the establishment of a network of special-purpose particulate matter monitoring stations in the Valley, the conduct of a comprehensive fugitive dust emissions inventory, the execution of an experiment designed to evaluate the impact of palliative treatment of unpaved roadways on measured particulate matter levels, the collection and laboratory analysis of street sweeping and filter pad samples, and an evaluation of the relative contribution of fugitive dust emissions to ambient air quality using air quality simulation modeling techniques. The study included special analysis of

the chemical composition and physical properties of street sweeping samples and the filter pad samples in order to help identify the souces of the particulate matter.

The results of the study indicated that the two major contributors to the monitored particulate matter levels in the Valley are road aggregate minerals suspended by vehicular traffic and particles transported into the Valley from sources well removed from the area. These two components were found to constitute more than 50 percent of almost every air quality monitoring sample collected as a part of the study. The only local sources found to contribute more than trace amounts to the particulate matter levels in the air over the Valley were stack emissions of coal combustion products—which were usually found to comprise less than 15 percent of the material on the air quality monitoring samples and never more than 45 percent. Other components which were found to contribute to particulate matter levels in the Valley were iron oxides, exhaust minerals from sources other than motor vehicles, paint from spray painting operations, cement, rubber tire fragments, coal, cornstarch, and biological particles such as pollens.

The Menomonee River Valley fugitive dust study recommends several actions for abating the particulate matter problem in this important area of the City. These recommendations include the paving of unpaved parking lots and other trafficable surfaces in and around the Valley, the conduct of a study to investigate the impact of particulate matter transported over long distances on air quality in the City, and the establishment of a pilot vacuum street sweeping program in portions of the City. It is significant to note that the findings and recommendations of the City of Milwaukee fugitive dust study are consistent with, and serve to support, the recommendations set forth in the Commission's regional air quality attainment and maintenance plan for southeastern Wisconsin.

Motor Vehicle Inspection and Maintenance Program

Recognizing that the carbon monoxide and ozone ambient air quality standards could not be attained in the Region by December 31, 1982, the regional air quality attainment and maintenance plan recommended that a motor vehicle inspection and maintenance program be established in southeastern Wisconsin. This recommendation is consistent with the requirements set forth in the federal Clean Air Act as amended in 1977 for areas requesting an extension of the mandated attainment date for these pollutant species to December 31, 1987.

During 1981, the Commission, utilizing funds made available under Section 175 of the Clean Air Act, provided financial assistance to the Wisconsin Department of Transportation enabling the Department to initiate the establishment of a motor vehicle inspection and maintenance program in southeastern Wisconsin. The Wisconsin Department of Transportation acted during 1981 to prepare the necessary regulatory changes to the Wisconsin Administrative Code which would provide the Department with authorization to establish the inspection and maintenance program. The Department also prepared environmental and fiscal impact analyses for the proposed program. Moreover, during 1981 the Department initiated the preparation of a request for a proposal which is to be distributed to potential contractors for bidding to conduct the actual motor vehicle inspections and emission tests. At year's end, the Department was preparing to conduct public hearings on the proposed motor vehicle inspection and maintenance program in southeastern Wisconsin.

SOLID WASTE MANAGEMENT PLANNING

During 1981, the Commission continued to provide assistance to counties within the Region in the preparation of locally developed, county-oriented solid waste management plans. Specifically, the Commission continued to provide assistance during 1981 to Washington and Waukesha Counties in the implementation of their jointly conducted solid waste management planning program which was initiated during 1980. This assistance was provided through Commission staff participation on technical advisory committees established by Washington and Waukesha Counties for the purpose of guiding the development and implementation of the solid waste management plans.

During 1981, the Commission also assisted Racine County in the development of a solid waste management plan, principally through Commission staff participation on a technical advisory committee established by the County. The Commission also provided Racine County with certain technical and planning data necessary to the expeditious conduct of the solid waste management planning program.

Work was initiated by the Commission staff during 1981 on the preparation of a solid waste management plan for Walworth County. The Commission, in conjunction with the Walworth County Planning, Zoning, and Sanitation Department is conducting this planning effort under the guidance of the Walworth County Solid Waste Technical Advisory Committee, comprised of representatives of state and local agencies and concerned citizen leaders from throughout the County. The study is being jointly funded by Walworth County and the Wisconsin Department of Natural Resources.

During 1981, the Technical Advisory Committee met eight times to review and consider materials prepared by the Commission and County staffs for inclusion in the final planning report. The Committee reviewed and approved several report chapters setting forth the introductory and background materials, presenting the basic inventories and analyses, outlining the anticipated growth and change in the study area, detailing the landfill siting analysis procedures, and summarizing the general evaluation of solid waste management alternatives. At year's end, the Commission and County staffs were completing the evaluation of alternative solid waste management systems for Walworth County.

Also during 1981, the Commission, in cooperation with the Wisconsin Department of Natural Resources, completed an inventory of all known solid waste disposal sites in the Region, including existing landfills, historic landfills or dump sites, incinerators, and recycling centers. The results of this inventory effort are to be documented in a SEWRPC Technical Record scheduled for publication early in 1982.

PUBLIC PARTICIPATION EFFORTS

During 1981, a full-time Extension Agent was again assigned to the Commission under a cooperative agreement with the University of Wisconsin-Extension Service. The responsibilities of this position include formulating and conducting educational programs in the areas of water quality, air quality, land use, and natural resource preservation and utilization.

As in 1980, much of the water quality public participation effort in 1981 was centered on nonpoint source water pollution control, and particularly in the Root River watershed. Major educational efforts included a January workshop on construction site erosion in the Root River watershed, a June bus tour of conservation projects in the Root River and Oak Creek watersheds, and exhibits on nonpoint source pollution displayed at the Wisconsin State Fair in August. The latter included a large lighted exhibit, a literature rack from which the Commission's "Update" and other publications were distributed, and a model illustrating proper land management practices manned by University Extension Service, Commission staff, and volunteers from other agencies including the Wisconsin Department of Natural Resources and the U. S. Department of Agriculture, Soil Conservation Service.

In October, a hiking tour of the upper Root River was organized and conducted for 4-H Club members, leaders, and parents. An educational resource drafted for use at this time was "A Water Quality Tour Guide of the Upper Root River." This brochure is to be reprinted in 1982. Also in conjunction with the fall hiking tour, presentations were given to three groups of 4-H Club members, leaders, and parents.

Other water quality activities designed to promote understanding and implementation of the adopted regional water quality management plan included an exhibit on water pollution placed at the Milwaukee Sentinel Sports Show in March, and assistance in a conservation tillage demonstration in Racine County in November. Finally, a revised water quality "Update" on the adopted regional water quality management plan was printed and distributed in March of 1981.

Under air quality, public participation efforts included the printing and distribution of "Updates" on elements of the air quality plan and carbon monoxide in January and March, respectively. Subjects for additional air quality "Updates" begun in 1981 include transportation systems management and air quality, sulfur dioxide, and nitrogen oxides and hydrocarbons/ozone. These "Updates" will be published in 1982.

An ongoing effort is being made to coordinate the University Extension Service-Commission air quality public participation program with the programs of other organizations and agencies and an interagency meeting was conducted for this

purpose in December. This meeting was attended by representatives of the Wisconsin Department of Natural Resources, the American Lung Association, and the UW-Extension, and the Commission. As part of another air quality informational activity, slides and a script were prepared providing a general overview on air quality in southeastern Wisconsin. This slide program is intended for presentation to concerned citizen groups.

Under solid waste management, a public participation program was initiated in 1981 for the Walworth County solid waste management planning study being conducted with assistance from the Commission. News releases were prepared on the study process and progress, and were released to Walworth County Newspapers beginning in July at a frequency of approximately one every other month. The 1981 release titles included: "Walworth County Solid Wastes to be Studied"; "Public Input Encouraged in Walworth County Solid Waste Planning Effort"; "Solid Waste Recycling in County Found to be Minimal—Local Officials to Tour Recycling Sites"; and "County Seeks to Minimize Landfill Need." Public participation occurred at the monthly meetings of the Walworth County Solid Waste Management Technical Advisory Committee, and was promoted by the news releases.

Associated with the solid waste public participation effort for Walworth County, the Commission and the Walworth County Planning, Zoning, and Sanitation Department organized and sponsored an October bus tour of solid waste management facilities in southeastern Wisconsin. The tour—which was attended by solid waste committee members, local elected officials, agency representatives, and the media—included stops at active landfill sites, a major recycling operation, a resource recovery plant, a solid waste transfer station, an incinerator, and a town dumpster.

Among other public participation activities occurring in 1981 was support given to the Southeast Association of Soil and Water Conservation Districts and county soil and water conservation districts. Participation was offered in various public planning meetings, and representation was provided to help judge the Southeast Association's 1981 recognition awards.

PLANNING RESEARCH DIVISION

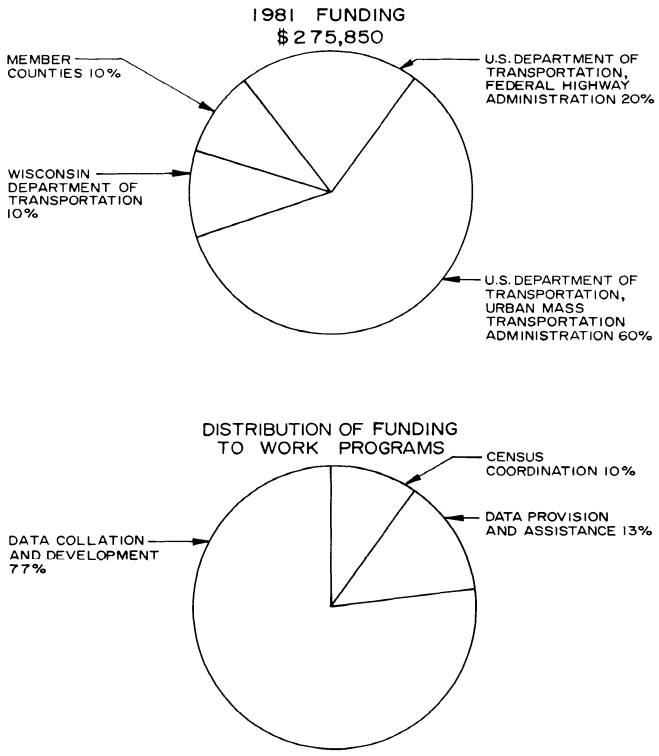
DIVISION FUNCTIONS

The Commission's Planning Research Division is responsible for developing demographic, economic, and public financial resource data that serve as the basis for the preparation of regional and subregional plans by other Commission divisions. The kind of basic questions addressed by this Division include:

- How many people live and work in the Region? How are these levels of population and employment changing over time?
- Where in the Region do people live and work? How are these distribution patterns changing over time?
- What are the characteristics of those who live and work in the Region in such terms as age, sex, race, income, household size, and occupation? How are these characteristics changing over time?
- What is the structure of the Region's economy in terms of employment in major industry groups? How is this structure changing over time?
- What is the most probable future level of population and employment in the Region? Where will people live and work in the future?
- How much is being spent to provide public facilities and services? What are the sources of this money? How are these patterns changing over time?
- Will there likely be sufficient public financial resources to carry out regional plan recommendations?

Figure 35

PLANNING RESEARCH DIVISION



In an attempt to find sound answers to these and other questions, the Planning Research Division during 1981 conducted a number of activities in three identifiable areas: data collation and development, data provision and technical assistance, and census coordination.

DATA COLLATION AND DEVELOPMENT

During 1981, the Division staff continued to monitor secondary data sources for changes in population, employment, and school enrollment levels. In addition, the Division staff provided support to the Land Use, Transportation, and Environmental Planning Division staffs in the conduct of major work programs by those divisions.

Population

During 1981, the Division continued to acquire and analyze data from the 1980 federal census as it was released. Only a fraction of the data that will ultimately be available had been released by

the end of 1981. The findings of an analysis of the data available by the end of 1981 pertaining to population change in the Region is summarized in the following paragraphs.

The size of the resident population of the Region remained virtually unchanged between 1970 and 1980, increasing from about 1,756,100 residents in 1970 to about 1,764,900 residents in 1980—an increase of only about 8,800 residents, or less than 1 percent. This stands in marked contrast to the large population increases of the immediately preceding decades—333,000 residents, or about 27 percent, from 1950 to 1960, and 182,500 residents, or about 12 percent, from 1960 to 1970. The estimated level of natural increase—births minus deaths—in the Region from 1970 to 1980 was about 113,100 persons. This is equivalent to a 6.4 percent increase in the population, or about one-half the rate of natural increase of 12.9 percent which occurred in the Region from 1960 to 1970. Net out-migration from the Region accelerated rapidly during the 1970s. There were about 104,300 more out-migrants than in-migrants from 1970 to 1980, for a net out-migration rate of 5.9 percent, or about four times the rate of net out-migration of 1.3 percent which occurred in the Region during the 1960s.

Long-standing trends toward greater dispersion of the regional population continued during the 1970s, even in the absence of substantial population growth. In 1980, for the first time in any federal census taken in the Southeastern Wisconsin Region, fewer residents were classified as urban than in the preceding census. In 1980 about 1,520,300 of the residents of the Region, about 86 percent of the total regional population, were classified as urban. Thus, about 24,800 fewer residents were classified as urban than in the 1970 census when about 1,545,100 residents, representing about 88 percent of the total regional population, were classified as urban. It should be noted in this respect, however, that of the approximately 244,700 residents classified as rural in 1980, it is estimated that fewer than 30,000 were rural farm population. In 1970, 27,400 persons were classified as rural farm population. The remainder—about 183,800 persons in 1970 and 215,000 persons in 1980—were rural nonfarm population; that is, persons living in rural areas but employed in urban occupations and whose socioeconomic characteristics are urban rather than farm. Thus the observed increase in the rural population of the Region reflected a further decentralization of truly urban population and of urban land uses rather than any return to the farm.

With respect to the seven counties comprising the Region, the resident population level of Milwaukee County decreased by about 89,300 residents between 1970 and 1980, a decrease of about 8 percent. Ozaukee, Washington, and Waukesha Counties continued to experience the rapid growth of the past several decades with population increases of about 23, 33, and 21 percent, respectively. These three counties together experienced an increase in resident population levels of about 82,500 persons, with more than one-half of this increase occurring in Waukesha County. Kenosha, Racine, and Walworth Counties experienced lesser rates of population increase, with increases of about 4, 1, and 13 percent, respectively. These three counties together experienced an increase in resident population levels of about 15,600 persons, with about one-half of this increase occurring in Walworth County.

Milwaukee County continued to experience a net out-migration of persons from 1970 to 1980 as it did from 1960 to 1970, but was joined in this phenomenon during the most recent decade by Kenosha and Racine Counties. Net out-migration from Milwaukee County during the 1970s more than offset the natural increase of the resident population, thus accounting for the decline in the population level experienced by the County. In Kenosha and Racine Counties, the level of net out-migration was not sufficient to offset all of the natural increase occurring in these counties, and these two counties, therefore, experienced modest increases in resident population levels. Ozaukee, Walworth, Washington, and Waukesha Counties all experienced net in-migration from 1970 to 1980 and in all four counties net in-migration contributed more to the increase of the resident population levels than did natural increase.

The characteristics of the resident population of the Region have changed dramatically over the past decade, particularly in view of the fact that the total number of residents remained essentially unchanged over this period. The number of residents aged 14 or younger decreased by more than 120,000 persons between 1970 and 1980, or by 23 percent, from 523,400 to 402,200. The number of persons aged 15 to 44 increased by about 110,000 persons, or 16 percent, from 708,200 to 818,400. The number of persons aged 45 to 64 decreased by about 6,000 persons, or 2 percent, from 354,800 to 349,000. The number of persons aged 65 and older increased by about 26,000 persons, or 15 percent, from 169,400 to 195,300. The median age of the resident population increased from 27.6 years in 1970 to 29.7 in 1980, while the

dependency ratio—the number of persons younger than 15 years and older than 64 years for every 100 persons aged 15 to 64—decreased dramatically from 82.7 in 1970 to 64.7 in 1980. The age composition of the resident population of the Region in 1980 thus differed from that of 1970 primarily in the reduced number of children and the increased number of young adults.

The sex composition of the resident population of the Region changed slightly between 1970 and 1980 following a long-established trend. In 1980 the sex ratio—the number of males for every 100 females—in the Region was 93.8, down from 94.3 in 1970. Sex ratios have been declining over a period of decades in the Region and in 1980 ranged from a low of 90.6 in Milwaukee County to a high of 99.4 in Waukesha County.

The number of married persons in the Region declined slightly by about 3,000 persons, or less than 1 percent, from 790,600 to 787,700 between 1970 and 1980 despite an increase of almost 100,000 in persons of marriageable age during this period. The number of single persons increased by about 50,000, or 15 percent, from 342,100 to 392,500; and the number of widowed or divorced persons increased by about 47,000, or 34 percent, from 135,800 to 182,500 during the 1970s.

Provisional 1980 data on race indicate that about 12 percent of the resident population of the Region in 1980 was nonwhite compared with about 7 percent in 1970. Blacks constitute the largest racial minority in the Region. In 1980 there were about 167,900 blacks in the Region representing about 10 percent of the resident population, compared with about 119,300 blacks, representing about 7 percent of the resident population, in 1970. Provisional 1980 data on Spanish origin indicate that about 3 percent of the resident population, or about 46,500 persons, were members of this cultural minority. No comparable data were collected in the 1970 census.

There was a modest increase between 1970 and 1980 in the number of families living in the Region—from about 431,000 families in 1970 to about 454,700 families in 1980—an increase of about 23,200 families, or about 5 percent. However, the number of married-couple families in the Region actually decreased over this period from about 377,700 married-couple families in 1970 to about 372,900 married-couple families in 1980—a decrease of about 4,800 families, or about 1 percent. Married couples as a percentage of total families decreased from about 88 percent in 1970 to about 82 percent in 1980.

There were about 628,000 households in the Region in 1980—an increase of about 91,500 households, or about 17 percent over the 1970 level of approximately 536,500 households. The great disparity between the increase in the number of households and the negligible increase in the number of persons during the 1970s is largely a function of the significant shifts which occurred during the decade in the age composition and marital status of the resident population. Family households continued to be the dominant type of household in the Region with about 454,700 such households being recorded in 1980. While the number of family households increased by about 23,700 between 1970 and 1980, the percentage of total households represented by family households decreased by about 8 percentage points during the 1970's. This is due to the continued rapid growth in the number of single-person households which represented about 23 percent of all households in 1980 compared to about 17 percent in 1970. The number of single-person households increased from about 93,100 in 1970 to about 146,500 in 1980—an increase of about 53,400 households, or about 57 percent, during the decade.

There was a dramatic decrease in the number of persons per household in the Region between 1970 and 1980—from 3.20 in 1970 to 2.75 in 1980, a decrease of about 14 percent. Only Ozaukee, Washington, and Waukesha Counties had persons-per-household figures of greater than 3.0 in 1980 whereas all seven counties had persons-per-household figures of greater than 3.0 in 1970. Declining birthrates are an important factor in the observed decreases in average household size in the Region; however, rapid increases in the number of one-person households are also an important factor.

The changes in the geographic distribution and characteristics of the regional population summarized here have important implications for regional land use and physical facilities planning. Additional data not yet available from the census on personal income, labor force participation, and residential mobility will—when analyzed with the data presented herein—provide guidance for the planning process during the 1980s. It should be apparent from the data summarized herein that the regional population, although no longer growing rapidly, is continuing to experience significant changes in its

characteristics and its spatial distribution. These changes will manifest themselves in changes in the demand for the conversion of land from rural to urban uses, in the demand for housing, in collective travel habits and patterns, in the demand for jobs, and in the need for certain urban services such as mass transit, sanitary sewerage, water supply, and solid waste disposal. The resident population may be expected to continue to place a heavy demand upon the fragile environmental systems of the Region; thus, water pollution and air pollution will continue to be areas of concern in the coming years.

Based upon the design year 2000 population forecast developed in 1974 by Commission staff and advisory committees and used in the preparation of the adopted regional land use and transportation system plans, the overall population level of the Region was anticipated to reach about 1.87 million persons by 1980. The actual 1980 population level of 1.76 million noted above is about 6 percent below this forecast level.

The shortfall in the 1980 stage of the design year 2000 population forecast was not unexpected. By 1977 the monitoring of this forecast, as documented yearly in the Commission's Annual Report, had indicated that significant socioeconomic changes were occurring within the Region. In particular, the apparent stagnation of population growth in conjunction with the observed continued increase of both jobs and housing units was noted by the Commission staff. Consequently, a special study of regional population change was undertaken in 1978 which culminated with the publication in 1979 of SEWRPC Technical Report No. 22, Recent Population Growth and Change in Southeastern Wisconsin: 1970-1977. One of the major conclusions of this report was that the 1980 stage of the Commission year 2000 population forecast probably would not be met. The 1980 census figures confirmed the expected shortfall in the 1980 stage of the design year 2000 population forecast.

As the probability of a population shortfall became increasingly apparent during the closing years of the 1970's, Commission attention became focused upon alternative long-range planning processes that might provide better guidance with respect to anticipated regional change in a period of great national, social, and economic instability and change. One such process, known as "alternative futures," was recommended by the Commission staff for use in the Milwaukee area primary transit system alternatives analysis, a planning study initiated by the Commission during 1979. Under the alternative futures approach, the "analyses and forecasts" step of a traditional planning process is replaced by an "alternative futures analysis." The alternative futures analysis has three phases. The first phase of the analysis is the development of alternative future scenarios of factors which, while external to the Region, affect the growth or decline of the Region and, therefore, the physical facility and service needs within the Region. The factors are termed external to the Region because they are variables over which public and private decision-makers within the Region have little or no influence, and to which the Region must respond in the future. Examples of such external factors are the future price and availability of energy and future population lifestyles. The second phase of the alternative futures analysis is the determination of the amount of regional growth or decline—including population change—likely under the alternative external factor scenarios developed under the first phase. The third phase is the development of alternative land use plans to accommodate the regional change expected under each scenario of future changes in external factors.

The use of the alternative futures planning approach resulted in the identification of two alternative future scenarios of regional change through the year 2000. The scenarios provide for a range in anticipated growth and change for the Region, with one future scenario pointing toward moderate growth in the Region and the other pointing toward stability or moderate decline. A 1981 resident population level in the Region of between 1.73 and 1.89 million was anticipated based upon the two alternative scenarios.

The Wisconsin Department of Administration (DOA) estimates of 1981 resident population levels are set forth in Table 17. The DOA has statutory responsibility for preparing intercensal population estimates as a basis for distributing state-shared taxes to local units of government. The estimates are based upon symptomatic indicators of population change, including the number of persons filing income tax returns, and the dollar value of exemptions for dependents on income tax returns. According to the estimates, the resident population of the Region increased by about 4,800 persons, less than 1 percent, over the level established by the 1980 federal census. The majority of the increase—about 3,000 persons—occurred in Waukesha County. Kenosha, Racine, Walworth, and Washington Counties were estimated to have

Table 17

REGIONAL POPULATION: 1970, 1980, and 1981

County	Population			Difference			
				1970-1980		1980-1981	
	1970	1980	1981	Number	Percent	Number	Percent
Kenosha	117,900	123,100	123,700	5,200	4.43	600	0.49
Milwaukee	1,054,300	965,000	964,600	- 89,300	- 8.47	- 400	- 0.04
Ozaukee	54,500	67,000	67,000	12,500	22.99	- -	- -
Racine.	170,800	173,100	173,500	2,300	1.34	400	0.23
Walworth.	63,500	71,500	72,200	8,000	12.71	700	0.98
Washington . . .	63,800	84,900	85,400	21,100	32.91	500	0.59
Waukesha.	231,300	280,300	283,300	49,000	21.18	3,000	1.07
Region	1,756,100	1,764,900	1,769,700	8,800	0.50	4,800	0.27

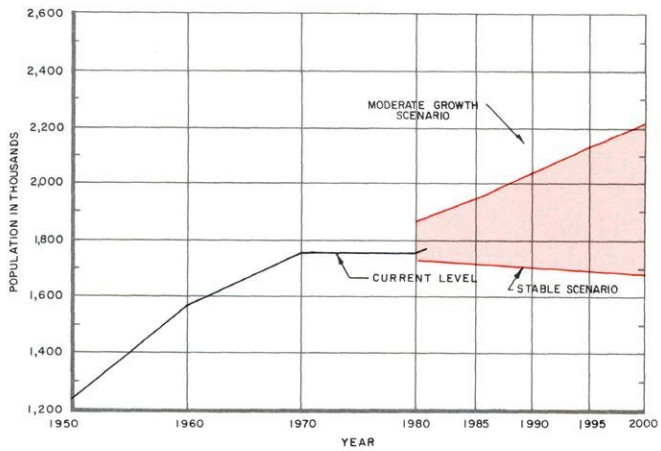
experienced small increases of between 400 and 700 persons in resident population levels, while the level in Ozaukee County was estimated to have remained unchanged. A small decrease of about 400 persons was estimated to have occurred in Milwaukee County.

Under the moderate growth scenario, the population level of the Region was anticipated to be about 1.89 million in 1981. The estimated 1981 population level of 1.77 million noted above is about 6 percent below this anticipated level. Under the stable or declining scenario, the population level of the Region was anticipated to be about 1.73 million in 1981. The estimated 1981 population level is about 2 percent above this anticipated level. The relationship between historic population levels and the levels anticipated under the alternative future scenarios of population change is shown graphically in Figure 36.

For each of the two alternative future scenarios, a centralized and decentralized population distribution was postulated and a land use plan was prepared for each of these four alternative distributions. The 1981 planned population levels for these four alternative land use plans and the 1981 estimated population levels for the Region's seven counties are set forth in Table 18 and Figures 37 through 43.

Figure 36

CURRENT AND ALTERNATIVE FUTURE POPULATION LEVELS FOR THE REGION: 1950-2000



Employment

Employment in the Region during 1981 was estimated at 854,100 jobs, a decrease of about 20,600 jobs, or 2 percent, from the 1980 level of 874,700 jobs. Following the economic downturn of 1975, the Region showed considerable economic growth and recovery during the latter years of the 1970's. The economic recession that began about the middle of 1980, however, resulted in sharply decreasing employment levels in the Region, and an attendant increase in the level of unemployment. Unemployment in the Region during 1981 was estimated at 71,000 persons, an increase of about 13,600 persons, or about 24 percent over the 1980 level of about 57,400 persons. The estimated unemployment rate in the Region during 1981 was 7.7 percent, compared with 6.2 percent

Table 18

EXISTING AND PLANNED POPULATION LEVELS BY COUNTY: 1981

County	Existing Population	Planned Populations			
		Stable Scenario		Moderate Growth Scenario	
		Decentralized	Centralized	Decentralized	Centralized
Kenosha	123,700	122,300	120,500	146,200	141,300
Milwaukee	964,600	972,700	925,900	978,800	1,014,600
Ozaukee	67,000	61,900	70,900	87,400	78,300
Racine	173,500	174,200	174,200	186,900	187,600
Walworth.	72,200	65,900	69,500	77,800	75,800
Washington . . .	85,400	75,300	82,600	102,300	93,500
Waukesha	283,300	260,200	239,400	310,100	298,400
Region	1,769,700	1,732,500	1,732,500	1,889,500	1,889,500

Figure 37

CURRENT AND ALTERNATIVE FUTURE POPULATION LEVELS FOR KENOSHA COUNTY: 1950-2000

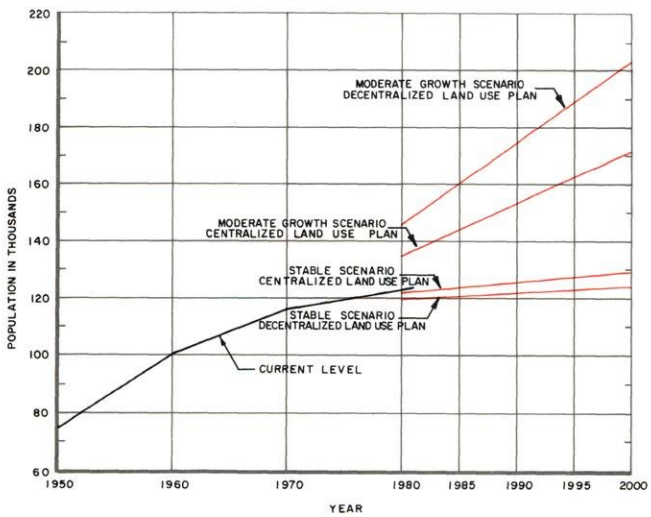


Figure 38

CURRENT AND ALTERNATIVE FUTURE POPULATION LEVELS FOR MILWAUKEE COUNTY: 1950-2000

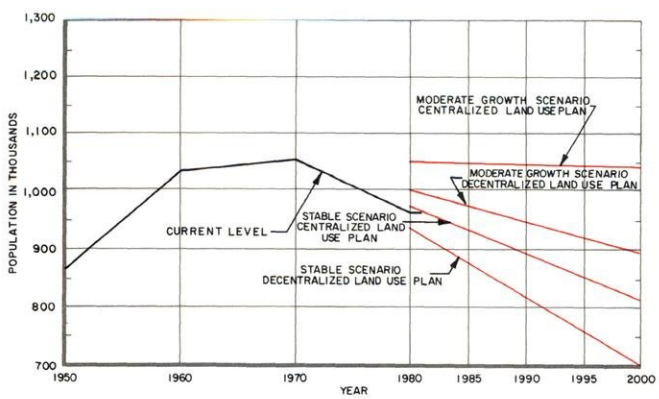


Figure 39

CURRENT AND ALTERNATIVE FUTURE POPULATION LEVELS FOR OZAUKEE COUNTY: 1950-2000

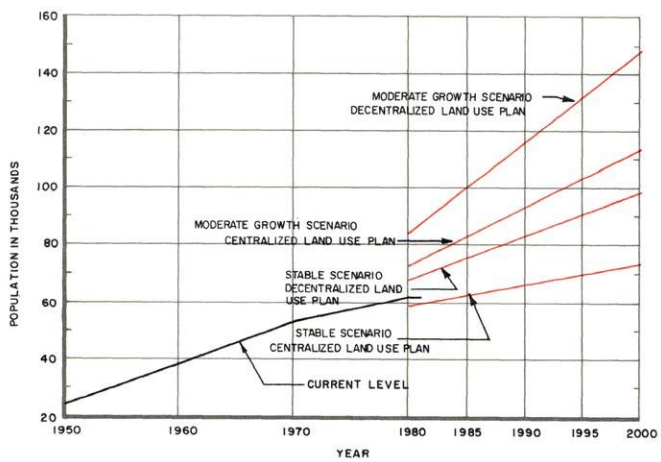


Figure 40

CURRENT AND ALTERNATIVE FUTURE POPULATION LEVELS FOR RACINE COUNTY: 1950-2000

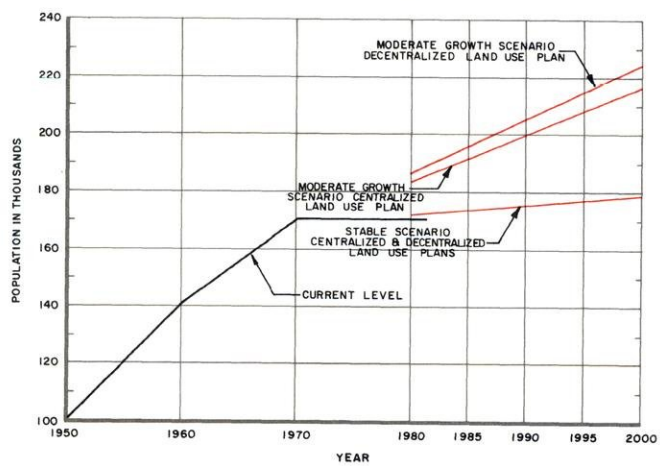


Figure 41

CURRENT AND ALTERNATIVE FUTURE POPULATION LEVELS FOR WALWORTH COUNTY: 1950-2000

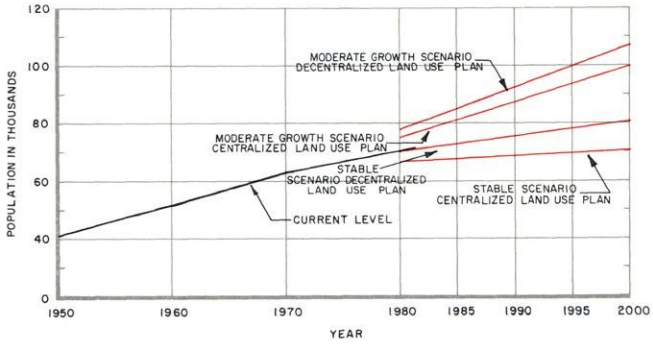
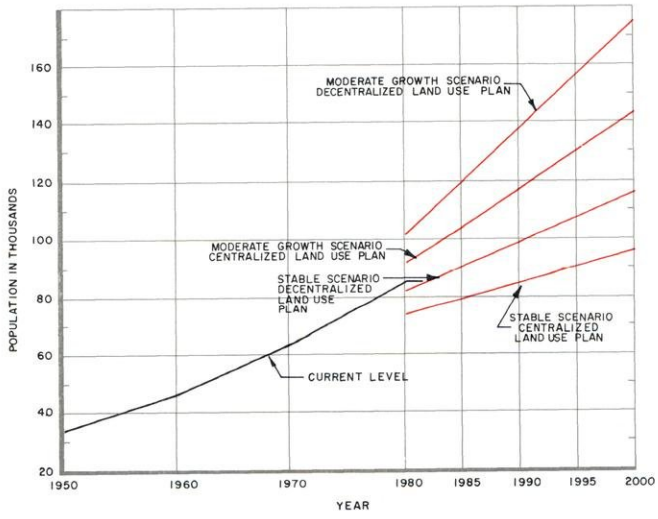


Figure 42

CURRENT AND ALTERNATIVE FUTURE POPULATION LEVELS FOR WASHINGTON COUNTY: 1950-2000

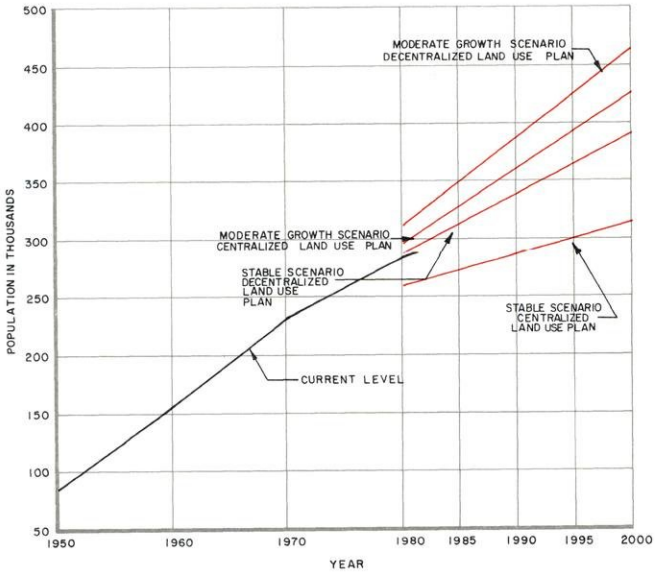


in 1980. Both the number of unemployed and the unemployment rate in the Region in 1981 are the highest that have occurred since the Commission began monitoring yearly employment levels in 1960. Prior to 1981, the highest level of annual average unemployment occurred in 1975 when an estimated 62,200 persons were unemployed. The previous high unemployment rate also occurred in 1975 when the rate was estimated to be 7.4 percent.

As shown in Table 19, employment decreased between 1980 and 1981 in virtually all employment categories. Increases occurred only in the printing and publishing; the finance, insurance, and real estate; and the governmental services and

Figure 43

CURRENT AND ALTERNATIVE FUTURE POPULATION LEVELS FOR WAUKESHA COUNTY: 1950-2000



education categories. Manufacturing employment declined by about 13,000 jobs, with over half of this decline occurring in the nonelectrical machinery sector. Construction and mining, wholesale trade, and retail trade also showed sizable employment losses.

On a county basis, as shown in Table 20, only Walworth County recorded an increase in employment between 1980 and 1981—a modest addition of about 500 jobs. Employment losses ranged from a high of 11,600 jobs in Milwaukee County to a low of 300 jobs in Waukesha County. The Kenosha County loss of about 4,900 jobs represented a decline of about 11 percent between 1980 and 1981.

Under the moderate growth scenario the employment level of the Region was anticipated to be about 842,200 jobs in 1981. The estimated 1981 employment level of 854,100 jobs noted above is about 1 percent above this anticipated level. Under the stable or declining growth scenario, the employment level of the Region was anticipated to be about 794,900 jobs in 1981. The estimated 1981 employment level is about 7 percent above this anticipated level. In spite of the job losses that have occurred in the Region since 1979, the higher than anticipated growth in the number of jobs that occurred between 1975 and 1979 apparently served to offset the employment declines recorded in 1980 and 1981 with respect to the long-term trend in job growth (see Figure 44).

Table 19

REGIONAL EMPLOYMENT BY MAJOR CATEGORY: 1970, 1980, and 1981

Employment Category	Employment (in thousands)			Difference			
				1970-1980		1980-1981	
	1970	1980	1981	Number	Percent	Number	Percent
Agriculture	10.6	9.4	9.3	- 1.2	- 11.3	- 0.1	- 1.1
Construction and Mining	24.0	26.6	24.5	2.6	10.8	- 2.1	- 7.9
Manufacturing							
Food and Kindred Products	18.9	20.2	20.0	1.3	6.9	- 0.2	- 1.0
Printing and Publishing	14.9	15.7	16.0	0.8	5.4	0.3	1.9
Primary Metals	22.5	17.1	16.5	- 5.4	- 24.0	- 0.6	- 3.5
Fabricated Metals	24.6	31.7	30.5	7.1	28.9	- 1.2	- 3.8
Nonelectrical Machinery	68.1	74.8	67.9	6.7	9.8	- 6.9	- 9.2
Electrical Machinery	36.5	39.3	38.0	2.8	7.7	- 1.3	- 3.3
Transportation Equipment	22.0	20.8	19.4	- 1.2	- 5.5	- 1.4	- 6.7
Other Manufacturing	43.5	42.9	41.2	- 0.6	- 1.4	- 1.7	- 4.0
Manufacturing Subtotal	251.0	262.5	249.5	11.5	4.6	- 13.0	- 5.0
Wholesale Trade	32.0	44.4	40.6	12.4	38.8	- 3.8	- 8.6
Retail Trade	111.2	137.1	130.8	25.9	23.3	- 6.3	- 4.6
Transportation, Communication, and Utilities	36.0	38.5	38.0	2.5	6.9	- 0.5	- 1.3
Finance, Insurance, and Real Estate	31.2	43.4	44.0	12.2	39.1	0.6	1.4
Private Services, Except Education[a]	166.9	211.9	211.9	45.0	27.0	--	--
Government Services and Education	78.7	100.9	105.5	22.2	28.2	4.6	4.6
Total Employment	741.6	874.7	854.1	133.1	18.0	- 20.6	- 2.4

[a] *Includes the self-employed and domestic household workers.*

Table 20

REGIONAL EMPLOYMENT: 1970, 1980, and 1981

County	Employment			Difference			
				1970-1980		1980-1981	
	1970	1980	1981	Number	Percent	Number	Percent
Kenosha	39,200	42,900	38,000	3,700	9.4	- 4,900	- 11.4
Milwaukee	510,900	574,700	563,100	63,800	12.5	- 11,600	- 2.0
Ozaukee	17,900	25,300	24,000	7,400	41.3	- 1,300	- 5.1
Racine	61,900	78,700	76,900	16,800	27.1	- 1,800	- 2.3
Walworth	24,200	29,700	30,200	5,500	22.7	500	1.7
Washington	20,300	25,400	24,200	5,100	25.1	- 1,200	- 4.7
Waukesha	67,200	98,000	97,700	30,800	45.8	- 300	- 0.3
Region	741,600	874,700	854,100	133,100	18.0	- 20,600	- 2.4

For each of the two alternative future scenarios, a centralized and decentralized employment distribution was postulated and a land use plan was prepared for each of these four alternative distributions. The 1981 planned employment levels for these four alternative land use plans and the 1981 estimated employment levels for the Region's seven counties are set forth in Table 21.

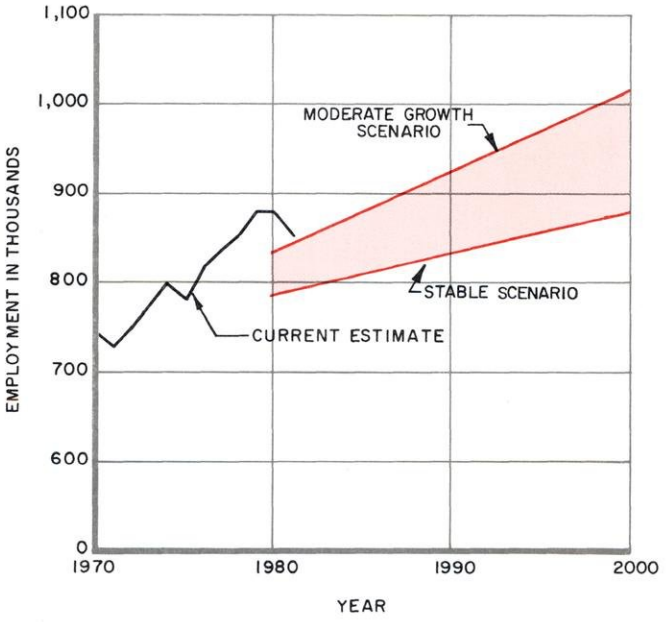
School Enrollment

School enrollment within the Region continued to decline during 1981, as shown in Table 22. The decline of about 11,200 students represents a decrease of about 3 percent between 1981 and the previous year. Public school enrollment declined by approximately 9,700, or about 3 per-

cent, from about 294,900 in 1980 to about 285,200 in 1981. Public school enrollment decreased in all seven counties between 1980 and 1981. Nonpublic school enrollment decreased by approximately 1,300 students, or about 2 percent, from about 74,300 in 1980 to about 72,900 in 1981. Only in Walworth and Waukesha Counties did nonpublic school enrollment increase—by about 8 percent and 1 percent, respectively.

Figure 44

CURRENT AND ALTERNATIVE FUTURE EMPLOYMENT LEVELS FOR THE REGION: 1970-2000



Map 23 shows public school enrollment changes between 1970 and 1981 for high school districts operating wholly or partially within the Region. Union high school districts and their constituent feeder K-8 school districts have been combined into a single "district" for the purpose of preparing this map. About 73 percent of the public K-12 and the combined union high school and K-8 districts have experienced enrollment declines of more than 5 percent since 1970. Approximately 13 percent of the districts have experienced enrollment gains of 5 percent or more and about 14 percent of the districts have experienced modest or no change—from a 5 percent decline to 5 percent gain—in enrollments.

School districts experiencing enrollment increases are concentrated in Washington and Waukesha Counties—those counties with the largest absolute total population growth in the Region since 1970. The largest enrollment declines are concentrated in Milwaukee County and Racine County, where every K-12 district and combined union high school and K-8 district has experienced an enrollment decline since 1970. The majority of the districts in the southern portion of the Region—Kenosha, Racine, and Walworth Counties—exhibit declining enrollment patterns. A similar pattern of enrollment decline exists in eastern Waukesha County and, to a lesser degree, in Ozaukee County.

The Division staff maintains school district boundary maps for each of the seven counties in the Region. Copies of these maps are available to interested parties from the Commission offices.

Table 21

EXISTING AND PLANNED EMPLOYMENT LEVELS BY COUNTY: 1981

County	Existing Employment	Planned Employment			
		Stable Scenario		Moderate Growth Scenario	
		Decentralized	Centralized	Decentralized	Centralized
Kenosha	38,000	40,700	40,700	52,900	44,700
Milwaukee	563,100	516,200	526,100	515,500	541,200
Ozaukee	24,000	25,000	22,100	30,900	25,300
Racine	76,900	67,900	67,900	73,900	74,200
Walworth.	30,200	27,500	26,800	32,400	30,400
Washington . . .	24,200	25,100	23,300	34,500	26,100
Waukesha	97,700	92,500	88,000	102,100	100,300
Region	854,100	794,900	794,900	842,200	842,200

Table 22

REGIONAL SCHOOL ENROLLMENT: 1970, 1980, and 1981

County	School Enrollment			Difference			
				1970-1980		1980-1981	
	1970	1980	1981	Number	Percent	Number	Percent
Kenosha	32,300	26,700	25,600	- 5,600	- 17.5	- 1,100	- 4.1
Milwaukee	267,900	184,900	179,900	- 83,000	- 31.0	- 5,000	- 2.8
Ozaukee	15,900	15,000	14,400	- 900	- 5.6	- 600	- 3.8
Racine.	48,600	38,800	37,400	- 9,800	- 20.2	- 1,400	- 3.5
Walworth.	15,600	13,700	13,200	- 1,900	- 12.0	- 500	- 3.4
Washington . . .	19,200	21,500	20,900	2,300	12.2	- 600	- 2.7
Waukesha.	73,100	68,700	66,600	- 4,400	- 6.0	- 2,100	- 3.2
Region	472,600	369,300	358,100	- 103,300	- 21.9	- 11,200	- 3.1

DATA PROVISION AND TECHNICAL ASSISTANCE

Considerable Division staff time is directed each year to answering requests for demographic and economic and related data. This function also 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 1981, letter responses were prepared to 235 requests for population, economic, and related information from the Commission data files. In addition, 280 requests were handled by telephone and 115 requests were accommodated through personal visits to the Commission offices. These requests came from local units of government, federal, and state agencies, private firms, and individual citizens.

The following are some illustrative examples of Division staff activity during 1981 in performing this function.

- Provision of technical assistance to the Walworth County Overall Economic Development Planning Committee in its ongoing planning activities. Such assistance included serving as a technical advisor to the Committee, attending committee meetings, and providing data from Commission files as requested.

- Provision of technical assistance to the Kenosha County Council on Economic Development for the preparation of an Overall Economic Development Program (OEDP) Update. The Update was prepared to maintain the County eligibility to apply for grants and loans under the provisions of the public works construction and economic development programs of the U. S. Department of Commerce, Economic Development Administration.

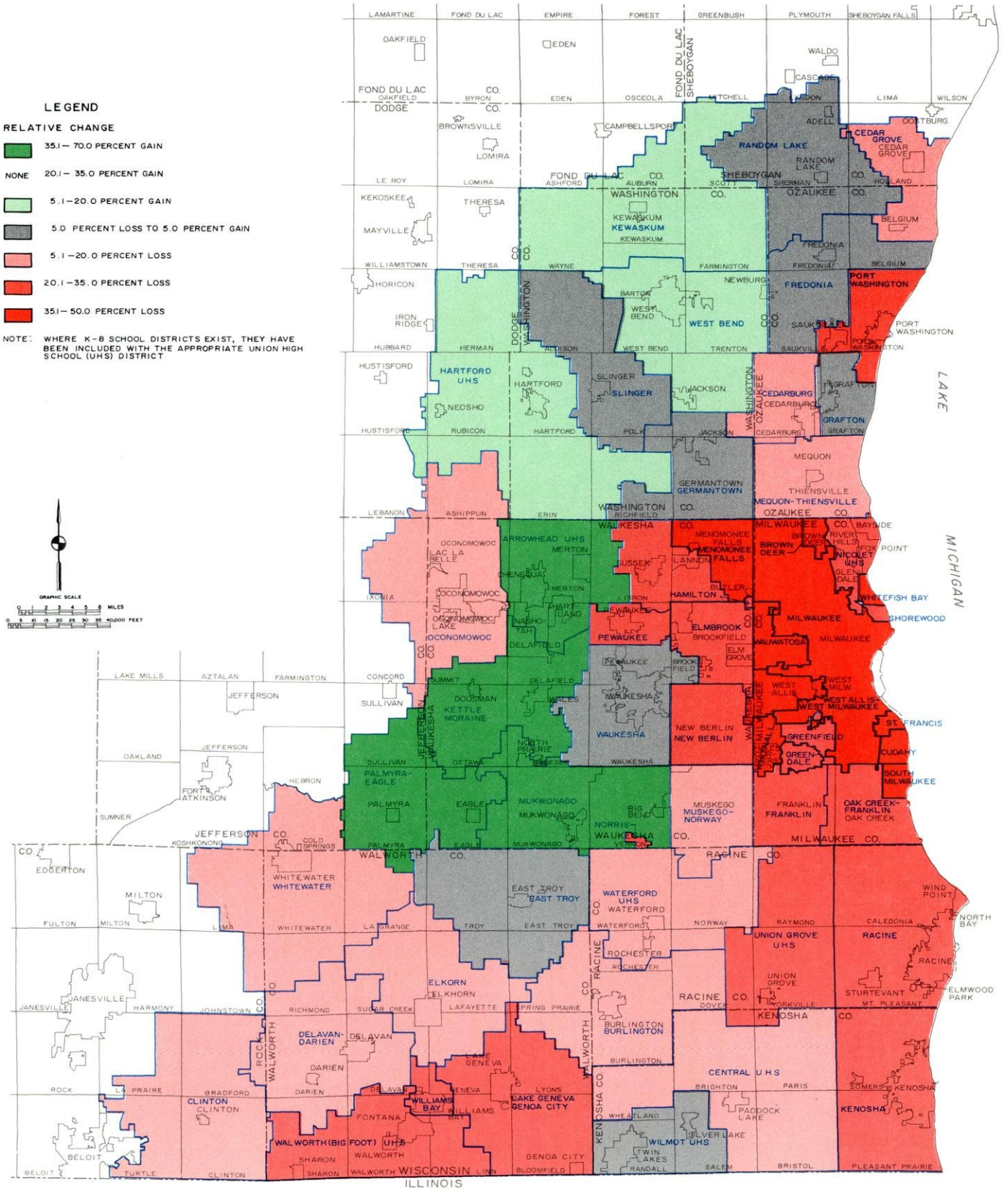
- Provision of technical assistance to the Kenosha/Racine Economic Development Committee in the preparation of an automobile industry adjustment strategy. The strategy was designed to identify ways for the Kenosha and Racine areas to cope with both short- and long-term effects of changes in employment levels in the automobile industry.

- Provision of technical assistance to the Geneva Lake Area Joint Transit Commission in the preparation of a project application to the Wisconsin Department of Transportation for acquisition of the soon-to-be-abandoned Chicago & North Western Transportation Company railroad line from Lake Geneva to Crystal Lake, Illinois.

- Provision of selected economic activity data to the Racine County Overall Economic Development Planning Committee to be used in the preparation of its annual report.

Map 23

RELATIVE PUBLIC SCHOOL ENROLLMENT CHANGES IN THE REGION: 1970-1981



- Provision of previously unpublished data on expected age-group/sex cohorts for the 1980, 1990, and design year 2000 stages of the Commission's stable or declining growth scenario to the Southeastern Wisconsin Health Systems Agency (SEWHSA). SEWHSA staff utilized this information to evaluate potential changes in the need for health care of various subgroups of the total population.

- Provision of selected population and labor force data to the Private Industry Council of Southeastern Wisconsin to be used in the development of an annual business plan. Private industry councils, are private, nonprofit organizations whose purpose is to reduce structural unemployment in the local labor force by providing programs designed to increase skills of the resident labor force so as to meet the needs of local industry.

- Provision of geocoding services to the University of Wisconsin-Milwaukee to determine the location by U. S. Public Land Survey one-quarter section of 28,000 student, faculty, and staff addresses. This information on home location of these persons was used by University staff in the development of a campus transportation plan as required by Wisconsin Statutes.

- Provision of Milwaukee area labor force and employment trend data to the staff of the Joint Economic Committee of the U. S. Congress. This information was used to prepare background information for a Committee hearing held in Milwaukee during October 1981.

- Provision of current employment estimates by individual city block for a portion of the City of Milwaukee central business district to the staff of the City of Milwaukee, Department of City Development. These estimates were utilized in a study to determine the feasibility of a system of overhead, enclosed, pedestrian walkways in the downtown area.

- Provision of measurements of the land area of the school district and the land area of those portions of the local units of government coextensive with the school district to the staff of the Williams Bay Public Schools. This information enabled the school district staff to estimate the number of electors residing in the school district and thereby determine the number of signatures required on a petition to request a district-wide referendum.

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 U. S. Bureau of the Census, the Commission provides staff services to Census Statistical Areas Committees in each county. The Commission also provides technical services directly to the Bureau in the form of base map preparation and maintenance, and geographic base file development and maintenance. The geographic base file is a computer-readable description of the block faces, street address ranges, and census statistical tabulating and reporting unit boundaries of an area.

As part of this coordination activity, the Commission serves as a clearinghouse and central repository for a wide variety of census data holdings including printed reports, maps, computer tapes, and microfiche cards. Assistance is provided to local units of government, the public, and local businesses in accessing these materials.

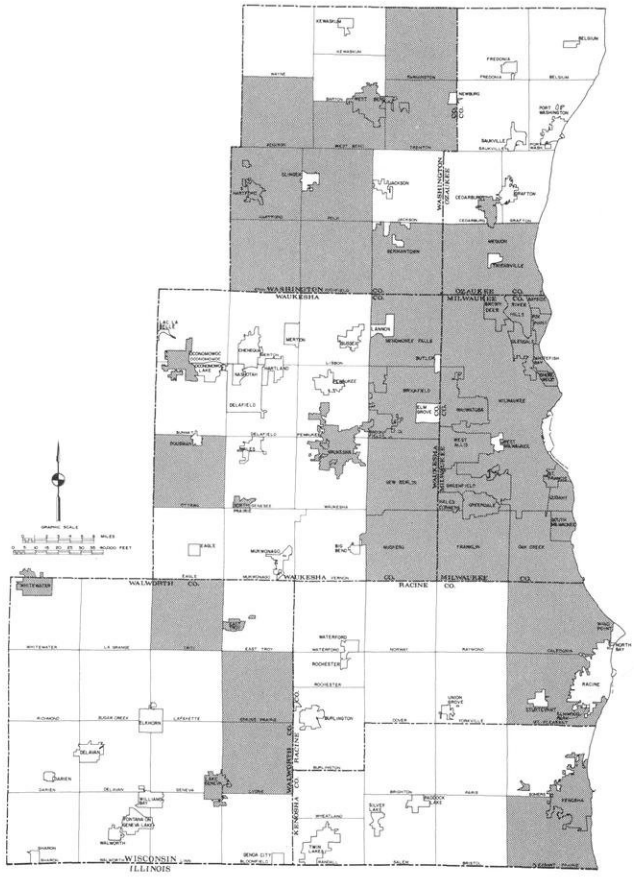
A unique type of technical assistance, the need for which arises only once per decade, was provided by Division staff to many local units of government during 1981. With the availability during 1981 of small area population counts from the 1980 federal census, the redistricting process began. Once every 10 years, the districts from which U. S. congressmen, state assemblymen and senators, county board supervisors, and city aldermen are elected must be redelineated so as to contain as nearly as is practical an equal number of inhabitants. This is the so-called "one-man, one-vote" principle as set forth in the Constitutions of both the United States and the State of Wisconsin and affirmed by a series of federal court decisions

beginning with the 1962 Baker vs. Carr decision of the U. S. Supreme Court. To facilitate the redistricting process, Wisconsin Statutes require that all civil divisions of more than 1,000 inhabitants must subdivide their territory into "wards" or election precincts according to guidelines set forth in the Statutes. These wards then become the "building blocks" from which election districts are composed satisfying the "one-man, one-vote" principle.

During 1981, Division staff provided data, maps, and technical assistance upon request to the local units of government shown on Map 24. Depending upon the specific civil division requesting assistance, one or more of three distinct types of assistance were provided: 1) the provision of computer-generated reports setting forth the small area population counts needed for the preparation of ward plans and the provision of pre-publication copies of 1980 census maps identifying the geographic areas for which population counts were reported; 2) assistance in applying the maps and reports to prepare community ward and election district plans; and 3) assistance in the actual preparation of community ward and election district plans and maps. In addition to the 22 cities, 12 villages, and 14 towns identified on Map 24, assistance was also provided to Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha Counties, the staff of the Wisconsin Legislative Reference Bureau, and the staff of the Wisconsin Legislature in this regard.

Map 24

CIVIL DIVISIONS RECEIVING COMMISSION STAFF ASSISTANCE FOR REDISTRICTING



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. The Division provides five basic types of services: educational, advisory, review, project planning, and resident planning. The Division staff also is responsible for the conduct, on request, of urban district planning programs involving groups of local municipalities.

EDUCATIONAL SERVICES

Educational services are provided by the Division staff to local units of government and citizen groups on request, and are directed at explaining the need for, and purposes of, continuing local, regional, and state planning programs, and the relationships that should exist between these different levels of planning. In addition, these efforts are directed at encouraging the creation, organization, staffing, and financing of local planning programs. During 1981, educational efforts included the following:

- Presentations regarding the general scope of work done by the Commission and the details of specific work programs to local governmental, civic, and professional groups such as the Village of Pewaukee Chamber of Commerce, the Village of Pewaukee Kiwanis Club, the Town Board of Randall, and the University of Wisconsin-Extension service staff.

- Presentations regarding erosion control and sedimentation to local officials in the Cities of Muskego, Racine and Oak Creek; the Village of Hales Corners; and the Towns of Mt. Pleasant and Yorkville.

- Presentation on wildlife habitat areas to the Southeastern Wisconsin Association of Soil and Water Conservation Districts.

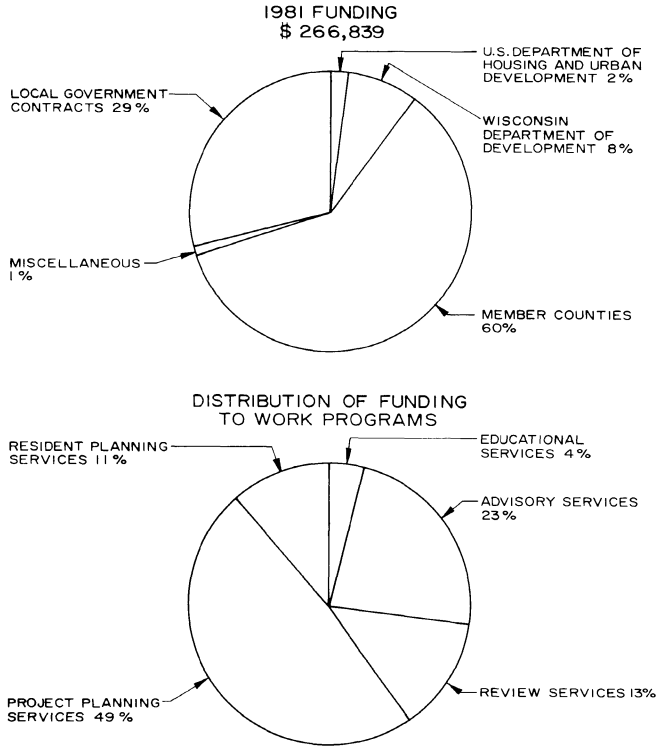
- Conduct of wetland and wildlife management tours for the National Symposium on Wildlife Management.

- Preparation of six Commission newsletters discussing Commission planning programs and related activities. The newsletters are distributed to about 2,500 interested individuals and agencies.

- Preparation of the Commission's 1980 Annual Report.

Figure 45

COMMUNITY ASSISTANCE PLANNING DIVISION



ADVISORY SERVICES

Advisory services consist of the provision of basic planning and engineering data available in the Commission 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 1981 include:

- Provision of technical data to federal insurance contractors and provision of assistance to municipal officials in the review of flood insurance study proposals for the Cities of Delafield, Delavan, Kenosha, Lake Geneva, Muskego, Oconomowoc, and Waukesha; the Villages of East Troy, Greendale, Kewaskum, Lannon, and Mukwonago; and for the unincorporated areas of Kenosha County, Racine County, and Washington County.

- Provision of data and advice concerning the interpretation of floodland limits for the Cities of Burlington and Milwaukee; the Villages of Silver Lake and Sussex; the Towns of Brookfield, Genesee, Hartford, and Pewaukee; and Racine County.

- Participation in a panel of technicians providing guidance to the City of Oconomowoc Extraterritorial Plan Commission at regular monthly meetings.

- Provision of technical data and advice to the Kenosha County Overall Economic Development Planning Committee.

- Participation in various technical committees, citizen advisory committees, and coastal councils related to the work undertaken as part of the Commission's involvement in the coastal management program.

REVIEW SERVICES

Review services are intended to encourage the incorporation of regional studies and plans into local planning programs, plans, and plan implementation devices, such as zoning and subdivision control ordinances. In addition, review services are intended to prevent unnecessary duplication of planning efforts, and to coordinate and encourage regional plan implementation. Five basic types of review services are performed: review of local plan, plan implementation devices, and development proposals; review of federal and state grant applications under the U. S. Office of Management and Budget Circular A-95; review of environmental impact statements, reports, and assessments; review of flood hazards affecting individual properties; and review of applications for state income tax credit eligibility under the Wisconsin Farmland Preservation Act.

The following represent typical review services completed in 1981 by the Division staff in the first review category:

- Review and comment on 20 preliminary subdivision plats at the request of the Cities of Brookfield, Burlington, Cedarburg, and Waukesha; the Villages of Brown Deer, Germantown, Hartland, Mukwonago, and Sussex; the Town of Pewaukee; and Kenosha and Walworth Counties.

- Review and comment on four certified survey maps at the request of the Cities of Burlington and Cedarburg, and the Town of Summit.

- Review and comment on three proposed zoning district map changes at the request of the Villages of Sussex, Brown Deer, and North Prairie.

- Review and comment on nine local economic, land use, recreation, transportation, farmland preservation, or solid waste management plans at the request of the City of Milwaukee; the Towns of Mukwonago and Norway; Milwaukee, Ozaukee, Racine, and Washington Counties; and the University of Wisconsin-Parkside.

Division activities regarding the review of federal and state grant applications are summarized in Table 23. In total, review comments were provided for 409 applications for federal and/or state grants, loans, or mortgage insurance guarantees requesting in the aggregate more than $616 million in federal and state financial assistance. Of the total 409 requests, 170 were found to be in conformance and serving to implement the adopted regional plan elements, and 239 were found to be not in conflict with the adopted regional plan elements. None were found to be in conflict with the adopted regional plan elements.

Division activities regarding the review of environmental impact statements, reports, and assessments are summarized in Table 24. Comments are provided by the Commission relating the projects and the data contained in the environmental impact statements to the adopted regional plans.

Flood hazard reviews relating to residential properties are requested by realtors and lending institutions. During 1981, the Division staff conducted a total of 83 flood hazard reviews distributed by County, as shown in Table 25.

The final type of review service performed by the Division staff was the review of applications for farmland tax credit eligibility. The Division staff

Table 23

A-95 REVIEWS: 1981

Review Category	Number of Reviews	Aggregate Amount of Federal and/or State Grant, Loan, or Mortgage Insurance Requests
Air Quality	3	$ 4,081,003
Community Action	135	297,071,562
Community Development	29	52,418,397
Conservation	33	27,120,906
Historic Preservation	1	526,747
Housing	42	55,236,215
Park and Open Space	15	1,512,853
Law Enforcement	38	2,241,674
Sanitary Sewerage	43	97,240,384
Solid Waste	2	1,079,975
Transportation	66	83,778,440
Water Supply	2	937,557
Total	409	$616,245,715

Table 24

ENVIRONMENTAL IMPACT STATEMENTS REVIEWED: 1981

Document Reviewed	Requesting Agency
Environmental Impact Statement for the Construction of a State Office Building in the City of Waukesha	Wisconsin Department of Natural Resources
Environmental Impact Statement on the Milwaukee Metropolitan Sewerage District Pollution Abatement Program	Milwaukee County
Environmental Impact Statement on a Mosquito Larvae Control Program for Silver Lake in Kenosha County	Village of Silver Lake and Clark Outdoor Spraying Company
Environmental Impact Statement on Wastewater Management in Rural Lake Area (a generic environmental impact statement)	U.S. Environmental Protection Agency

located each farm proposed to be preserved to determine whether the lands involved had been delineated on the regional land use plan as "prime agricultural lands." During 1981, the staff reviewed 27 applications for farmland preservation contracts, which would result in the preservation of an additional 4,606 acres of farmland in southeastern Wisconsin. Table 26 shows the distribution of farmland preservation applicants.

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 1981, the following project planning efforts were conducted:

- Preparation of a land use plan for the Village of Hartland and environs, together with accompanying zoning and land division ordinance recommendations. This plan is set forth in SEWRPC Community Assistance Planning Report No. 49, A Land Use and

Table 25

FLOOD HAZARD REVIEWS: 1981

County	Number of Reviews
Kenosha	1
Milwaukee	26
Ozaukee	3
Racine	3
Walworth	3
Washington	3
Waukesha	44
Total	83

Table 26

FARMLAND PRESERVATION REVIEWS: 1981

County	Number of Applications
Kenosha	9
Milwaukee	--
Ozaukee	--
Racine	7
Walworth	--[a]
Washington	1
Waukesha	10
Total	27

[a]*Walworth County has adopted an "exclusive" agricultural zoning ordinance, which has been approved by the Wisconsin Department of Agriculture, Trade and Consumer Protection. Accordingly, farmers whose land is zoned for agricultural use are automatically eligible for tax credits. More than 500 farmers have received such credits in 1981. These farms are not reviewed on a case-by-case basis by SEWRPC.*

Traffic Circulation Plan for the Village of Hartland: 2000, Waukesha County, Wisconsin. The plan, which is summarized on Map 25, seeks to refine, detail, and implement the adopted regional land use. The plan also presents a future street system plan and suggested subdivision layouts to accommodate the 5,540-person population increase anticipated by the plan design year. The plan, in addition to providing guidelines for general land use development, provides a development framework for future improvement efforts in the central business district of the Village. Redevelopment of certain "downtown" areas is suggested to strengthen the commercial vitality of the central business district. A specific recommendation contained in the plan is the provision of additional off-street parking in the central business district.

- Completion of zoning ordinances and accompanying zoning district maps for the Villages of Fredonia and East Troy. These ordinances were adopted in 1981 and each seeks to carry out the land use and floodland management recommendations contained in adopted Commission plans.

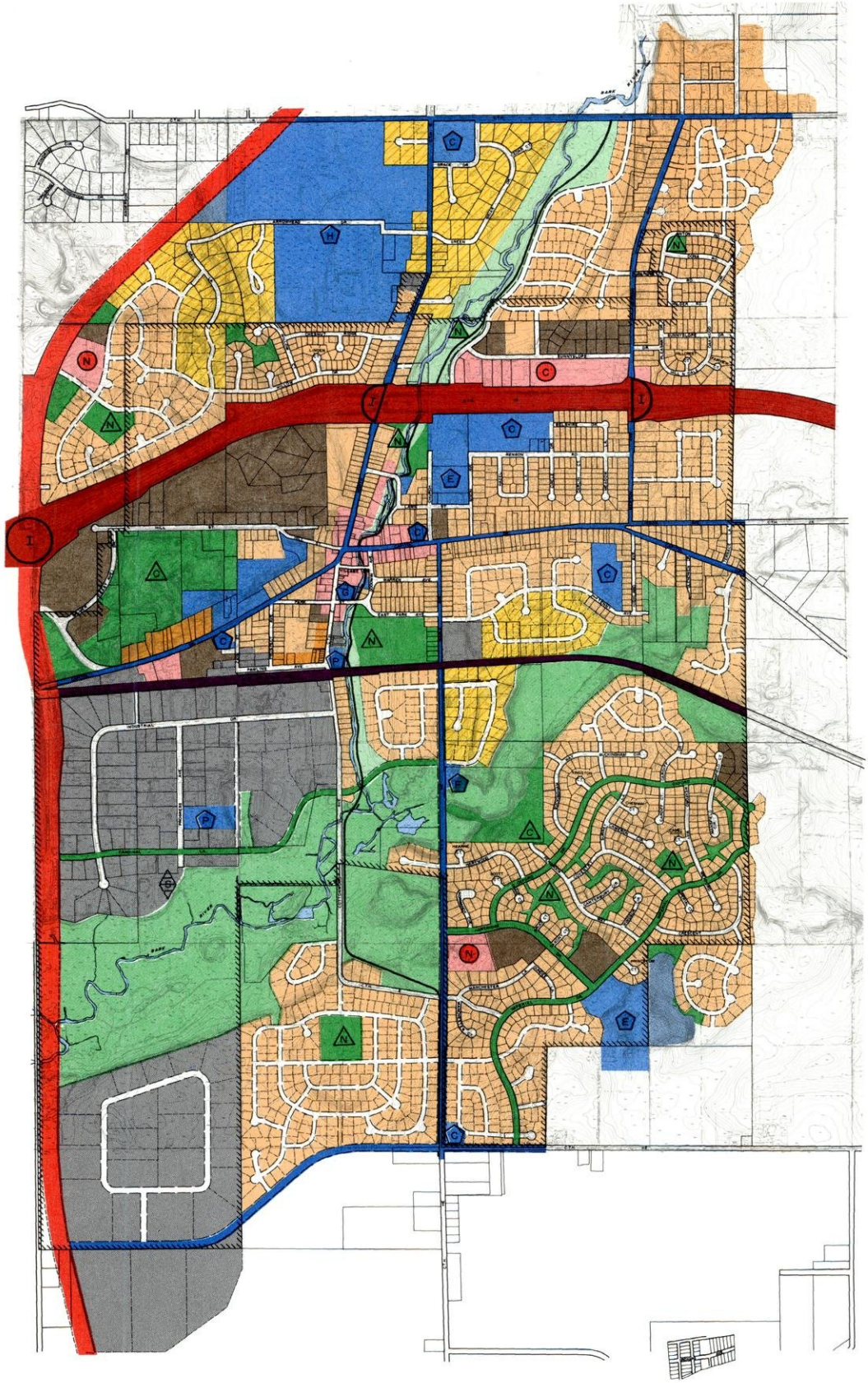
- Completion of a revised "Zoning Map" and "Supplementary Floodland Zoning Map" for the Village of Waterford. The maps were originally prepared by the Commission staff in 1973. Floodland data used to compile the original "Supplementary Floodland Zoning Map" are contained in the Commission's comprehensive study of the Fox River watershed. The map was redrafted in 1981 to reflect changing corporate limits and additional data contained in the Flood Insurance Study, Village of Waterford, Wisconsin: July 1980, prepared by the Federal Emergency Management Agency.

- Completion of a land division ordinance for the Village of Fredonia. The ordinance regulates the preparation of preliminary and final plats and certified survey maps, and sets forth design and construction standards intended to foster sound, efficient design of land divisions. The ordinance also incorporates all of the statutory changes related to land divisions which became effective on November 1, 1980.

- Preparation of a number of ad hoc planning studies to address special planning problems. These studies included the preparation of a series of subneighborhood development plans in the Village of Slinger; an analysis of development opportunities in the vicinity of the Waukesha County Airport and suggested alternative development plans for this area; a series of subdivision layouts for five-acre

Map 25

RECOMMENDED LAND USE PLAN FOR THE VILLAGE OF HARTLAND SANITARY SEWER SERVICE AREA: 2000



LEGEND

- LOW DENSITY SINGLE-FAMILY RESIDENTIAL DEVELOPMENT (0.7–2.2 UNITS PER NET ACRE)
- MEDIUM DENSITY SINGLE-FAMILY RESIDENTIAL DEVELOPMENT (2.3–4.3 UNITS PER NET ACRE)
- MEDIUM DENSITY TWO-FAMILY RESIDENTIAL DEVELOPMENT (4.4–6.9 UNITS PER NET ACRE)
- HIGH DENSITY MULTIPLE-FAMILY RESIDENTIAL DEVELOPMENT (7.0–17.9 UNITS PER NET ACRE)
- COMMERCIAL DEVELOPMENT
- N NEIGHBORHOOD RETAIL AND SERVICE CENTER
- C COMMUNITY RETAIL AND SERVICE CENTER
- MANUFACTURING, WHOLESALE, AND QUARRYING DEVELOPMENT
- PARK AND RECREATIONAL DEVELOPMENT
  - C COMMUNITY PARK
  - N NEIGHBORHOOD PARK
- RECREATIONAL CORRIDOR (TRAIL)
- RAILROAD
- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL AREA
- NONE PRIME AGRICULTURAL LAND
- OTHER AGRICULTURAL AND RURAL LAND
- WATER
- GOVERNMENTAL AND INSTITUTIONAL
  - C CHURCH
  - F FIRE STATION
  - G VILLAGE HALL, LIBRARY, POLICE STATION
  - E ELEMENTARY SCHOOL
  - H HIGH SCHOOL
  - P PUBLIC WORKS
- SEWAGE TREATMENT PLANT (TO BE ABANDONED)
- EXISTING STATE TRUNK HIGHWAY R.O.W. (FREEWAY)
- I FREEWAY–NONFREEWAY INTERCHANGE

ARTERIAL STREETS AND HIGHWAYS

STATE TRUNK HIGHWAY (NONFREEWAY)
- EXISTING R.O.W.
- PROPOSED R.O.W. (220' TO 320' WIDTH

COUNTY TRUNK HIGHWAY
- EXISTING R.O.W.
- PROPOSED R.O.W. (100' WIDTH)

COLLECTOR STREETS
- EXISTING R.O.W.
- PROPOSED R.O.W. (80' WIDTH)

MINOR LAND ACCESS STREETS
- EXISTING R.O.W.
- PROPOSED R.O.W. (MINIMUM 60' WIDTH)

GRAPHIC SCALE

0 800 1600 2400 FEET

estate lots in the Village of River Hills; and alternative zoning schemes for a one-block area in the City of Cudahy. The block studied in the City of Cudahy is an area in transition with both existing industrial and residential development. The Commission staff recommendation sought to provide an aesthetically pleasing transition between the conflicting land uses. The Commission staff also prepared a number of zoning amendments for various cities, villages, and towns in the region addressing such issues as floodplain zoning, sign control, open space requirements, and wind energy conversion systems. These ad hoc studies were documented in Community Assistance planning staff memoranda.

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.

During 1981 resident planning assistance was provided on a contractual basis to the Cities of Burlington, Cedarburg, Delavan, and Franklin; to the Villages of Germantown and Sussex; and to the Town of Somers. Collectively, these services required Division staff attendance and participation in a total of 67 plan commission, village board, and city council meetings. In addition to attending meetings, the Commission staff maintained regular office hours in the City of Franklin, City Hall from January 1 through June 30, 1981. During that period, the Commission staff maintained such office hours for 45 working days. Where the volume of work warrants such a staff assignment, the placement of Commission staff in municipal buildings provides an effective and convenient way for local public officials and individual citizens to meet with Commission staff members and discuss development problems.

DISTRICT PLANNING SERVICES

The Commission has encouraged the creation of subregional districts to conduct comprehensive community planning programs. In past years, such programs were completed for two urban development-oriented districts—the Kenosha Planning District, consisting of the City of Kenosha and the Towns of Pleasant Prairie and Somers; and the Racine Urban Planning District, consisting of the City of Racine, the Villages of Elmwood Park, North Bay, Sturtevant, and Wind Point, and the Towns of Caledonia and Mt. Pleasant. Comprehensive community development plans for these districts have been formally adopted by the Commission.

The Kenosha Planning District comprehensive plan was completed in 1967. Late in 1979, the City of Kenosha asked the Commission to assist it in reviewing, updating, and extending the previously adopted plan. Accordingly, the advisory committee for the Kenosha Planning District was reactivated in 1980. The Commission staff has assumed a liaison role to the Committee and to the City of Kenosha staff as they update the plan, and is providing data and technical support for the work.

CARTOGRAPHIC AND GRAPHIC ARTS DIVISION

DIVISION FUNCTIONS

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

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

BASE MAPPING

During 1981, work was begun on the updating of the Commission 1 inch equals 2,000 foot scale county planning base maps using Wisconsin Department of Transportation state aid mileage summary maps and 1 inch equals 2,000 foot scale high-flight ratioed and rectified aerial photographs. In 1981, the updating effort included the making of changes in civil division corporate limit lines to reflect recent annexations and incorporations.

TOPOGRAPHIC MAPPING AND SURVEY CONTROL

The Commission prepares and encourages local units of government in the Region to prepare 1 inch equals 100 foot scale and 1 inch equals 200 foot scale, 2-foot contour interval topographic maps based on a Commission-recommended monumented control survey network, relating the U. S. Public Land Survey System to the State Plane Coordinate System. The Division assists local communities in the preparation of contracts and specifications for these programs. All of the horizontal and vertical control survey data obtained as a part of these mapping efforts are compiled by the Division. The Commission thus serves as a center for the collection, collation, and coordination of control survey data throughout the Region.

In 1977 Racine County completed a pioneering program which resulted in the completion of large-scale topographic maps and the attendant relocation, monumentation, and coordination of all of the U. S. Public Land Survey corners within the County. That work was done in accordance with specifications prepared by the Regional Planning Commission. In 1980 Kenosha County undertook a similar program. The County Board assigned the responsibility for the preparation of the necessary contract documents and specifications and for the supervision of the work to the Executive Director of the Commission, a responsibility which includes the field inspection of the completed control survey monumentation and the quality control of the land and control survey work, as well as assistance in obtaining available state grants in partial support of the work. In 1981 Waukesha County also undertook a similar countywide program and asked that the Commission staff provide the necessary supervision and assistance. These three county-level surveying and mapping programs represent model programs of national interest.

Map 26 shows those areas of the Region for which large-scale topographic maps have been or are being prepared to Commission-recommended standards. As shown in Figure 46 and Table 27, this area totals 1,076 square miles, or over 40 percent of the total area of the Region. A total of 5,810 U. S. Public Land Survey corners in the Region have been or are being relocated, monumented, and coordinated, representing over 49 percent of all such corners in the Region. The utility of the control survey data developed and collated by the

Commission is indicated by the fact that the Commission received nearly 350 inquiries for such data during 1981 alone.

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. About 5,265 prints of aerial photographs of portions of the Region were reproduced, along with nearly 325 soil map prints and about 1,082 prints of maps in the Commission base map series. Aerial photographs were purchased primarily by local units of government, utilities, realtors, retail businesses, and service and manufacturing companies. Soil photo prints and base maps were purchased primarily by realtors, utilities, surveyors, engineers, and individual property owners.

FINAL REPORT PRODUCTION

During 1981 the Division was responsible for the production of the following Commission publications:

PROSPECTUSES

- Overall Work Program—1982 Southeastern Wisconsin Regional Planning Commission, November 1981, 308 pages.

ANNUAL REPORTS

- 1980 Annual Report, July 1981, 194 pages.

TECHNICAL REPORTS

- No. 24, State-of-the-Art of Primary Transit System Technology, February 1981, 273 pages.
- No. 27, Milwaukee Area Work Time Rescheduling Study, August 1981, 162 pages.

COMMUNITY ASSISTANCE PLANNING REPORTS

- No. 45, A Farmland Preservation Plan for Kenosha County, Wisconsin, June 1981, 165 pages.
- No. 46, A Farmland Preservation Plan for Racine County, Wisconsin, August 1981, 169 pages.
- No. 49, A Land Use and Traffic Circulation Plan for the Village of Hartland: 2000, July 1981, 116 pages.
- No. 50, A Transportation Systems Management Plan for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1981, June 1981, 129 pages.
- No. 53, A Water Quality Management Plan for Okauchee Lake, Waukesha County, Wisconsin, August 1981, 164 pages.
- No. 55, A Land Use Plan for the Village of Darien: 2000, December 1981, 140 pages.
- No. 56, Sanitary Sewer Service Areas for the Walworth County Metropolitan Sewerage District, August 1981, 51 pages.
- No. 61, A Public Transportation Service Plan for Washington County, October 1981, 176 pages.
- No. 62, A Traffic Circulation Plan for the West Bend Central Business District, City of West Bend, Washington County, Wisconsin, August 1981, 44 pages.
- No. 66, A Park and Open Space Plan for the City of New Berlin, Waukesha County, Wisconsin, October 1981, 92 pages.
- No. 68, Upland Disposal Area Siting Study for Dredged Materials from the Port of Milwaukee, December 1981, 97 pages.

TECHNICAL RECORDS

- Volume 4, No. 2, March 1981, 113 pages.

NEWSLETTERS

- Volume 21, Nos. 1-6, 242 pages.

OTHER

- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1981-1985, December 1981, 247 pages.
- Study Design for the Milwaukee Harbor Estuary Comprehensive Water Resources Planning Program, September 1981, 291 pages.

Map 26

LARGE-SCALE TOPOGRAPHIC MAPPING AND RELOCATION, MONUMENTATION, AND COORDINATION OF U. S. PUBLIC LAND SURVEY CORNERS: 1981

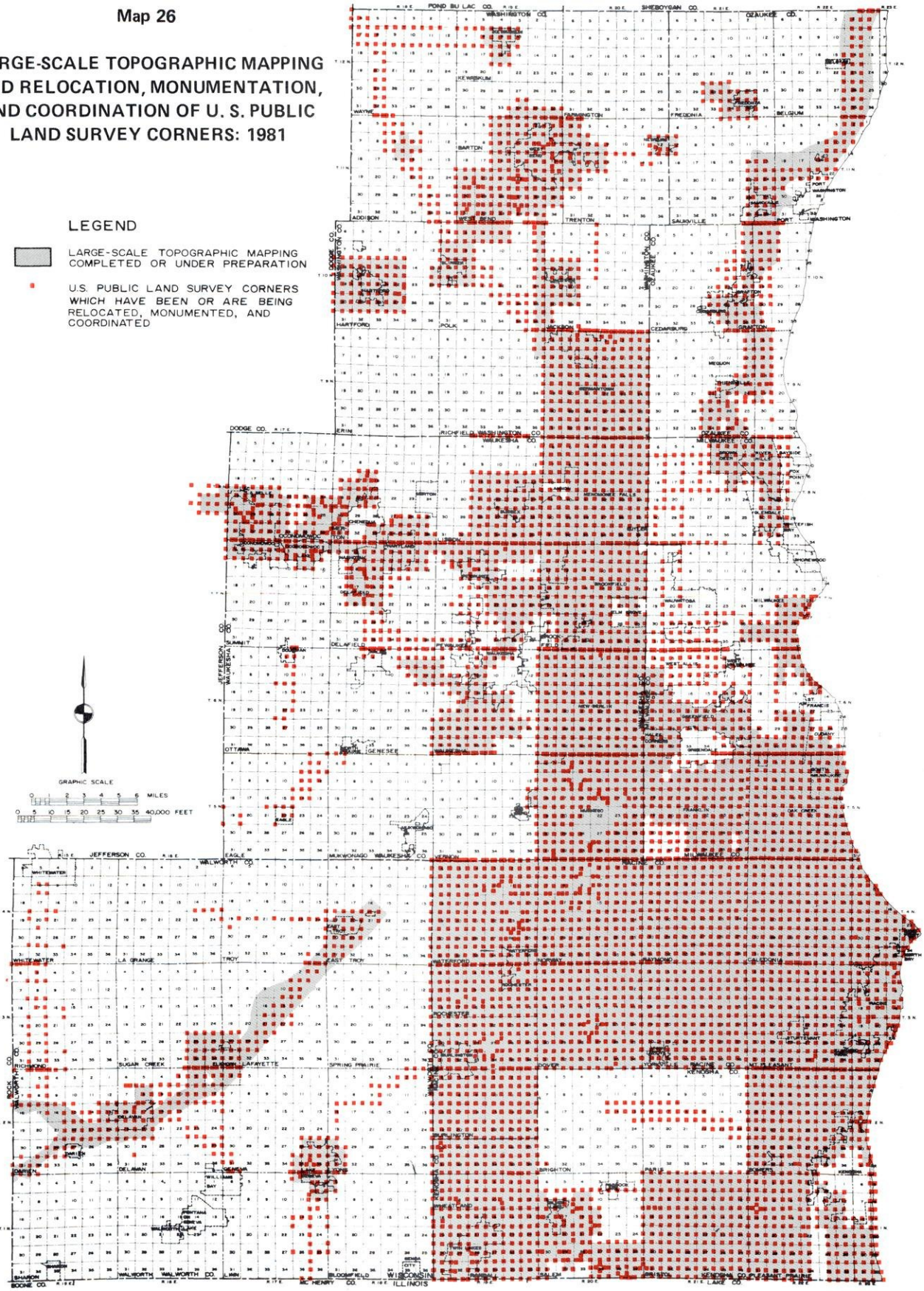
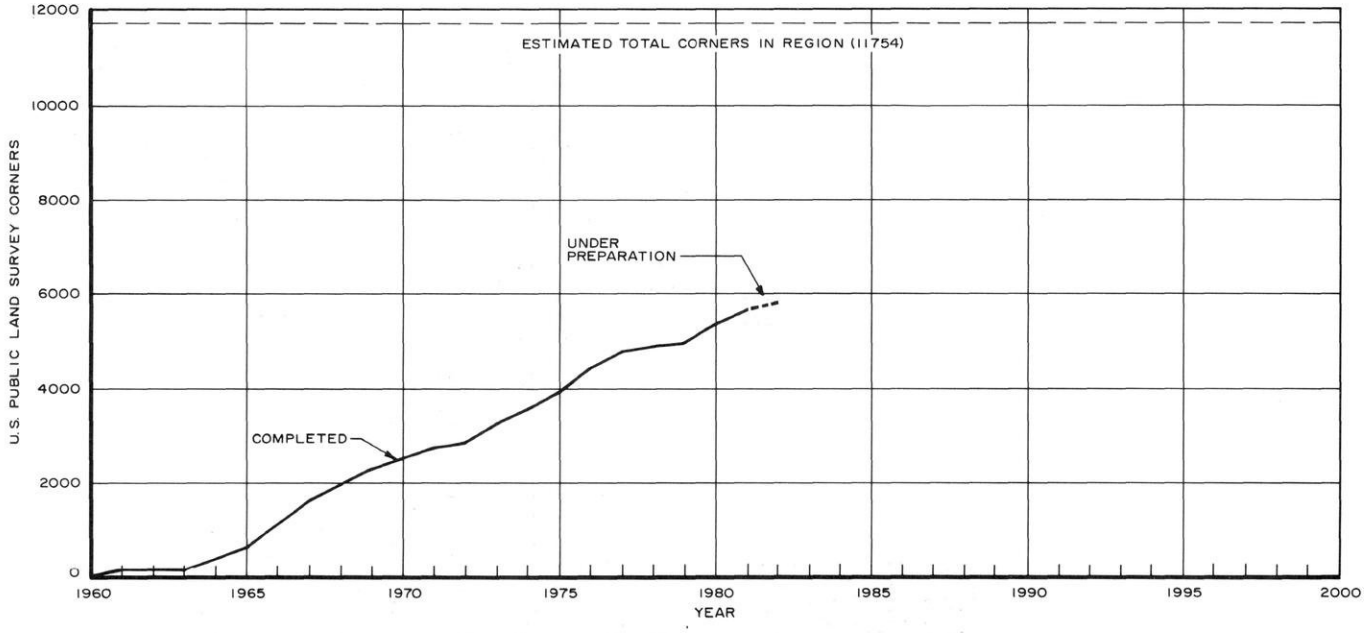
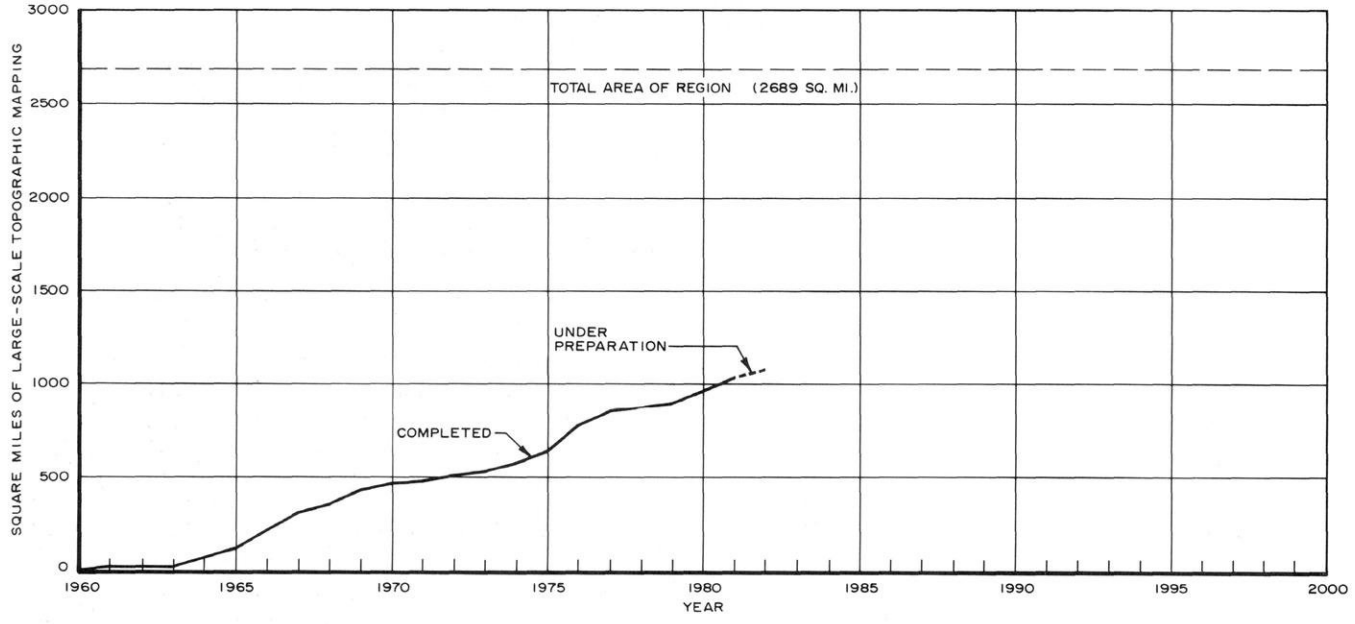


Figure 46

STATUS OF U. S. PUBLIC LAND SURVEY SECTION AND QUARTER SECTION CORNER RELOCATION, MONUMENTATION, AND COORDINATION AND LARGE-SCALE TOPOGRAPHIC MAPPING OF THE REGION: 1960-1982





- Amendment to the Public Transit Accessibility Plan for the Milwaukee Urbanized Area/Waukesha County, City of Waukesha Transit System Utility, June 1981, 12 pages.
- Amendment to the Regional Transportation Plan—2000, Lake Freeway South Corridor, June 1981, 22 pages.
- Amendment to the Regional Water Quality Management Plan—2000, Cities of Brookfield and Waukesha, December 1981, 8 pages.

TYPICAL SEWRPC MONUMENT

Table 27

LARGE-SCALE TOPOGRAPHIC MAPPING AND RELOCATION, MONUMENTATION, AND COORDINATION OF U. S. PUBLIC LAND SURVEY CORNERS: 1981

County	Total Area (square miles)	Area (square miles) of Large-Scale Topographic Mapping Completed or Under Preparation					
		Wisconsin Department of Transportation	SEWRPC	County[a]	Local[b]	Total	Percent
Kenosha	278	--	27.75	134.00	14.00	175.75	63.22
Milwaukee . . .	242	--	24.75	5.75	77.00	107.50	44.42
Ozaukee	234	26.75	24.25	--	2.00	53.00	22.65
Racine	340	--	25.50	314.50	--	340.00	100.00
Walworth. . . .	578	30.25	--	--	24.00	54.25	9.39
Washington . .	436	1.50	22.75	--	83.75	108.00	24.77
Waukesha . . .	581	1.25	78.75	28.25	129.50	237.75	40.92
Region	2,689	59.75	203.75	482.50	330.25	1,076.25	40.02

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.

[a] *Includes four county boards and Milwaukee Metropolitan Sewerage District.*

[b] *Includes 16 cities, 12 villages, and 1 town.*

County	Estimated Total Corners	Number of U. S. Public Land Survey Corners Which Have Been or Are Being Relocated, Monumented, and Coordinated					
		Wisconsin Department of Transportation	SEWRPC	County[a]	Local[b]	Total	Percent
Kenosha	1,204	55	168	595	63	881	73.17
Milwaukee . . .	1,065	71	113	63	494	741	69.58
Ozaukee	1,064	104	169	--	21	294	27.63
Racine	1,478	--	172	1,306	--	1,478	100.00
Walworth. . . .	2,503	290	--	--	121	411	16.42
Washington . .	1,905	127	142	23	405	697	36.59
Waukesha . . .	2,535	111	463	138	596	1,308	51.60
Region	11,754	758	1,227	2,125	1,700	5,810[c]	49.43

[a] *Includes four county boards and Milwaukee Metropolitan Sewerage District.*

[b] *Includes 16 cities, 13 villages, and 1 town.*

[c] *Because of the need to set witness corners these 5,810 U. S. Public Land Survey corners, including the centers of the sections, are marked by 5,977 monuments.*

DATA PROCESSING AND SYSTEMS ENGINEERING DIVISION

DIVISION FUNCTIONS

The Commission's Data Processing and Systems Engineering Division provides basic support to all other Commission divisions. The Division is responsible for maintaining a regional planning data bank that has been developed over a 20-year period. The Division is responsible for processing requests for retrieval of these data, with such requests coming not only internally from other divisions but externally from local units of government, state and federal agencies, and private interests. The Division also provides support to other Commission divisions in the development and application of simulation models. Finally, the Division provides special data processing services to member local units of government.

REGIONAL PLANNING DATA BANK

The Division maintains a master file of regional planning information on more than 7,500 reels of magnetic tape, representing approximately 3,100 active data files. This permits the efficient filing, conversion, and retrieval of planning and engineering data essential to the execution of areawide comprehensive planning. The file's basic unit of geographic reference is the U. S. Public Land Survey quarter section. The file is, however, also organized to permit retrieval of data for various other geographic units, such as civil divisions, census tracts, traffic analysis zones, special planning analysis areas, and watersheds.

During 1981, the Commission used an IBM Model 3031 central processing unit. This unit was installed in February, replacing an IBM Model 148. The Model 3031 has 2,000,000 bytes of main memory storage and three times the processing speed of the Model 148. Attached to the Model 3031 are six high-speed magnetic tape drives, a 1,200-line-per-minute printer, and 3.6 billion characters of on-line magnetic disk storage. Two IBM Model 3742 data stations are maintained for entering data into the main computer using magnetic diskettes. Also attached to the system are 26 IBM Model 3278 display station terminals through which staff engineers, planners, and computer programmers can enter and retrieve data and use computer programs. In addition to this "in-house" terminal equipment, the system has attached to it 76 "remote" display stations and printers for use by the two counties and nine local communities to which the Commission provides "on-line" data processing services. The workload during 1981 averaged approximately 25,000 teleprocessing tasks and 300 batch runs daily.

SYSTEMS ENGINEERING

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

Transportation-related simulation models currently being used by the Commission include the U. S. Department of Transportation, Federal Highway Administration, battery of highway system simulation models; the U. S. Department of Transportation, Urban Mass Transportation Administration, battery of transit system simulation models; and a series of models developed over the years by the Commission staff, including trip generation and modal split models and an air quality emissions model. In the water resources planning field, the Commission uses a water surface profile model developed by the U. S. Army Corps of Engineers; a hydrologic, hydraulic, and water simulation model developed by Hydrocomp, Inc.; and a flood economics model developed by the Commission staff.

DATA PROCESSING SERVICES TO LOCAL GOVERNMENTS

Since its inception, the Commission has offered to its member units of government special services, including professional advice on the selection of computer systems and the provision of special data

processing services. Direct data processing services have been provided in the traditional "batch" mode of processing whereby the community delivers data to the Commission to process and the Commission returns appropriate reports and materials to the community. In 1981 the Commission continued to offer interested communities the opportunity to control and process their own data through the "on-line" use of small computer terminals attached to the Commission's Model 3031 computer via telephone lines. These terminals give the community the power of a large computer system at the price of a small computer.

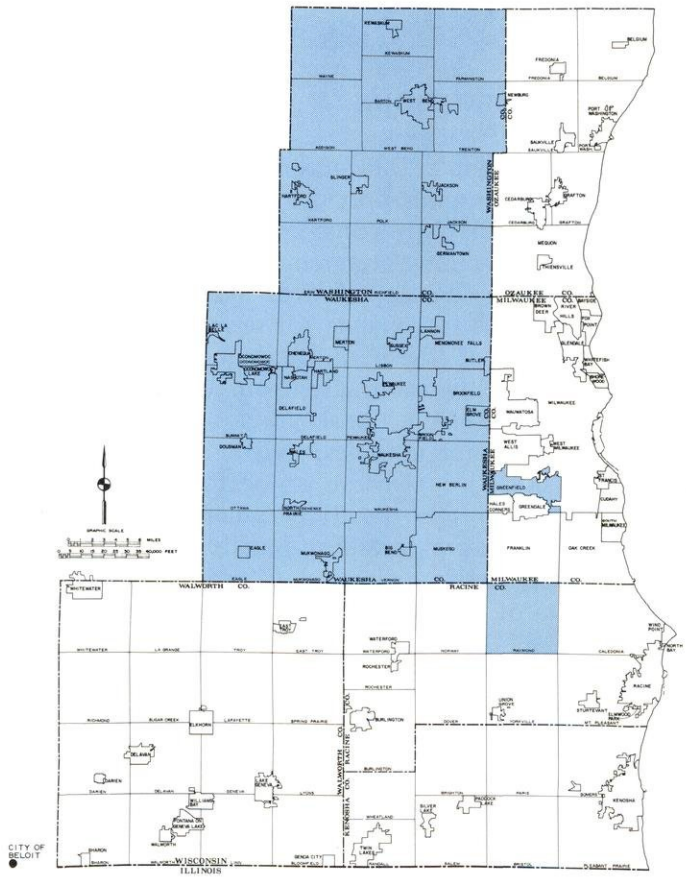
During 1981, services were provided to communities utilizing both methods of processing. Some communities used both methods, doing some data processing in the "batch" mode and some data processing in the "on-line" mode.

One of the services provided in the "batch" mode is the tax bill processing system, which provides communities with property tax assessment rolls and tax bills. Throughout 1981 these property tax-related services were provided at cost to 59 communities, as shown on Map 27. Another service provided in the "batch" mode is the payroll processing system, which was provided to 14 school districts and one village in the Region, as shown on Map 28. Map 29 shows those communities to which the Commission provided voter registration and poll list production services in the "batch" mode.

In addition to the above services, the Commission provided "batch" services to the Allenton Sanitary District and the City of Delafield in the area of utility billing; to one school district—Waukesha—in the area of school census; and to one county—Racine—in the area of welfare check processing.

Map 27

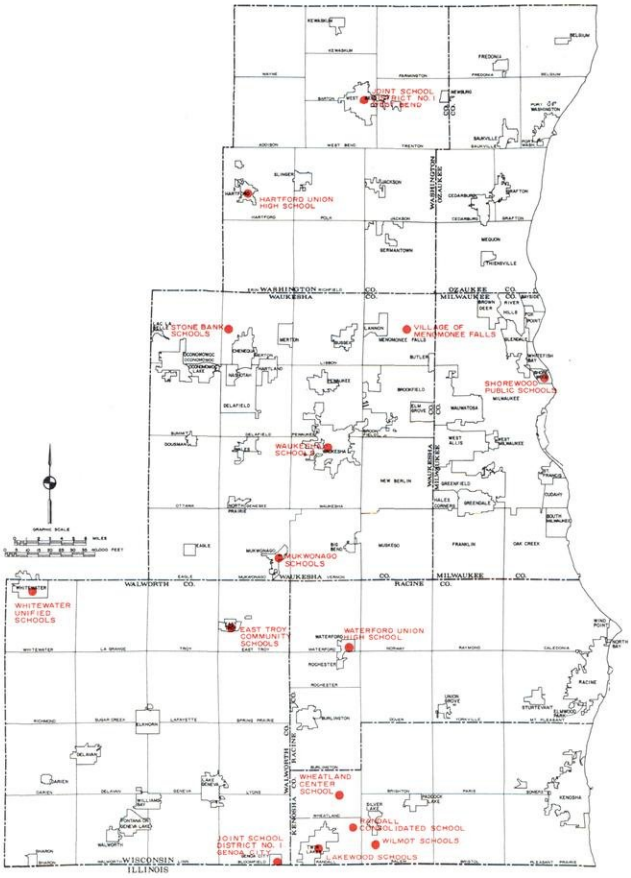
LOCAL COMMUNITIES USING SEWRPC FOR PROPERTY TAX DATA PROCESSING



In the "on-line" processing mode, the Commission has installed computer terminals in two counties, eight cities, and one village. Map 30 shows the location of the terminals and the applications which were processed from those terminals during 1981.

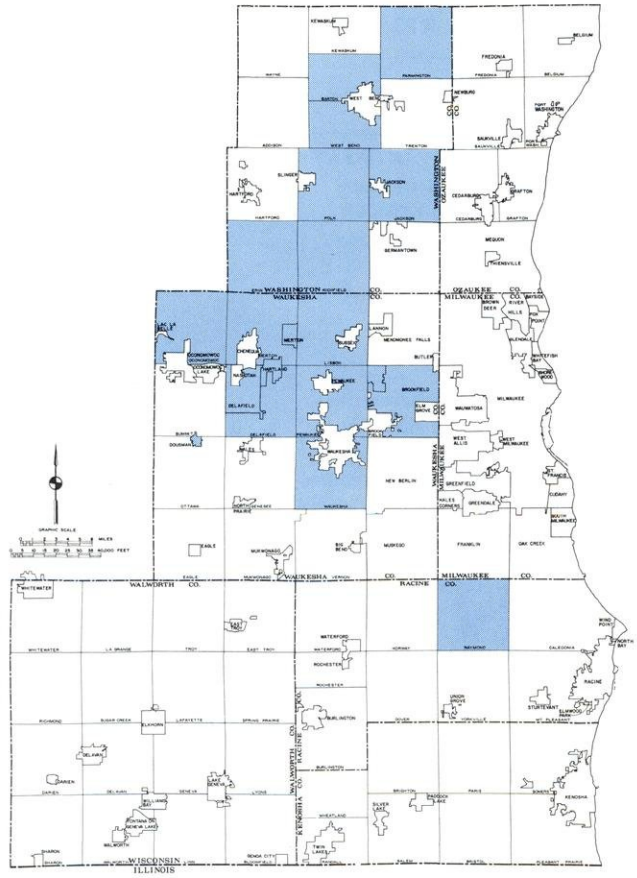
Map 28

SCHOOL DISTRICTS AND LOCAL COMMUNITIES USING SEWRPC FOR PAYROLL DATA PROCESSING



Map 29

LOCAL COMMUNITIES USING SEWRPC FOR VOTER REGISTRATION AND POLL LIST DATA PROCESSING

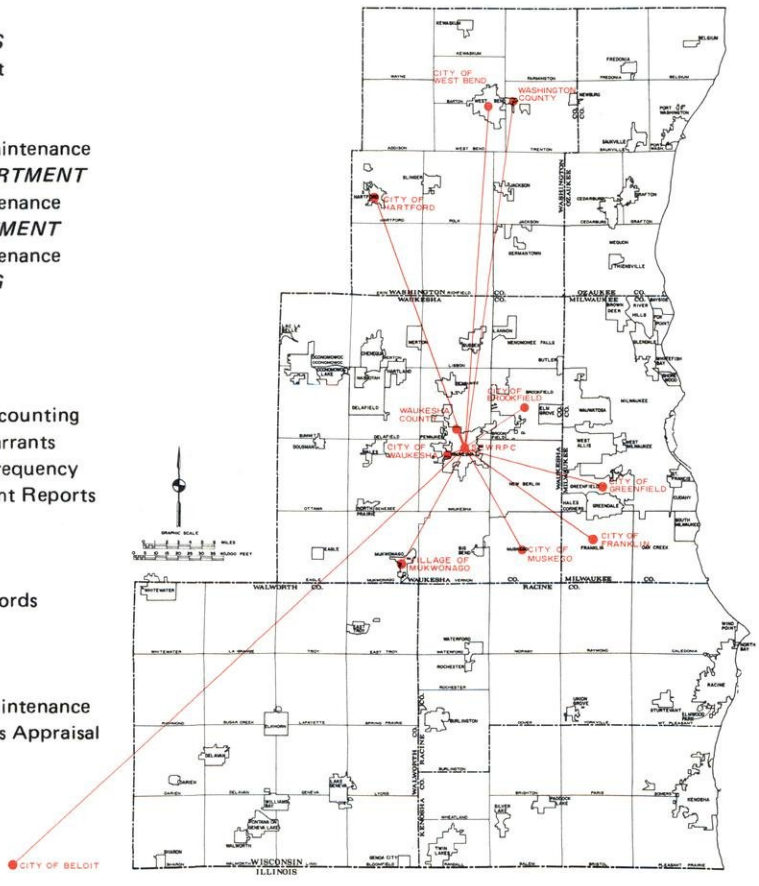


Map 30

LOCAL GOVERNMENT-SEWRPC TELEPROCESSING CONFIGURATION AND APPLICATIONS

WAUKESHA COUNTY
- *CLERK OF COURTS*
  Alimony and Support
  Paternity Payments
- *TAX LISTER*
  Property Tax File Maintenance
- *PERSONNEL DEPARTMENT*
  Employee File Maintenance
- *PAYROLL DEPARTMENT*
  Employee File Maintenance
- *DATA PROCESSING*
  Accounts Payable
  Receipts
  Payroll
  General Ledger
  Register of Deeds Accounting
  Sheriff Wants and Warrants
  Highway Accident Frequency
  Personnel Management Reports
  Mailing Labels
  CETA
  4H
  Grantor-Grantee Records

CITY OF BELOIT
- *CITY ASSESSOR*
  Property Tax File Maintenance
  Computer-Aided Mass Appraisal
  Mobile Home Billing



CITY OF HARTFORD
- *CITY ASSESSOR*
  Property Tax File Maintenance
  Computer-Aided Mass Appraisal

VILLAGE OF MUKWONAGO
- *CLERK*
  Utility Billing and Accounting
  Payroll
  Accounts Payable
  General Ledger
  Receipts

CITY OF FRANKLIN
- *CLERK*
  Budget Processing
  Accounts Payable
  Receipts
  Purchase Orders
  General Ledger
- Utility Billing

CITY OF GREENFIELD
- *ASSESSOR*
  Property Tax File Maintenance
- *TREASURER*
  Utility Billing
  Receipts

CITY OF WAUKESHA
- *CITY COMPTROLLER*
  Accounts Payable
  Receipts
  General Ledger
  Payroll
  Municipal Bonds
  Municipal Invoices
  Special Assessments
- *CITY ASSESSOR*
  Property Tax File Maintenance
  Computer Aided Mass Appraisal
- *CITY CLERK*
  Voter Registration

WASHINGTON COUNTY
- *COUNTY TAX LISTER*
  Property Tax File Maintenance
- *COUNTY TREASURER*
  Property Tax File Inquiry
  Receipts
- *COUNTY AUDITOR*
  Accounts Payable
  Receipts
  Payroll
  General Ledger
  Nursing Home Billing
  Nursing Home Staff Statistics
  Welfare Payroll
  District Attorney Case Disposition
- *CLERK OF COURTS*
  Alimony and Support
  Paternity

CITY OF WEST BEND
- *CITY CLERK*
  Purchase Orders
  Special Tax Assessments
  General Ledger
  Accounts Payable
- *CITY ASSESSOR*
  Property Tax File Maintenance

CITY OF MUSKEGO
- *CITY CLERK*
  Accounts Payable
  Receipts
  General Ledger
  Payroll
  Voter Registration
- *CITY ASSESSOR*
  Property Tax File Maintenance

CITY OF BROOKFIELD
- *CITY COMPTROLLER*
  Receipts
  Payroll
  Accounts Payable
  General Ledger
  Utility Billing
- *CITY POLICE DEPARTMENT*
  Uniform Crime Reporting
  Officer Activity
- *CITY ASSESSOR*
  Property Tax File Maintenance
- *CITY CLERK*
  Voter Registration
- *TREASURER*
  Receipts
- *LIBRARY*
  Circulation
  Fines
  Reference

ADMINISTRATIVE SERVICES DIVISION

DIVISION FUNCTIONS

The Commission's Administrative Services Division performs a number of functions supportive of the work of all of the other Commission Divisions. These functions include financial management, consisting of accounting, bookkeeping, budget control, personnel management, and the implementation of affirmative action and equal opportunity programs; grant-in-aid procurement; purchasing and clerical support; and the sale and distribution of publications.

FINANCIAL MANAGEMENT AND PLANNING

One of the most important functions of the Division is managing the Commission financial affairs. This includes maintaining a fund accounting system, preparing an annual Commission budget, preparing Commission payrolls, and processing accounts receivable and payable. Through the computerized accounting system, monthly financial management reports are prepared, including budget control, cash flow, and quarterly Treasurer's reports. These reports are utilized by the Commission, its committees, and the Executive Director to ensure that the financial integrity of the Commission is maintained.

The Division is also responsible for ensuring that financial institutions controlled by members of minority groups receive a fair share of the Commission's business. This task was continued during 1981 by maintaining a trust account with a minority-controlled bank within the Commission's service area. In addition, the Commission has established a minority business enterprise program, commencing with the generation of a list of minority businesses which were contacted as potential Commission vendors.

The Division is also responsible for preparing the Commission annual budget. With the help of this document and an accompanying federally required overall work program, the Commission is able to plan and organize its work effort from a sound financial basis.

PERSONNEL ADMINISTRATION

Personnel recruitment, testing, and selection are centered in the Administrative Services Division. During 1981 the Commission continued to make progress in carrying out a comprehensive equal employment opportunity program in the areas of recruitment, employment, promotion, transferring, and training. Action was taken to better monitor applicant flow in order to gage progress in attracting minority applicants as required in the affirmative action program. Efforts were continued toward attracting qualified minority and women applicants during the year.

GRANT-IN-AID PROCUREMENT

Along with accounting for the federal, state, and local funds received to operate the Commission, the Division is responsible for federal and state grant application preparation. This includes completion of 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 overall 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. In addition, under the overall work program, the Commission serves as a "pass through" agency to provide federal and state planning monies directly to certain local units of government. For example, transportation planning funds are provided in this way to the County of Milwaukee. The Division administers these "pass through" funds, which in 1981 totaled $176,000.

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 1981 the Division distributed a total of 4,388 copies of Commission reports. These included: 62 prospectuses, 78 study designs, 218 planning reports, 6 planning guides, 405 technical reports, 1,775 community assistance planning reports, 387 technical records, 719 annual reports, 407 conference proceedings, 104 community profiles, 8 lake use reports, 9 public hearing minutes, 82 transportation improvement programs, and 68 overall work programs. In addition, the Division distributed 5,265 aerial photographs, 325 soils maps, and 1,082 maps from the Commission's base map series.

APPENDICES

Appendix A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION COMMISSIONERS AND COMMITTEES: 1981

COMMISSIONERS

	Term Expires
KENOSHA COUNTY	
***Leon T. Dreger	1982
**Donald E. Mayew	1980
*Francis J. Pitts	1986
MILWAUKEE COUNTY	
**Irene M. Brown	1986
***Richard W. Cutler, Secretary	1984
*Harout O. Sanasarian, Vice-Chairman	1978
OZAUKEE COUNTY	
***Thomas H. Buestrin	1982
*Allen F. Bruederle	1984
**Alfred G. Raetz, Chairman	1984
RACINE COUNTY	
*Raymond J. Moyer	1984
**Earl G. Skagen	1982
***Michael W. Wells	1986
WALWORTH COUNTY	
**John D. Ames	1984
***Anthony F. Balestrieri	1982
*Harold H. Kolb	1982
WASHINGTON COUNTY	
**Thomas J. Sackett	1986
*Harold F. Ryan	1984
***Frank F. Uttech	1982
WAUKESHA COUNTY	
*Robert F. Hamilton	1982
**William D. Rogan, Treasurer	1986
***Paul G. Vrakas	1986

*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
Alfred G. Raetz, Chairman
Harout O. Sanasarian, Vice-Chairman
Anthony F. Balestrieri
Richard W. Cutler
Robert F. Hamilton
Raymond J. Moyer
Francis J. Pitts
William D. Rogan
Harold F. Ryan
Frank F. Uttech

ADMINISTRATIVE COMMITTEE
Francis J. Pitts, Chairman
Frank F. Uttech, Vice-Chairman
Leon T. Dreger
Alfred G. Raetz
William D. Rogan
Paul G. Vrakas

INTERGOVERNMENTAL AND PUBLIC RELATIONS COMMITTEE
Raymond J. Moyer, Chairman
Harold F. Ryan, Vice-Chairman
Allen F. Bruederle
Robert F. Hamilton
Harold H. Kolb
Francis J. Pitts
Alfred G. Raetz
William D. Rogan
Harout O. Sanasarian

PLANNING AND RESEARCH COMMITTEE
Anthony F. Balestrieri, Chairman
Donald E. Mayew, Vice-Chairman
John D. Ames
Allen F. Bruederle
Leon T. Dreger
Robert F. Hamilton
Harold H. Kolb
Raymond J. Moyer
Alfred G. Raetz
William D. Rogan
Harold F. Ryan
Thomas J. Sackett
Earl G. Skagen
Paul G. Vrakas

Appendix B

COMMISSION ADVISORY COMMITTEES: 1981

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON REGIONAL LAND USE-TRANSPORTATION PLANNING

The Technical Coordinating and Advisory Committee on Regional Land Use-Transportation Planning is divided into several functional subcommittees. Members of the Committee often serve on more than one subcommittee. The following key identifies the various functional subcommittees: 1) Land Use Subcommittee; 2) Highway Subcommittee; 3) Socioeconomic Subcommittee; 4) Natural and Recreation-Related Resources Subcommittee; 5) Transit Subcommittee; 6) Utilities Subcommittee; and 7) Traffic Studies, Models, and Operations Subcommittee.

John M. Bennett (1,4) . . . . . City Engineer, City of Franklin
James J. Blazek (2) . . . . . City Engineer, City of Racine
Richard R. Brandt (1) . . . . . Manager, Energy Requirements, Wisconsin Gas Company, Milwaukee
Robert W. Brannan (2,5,7) . . . . . Deputy Director, Department of Public Works, Milwaukee County
Donald M. Cammack (7) . . . . . Chief Planning Engineer, Bureau of Aeronautics, Wisconsin Department of Transportation
Arnold L. Clement (1,2) . . . . . Planning Director and Zoning Administrator, Racine County
Lucian M. Darin (2) . . . . . Director of Public Works, City of Hartford
Vencil F. Demshar (2) . . . . . Highway Commissioner, Waukesha County
Russell A. Dimick (2) . . . . . City Engineer, City of Cedarburg
Arthur D. Doll (1) . . . . . Director, Bureau of Planning, Wisconsin Department of Natural Resources
William R. Drew (1,2,3,4,5,6,7) . . . . . Commissioner, Department of City Development, City of Milwaukee
Raymond T. Dwyer (6) . . . . . City Engineer, City of Greenfield
Joel P. Ettinger (5,7) . . . . . Regional Director, U. S. Department of Transportation, Urban Mass Transportation Administration
James E. Foley (7) . . . . . Airport Engineer, Department of Public Works, Milwaukee County
John M. Fredrickson (1) . . . . . Village Manager, Village of River Hills
Arne L. Gausmann (1,2) . . . . . Director, Bureau of Systems Planning, Wisconsin Department of Transportation
Norman N. Gill (1) . . . . . Executive Director, Citizens Governmental Research Bureau, Milwaukee
Herbert A. Goetsch (2,4,6) . . . . . Commissioner of Public Works, City of Milwaukee
Lee H. Greenwood (2) . . . . . District General Manager, Central Greyhound Lines, Milwaukee
Gerald G. Griswold (5) . . . . . Town Engineer, Town of Caledonia
George A. Gundersen (2,4) . . . . . Chief, Statewide Planning Section, Division of Planning and Budget, Wisconsin Department of Transportation
Douglas F. Haist (5) . . . . . Administrator, Division of Transportation Assistance, Wisconsin Department of Transportation
John M. Hartz (5) . . . . . Director, Bureau of Transit, Wisconsin Department of Transportation
Frank M. Hedgcock (7) . . . . . Director of Community Development, City of Waukesha
Sebastian J. Helfer (3) . . . . . Director, Campus Planning and Construction, Marquette University, Milwaukee
Donald K. Holland (2,6) . . . . . Director of Public Works, City of Kenosha
Karl B. Holzwarth (2,4) . . . . . Director, Park Commission, Racine County
Ronald Hustedde (1,4) . . . . . Resource Agent, Walworth County
Robert F. Hutter (2) . . . . . Director of Public Works, Village of Sussex
Jerome P. Hytry . . . . . State Conservationist, U. S. Soil Conservation Service
Edward A. Jenkins (5) . . . . . Transportation Director, City of Kenosha
Dr. Leonard C. Johnson (4) . . . . . Soil and Water Conservation Specialist, Wisconsin Board of Soil and Water Conservation Districts
Paul Juhnke (3) . . . . . Vice-President, Urban Affairs, Metropolitan Milwaukee Association of Commerce
Russell E. Julian (3) . . . . . Executive Director, Southeastern Wisconsin Health Systems Agency, Inc., Milwaukee
Bal Kale (3) . . . . . Demographer, Wisconsin Department of Administration
Richard A. Keyes (2) . . . . . Environmental Engineer, Department of Public Works, Milwaukee County
Henry C. Krebs (3) . . . . . Chief of Demographic and Special Analysis, Bureau of Health Statistics, Wisconsin Department of Health and Social Services
Edwin J. Laszewski, Jr. (2) . . . . . City Engineer, City of Milwaukee
Gerald P. Lee (1) . . . . . Building Inspector, City of Muskego
Russell H. Leitch (3) . . . . . Director, District Office, U. S. Department of Commerce
J. William Little (2,6) . . . . . Administrator, City of Wauwatosa
James J. Lynch (1) . . . . . Village Planner, Village of Shorewood
Patrick Marchese . . . . . Manager of Planning and Contract Engineering, Milwaukee Metropolitan Sewerage District
John Margis, Jr. (2,4,7) . . . . . Highway Commissioner, Racine County
Frank M. Mayer (2,5,6,7) . . . . . Division Administrator, U. S. Department of Transportation, Federal Highway Administration
Henry M. Mayer (5) . . . . . Managing Director, Milwaukee County Transit System
Norman H. McKegney (5) . . . . . Terminal Superintendent, The Milwaukee Road
Robert J. Mikula (2,4) . . . . . Director of Parks, Recreation and Culture, Milwaukee County
Paul Milewski (3) . . . . . Director of Planning, City of Oak Creek
Daniel G. Mueller (1,3) . . . . . District Manager, Network Planning, Wisconsin Telephone Company
Paul E. Mueller (1,4) . . . . . Land Use and Park Administrator, Washington County
William A. Muth, Jr. (6) . . . . . Director of Public Works, City of Brookfield
Roger M. Nacker (3) . . . . . Research Director, Wisconsin Department of Development
George J. Novenski (7) . . . . . Chief, Travel Statistics and Data Coordination Section, Wisconsin Department of Transportation
William F. O'Donnell (1,5) . . . . . County Executive, Milwaukee County
Dwayne Partain (1,5) . . . . . Librarian, Milwaukee Area Technical College
Nick T. Paulos (1,2) . . . . . Village Engineer, Village of Greendale
Allan P. Pleyte (5,7) . . . . . Traffic Engineer and Superintendent, Bureau of Traffic Engineering and Electrical Services, City of Milwaukee
James F. Popp (5,7) . . . . . Chief of Planning, U. S. Department of Transportation, Federal Aviation Administration
John B. Prince (1,3,6) . . . . . Assistant to Senior Vice-President, Wisconsin Electric Power Company, Milwaukee
Ronald A. Ramlow (3) . . . . . Manpower Information Supervisor, Job Service-Milwaukee, Wisconsin Department of Industry, Labor and Human Relations
Richard A. Rechlicz (5) . . . . . Executive Secretary, Wisconsin School Bus Contractors Association
Donald V. Revello (5,7) . . . . . Chief of Traffic Planning, Wisconsin Department of Transportation
W. L. Rodau (1,3) . . . . . District Accounting Manager, Wisconsin Telephone Company
Donald A. Roensch (1,6) . . . . . Administrator, City of Mequon
Gordon Rozmus (1,3) . . . . . City Planner, City of Wauwatosa
Gene A. Scharfenorth (1,2) . . . . . Highway Commissioner, Kenosha County
Franklin B. Scharrer (2,7) . . . . . Highway Commissioner, Washington County
Dr. Eric Schenker (3,5,7) . . . . . Dean, School of Business Administration, University of Wisconsin-Milwaukee
Karl Schroeder (1,3,4) . . . . . Horticultural/Natural Resource Agent, Racine County
John E. Schumacher (2,7) . . . . . City Engineer, City of West Allis
Gerald Schwerm (2,7) . . . . . Director of Transportation, Milwaukee County
Kathy Sellars (3,5) . . . . . Planner/Program Developer, Southeastern Wisconsin Area Agency on Aging, Inc.
Harvey Shebesta (2,3,5,7) . . . . . District Director, District 2, Wisconsin Department of Transportation
Leland C. Smith (4) . . . . . Horticultural Agent, Kenosha County
John M. Sowinski (3) . . . . . Supervisor of Local and Regional Planning Assistance, Wisconsin Department of Transportation
Walter J. Tarmann . . . . . Director, Waukesha County Park and Planning Commission
Jack Taylor (5) . . . . . President, Flash City Transit Company, Racine
Norbert S. Theine (1) . . . . . Administrator, City of South Milwaukee
Donald J. Tripp (1,4) . . . . . Agricultural Agent, Ozaukee County
Floyd W. Usher (2) . . . . . City Engineer, City of Oconomowoc
Rodney W. Vanden Noven (6) . . . . . Director of Public Works, City of Waukesha
John P. Varda (7) . . . . . General Counsel, Wisconsin Motor Carriers Association, Madison
Max Vogt (2,6) . . . . . Director of Public Works, Village of Menomonee Falls
Lloyd O. Wadleigh (3) . . . . . Professor, Department of Economics, Carroll College, Waukesha

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON REGIONAL LAND USE-TRANSPORTATION PLANNING (Continued)

Gerald T. Waelti (2,7) . . . . . Highway Commissioner, Walworth County
Sylvester N. Weyker (2) . . . . . Highway Commissioner, Ozaukee County
C. Elgar Williams (1,3) . . . . . City Planner, City of West Allis
Dan Wilson (4) . . . . . Resource Development Agent, UW-Extension, Washington County
Thomas A. Winkel (2,5,7) . . . . . District Chief Planning Engineer, Wisconsin Department of Transportation
Robert Winnie (1) . . . . . Administrator, Division of Environmental Standards, Wisconsin Department of Natural Resources
Thomas N. Wright (1,3,5) . . . . . Director of Community Development, City of Racine

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON REGIONAL AIRPORT PLANNING

William D. Rogan . . . . . Commissioner, Southeastern Wisconsin Regional Planning Commission
Chairman
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary
John H. Batten . . . . . President, Twin Disc, Inc., Racine; Member, National Business Aircraft Association
Robert R. Brackett . . . . . Manager, Kenosha Municipal Airport; Member, Wisconsin Aviation Trades Association
Donald M. Cammack . . . . . Chief Planning Engineer, Bureau of Aeronautics, Wisconsin Department of Transportation
Vencil F. Demshar . . . . . Highway Commissioner, Waukesha County
James E. Foley . . . . . Airport Engineer, Department of Public Works, Milwaukee County
Arne L. Gausmann . . . . . Director, Bureau of Systems Planning, Wisconsin Department of Transportation
James F. Popp . . . . . Chief of Planning, U. S. Department of Transportation, Federal Aviation Administration
Gerald Schwerm . . . . . Director of Transportation, Milwaukee County
Earl L. Stier . . . . . Manager, West Bend Airport
Lt. Col. Fred R. Wylie . . . . . Civil Engineer, 120th Air Refueling Group, Wisconsin Air National Guard, Milwaukee

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

Gene A. Scharfenorth . . . . . Highway Commissioner, Kenosha County
Chairman
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary
Ralph H. Behn . . . . . Chairman, Town of Randall
Noel Elfering . . . . . Chairman, Town of Bristol
Thomas L. Frank . . . . . Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Howard Gehrke . . . . . Chairman, Town of Salem
Donald K. Holland . . . . . Director of Public Works, City of Kenosha
Earl W. Hollister . . . . . Supervisor, Kenosha County
Merlin F. Jahns . . . . . Trustee, Village of Twin Lakes
Norman Krueger . . . . . President, Village of Paddock Lake
Richard J. Lindl . . . . . Chairman, Town of Somers
Frank Petranek . . . . . Chairman, Town of Brighton
Roger E. Prange . . . . . Clerk, Town of Pleasant Prairie
Richard C. Schipper . . . . . Chairman, Town of Wheatland
Harvey Shebesta . . . . . District Director, District 2, Wisconsin Department of Transportation
Virginia Taylor . . . . . Citizen Member, City of Kenosha
Ronald C. Wieland . . . . . President, Village of Silver Lake
Donald H. Wruck . . . . . Chairman, Town of Pleasant Prairie
August Zirbel, Jr. . . . . Chairman, Town of Paris

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

Gerald Schwerm . . . . . Director of Transportation, Milwaukee County
Chairman and Secretary
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission
Thomas L. Frank . . . . . Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Bruno J. Haas . . . . . City Engineer, City of Glendale
Edwin J. Laszewski, Jr. . . . . City Engineer, City of Milwaukee
J. William Little . . . . . Administrator, City of Wauwatosa
Frank M. Mayer . . . . . Division Administrator, U. S. Department of Transportation, Federal Highway Administration
Nick T. Paulos . . . . . Village Engineer, Village of Greendale
John E. Schumacher . . . . . City Engineer, City of West Allis
Harvey Shebesta . . . . . District Director, District 2, Wisconsin Department of Transportation

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

Sylvester N. Weyker . . . . . Highway Commissioner, Ozaukee County
Chairman
Kurt W. Bauer . . . . . Executive Secretary, Southeastern Wisconsin Regional Planning Commission
Secretary
Russell A. Dimick . . . . . City Engineer, City of Cedarburg
Thomas L. Frank . . . . . Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Arne L. Gausmann . . . . . Director, Bureau of Systems Planning, Wisconsin Department of Transportation
Edward Gieck . . . . . Administrator, Village of Thiensville
Michael C. Harrigan . . . . . Clerk-Administrator, Village of Saukville
Herbert H. Peters . . . . . Park Commissioner, Ozaukee County
Kenneth A. Roell . . . . . Administrator and Engineer, Town of Cedarburg
Donald A. Roensch . . . . . Administrator, City of Mequon
Emory R. Sacho . . . . . Administrator, Village of Grafton
Harvey Shebesta . . . . . District Director, District 2, Wisconsin Department of Transportation

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

John Margis, Jr. . . . . Highway Commissioner, Racine County
Chairman
Cecil F. Mehring . . . . . Highway Engineer, Racine County
Secretary
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission
Arnold L. Clement . . . . . Planning Director and Zoning Administrator, Racine County
Thomas L. Frank . . . . . Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Dennis Giannini . . . . . City Engineer, City of Burlington
Gerald G. Griswold . . . . . Town Engineer, Town of Caledonia
George A. Gundersen . . . . . Chief, Statewide Planning Section, Division of Planning and Budget Wisconsin Department of Transportation
Fred H. Larson . . . . . Commissioner of Public Works, City of Racine
Harvey Shebesta . . . . . District Director, District 2, Wisconsin Department of Transportation
Thomas N. Wright . . . . . Director of Community Development, City of Racine

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

Milton R. Reik . . . . . Citizen Member, Chairman, City of Lake Geneva
Gerald T. Waelti . . . . . Highway Commissioner, Secretary, Walworth County
Anthony F. Balestrieri . . . . . Consulting Engineer, Elkhorn; Commissioner, Southeastern Wisconsin Regional Planning Commission
William E. Barth . . . . . Citizen Member, Town of Walworth
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission
Schuyler W. Case . . . . . Citizen Member, Town of Sharon
Theodore W. Casper . . . . . Citizen Member, Village of Williams Bay
Charles H. Cruse . . . . . Chairman, Town of Whitewater
Oliver W. Fleming . . . . . Supervisor, Walworth County
Philip J. Fogle . . . . . President, Village of Williams Bay
Richard Folman . . . . . Mayor, City of Lake Geneva
Thomas L. Frank . . . . . Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
George Gundersen . . . . . Chief, Statewide Planning Section, Division of Planning and Budget, Wisconsin Department of Transportation
Harvey Shebesta . . . . . District Director, District 2, Wisconsin Department of Transportation
Clement Tracy . . . . . Chairman, Town of East Troy
Donald E. Zenz . . . . . Planning Commission, Village of Fontana

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

Vencil F. Demshar . . . . . Highway Commissioner, Chairman and Secretary, Waukesha County
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission
Ralph A. Becker . . . . . Director of Public Works, City of New Berlin
Thomas L. Frank . . . . . Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Arne L. Gausmann . . . . . Director, Bureau of Systems Planning, Wisconsin Department of Transportation
Richard M. Jung, Sr. . . . . Chairman, Town of Lisbon
John Q. Kamps . . . . . Chairman, Town of Genesee
Gerald P. Lee . . . . . Building Inspector, City of Muskego
Frank M. Mayer . . . . . Division Administrator, U. S. Department of Transportation, Federal Highway Administration
William A. Muth, Jr. . . . . Director of Public Works, City of Brookfield
Floyd W. Usher . . . . . City Engineer, City of Oconomowoc
Rodney W. Vanden Noven . . . . . Director of Public Works, City of Waukesha
Max A. Vogt . . . . . Director of Public Works, Village of Menomonee Falls

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

Lloyd Jacklin . . . . . Citizen Member, Chairman, Village of Jackson
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission, Secretary
George B. Allman . . . . . Chairman, Town of Kewaskum
Harold A. Boyd . . . . . Chairman, Town of Hartford
Howard Buth . . . . . Chairman, Town of Erin
Jerome P. Faust . . . . . Supervisor, Washington County
Donald L. Gonring . . . . . Mayor, City of West Bend
Carl Hauch . . . . . Supervisor, Town of Farmington
Willard Heppe . . . . . Chairman, Town of Polk
Joseph Hoffman . . . . . Citizen Member, City of Hartford
Carl Hohlweck . . . . . Chairman, Town of Wayne
Walter L. Kletti . . . . . Member, City of Hartford Plan Commission
John B. Kohl . . . . . Chairman, Town of Richfield
Melvin W. Kowalke . . . . . Chairman, Town of Germantown
Adolph Lofy . . . . . Supervisor, Washington County
Frank M. Mayer . . . . . Division Administrator, U. S. Department of Transportation, Federal Highway Administration
John J. Meyer . . . . . City Administrator, City of West Bend
Paul E. Mueller . . . . . Land Use and Park Administrator, Washington County
Jerome O'Connor . . . . . Administrator, Village of Germantown
Dean Otte . . . . . Clerk, Village of Slinger
Robert R. Packee . . . . . President, Village of Germantown
Helmuth F. Prahl . . . . . Supervisor, Washington County
Merlin Prost . . . . . Chairman, Town of Barton
William Ripp . . . . . City Engineer, City of Hartford
Franklin B. Scharrer . . . . . Highway Commissioner, Washington County
Reuben J. Schmahl . . . . . Chairman, Town of Jackson
Roland F. Senner . . . . . Chairman, Town of Trenton
Harvey Shebesta . . . . . District Director, District 2, Wisconsin Department of Transportation
Gerald F. Stollenwerk . . . . . President, Village of Kewaskum
Gordon P. Stowers . . . . . Chairman, Town of West Bend
Carl Vogt . . . . . Town Clerk, Town of Addison
Milton Wilkens . . . . . President, Village of Newburg

MILWAUKEE AREA PRIMARY TRANSIT SYSTEM ALTERNATIVES ANALYSIS CITIZENS INTERGOVERNMENTAL AND TECHNICAL COORDINATING AND ADVISORY COMMITTEE

Frank P. Zeidler . . . . . Citizen Member, Milwaukee County Chairman
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission, Secretary
F. Thomas Ament . . . . . County Board Chairman, Milwaukee County
Michael J. Brady . . . . . Chief Field Representative for Congressman Henry S. Reuss
Robert W. Brannan . . . . . Deputy Director, Department of Public Works, Milwaukee County
David Carley . . . . . Citizen Member, City of Milwaukee
Michael Corriveau . . . . . Executive Assistant, Office of the Milwaukee County Executive
James F. Egan . . . . . Research Analyst, Legislative Reference Bureau, City of Milwaukee
Michael H. Elconin . . . . . Citizen Member, City of Milwaukee
Arne L. Gausmann . . . . . Director, Bureau of Systems Planning, Wisconsin Department of Transportation
P. Douglas Gerleman . . . . . Director, Planning Division, Urban Mass Transportation Administration, Region V, U. S. Department of Transportation
John M. Hartz . . . . . Director, Bureau of Transit, Wisconsin Department of Transportation
Edwin J. Laszewski, Jr. . . . . City Engineer, City of Milwaukee
J. William Little . . . . . Administrator, City of Wauwatosa
Frank M. Mayer . . . . . Division Administrator, U. S. Department of Transportation, Federal Highway Administration
Henry M. Mayer . . . . . Managing Director, Milwaukee County Transit System
Henry F. Mixter . . . . . President, Village of Whitefish Bay
John O. Norquist . . . . . Wisconsin State Representative
Brian F. O'Connell . . . . . Planner, Department of City Development, City of Milwaukee
Harout O. Sanasarian . . . . . Supervisor, Milwaukee County Board; Chairman, Milwaukee County Transit Committee; Commissioner, Southeastern Wisconsin Regional Planning Commission
Harvey Shebesta . . . . . District Director, District 2, Wisconsin Department of Transportation

MILWAUKEE NORTHWEST SIDE/OZAUKEE COUNTY TRANSPORTATION IMPROVEMENT STUDY CITIZENS INTERGOVERNMENTAL AND TECHNICAL COORDINATING AND ADVISORY COMMITTEE

Harvey Shebesta . . . . . District Director, Wisconsin Department of Transportation
Chairman
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary
Fred A. Behrens . . . . . Assistant Division Administrator, U. S. Department of Transportation, Federal Highway Administration
Robert W. Brannan . . . . . Deputy Director, Department of Public Works, Milwaukee County
Warren D. Braun . . . . . Wisconsin State Senator
P. Douglas Gerleman . . . . . Director, Planning Division, Urban Mass Transportation Administration, Region V, U. S. Department of Transportation
Paul A. Henningsen . . . . . Supervisor, Milwaukee County
Edwin J. Laszewski, Jr. . . . . City Engineer, City of Milwaukee
J. William Little . . . . . Administrator, City of Wauwatosa
Henry M. Mayer . . . . . Managing Director, Milwaukee County Transit System
Paul G. Meyer . . . . . Supervisor, Ozaukee County
Roy B. Nabors . . . . . Alderman, City of Milwaukee
Brian F. O'Connell . . . . . Planner, Department of City Development, City of Milwaukee
Marvin J. Schaeffer . . . . . Administrator, Division of Transportation Districts, Wisconsin Department of Transportation
Sylvester N. Weyker . . . . . Highway Commissioner, Ozaukee County

MILWAUKEE AREA WORK TIME RESCHEDULING STUDY ADVISORY COMMITTEE

William P. Chapman . . . . . Vice-President, Johnson Controls, Inc.
Chairman
Thomas J. Parker . . . . . President, Milwaukee County Labor Council
Vice-Chairman
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary
T. J. Baudhuin . . . . . Materials Manager, Automotive Division, A. O. Smith Corporation
Robert W. Brannan . . . . . Deputy Director, Department of Public Works, Milwaukee County
Vencil F. Demshar . . . . . Highway Commissioner, Waukesha County
William R. Drew . . . . . Commissioner, Department of City Development, City of Milwaukee
Thomas L. Frank . . . . . Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Arne L. Gausmann . . . . . Director, Bureau of Systems Planning, Wisconsin Department of Transportation
P. Douglas Gerleman . . . . . Director, Planning Division, Urban Mass Transportation Administration, Region V, U. S. Department of Transportation
Sam H. Hay . . . . . Director of Labor Relations and Public Affairs, Allen-Bradley Company, Milwaukee
Paul Juhnke . . . . . Vice-President, Urban Affairs, Milwaukee Metropolitan Association of Commerce
Henry M. Mayer . . . . . Managing Director, Milwaukee County Transit System
Carlton J. Nash . . . . . Chief, Transportation and Planning, U. S. Environmental Protection Agency
Allen P. Pleyte . . . . . Traffic Engineer and Superintendent, Bureau of Traffic Engineering and Electrical Services, City of Milwaukee
James S. Rickun . . . . . Transportation/Air Quality Planner, Wisconsin Department of Natural Resources
John E. Schumacher . . . . . City Engineer, City of West Allis
Thomas A. Winkel . . . . . District Chief Planning Engineer, Wisconsin Department of Transportation

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

Gene A. Scharfenorth . . . . . Highway Commissioner, Kenosha County
Chairman
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary
Joel P. Ettinger . . . . . Regional Director, U. S. Department of Transportation, Urban Mass Transportation Administration
Arne L. Gausmann . . . . . Director, Bureau of Systems Planning, Wisconsin Department of Transportation
Donald K. Holland . . . . . Director of Public Works, City of Kenosha
Edward A. Jenkins . . . . . Transportation Director, City of Kenosha
Frank M. Mayer . . . . . Division Administrator, U. S. Department of Transportation, Federal Highway Administration
Francis J. Pitts . . . . . Commissioner, Southeastern Wisconsin Regional Planning Commission
Harvey Shebesta . . . . . District Director, District 2, Wisconsin Department of Transportation

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

John Margis, Jr. . . . . Highway Commissioner, Racine County
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary
James J. Blazek . . . . . City Engineer, City of Racine
Jon I. Dederich . . . . . Plan Commissioner, Village of Elmwood Park
Joel P. Ettinger . . . . . Regional Director, U. S. Department of Transportation, Urban Mass Transportation Administration
Arne L. Gausmann . . . . . Director, Bureau of Systems Planning, Wisconsin Department of Transportation
Clair W. Jenn . . . . . Traffic Engineer, City of Racine
LeRoy H. Jerstad . . . . . President, Village of North Bay
Frank M. Mayer . . . . . Division Administrator, U. S. Department of Transportation, Federal Highway Administration
Lloyd C. Meier . . . . . President, Village of Wind Point
Herman V. Nelson . . . . . Trustee, Village of Sturtevant
Harvey Shebesta . . . . . District Director, Wisconsin Department of Transportation
Robert F. White . . . . . Supervisor, Town of Mt. Pleasant

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

Harout O. Sanasarian . . . . . Supervisor, Milwaukee County Board; Chairman, Milwaukee County Transit Committee; Commissioner, Southeastern Wisconsin Regional Planning Commission
Chairman
F. Thomas Ament . . . . . County Board Chairman, Milwaukee County
Ralph A. Becker . . . . . Director of Public Works, City of New Berlin
William C. Carey . . . . . Department of Fiscal Liaison, City of Milwaukee
Vencil F. Demshar . . . . . Highway Commissioner, Waukesha County
William R. Drew . . . . . Commissioner, Department of City Development, City of Milwaukee
Herbert A. Goetsch . . . . . Commissioner of Public Works, City of Milwaukee
Joseph M. Hutsteiner . . . . . Supervisor, Milwaukee County
J. Henry Kulinski . . . . . City Engineer, City of St. Francis
Joseph C. LaPorte . . . . . Mayor, City of Waukesha
Edwin J. Laszewski, Jr. . . . . City Engineer, City of Milwaukee
J. William Little . . . . . Administrator, City of Wauwatosa
William E. Meaux . . . . . Supervisor, Milwaukee County
Henry F. Mixter . . . . . President, Village of Whitefish Bay
Nick T. Paulos . . . . . Village Engineer, Village of Greendale
John E. Schumacher . . . . . City Engineer, City of West Allis
Gerald Schwerm . . . . . Director of Transportation, Milwaukee County Department of Public Works
Betty L. Voss . . . . . Alderman, City of Milwaukee
Representative (vacant) . . . . . Local Government, Ozaukee/Washington Counties

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

Ex Officio Nonvoting Members

Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission, Secretary
Robert W. Brannan . . . . . Deputy Director, Department of Public Works, Milwaukee County
Joel P. Ettinger . . . . . Regional Director, U. S. Department of Transportation, Urban Mass Transportation Administration
Thomas J. Hart . . . . . Director, Bureau of Program Management, Wisconsin Department of Transportation
John M. Hartz . . . . . Director, Bureau of Transit, Wisconsin Department of Transportation
Henry M. Mayer . . . . . Managing Director, Milwaukee Transport Services, Inc.
Harvey Shebesta . . . . . District Director, Wisconsin Department of Transportation

INTERGOVERNMENTAL COORDINATING AND ADVISORY COMMITTEE ON PUBLIC TRANSPORTATION IN WASHINGTON COUNTY

George H. Frank . . . . . Supervisor, Washington County, Chairman
Reuben J. Schmahl . . . . . Chairman, Washington County Board of Supervisors, Vice-Chairman
Ronald R. Bast . . . . . Manager, Riteway Bus Service
Helen B. Bunke . . . . . Supervisor, Washington County
John German . . . . . Supervisor, Washington County
William A. Heimlich . . . . . Planning Supervisor, Wisconsin Department of Transportation
Fern L. Hembel . . . . . Supervisor, Washington County
Dr. Russell L. Moberly . . . . . Member, Washington County Advisory Council on Aging
Linda M. Olson . . . . . Director, Washington County Office on Aging
Carolyn A. Pipke . . . . . Director, Hartford Municipal Recreation Department
Helen A. Ramon . . . . . Planner/Program Developer, Southeastern Wisconsin Area Agency on Aging
Clarence M. Roskopf . . . . . Supervisor, Washington County
Frank B. Sharrer . . . . . Highway Commissioner, Washington County Highway Department
Carolyn J. Speirs . . . . . Coordinator, Kettle Moraine Region, Greater Milwaukee Chapter of the American Red Cross
Joseph B. Stafford . . . . . Chief, Region Support, Wisconsin Department of Health and Social Services
Stephen Walla . . . . . Owner, West Bend Taxi Service

INTERGOVERNMENTAL COORDINATING AND ADVISORY COMMITTEE ON PUBLIC TRANSPORTATION IN WALWORTH COUNTY

Ernst L. Kloppstein . . . . . Supervisor, Walworth County Board, Chairman
Franklin Stoneburner . . . . . Director, Walworth County Department of Aging, Vice-Chairman
Arnold Ackley . . . . . Alderman, City of Lake Geneva
Oliver W. Flemming . . . . . Supervisor, Walworth County
Helena M. Gavin . . . . . Director, Walworth County Nutrition Program
Mary Jane Paschke . . . . . Coordinator, Day Treatment, Lakeland Counseling Center
William T. Pratt . . . . . Administrator, Lakeland Nursing Home and Farm
Quinn C. Smet . . . . . City Manager, City of Whitewater
Brian N. Wexler . . . . . Supervisor II, Walworth County Department of Social Services
Thomas A. Winkel . . . . . Chief Planning and Community Assistance Engineer, Wisconsin Department of Transportation

ROOT RIVER WATERSHED COMMITTEE

Robert J. Mikula . . . . . Director of Parks, Recreation and Culture, Milwaukee County Park Commission, Chairman
Thomas N. Wright . . . . . Director of Community Development, City of Racine, Vice-Chairman
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission, Secretary
John M. Bennett . . . . . City Engineer, City of Franklin
James J. Blazek . . . . . City Engineer, City of Racine
Raymond T. Dwyer . . . . . City Engineer, City of Greenfield
Jerome J. Gottfried . . . . . Mayor, City of Muskego
Donald W. Hermann . . . . . Mayor, City of Oak Creek
Orville L. Kurth . . . . . District Conservationist, U. S. Soil Conservation Service, Milwaukee and Waukesha Counties
Frederick L. Licau . . . . . President, Village of Hales Corners
Patrick Marchese . . . . . Manager of Planning and Contract Engineering, Milwaukee Metropolitan Sewerage District
John Margis, Jr. . . . . Highway Commissioner, Racine County
Stephen F. Olsen . . . . . Mayor, City of Racine
Nick T. Paulos . . . . . Village Engineer, Village of Greendale
Karl Schroeder . . . . . Horticulture and Natural Resources Agent, Racine County
John L. Schultz . . . . . District Engineer, Southeast District, Wisconsin Department of Natural Resources
John E. Schumacher . . . . . City Engineer, City of West Allis
Udo L. Wilharm . . . . . City Engineer, City of Oak Creek

FOX RIVER WATERSHED COMMITTEE

William D. Rogan . . . . . Commissioner, Southeastern Wisconsin Regional Planning Commission, Chairman
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission, Secretary
Edmund Brick . . . . . Assistant Director, Bureau of Water Regulation and Zoning, Wisconsin Department of Natural Resources
Lloyd W. Bryant . . . . . President, Village of Waterford
Dorothy Bucholtz . . . . . Citizen Member, Town of Burlington
William Burmeister . . . . . Chairman, Norway-Dover Drainage District
Arnold L. Clement . . . . . Planning Director and Zoning Administrator, Racine County
Ralph Dickinson . . . . . Chairman, Town of Waterford
Frank H. Dobbs . . . . . Director, Planning, Zoning, and Sanitation Department, Walworth County
Jerome J. Gottfried . . . . . Mayor, City of Muskego
H. Copeland Greene . . . . . Citizen Member, Genesee Depot
Karl B. Holzworth . . . . . Director, Park Commission, Racine County
Lloyd Human . . . . . Chairman, Town of Norway
Ronald Hustedde . . . . . Resource Agent, Walworth County
Dr. Leonard C. Johnson . . . . . Soil and Water Conservation Specialist, Board of Soil and Water Conservation Districts, University of Wisconsin-Extension
Melvin J. Johnson . . . . . Citizen Member, Town of Norway
Orville L. Kurth . . . . . District Conservationist, U. S. Soil Conservation Service, Milwaukee and Waukesha Counties
Walter Maas . . . . . Member, Western Racine County Sewerage District
John H. Mielke . . . . . Consulting Engineer, Ruekert and Mielke, Inc., Waukesha
William A. Mitchell, Jr. . . . . Mayor, City of Brookfield
Raymond J. Moyer, Jr. . . . . Supervisor, Racine County; Commissioner, Southeastern Wisconsin Regional Planning Commission
Sterling A. Peck . . . . . Chairman, Town of Vernon
Eistein Pedersen . . . . . Citizen Member, Village of Rochester
Cloyd A. Porter . . . . . 43rd District, State Representative
Richard G. Rehberg . . . . . Chairman, Town of Rochester

FOX RIVER WATERSHED COMMITTEE
(Continued)

Herbert E. Ripley . . . . . Health Officer, Waukesha County Health Department
Phil Sander. . . . . Executive Secretary, Southeastern Wisconsin Sportsmen's Federation
Dr. Bruno E. Schiffleger . . . . . Citizen Member, City of Elkhorn
Richard C. Schipper . . . . . Chairman, Town of Wheatland
Karl Schroeder . . . . . Horticulture and Natural Resources Agent, Racine County
Bernard G. Schultz . . . . . Assistant District Director, Southeast District, Wisconsin Department of Natural Resources
Dorothy Schumacher. . . . . President, Village of Rochester
Arthur Stratton . . . . . Commissioner, Hoosier Creek Drainage District
Walter J. Tarmann . . . . . Executive Director, Waukesha County Park and Planning Commission
Rodney W. Vanden Noven. . . . . Director of Public Works, City of Waukesha
Franklin Walsh . . . . . Supervisor, Walworth County; Chairman, Town of Linn
Stan Wilson . . . . . Citizen Member, City of Burlington
John R. Zillmer . . . . . Secretary, Ice Age Park and Trail Foundation, Milwaukee

MILWAUKEE RIVER WATERSHED COMMITTEE

Richard W. Cutler. . . . . Attorney, Quarles and Brady, Milwaukee; Chairman — Member, Village of Fox Point Plan Commission; Commissioner, Southeastern Wisconsin Regional Planning Commission
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission — Secretary
Vaughn H. Brown. . . . . Chairman, Town of Farmington
Lawrence Brumm . . . . . President, Milwaukee River Restoration Council, Inc.
Delbert J. Cook . . . . . Chairman, Cedar Creek Restoration Council
Arthur G. Degnitz. . . . . Supervisor, Washington County
Arthur D. Doll. . . . . Director, Bureau of Planning, Wisconsin Department of Natural Resources
Edward Frauenheim . . . . . County Board Chairman, Sheboygan County
Herbert A. Goetsch . . . . . Commissioner of Public Works, City of Milwaukee
Michael C. Harrigan. . . . . Administrator, Village of Saukville
Lawrence W. Hillman. . . . . Vice-President of Quality Assurance and Facilities Planning, West Bend Company
John Justen . . . . . Citizen Member
Robert L. Konik . . . . . Planner, Fond du Lac County
Patrick Marchese . . . . . Manager, Planning and Contract Engineering, Milwaukee Metropolitan Sewerage District
Robert J. Mikula . . . . . Director of Parks, Recreation and Culture, Milwaukee County Park Commission
Paul E. Mueller . . . . . Land Use and Park Administrator, Washington County
Donald A. Roensch . . . . . Administrator, City of Mequon
John P. Samarzja . . . . . Director, Department of Environmental Health, Ozaukee County
Bernard G. Schultz . . . . . Assistant District Director, Wisconsin Department of Natural Resources
Roland F. Senner . . . . . Chairman, Town of Trenton
George Watts . . . . . President, George Watts & Son, Inc., Milwaukee
Donald W. Webster . . . . . Supervisor, Town of Fredonia; Consulting Civil Engineer, City of Milwaukee
Richard E. Zarling . . . . . Director of Elementary Education, Kewaskum Community Schools

MENOMONEE RIVER WATERSHED COMMITTEE

Herbert A. Goetsch . . . . . Commissioner of Public Works, City of Milwaukee — Chairman
J. William Little . . . . . Administrator, City of Wauwatosa — Vice-Chairman
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission — Secretary
Arthur D. Doll. . . . . Director, Bureau of Planning, Wisconsin Department of Natural Resources
Glenn H. Evans . . . . . Citizens for Menomonee River Restoration
Frederick E. Gottlieb. . . . . Manager, Village of Menomonee Falls
Frank S. Hartay . . . . . Director of Manufacturing, Falk Corporation, Milwaukee

MENOMONEE RIVER WATERSHED COMMITTEE
(Continued)

Edmund M. Henschel. . . . . Manager, Village of Elm Grove
George C. Keller. . . . . President, Wauwatosa State Bank
Raymond J. Kipp . . . . . Dean, College of Engineering, Marquette University
Patrick Marchese . . . . . Manager, Planning and Contract Engineering, Milwaukee Metropolitan Sewerage District
Robert J. Mikula . . . . . Director of Parks, Recreation, and Culture, Milwaukee County Park Commission
Donald A. Roensch . . . . . Administrator, City of Mequon
Bernard G. Schultz . . . . . Assistant District Director, Wisconsin Department of Natural Resources
John E. Schumacher . . . . . City Engineer, City of West Allis
Walter J. Tarmann . . . . . Executive Director, Waukesha County Park and Planning Commission
Clark E. Wangerin. . . . . City Engineer, City of Brookfield
Frank P. Wellstein. . . . . Director of Public Works, Village of Germantown

KINNICKINNIC RIVER WATERSHED COMMITTEE

Robert J. Mikula . . . . . Director of Parks, Recreation and Culture, Milwaukee County Park Commission — Chairman
Edwin J. Laszewski, Jr. . . . . City Engineer, City of Milwaukee — Vice-Chairman
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission — Secretary
Raymond T. Dwyer. . . . . City Engineer, City of Greenfield
Patrick Marchese . . . . . Acting Director of Technical Services, Milwaukee Metropolitan Sewerage District
Stanley Polewski . . . . . Proprietor, Polewski Pharmacy, Milwaukee
Ronald J. Rutkowski. . . . . Director of Public Works, City of Cudahy
Dr. Rodolfo N. Salcedo . . . . . Environmental Scientist, Department of City Development, City of Milwaukee
Frank Schultz . . . . . District Engineer, Southeast District, Wisconsin Department of Natural Resources
John E. Schumacher . . . . . City Engineer, City of West Allis
Gerald Schwerm. . . . . Transportation Director, Milwaukee County
Frank J. Wabiszewski. . . . . Vice-President, Maynard Steel Casting Company, Milwaukee

PIKE RIVER WATERSHED COMMITTEE

George E. Melcher . . . . . Director, Office of Planning and Zoning Administration, Kenosha County — Chairman
Jerome Konicek. . . . . Chairman, Mt. Pleasant Drainage District — Vice-Chairman
Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission — Secretary
Les Aspin . . . . . Member of Congress, First Congressional District, State of Wisconsin
Eual W. Bodenbach . . . . . Coordinator, Town of Mt. Pleasant
Peter Boscha. . . . . Supervisor, Town of Mt. Pleasant
Mary M. Carrington. . . . . Supervisor, Town of Mt. Pleasant
Arnold L. Clement . . . . . Planning Director and Zoning Administrator, Racine County
Donald K. Holland . . . . . Director of Public Works, City of Kenosha
Karl B. Holzwarth. . . . . Park Director, Racine County
Paul G. Jaeger . . . . . Agricultural Agent, Kenosha County
Abe Kirkorian. . . . . President, Village of Sturtevant
Niels E. Ladine . . . . . Director of Parks, Kenosha County
Leverett F. Leet. . . . . Retired Farmer, Town of Somers
Richard J. Lindl. . . . . Chairman, Town of Somers
Chelvadurai Manogaran. . . . . Associate Professor, Department of Geography, University of Wisconsin-Parkside
Raymond J. Moyer . . . . . Supervisor, Racine County; Commissioner, Southeastern Wisconsin Regional Planning Commission
O. Fred Nelson . . . . . Manager, Kenosha Water Utility
Francis J. Pitts. . . . . Supervisor, Kenosha County; Commissioner, Southeastern Wisconsin Regional Planning Commission
Stanley Renick . . . . . Member, Kenosha County Country Club
Karl Schroeder . . . . . Horticulture and Natural Resources Agent, Racine County
Bernard G. Schultz . . . . . Assistant District Director, Southeast District, Wisconsin Department of Natural Resources
Larry S. Toney . . . . . District Conservationist, U. S. Soil Conservation Service, Racine County

OAK CREEK WATERSHED COMMITTEE

Norbert S. Theine . . . . . Administrator, City of South Milwaukee
Chairman
Paul E. Milewski . . . . . Director of Planning, City of Oak Creek
Vice-Chairman
Kurt W. Bauer . . . . . Executive Director, Southeastern
Secretary Wisconsin Regional Planning Commission
John M. Bennett . . . . . City Engineer, City of Franklin
James Foley . . . . . Airport Engineer, Milwaukee
County Department of Public Works
Gerald W. Laudon . . . . . Secretary, Milwaukee
County Conservation Alliance
Edwin J. Laszewski, Jr. . . . . City Engineer, City of Milwaukee
Patrick Marchese . . . . . Manager, Planning and Contract Engineering,
Milwaukee Metropolitan Sewerage District
Robert J. Mikula . . . . . Director of Parks, Recreation and Culture,
Milwaukee County Park Commission
Fred R. Rehm . . . . . Director, Professional Services Division,
Department of Public Works, Milwaukee County
Bernard G. Schultz . . . . . Assistant District Director, Southeast District,
Wisconsin Department of Natural Resources
David Sharpe . . . . . Community Development Agent, University of
Wisconsin-Extension, Milwaukee County

TECHNICAL ADVISORY COMMITTEE ON AREAWIDE WATER QUALITY MANAGEMENT PLANNING

Harold P. Cahill, Jr. . . . . Executive Director, Milwaukee
Chairman Metropolitan Sewerage District
Raymond J. Kipp . . . . . Dean, College of Engineering,
Vice-Chairman Marquette University
Lyman F. Wible . . . . . Chief Environmental Engineer, Southeastern
Secretary Wisconsin Regional Planning Commission
Vinton W. Bacon . . . . . Professor, College of Applied Science and
Engineering, University of Wisconsin-Milwaukee
Anthony S. Bareta . . . . . Director, Milwaukee County Planning Commission
Kurt W. Bauer . . . . . Executive Director, Southeastern
Wisconsin Regional Planning Commission
Frank R. Boucher . . . . . Director, Environmental Department,
Wisconsin Electric Power Company
Arnold L. Clement . . . . . Planning Director and Zoning
Administrator, Racine County
Norbert H. Dettmann . . . . . Supervisor, Washington County
Frank H. Dobbs . . . . . Administrator, Planning, Zoning and
Sanitation Department, Walworth County
Herbert A. Goetsch . . . . . Commissioner of Public Works, City of Milwaukee
Robert J. Grigeurich . . . . . District Loan Specialist, U. S. Department
of Agriculture, Farmers Home Administration
Thomas N. Hentges . . . . . Commissioner, Racine County Farm Drainage Board
Lester O. Hoganson . . . . . General Manager, Racine Water and Wastewater Utility
Helen M. Jacobs . . . . . League of Women Voters; President,
Southeast Wisconsin Coalition for Clean Air
Myron E. Johansen . . . . . Former District Conservationist,
U. S. Soil Conservation Service,
Ozaukee and Washington Counties
Dr. Leonard C. Johnson . . . . . Soil and Water Conservation Specialist,
Wisconsin Board of Soil and
Water Conservation Districts
Melvin J. Johnson . . . . . Citizen Member, Town of Norway
Orville L. Kurth . . . . . District Conservationist,
U. S. Soil Conservation Service,
Milwaukee and Waukesha Counties
Paul E. Mueller . . . . . Land Use and Park
Administrator, Washington County

TECHNICAL ADVISORY COMMITTEE ON AREAWIDE WATER QUALITY MANAGEMENT PLANNING (Continued)

Dr. William G. Murphy . . . . . Professor, Soils Mechanics, College of
Engineering, Marquette University;
Engineers and Scientists of Milwaukee
O. Fred Nelson . . . . . Manager, Kenosha Water Utility
Warren K. Porter . . . . . Director, Wisconsin Solid
Waste Recycling Authority
Herbert E. Ripley . . . . . Health Officer, Waukesha
County Department of Health
Donald A. Roensch . . . . . Administrator, City of Mequon
Harold F. Ryan . . . . . Supervisor, Washington County;
Commissioner, Southeastern Wisconsin
Regional Planning Commission
Karl Schroeder . . . . . Natural Resource Agent, Racine County
Marvin E. Schroeter . . . . . Secretary-Treasurer and General Manager,
United Sewer and Water, Inc., Menomonee Falls
Bernard G. Schultz . . . . . Assistant District Director, Southeast District,
Wisconsin Department of Natural Resources
Walter J. Tarmann . . . . . Executive Director, Park and
Planning Commission, Waukesha County
Rodney W. Vanden Noven . . . . . Director of Public Works, City of Waukesha
Robert D. Wietolpa . . . . . Project Officer, Planning Branch,
U. S. Environmental Protection Agency
Udo L. Wilharm . . . . . City Engineer, City of Oak Creek

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON REGIONAL AIR QUALITY PLANNING

Richard A. Keyes . . . . . Environmental Engineer, Professional Services Division,
Chairman Department of Public Works, Milwaukee County
Barbara J. Becker . . . . . President, Southeastern
Vice-Chairman Wisconsin Coalition for Clean Air
Richard F. Pierce . . . . . Principal Specialist, Environmental
Planning Division, Southeastern
Wisconsin Regional Planning Commission
Alice G. Altemeier . . . . . League of Women Voters, Ozaukee County
Kurt W. Bauer . . . . . Executive Director, Southeastern
Wisconsin Regional Planning Commission
Wesley J. Beaton . . . . . Director of Environmental
Health, City of Racine
Gerald D. Bevington . . . . . Assistant Director, Bureau of Air
Management, Southeast District, Wisconsin
Department of Natural Resources
John W. Blakey . . . . . President, Quality Aluminum
Casting Company, Waukesha
Edwin J. Hammer . . . . . Environmental Engineer, Bureau of
Environmental Analysis and Review,
Wisconsin Department of Transportation
John C. Hanson . . . . . Director, Department of
Environmental Control, Racine County
Paul Koziar . . . . . Deputy Director, Bureau of Air Management,
Wisconsin Department of Natural Resources
John H. Paige . . . . . Transportation Officer,
Regional Development Department,
Northeastern Illinois Planning Commission
Kenneth W. Ragland . . . . . Associate Professor,
Department of Mechanical Engineering,
University of Wisconsin-Madison
Fred R. Rehm . . . . . Director, Professional Services Division,
Department of Public Works,
Milwaukee County
Herbert E. Ripley . . . . . Health Officer, Waukesha
County Health Department
Rodolfo N. Salcedo . . . . . Environmental Scientist,
Department of City Development,
City of Milwaukee
Harvey Shebesta . . . . . District Director, Wisconsin
Department of Transportation
Mark P. Steinberg . . . . . Superintendent, Air Quality, Environmental
Planning and Policy Division,
Wisconsin Electric Power Company
Herbert R. Teets . . . . . Division Administrator,
U. S. Department of Transportation
Federal Highway Administration
Michael S. Treitman . . . . . Chief of Transportation and Planning Unit,
U. S. Environmental Protection Agency
George A. Zimmer . . . . . Supervisor, Environmental Health,
City of Kenosha Health Department

TECHNICAL AND CITIZEN ADVISORY COMMITTEE ON COASTAL MANAGEMENT IN SOUTHEASTERN WISCONSIN

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Robert J. Mikula, Vice-Chairman	Director, Parks, Recreation and Culture, Milwaukee County Park Commission
Donald M. Reed, Secretary	Principal Specialist-Biologist, Southeastern Wisconsin Regional Planning Commission
Hubert J. Albert	Port Washington Yacht Club
Josephine Boucher	Member, North Shore League of Women Voters
Thomas H. Buestrin	Commissioner, Southeastern Wisconsin Regional Planning Commission, Ozaukee County
Sol Burstein	Executive Vice-President, Wisconsin Electric Power Company
Benjamin C. Chapla	Health Officer, Town of Caledonia
Ronald J. Frederick	County Board Chairman, Kenosha County
Herbert A. Goetsch	Commissioner of Public Works, City of Milwaukee
Roy F. Hoffmann	Municipal Port Director, Board of Harbor Commissioners, City of Milwaukee
George O. Lampert	Mayor, City of Port Washington
Patrick Marchese	Manager, Planning and Contract Engineering, Milwaukee Metropolitan Sewerage District
Dr. Harold M. Mayer	Professor, Department of Geography, University of Wisconsin-Milwaukee
William G. Murphy	Professor, Soil Mechanics, College of Engineering, Marquette University; Engineers and Scientists of Milwaukee
Mary C. Nelson	Alderman, City of South Milwaukee; Shoreline Property Owner
Dr. William T. Painter	President, Foundation Engineering, Inc., Milwaukee
James M. Phinney	Resident, Village of Fox Point; Member, Wisconsin Coastal Management Council's Citizens Advisory Committee
Francis J. Pitts	Commissioner, Southeastern Wisconsin Regional Planning Commission, Kenosha County
Fred R. Rehm	Director, Professional Services Division, Department of Public Works, Milwaukee County
Ronald J. Rutkowski	Director of Public Works, City of Cudahy
Phil Sander	Executive Secretary, Southeastern Wisconsin Sportsmen's Federation
Henry A. Scholz	Manager, Village of Fox Point
Karl Schroeder	Horticulture/Natural Resource Agent, Racine County
Norbert S. Theine	Administrator, City of South Milwaukee
Robert Winnie	District Director, Wisconsin Department of Natural Resources

AD HOC TECHNICAL TASK FORCE FOR THE MILWAUKEE HARBOR ESTUARY STUDY DESIGN

Dr. Norman P. Lasca, Chairman	Professor, Department of Geological Sciences, University of Wisconsin-Milwaukee; Representative of Technical and Citizen Advisory Committee on Coastal Management in Southeastern Wisconsin
Thomas G. Ross, Vice-Chairman	Waukesha Subdistrict Chief, Water Resources Division, U. S. Geological Survey
Kurt W. Bauer, Secretary	Executive Director, Southeastern Wisconsin Regional Planning Commission
Earl K. Anderson	Harbor Engineer, City of Milwaukee Harbor Commission
Dr. Eugene J. Aubert	Director, Great Lakes Environmental Research Laboratory
David N. Edgington	Director, Center for Great Lakes Research, University of Wisconsin Extension
Kent B. Fuller	Chief, Environmental Planning Staff, Great Lakes National Program Office, U. S. Environmental Protection Agency
Ronald Hennings	Wisconsin Geological and Natural History Survey, University of Wisconsin-Extension
John G. Konrad	Chief of Special Studies Section, Wisconsin Department of Natural Resources
Timothy Kubiak	Staff Biologist, Fish and Wildlife Service, U. S. Department of the Interior
George A. Kupfer	Superintendent, Bureau of Consumer Protection and Environmental Health, City of Milwaukee
Orville L. Kurth	District Conservationist, U. S. Soil Conservation Service
Edwin J. Laszewski	City Engineer, City of Milwaukee
Patrick Marchese	Manager, Planning and Contract Engineering, Milwaukee Metropolitan Sewerage District
Robert J. Mikula	Director, Department of Parks, Recreation and Culture, Milwaukee County Park Commission
Dr. Rudolpho N. Salcedo	Environmental Scientist, Department of City Development, City of Milwaukee

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Delbert J. Cook	Chairman, Cedar Creek Restoration Council
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Norbert H. Dettmann	Supervisor, Washington County
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David F. Egelhoff	Park Commissioner, Ozaukee County
Karl B. Holzwarth	Park Director, Racine County Park Commission
Charles Q. Kamps	Attorney, Quarles and Brady, Milwaukee
Philip H. Lewis, Jr.	Professor, Department of Landscape Architecture, University of Wisconsin-Madison; Director, Environmental Awareness Center, Madison
Richard J. Lindl	Chairman, Town of Somers
Paul E. Mueller	Land Use and Park Administrator, Washington County
Kathleen Pfister	Cultural Specialist, Department of City Development, City of Milwaukee
Robert D. Ross	Vice-President, Lee Enterprises Newspapers, Racine
Phil Sander	Executive Secretary, Southeastern Wisconsin Sportsmen's Federation
George L. Schiltz	Former Chairman, Kenosha County Park Commission
Frederick G. Schmidt	Izaak Walton League; Member, Sierra Club
Mrs. John D. Squier	Member, Riveredge Nature Center, Inc.
Walter J. Tarmann	Executive Director, Waukesha County Park and Planning Commission
Edgar W. Trecker	Supervisor of Forestry, Wildlife, and Recreation, Southeast District, Wisconsin Department of Natural Resources
Elwood R. Voigt	Park Manager, Ozaukee County
Joseph C. Waters	President, Wisconsin Association of Campground Owners; Proprietor, Lazy Day Campground, Town of Farmington
Dr. Harry J. Wilkins	Citizen Member, City of Wauwatosa
Dr. George T. Wilson	Visiting Lecturer, Department of Continuing and Vocational Education, University of Wisconsin-Madison
Thomas N. Wright	Director of Community Development, City of Racine

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON FARMLAND PRESERVATION FOR KENOSHA AND RACINE COUNTIES

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James Moyer, Vice-Chairman	Farmer, Town of Yorkville, Racine County
Emil Mravec, Secretary	Farmer, Town of Randall, Kenosha County
Dennis Boland	Manager, Agricultural Stabilization and Conservation Service, Racine County
John M. Braun	Farmer, Town of Mt. Pleasant, Racine County
Leon T. Dreger	Farmer, Town of Somers, Kenosha County
Claude Epping	Farmer, Town of Salem, Kenosha County
Kenneth Gould	Farmer, Town of Dover, Racine County
Myron L. Herman	County Agricultural Agent, Kenosha County
Kenneth Jacobs	Farmer, Town of Norway, Racine County
John C. Kevek	Farmer, Town of Pleasant Prairie, Kenosha County
Stanley Lois	Farmer, Town of Wheatland, Kenosha County
Rolland F. Prochaska	Farmer, Town of Caledonia, Racine County
Wendolyn Reiter	Farmer, Town of Brighton, Kenosha County
Ralph Rice	Farmer, Town of Burlington, Racine County
Karl Schroeder	County Horticulture/Natural Resource Agent, Racine County
Earl Stollenwork	Farmer, Town of Paris, Kenosha County
Elmer Strassburg	Manager, Agricultural Stabilization and Conservation Service, Kenosha County
Larry Toney	District Conservationist, U. S. Soil Conservation Service
Roy E. Weltzien	Farmer, Town of Waterford, Racine County
Robert Willard	Farmer, Town of Rochester, Racine County

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Chairman
Donald Andreoli . . . . . .Alderman and Member,
Vice-Chairman City Plan Commission, City of Kenosha
Achille F. Infusino . . . . . Citizen Member, City of Kenosha
Ernest R. Klees . . . . . .Member, Plan Commission, Town of Somers
Richard J. Lesko . . . . . .Member, Plan Commission, Town of Somers
John Papan . . . . . .Chairman, Town of Pleasant Prairie Plan Commission
Francis J. Pitts. . . . . Supervisor, Kenosha County Board
James M. Smith . . . . . Supervisor, Town of Somers
Douglas Stanich . . . . . Citizen Member, City of Kenosha

Nonvoting Members

Philip C. Evenson . . . . . .Assistant Director, Southeastern
Wisconsin Regional Planning Commission
Ray Forgianni . . . . . .Director of City Development,
City of Kenosha
Dr. John J. Hosmanek . . . . . Superintendent of Schools, Kenosha
Unified School District No. 1
Russell Knetzger . . . . . Town Planner, Town of Pleasant Prairie
George E. Melcher . . . . . Zoning Administrator, Kenosha County

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Co-Chairman Town of Pewaukee
Darryl Judson . . . . . .Member, Plan Commission,
Co-Chairman Village of Pewaukee
Eugene Ackley . . . . . .Citizen Member, Village of Pewaukee
Les Engle. . . . . .Citizen Member, Village of Pewaukee
Robert Flemming . . . . . .Member, Plan Commission,
Town of Pewaukee
Arnold F. Meyer . . . . . Chairman, Lake Pewaukee
Sanitary District Board

Appendix C

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION STAFF: 1981

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Kurt W. Bauer, P. E.
Executive Director

Philip C. Evenson
Assistant Director

Margaret M. Shanley
Executive Secretary

Elaine I. Andersen
Secretary II

DATA PROCESSING AND SYSTEMS ENGINEERING DIVISION

John W. Ernst
Data Processing Manager

John C. Stelpflug
Assistant Data Processing Manager

Robert J. Baier
Community Services Representative

Richard A. Runte
Senior Data Processing Systems Analyst

John D. Harasha
Programming Supervisor

Paul J. Clavette
Richard L. Henley
Senior Systems Analysts

Bruce W. Lecus
Senior Programmer/Analyst

Victor J. Janka, Jr.
Donald S. Johnson
Martin E. Staszak
Programmers

Michael J. Soyck
Operations Supervisor

Michael K. Hennig
Heather W. Kluth
Lead Computer Operators

Melody M. Fohr
Nancy M. Kresse
Computer Operators

Kristine M. Engelhardt
Communications Specialist

Rosemary K. Wilcenski
Lead Key Entry Operator

Diane L. Curtiss
Pamela J. Fischer
Key Entry Operators

COMMUNITY ASSISTANCE PLANNING DIVISION

Roland O. Tonn
Chief Community Assistance Planner

Gordon M. Kacala
Richard B. Untch
Principal Planners

Patrick J. Meehan
Senior Planner

Jane E. Pierson
Clerk-Typist

ENVIRONMENTAL PLANNING DIVISION

Lyman F. Wible
Chief Environmental Engineer

Robert P. Biebel
Richard S. Grant
Principal Engineers

Richard F. Pierce
Principal Specialist

Donald M. Reed
J. Douglas Wilson
Senior Specialists

Curtis R. Hulterstrum
Joseph E. Stuber
Senior Engineers

James R. D'Antuono
Senior Planner

Cynthia V. DeBruine
Yih-Fey Lee
Engineers

Timothy R. Bauserman
Research Aide

Irene A. Brown
Secretary I

ADMINISTRATIVE SERVICES DIVISION

Frederick J. Patrie
Administrative Officer

Joan A. Zenk
Administrative Assistant

Sharon L. Owsley
Bookkeeper

Luella M. Fredrickson
Secretary II

Barbara A. Poff
Secretary I

Lena P. Caracci
Rita L. Rolfson
Clerks

PLANNING RESEARCH DIVISION

Thomas D. Patterson
Chief of Planning Research

John L. Zastrow
Senior Specialist

Donald G. Dittmar
Specialist

Diane L. Baker
Phillip D. House
Loren G. Muehlius
Digitizer Operators

Dennis K. Lefevre
Research Analyst

Betty Gargan
Clerk-Typist

CARTOGRAPHIC AND GRAPHIC ARTS DIVISION

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Chief Planning Illustrator

Ronald H. Heinen
Principal Planning Draftsman

B. Lynn Nowak
Donald P. Simon
Senior Planning Draftsmen

Jacqueline Hartig
August R. Kutschenreuter
Allan S. Oestreich
Bergetta J. Ruehmer
Paula J. Wilkie
Planning Draftsmen

Donnette M. Dolzall
Editor

Charlotte S. Vega
Composer Operator

Debra K. Sommerfeld
Research Aide

Wendy A. Hoeft
Office Equipment Operator

LAND USE AND HOUSING PLANNING DIVISION

Bruce P. Rubin
Chief Land Use Planner

Gerald H. Emmerich, Jr.
William J. Stauber
Senior Planners

Lon M. Scott
Research Analyst

Joyce G. Pariseau
Research Aide

Joan M. Starr
Secretary I

TRANSPORTATION PLANNING DIVISION

Donald R. Martinson
Chief Transportation Engineer

Kenneth H. Voigt
Principal Engineer

Robert E. Beglinger
Senior Engineer

Albert A. Beck
Otto P. Dobnick
Joseph M. Kampschroer
Senior Planners

Kathleen M. Hazen
Planner

INTERAGENCY STAFF ASSIGNMENTS

Dale A. Meyer
Civil Engineer III
Bureau of Engineers
City of Milwaukee

James H. Kasdorf
Civil Engineer IV
Wisconsin Department of Transportation

Gary K. Korb
Natural Resources Agent
University of Wisconsin-Extension

Appendix D

PUBLICATIONS OF THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION: 1962-DECEMBER 1981

PROSPECTUSES

Regional Planning Program, April 1962
Root River Watershed Planning Program, March 1963
Fox River Watershed Planning Program, October 1964
Continuing Land Use-Transportation Study, October 1965
Milwaukee River Watershed Planning Program, September 1966
Comprehensive Library Planning Program, April 1968
Community Shelter Planning Program, August 1968
Racine Urban Planning District Comprehensive Planning Program, November 1968
Regional Sanitary Sewerage System Planning Program, December 1968
Menomonee River Watershed Planning Program, November 1969
Comprehensive Regional Airport Planning Program, December 1969
Regional Housing Study, December 1969
Deep Sandstone Aquifer Simulation Modeling Program, October 1972
Regional Park, Outdoor Recreation, and Related Open Space Planning Program, March 1973
Preliminary Engineering Study for the Abatement of Pollution from Combined Sewer Overflow in the Milwaukee-Metropolitan Area, July 1973
Kinnickinnic River Watershed Planning Program Prospectus, November 1974
Regional Air Quality Maintenance Planning Program Prospectus, November 1974
Preliminary Engineering Study for the Abatement of Water Pollution in the Kenosha Urban Area, December 1975
Overall Work Program and Prospectus of the Southeastern Wisconsin Regional Planning Commission: 1976-1980, December 1975
Overall Work Program of the Southeastern Wisconsin Regional Planning Commission: 1977-1981, December 1976
Overall Work Program and Prospectus of the Southeastern Wisconsin Regional Planning Commission: 1978-1982, December 1977
Lake Michigan Estuary and Direct Drainage Area Subwatersheds Planning Program Prospectus, September 1978
Overall Work Program—1979 Southeastern Wisconsin Regional Planning Commission, October 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
Overall Work Program—1980 Southeastern Wisconsin Regional Planning Commission, November 1979
Overall Work Program—1981 Southeastern Wisconsin Regional Planning Commission, November 1980
Overall Work Program—1982 Southeastern Wisconsin Regional Planning Commission, November 1981

STUDY DESIGNS

Study Design for the Continuing Regional Land Use-Transportation Study: 1970-1974
Study Design for the Continuing Land Use-Transportation Study: 1972-1976
Study Design for the Areawide Water Quality Planning and Management Program for Southeastern Wisconsin: 1975-1977
Study Design for the Milwaukee Harbor Estuary Comprehensive Water Resources Planning Program, September 1981

PLANNING REPORTS

No. 1 - Regional Planning Systems Study, December 1962
No. 2 - Regional Base Mapping Program, July 1963
No. 3 - The Economy of Southeastern Wisconsin, June 1963
No. 4 - The Population of Southeastern Wisconsin, June 1963
No. 5 - The Natural Resources of Southeastern Wisconsin, June 1963
No. 6 - The Public Utilities of Southeastern Wisconsin, July 1963
No. 7 - The Land Use-Transportation Study
Volume 1 - Inventory Findings: 1963, May 1965
Volume 2 - Forecasts and Alternative Plans: 1990, June 1966
Volume 3 - Recommended Regional Land Use and Transportation Plans: 1990, November 1966
No. 8 - Soils of Southeastern Wisconsin, June 1966
No. 9 - A Comprehensive Plan for the Root River Watershed, July 1966
No. 10 - A Comprehensive Plan for the Kenosha Planning District
Volume 1 - Inventory Findings, Forecasts, and Recommended Plans, February 1967
Volume 2 - Implementation Devices, February 1967
No. 11 - A Jurisdictional Highway System Plan for Milwaukee County, March 1969
No. 12 - A Comprehensive Plan for the Fox River Watershed
Volume 1 - Inventory Findings and Forecasts, April 1969
Volume 2 - Alternative Plans and Recommended Plan, February 1970
No. 13 - A Comprehensive Plan for the Milwaukee River Watershed
Volume 1 - Inventory Findings and Forecasts, December 1970
Volume 2 - Alternative Plans and Recommended Plan, October 1971
No. 14 - A Comprehensive Plan for the Racine Urban Planning District
Volume 1 - Inventory Findings and Forecasts, December 1970
Volume 2 - The Recommended Comprehensive Plan, October 1972
Volume 3 - Model Plan Implementation Ordinances, September 1972
No. 15 - A Jurisdictional Highway System Plan for Walworth County, October 1972
No. 16 - A Regional Sanitary Sewerage System Plan for Southeastern Wisconsin, February 1974
No. 17 - A Jurisdictional Highway System Plan for Ozaukee County, December 1973
No. 18 - A Jurisdictional Highway System Plan for Waukesha County, January 1974
No. 19 - A Library Facilities and Services Plan for Southeastern Wisconsin, July 1974
No. 20 - A Regional Housing Plan for Southeastern Wisconsin, February 1975
No. 21 - A Regional Airport System Plan for Southeastern Wisconsin, December 1975
No. 22 - A Jurisdictional Highway System Plan for Racine County, February 1975
No. 23 - A Jurisdictional Highway System Plan for Washington County, October 1974
No. 24 - A Jurisdictional Highway System Plan for Kenosha County, April 1975
No. 25 - A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000
Volume 1 - Inventory Findings, April 1975
Volume 2 - Alternative and Recommended Plans, May 1978
No. 26 - A Comprehensive Plan for the Menomonee River Watershed
Volume 1 - Inventory Findings and Forecasts, October 1976
Volume 2 - Alternative Plans and Recommended Plan, October 1976
No. 27 - A Regional Park and Open Space Plan for Southeastern Wisconsin, 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
No. 30 - A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000,
Volume 1 - Inventory Findings, September 1978
Volume 2 - Alternative Plans, February 1979
Volume 3 - Recommended Plan, June 1979
No. 31 - A Regional Transportation Plan for the Transportation Handicapped in Southeastern Wisconsin: 1978-1982, April 1978
No. 32 - A Comprehensive Plan for the Kinnickinnic River Watershed, December 1978

PLANNING GUIDES

No. 1 - Land Development, November 1963
No. 2 - Official Mapping, February 1964
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

TECHNICAL REPORTS

No. 1 - Potential Parks and Related Open Spaces, September 1965
No. 2 - Water Law in Southeastern Wisconsin: 2nd Edition, December 1977
No. 3 - A Mathematical Approach to Urban Design, January 1966
No. 4 - Water Quality and Flow of Streams in Southeastern Wisconsin, November 1966
No. 5 - Regional Economic Simulation Model, October 1966
No. 6 - Planning Law in Southeastern Wisconsin, 2nd Edition, April 1977
No. 7 - Horizontal and Vertical Survey Control in Southeastern Wisconsin, July 1968
No. 8 - A Land Use Design Model
Volume 1 - Model Development, January 1968
Volume 2 - Model Test, October 1969
Volume 3 - Final Report, April 1973
No. 9 - Residential Land Subdivision in Southeastern Wisconsin, September 1971
No. 10 - The Economy of Southeastern Wisconsin, December 1972
No. 11 - The Population of Southeastern Wisconsin, December 1972
No. 12 - A Short-Range Action Housing Program for Southeastern Wisconsin: 1972 and 1973, June 1972
No. 13 - A Survey of Public Opinion in Southeastern Wisconsin, September 1974
No. 14 - An Industrial Park Cost-Revenue Analysis in Southeastern Wisconsin: 1975, June 1975
No. 15 - Household Response to Motor Fuel Shortages and Higher Prices in Southeastern Wisconsin, August 1976
No. 16 - Digital Computer Model of the Sandstone Aquifer in Southeastern Wisconsin: April 1976
No. 17 - Water Quality of Lakes and Streams in Southeastern Wisconsin: 1964-1975, June 1978
No. 18 - State of the Art of the Water Pollution Control in Southeastern Wisconsin
Volume 1 - Point Sources, July 1977
Volume 2 - Sludge Management, August 1977
Volume 3 - Urban Storm Water Runoff, July 1977
Volume 4 - Rural Storm Water Runoff, December 1976
No. 19 - A Regional Population Projection Model, October 1980
No. 20 - Carpooling in the Metropolitan Milwaukee Area: March 1977
No. 21 - Sources of Water Pollution in Southeastern Wisconsin: 1975, September 1978
No. 22 - Recent Population Growth and Change in Southeastern Wisconsin: 1970-1977, September 1979
No. 23 - Transit-Related Socioeconomic, Land Use, and Transportation Conditions and Trends in the Milwaukee Area, December 1980
No. 24 - State-of-the-Art of Primary Transit System Technology, February 1981
No. 25 - Alternative Futures for Southeastern Wisconsin, December 1980
No. 27 - Milwaukee Area Work Time Rescheduling Study, August 1981

COMMUNITY ASSISTANCE PLANNING REPORTS

No. 1 - Residential, Commercial, and Industrial Neighborhoods, City of Burlington and Environs, February 1973
No. 2 - Alternative Land Use and Sanitary Sewerage System Plans for the Town of Raymond: 1990, January 1974
No. 3 - Racine Area Transit Development Program: 1975-1979, June 1974
No. 4 - Floodland Information Report for the Rubicon River, City of Hartford, Washington County, Wisconsin, December 1974

No. 5 - Drainage and Water Level Control Plan for the Waterford-Rochester-Wind Lake Area of the Lower Fox River Watershed, May 1975
No. 6 - A Uniform Street Naming and Property Numbering System for Racine County, Wisconsin, November 1975
No. 7 - Kenosha Area Transit Development Program: 1976-1980, March 1976
No. 8 - Analysis of the Deployment of Paramedic Emergency Medical Services in Milwaukee County, April 1976
No. 9 - Floodland Information Report for the Pewaukee River, October 1976
No. 10 - The Land Use and Arterial Street System Plans, Village of Jackson, Washington County, 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
No. 13 - Flood Control Plan for Lincoln Creek, September 1977
No. 14 - Floodland Management Plan for the Village of Pewaukee, February 1978
No. 15 - Off-Airport Land Use Development Plan for General Mitchell Field and Environs: 1977, May 1977
No. 16 - A Plan for the Whittier Neighborhood, June 1977
No. 17 - A Plan for the Jefferson Park Neighborhood, Village of Germantown, Washington County, Wisconsin, March 1978
No. 18 - A Land Use Plan for the Town of Erin: 2000, July 1978
No. 19 - Storm Water Storage Alternatives for the Crossway Bridge and Port Washington-Bayfield Drainage Area in the Village of Fox Point, August 1977
No. 20 - A Rail Transportation Service Plan for the East Troy Area, September 1977
No. 21 - A Transportation Systems Management Plan for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1978, December 1977
No. 22 - Alternative and Recommended Land Use Plans for the Town of Genesee: 2000, February 1978
No. 23 - A Park and Recreation Plan for Ozaukee County, August 1978
No. 24 - A Park and Open Space Plan for the Village of Darien, December 1978
No. 25 - A Plan for the Delrock Neighborhood, City of Delavan, Walworth County, Wisconsin, January 1979
No. 26 - A Transportation Systems Management Plan for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1979, December 1978
No. 27 - A Park and Open Space Plan for the Town of Eagle, April 1979
No. 28 - Oconomowoc Area Traffic Management Plan, City of Oconomowoc, Waukesha County, Wisconsin, December 1979
No. 29 - A Development Plan for the Quarry Ridge Neighborhood, City of Burlington, Racine County, Wisconsin, July 1979
No. 30 - Whitewater Area Rail Service Plan, August 1979
No. 31 - Waukesha Area Transit Development Program: 1981-1985, February 1980
No. 32 - Recommended Electronic Data Processing and Transmittal System for Criminal Justice Agencies in Southeastern Wisconsin, September 1979
No. 33 - A Land Use Plan for the Town of Fredonia: 2000, September 1979
No. 34 - A Transportation Systems Management Plan for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1980, December 1979
No. 36 - A Land Use Plan for the Village of Germantown: 2000, Village of Germantown, Washington County, Wisconsin, July 1980
No. 37 - A Nonpoint Source Water Pollution Control Plan for the Root River Watershed, March 1980
No. 38 - A Land Use and Traffic Circulation Plan for the Village of Fredonia: 2000, Ozaukee County, Wisconsin, September 1980
No. 39 - A Public Transit System Accessibility Plan
Volume 1 - Kenosha Urbanized Area, June 1980
Volume 2 - Milwaukee Urbanized Area, Milwaukee County, May 1980
Volume 3 - Racine Urbanized Area, June 1980
Volume 4 - Milwaukee Urbanized Area, Waukesha County, June 1980
No. 40 - Recommended Locations for Motor Vehicle Inspection and Emissions Test Facilities in the Southeastern Wisconsin Region, October 1980

No. 41 - A Park and Open Space Plan for the Kenosha Planning District, December 1980
No. 42 - A Park and Open Space Plan for the Town and Village of Pewaukee, Waukesha County, Wisconsin, October 1980
No. 43 - A Development Plan for the Woodview Neighborhood, City of Franklin, Milwaukee County, Wisconsin, September 1980
No. 44 - Proposed Public Transit Service Improvements: 1980, Waukesha County, Wisconsin, July 1980
No. 45 - A Farmland Preservation Plan for Kenosha County, Wisconsin, June 1981
No. 46 - A Farmland Preservation Plan for Racine County, Wisconsin, August 1981
No. 47 - A Water Quality Management Plan for Lac La Belle, December 1980
No. 49 - A Land Use and Traffic Circulation Plan for the Village of Hartland: 2000, Waukesha County, Wisconsin, July 1981
No. 50 - A Transportation Systems Management Plan for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin; 1981, June 1981
No. 52 - Housing Opportunities Guide for the Southeastern Wisconsin Region, December 1980
No. 53 - A Water Quality Management Plan for Okauchee Lake, Waukesha County, Wisconsin, August 1981
No. 55 - A Land Use Plan for the Village of Darien: 2000, December 1981
No. 56 - Sanitary Sewer Service Areas for the Walworth County Metropolitan Sewerage District, August 1981
No. 61 - A Public Transportation Service Plan for Washington County, October 1981
No. 62 - A Traffic Circulation Plan for the West Bend Central Business District, August 1981
No. 66 - A Park and Open Space Plan for the City of New Berlin, Waukesha County, Wisconsin, October 1981
No. 68 - Upland Disposal Area Siting Study for Dredged Materials from the Port of Milwaukee, December 1981

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- 17, 20, 18, Lauderdale Lakes (Green Lake, Middle Lake, Mill Lake)
No. FX-39, Lulu Lake
No. FX-21, North Lake
No. FX-37, Pell Lake
No. FX-43, Peters Lake
No. FX-25, Pleasant Lake
No. FX-24, Potters Lake
No. FX-38, Silver Lake
No. FX-30, Wandawega Lake

Waukesha County
- No. FX-3, Big Muskego Lake
- No. FX-23, Denoon Lake
- No. FX-19, Eagle Spring Lake
- No. FX-10, Little Muskego Lake
- No. FX-14, Lower Phantom Lake
- No. FX-2, Pewaukee Lake
- No. FX-34, Spring Lake
- No. FX-33, Upper Phantom Lake

LAKE USE REPORTS—MILWAUKEE RIVER WATERSHED

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

Ozaukee County
- No. ML-4, Mud Lake
- No. ML-17, Spring Lake

Sheboygan County
- No. ML-6, Random Lake
- No. ML-10, Crooked Lake
- No. ML-7, Lake Ellen

Washington County
- No. ML-3, Little Cedar Lake
- No. ML-14, Green Lake
- No. ML-19, Lake Twelve
- No. ML-13, Lucas Lake
- No. ML-11, Smith Lake
- No. ML-20, Wallace Lake
- No. ML-15, Barton Pond
- No. ML-1, Big Cedar Lake
- No. ML-8, Silver Lake
- No. ML-16, West Bend Pond

TECHNICAL RECORDS

Volume 1 - No. 1, October-November 1963

- Regional Planning in Southeastern Wisconsin
  by Kurt W. Bauer, Executive Director
- The SEWRPC Land Use-Transportation Study
  by J. Robert Doughty, Study Director
- Home Interview Sample Selection - Part I
  by Kenneth J. Schlager, Chief Systems Engineer
- Truck and Taxi Sample Selection
  by Thomas A. Winkel, Urban Planning Supervisor
- A Backward Glance: Early Toll Roads in Southeastern Wisconsin
  by Richard E. Rehberg, Editor

Volume 1 - No. 2, December 1963-January 1964

- Arterial Network and Traffic Analysis Zones
  by Richard B. Sheridan, Chief Transportation Planner
- Conducting the Household Postal Questionnaire Survey
  by Wade G. Fox, Cartography and Design Supervisor
- Conducting the Home Interview Survey
  by Sheldon W. Sullivan, Administrative Officer
- Aerial Photographs and Their Use in the Land Use Inventory
  by Harlen E. Clinkenbeard, Land Use Planning Chief
- A Backward Glance: The U. S. Public Land Survey in Southeastern Wisconsin
  by Richard E. Rehberg, Editor

Volume 1 - No. 3, February-March 1964

Conducting the Truck and Taxi Survey
by Sheldon W. Sullivan, Administrative Officer
Conducting the Truck and Taxi Postal Questionnaire Survey
by Wade G. Fox, Cartography and Design Supervisor
Conducting the External Survey
by William E. Creger, P.E., Traffic Operations Engineer
Rail and Transit Inventory and Design of the Transit Network
by David A. Kuemmel, P.E., Transportation Planning Engineer
A Backward Glance: The Man-Made Ice Age
by Richard E. Rehberg, Editor

Volume 1 - No. 4, April-May 1964

The Application of Soil Studies to Regional Planning
by Kurt W. Bauer, Executive Director
Coding
by Wade G. Fox, Cartography and Design Supervisor and
Robert L. Fisher, Coding Supervisor
Inventory of Existing Outdoor Recreation Facilities
and Historic Sites in Southeastern Wisconsin
by Theodore F. Lauf, Research Analyst
Inventory of Potential Park and Related Open Space Sites
by Karl W. Holzwarth, Landscape Architect
A Backward Glance: The Electric Interurban Railway
by Richard E. Rehberg, Editor

Volume 1 - No. 5, June-July 1964

Reconciliation of Sample Coverage in the Internal O & D Surveys
by Eugene G. Muhich, P.E., Transportation Planning Engineer
The Contingency Check Program
by Wade G. Fox, Cartography and Design Supervisor
Inventory of the Arterial Street Network
by William T. Wambach, Jr., P.E.
A Backward Glance: The Milwaukee and Rock River Canal
by James E. Scybold, Editor

Volume 1 - No. 6, August-September 1964

Checking the Network Description for Arterial Highway and Transit Networks
by Richard B. Sheridan, Chief Transportation Planner
A Study of the Water Quality and Flow of Streams in Southeastern Wisconsin
by Roy W. Ryling, Hydrologist
Expanding the Origin-Destination Sample
by Richard B. Sheridan, Chief Transportation Planner and
Wade G. Fox, Cartography and Design Supervisor
A Backward Glance: Greendale—Garden City in Wisconsin
by Kurt W. Bauer, Executive Director

Volume 2 - No. 1, October-November 1964

Simulation Models in Urban and Regional Planning
by Kenneth J. Schlager, Chief Systems Engineer

Volume 2 - No. 2, December 1964-January 1965

Capacity of Arterial Network Links
by Richard B. Sheridan, Chief Transportation Planner
The ABC Method of Current Population Estimation
by Donald L. Gehrke, Economics and Population Analyst and
Orlando E. Delogu, Financial Resources and Legal Analyst
O & D Surveys Accuracy Checks
by Eugene E. Muhich, P.E., Transportation Planning Engineer
A Backward Glance: Railroad Transportation in Southeastern Wisconsin
by Patricia J. Tegge, Editor

Volume 2 - No. 3, February-March 1965

Determination of Historical Flood Frequency for the Root River of Wisconsin
by James C. Ringenoldus, P.E., Harza Engineering Company
The Regional Multiplier
by Kenneth J. Schlager, Chief Systems Engineer
A Backward Glance: The Street Railway in Milwaukee
by Henry M. Mayer, Administrative Assistant,
Milwaukee & Suburban Transport Corporation

Volume 2 - No. 4, April-May 1965

Determination of Runoff for Urban Storm Water Drainage System Design
by Kurt W. Bauer, Executive Director

Volume 2 - No. 5, June-July 1965

Screen Line Adjustment of Trip Data
by Richard B. Sheridan, P.E., Chief Transportation Planner
Inventory of Land Development Regulations in Southeastern Wisconsin
by William J. Kockelman, Chief Community Assistance Planner
A Backward Glance: Highway Development in Southeastern Wisconsin - Part I
by Jean C. Meier, Librarian and Research Assistant

Volume 2 - No. 6, August-September 1965

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

Volume 3 - No. 1, 1968

Transit System Development Standards
by Edward Weiner, Transportation Planning Engineer
Modified Rapid Transit Service in the Southeastern Wisconsin Region
by Sheldon W. Sullivan, Administrative Officer
A Backward Glance: Highway Development in Southeastern Wisconsin - Part II
by Jean C. Meier, Research Assistant and
Sheldon W. Sullivan, Administrative Officer

Volume 3 - No. 2, 1969

Characteristics of Travel in the Milwaukee Central Business District
by Sheldon W. Sullivan, Administrative Officer
Computing the Center of Population and the Geographic Center
by Wayne H. Faust, Associate Planner
A Backward Glance: Downtown Yesterdays
by Gerald P. Caffrey, Milwaukee Municipal Reference Librarian

Volume 3 - No. 3, September 1971

Hydrogeologic Considerations in Liquid Waste Disposal,
with a Case Study in Southeastern Wisconsin
by Martha J. Ketelle, Department of Geology and Geophysics,
University of Wisconsin-Madison, Wisconsin

Volume 3 - No. 4, September 1971

Characteristics of Air and Ground Travel Generated by
General Mitchell Field Airport Terminal: May 1968
by Sheldon W. Sullivan, Chief of Data Collection
Shifts in Centers of Population within the Region: 1960-1970
by Wayne H. Faust, Associate Planner
A Backward Glance: The Development of General Mitchell Field
by Sheldon W. Sullivan, Chief of Data Collection

Volume 3 - No. 5, March 1973

Freeway Flyer Service in Southeastern Wisconsin—A Progress Report: 1964-1971
by Sheldon W. Sullivan, Chief of Data Collection
Development of Equations for Rainfall Intensity—Duration-Frequency Relationship
by Stuart G. Walesh, Water Resources Engineer
A Backward Glance: The American Automobile—A Brief History of the Development
of the American Automobile and the Growth of Automobile Registrations in the
United States, Wisconsin, and the Southeastern Wisconsin Region: 1896-1970
by Sheldon W. Sullivan, Chief of Data Collection

Volume 3 - No. 6, April 1976

Floodland Management: The Environmental Corridor Concept
by Stuart G. Walesh, SEWRPC Water Resources Engineer
Characteristics of Travel in the Milwaukee Central Business District: 1963 and 1972
by Sheldon W. Sullivan, SEWRPC Chief of Data Collection and
Jean Lusk, SEWRPC Research Analyst
The Changing Factorial Ecology of Milwaukee's Black Ghetto
by Harold McConnell, Richard A. Karsten, and Marilyn Ragusa
A Backward Glance: Environmental Corridors of Yesterday and Today
by Dr. Jeremy M. Katz, Research Psychologist and Jeanne Sollen, Editor

Volume 4 - No. 1, March 1978

A Backward Glance: Milwaukee's Water Story
by Milwaukee Water Works
Is There a Groundwater Shortage in Southeastern Wisconsin?
by Douglas A. Cherkaver and Vinton W. Bacon,
University of Wisconsin-Milwaukee
An Overview of the Sources of Water Pollution in Southeastern Wisconsin
by Kurt W. Bauer, Executive Director, SEWRPC
The Effect of Sample Rate on Socioeconomic and Travel Data
Obtained through Standard Home Interview
by Jean Lusk, SEWRPC Planner

Volume 4 - No. 2, March 1981

Refining the Delineation of the Environmental Corridors in Southeastern Wisconsin
by Bruce P. Rubin, Chief Land Use Planner, SEWRPC, and
Gerald H. Emmerich, Jr., Senior Planner, SEWRPC

Water Quality and Quantity Simulation Modeling for the Areawide
Water Quality Management Planning Program for Southeastern Wisconsin
by Thomas R. Sear, P.E., Senior Water Resources Engineer, SEWRPC

Evaluation of a Water Quality Standard for Total Phosphorus in
Flowing Streams in Southeastern Wisconsin
by David B. Kendziorski, 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

ANNUAL REPORTS

1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973
1974, 1975, 1976, 1977, and 1978, 1979, 1980

CONFERENCE PROCEEDINGS

1st Regional Planning Conference, December 6, 1961
2nd Regional Planning Conference, November 14, 1962
3rd Regional Planning Conference, November 20, 1963
4th Regional Planning Conference, May 12, 1965
5th Regional Planning Conference, October 26, 1965
6th Regional Planning Conference, May 6, 1969
7th Regional Planning Conference, January 19, 1972
8th Regional Planning Conference, October 16, 1974
Regional Conference on Sanitary Sewerage System User and
Industrial Waste Treatment Recovery Charges, July 18, 1974
9th Regional Planning Conference, April 14, 1976
10th Regional Planning Conference, March 15, 1978
11th Regional Planning Conference, April 19, 1979
12th Regional Planning Conference, January 31, 1980

OTHER

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

Appendix E

WALKOWICZ & YOUNG, S.C.
CERTIFIED PUBLIC ACCOUNTANTS
328 WEST SUNSET DRIVE
WAUKESHA, WISCONSIN 53186
414/542-6334

EDWARD J. WALKOWICZ, C.P.A.
VICTOR L. YOUNG, C.P.A.

MEMBER
WISCONSIN INSTITUTE C.P.A.'S
AMERICAN INSTITUTE OF
CERTIFIED PUBLIC ACCOUNTANTS

June 14, 1982

To the Commissioners of
Southeastern Wisconsin Regional Planning Commission
916 North East Avenue
Waukesha, Wisconsin 53186

Gentlemen:

We have examined the accompanying Balance Sheets and the related Statements of Revenues, Expenditures, and Changes in Fund Balances for the year 1981 of the following funds of the Southeastern Wisconsin Regional Planning Commission:

1. Southeastern Wisconsin Regional Planning Commission Fund
2. U. S. Department of Housing and Urban Development Fund
3. U. S. Department of Transportation, Urban Mass Transportation Administration Fund
4. U. S. Department of Transportation, Federal Highway Administration Fund
5. U. S. Environmental Protection Agency Section 175 Fund
6. U. S. Department of Transportation, Federal Railroad Administration Fund
7. Wisconsin Department of Administration Fund
8. Wisconsin Department of Transportation Fund
9. Wisconsin Department of Natural Resources Fund
10. Wisconsin Department of Development Fund
11. Milwaukee County Fund
12. City of Milwaukee Fund
13. Service Agreements Fund
14. U. S. Environmental Protection Agency Section 208 Fund
15. Wisconsin Department of Natural Resources - Water Fund
16. Data Processing Fund
17. Milwaukee Metropolitan Sewerage District Fund
18. Stream Gaging Fund
19. Indirect Expense Fund
20. Pike River Watershed Fund
21. Village of Slinger Mapping Fund
22. Kenosha County Topographic Mapping Fund
23. Wisconsin Department of Natural Resources Inspection and Maintenance Project Fund
24. Nationwide Urban Runoff Pollution Study Fund
25. Oak Creek Mapping Study Fund
26. Milwaukee Inner Harbor Estuary Fund
27. Kenosha County Mapping - 1981 Fund
28. Waukesha County Mapping 1981

Our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The financial statements of Southeastern Wisconsin Regional Planning Commission for the year ended December 31, 1980, were examined by other auditors, whose report dated July 29, 1981, expressed an unqualified opinion on those statements.

Our examination was made in accordance with the guidelines set forth in OMB A-102, Attachment P and, in our opinion, the Commission is in compliance with the terms and conditions of the grant contracts. Also, the Commission is, in our opinion, in compliance with the terms and conditions governing letter-of-credit procedures and requests for reimbursement.

In our opinion, the accompanying financial statements present fairly the financial position of the above funds at December 31, 1981, and the results of its operations for the fiscal year then ended, in conformity with generally accepted accounting procedures applied on a basis in accordance with standards prescribed by the Office of Management and Budget in its documents A-102 governing requirements for grant management and FMC-74-4 governing allowability and allocability of costs.

We have also revised compliance and internal control matters in accordance with the provisions of the HUD audit guide for the Comprehensive Planning Assistance Program, and the Office of Management and Budget's Circular A-102, "Uniform Requirements" for Grants to State and Local Governments," and have included applicable comments on Pages 3 and 4.

Respectfully submitted,

Walkowicz & Young, S.C.

Walkowicz & Young, S.C.

COMMENTS ON COMPLIANCE AND INTERNAL CONTROL

1. Based on our tests of transactions and examination of records, we believe that Southeastern Wisconsin Regional Planning Commission has complied with the following:

a. The terms and conditions of the grant contracts.

b. The regulations, policies, and procedures prescribed by its governing board, the Commission's grantor agencies, and the Office of Management and Budget.

2. As a part of our examination, we reviewed and tested the Commission's system of internal accounting control to the extent we considered necessary to evaluate the system as required by generally accepted auditing standards. Under these standards, the purpose of such evaluation is to establish a basis for reliance thereon in determining the nature, timing, and extent of other auditing procedures that are necessary for expressing an opinion on the financial statements. Additionally, our examination included procedures necessary in our judgment to determine compliance with contractual terms and conditions and regulations, policies, and procedures prescribed by OMB, as set forth in OMB A-102, Attachment P.

The objective of internal accounting control is to provide reasonable, but not absolute, assurance as to the safeguarding of assets against loss from unauthorized use or disposition, and the reliability of financial records for preparing financial statements and maintaining accountability for assets. The concept of reasonable assurance recognizes that the cost of a system of internal accounting control should not exceed the benefits derived and also recognizes that the evaluation of these factors necessarily requires estimates and judgments by management.

There are inherent limitations that should be recognized in considering the potential effectiveness of any system of internal accounting control. In the performance of most control procedures, errors can result from misunderstanding of instructions, mistakes of judgment, carelessness, or other personal factors. Control procedures whose effectiveness depends upon segregation of duties can be circumvented by collusion. Similarly, control procedures can be circumvented intentionally by management with respect either to the execution and recording of transactions or with respect to the estimates and judgments required in the preparation of financial statements. Further, projection of any evaluation of internal accounting control to future periods is subject to the risk that the procedures may become inadequate because of changes in conditions, and that the degree of compliance with the procedures may deteriorate.

Our study and evaluation of the Commission's system of internal accounting control and our review of its compliance with contractual terms, regulations, policies, and procedures which was made for the purpose set forth in the first paragraph of this section, revealed no significant weaknesses.

COST ALLOCATION METHOD

Costs were distributed to the projects and activities pursuant to a cost allocation plan and/or a method of allocation, as applicable, as required by Office of Management and Budget Circular A-102 and Federal Management Circular FMC 74-4 and Handbook 6042.1 REV. We reviewed the method used to allocate indirect costs and found it to be consistent and reasonable.

FINDINGS AND RECOMMENDATIONS

Current Audit

During the audit of the Southeastern Wisconsin Regional Planning Commission for the year ended December 31, 1981, no findings were made which would require recommendations.

EXHIBIT A-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Southeastern Wisconsin Regional Planning Commission Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues			
Contributions from Counties		$704,400.00	
Other Income			
Grant Revenue	$ 59,410.45		
Contract Revenue	75,000.00		
Service Agreements	58,070.25		
Interest on Invested Funds	56,286.25		
Other Income	58,485.58		
Total Other Income		307,252.53	
Total Revenues (Note 2)			$1,011,652.53
Expenditures			
Salaries and Fringe Benefits		$312,647.84	
Office and Other Expenses			
Technical Consultants	$ 20,905.86		
Services by Other Public Agencies	2,230.42		
Outside Salaries and Services	5,320.68		
Data Processing Services	175,313.16		
Data Processing Machine Rental	395.35		
Office Drafting and DP Supplies	436.31		
Library Acquisition and Dues	151.40		
Reproduction and Publication	2,297.26		
Publication of Report	9,221.61		
Travel Expense	2,668.14		
Postage Expense	20.05		
Other Operating Expenses	1,866.56		
Unemployment Compensation Expense	14,419.50		
Automobile/Office Equipment Maintenance	502.56		
Depreciation of Automobile/ Equipment	11,219.08		
Total Office and Other Expenses		246,967.94	
Indirect Expense		175,157.40	
Total Expenditures			734,773.18
Excess Revenues over Expenditures			$ 276,879.35
Fund Balance - Beginning of Year			102,656.28
Fund Balance - End of Year			$ 379,535.63

The notes which follow are an integral part of this statement.

SCHEDULE A-B-1

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Southeastern Wisconsin Regional Planning Commission Fund

Equipment Schedules

For the Years Ended December 31, 1981 and 1980

December 31, 1981

Description	Cost	Accumulated Depreciation	Net Book Value
Desks	$ 13,420.55	$10,870.81	$ 2,549.74
Chairs	9,019.18	6,753.38	2,265.80
Calculators and Adding Machines	11,922.36	8,457.67	3,464.69
Filing Cabinets	25,006.61	16,232.18	8,774.43
Typewriters	19,711.70	10,336.49	9,375.21
Book Cases	13,910.04	7,476.32	6,433.72
Tables	6,144.56	4,975.18	1,169.38
Data Processing Equipment	4,964.02	1,072.00	3,892.02
Major Equipment	18,152.40	11,160.14	6,992.26
Automobiles	42,567.10	23,819.05	18,748.05
Miscellaneous	10,701.92	4,537.48	6,164.44
	$175,520.44	$105,690.70	$69,829.74

December 31, 1980

Description	Cost	Accumulated Depreciation	Net Book Value
Desks	$ 13,420.55	$10,285.89	$ 3,134.66
Chairs	8,839.93	6,358.96	2,480.97
Calculators and Adding Machines	11,742.86	7,839.48	3,903.38
Filing Cabinets	23,975.62	14,656.65	9,318.97
Typewriters	14,385.14	8,783.39	5,601.75
Book Cases	13,365.38	6,348.64	7,016.74
Tables	6,144.56	4,692.18	1,452.38
Data Processing Equipment	3,692.06	575.61	3,116.45
Major Equipment	17,415.40	9,890.92	7,524.88
Automobiles	42,567.10	21,423.97	21,143.13
Miscellaneous	10,701.92	3,616.33	7,085.59
	$166,250.52	$ 94,471.62	$71,778.90

Method of Depreciation

Autos are depreciated over five (5) years on the straight-line method, with a 10 percent salvage value used.

Equipment is depreciated over ten (10) years on the straight-line method.

EXHIBIT A-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Southeastern Wisconsin Regional Planning Commission Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Grant Available	$329,663.75	$ 77,306.21
Furniture, Fixtures, Equipment, Autos, etc. (Schedule A-B-1)	69,829.74	71,778.90
Total Assets	$399,493.49	$149,085.11
Liabilities		
Fringe Benefits	$ 899.32	$ 892.26
State Sales Tax	80.85	84.99
Accounts Payable	15,852.54	42,544.54
U. S. Savings Bonds	--	87.50
Annuity	3,125.15	2,819.54
Total Liabilities	19,957.86	46,428.83
Fund Balance		
Unappropriated Fund Balance	379,535.63	102,656.28
Total Liabilities and Fund Balance	$399,493.49	$149,085.11

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Southeastern Wisconsin Regional Planning Commission
(SEWRPC Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the SEWRPC Fund are used to partially support the following continuing planning programs: land use, transportation, planning research; air quality; floodland management; water quality; community assistance, and coastal zone management. In addition, the Commission enters into special contracts and may provide partial support to other special planning programs such as: the Milwaukee Area Primary Transit Systems Alternatives Analysis and the University of Wisconsin-Milwaukee Work Study Project. This fund also includes the office equipment, unemployment compensation, and operating fund balances of the Commission.

   Included in the SEWRPC Fund are revenues generated from the following sources: the constituent seven counties in the form of tax levy requests; revenues from contracts and/or service agreements; interest income; sale of maps, publications and aerial photographs; and other miscellaneous income sources.

   Revenues generated in the SEWRPC Fund are not only used to provide partial support to the referenced planning programs, but are also used in concert with other state and local funding agencies to satisfy appropriate local matching requirements mandated by the Commission's federal funding agencies. Receipt of the revenues reflected in the SEWRPC Fund is obtained by the Commission by letter requests to the constituent seven counties, customary invoicing procedures, or in accordance with specific terms and conditions set forth in individual contracts or service agreements.

2. Revenues
   The grant revenue from previous years includes $59,410.45 from the U. S. Department of Transportation, Urban Mass Transportation Administration.

EXHIBIT B-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Department of Housing and Urban Development Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues			
Grant Revenue		$124,644.82	
Total Revenues			$124,644.82
Expenditures			
Salaries and Fringe Benefits		$ 21,642.48	
Office and Other Expenses			
Outside Salaries and Services	$ 5,113.59		
Data Processing Services	48,218.76		
Office Drafting and DP Supplies	23.76		
Reproduction and Publication	130.05		
Publication of Report	644.95		
Travel Expense	173.78		
Automobile/Office Equipment Maintenance	414.00		
Total Office and Other Expenses		54,718.89	
Indirect Expense		12,138.63	
Total Expenditures			88,500.00
Excess Revenues over Expenditures			$ 36,144.82
Fund Balance - Beginning of Year			129.79
Fund Balance - End of Year			$ 36,274.61

The notes which follow are an integral part of this statement.

EXHIBIT B-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Department of Housing and Urban Development Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Grant Available	$41,809.90	$11,372.77
Total Assets	$41,809.90	$11,372.77
Liabilities		
Accounts Payable	$ 5,535.29	$11,242.98
Total Liabilities	5,535.29	11,242.98
Fund Balance		
Fund Balance	36,274.61	129.79
Total Liabilities and Fund Balance	$41,809.90	$11,372.77

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Department of Housing and Urban Development Fund
(HUD Fund)
Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the HUD Fund are used to partially support the Commission 1981 Overall Work Program. In addition, under this grant, HUD provides partial support to the Commission for the administration of the Univeristy of Wisconsin-Parkside Work-Study Project.

   Receipt of the revenues in the HUD Fund is obtained by the Commission in accordance with U. S. Department of Treasury letter of credit procedures.

EXHIBIT C-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Department of Transportation
Urban Mass Transportation Administration Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues			
Grant Revenue		$874,000.00	
Service Agreements		1,035.69	
Total Revenues			$875,035.69
Expenditures			
Salaries and Fringe Benefits		$347,069.07	
Office and Other Expenses			
Technical Consultants	$ 5,312.76		
Services by Other Public Agencies	154,635.65		
Outside Salaries and Services	5,900.99		
Data Processing Services	174,284.61		
Data Processing Machine Rental	1,583.43		
Office Drafting and DP Supplies	126.55		
Library Acquisition and Dues	797.21		
Reproduction and Publication	1,565.59		
Publication of Report	17,479.50		
Travel Expense	2,896.39		
Postage Expense	113.23		
Other Operating Expenses	961.33		
Automobile/Office Equipment Maintenance	15,855.72		
Total Office and Other Expenses		381,512.96	
Indirect Expense		194,418.69	
Total Expenditures			923,000.72
Excess Expenditures over Revenues			$ 47,965.03
Fund Balance - Beginning of Year			389,411.95
Fund Balance - End of Year			$341,446.92

The notes which follow are an integral part of this statement.

EXHIBIT C-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Department of Transportation
Urban Mass Transportation Administration Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Grant Available	$349,422.41	$411.283.04
Total Assets	$349,422.41	$411,283.04
Liabilities		
Accounts Payable	$ 7,975.49	$ 21,871.09
Total Liabilities	7,975.49	21,871.09
Fund Balance		
Fund Balance	341,446.92	389,411.95
Total Liabilities and Fund Balance	$349,422.41	$411,283.04

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Department of Transportation
Urban Mass Transportation Administration Fund
(UMTA Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the UMTA Fund are used to partially support the continuing planning programs of: transportation; planning research; and air quality. In addition, under separate contract UMTA provides partial support to the Commission for the conduct of the Milwaukee Area Primary Transit Systems Alternatives Analysis Study (A/A).

   Included in the UMTA Fund are revenues generated from the 1981 grant with the required local match provided by the Southeastern Wisconsin Regional Planning Commission (SEWRPC) Fund, the Wisconsin Department of Transportation (WISDOT) Fund, and in the A/A study, the Milwaukee County Fund.

   For the referenced continuing planning programs, UMTA revenue is used in concert with the Federal Highway Administration (FHWA) Fund and receipt of the revenues in the UMTA fund is obtained by the Commission in accordance with the terms and conditions of the U. S. Department of Treasury letter of credit procedures.

EXHIBIT D-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Department of Transportation
Federal Highway Administration Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues			
Grant Revenue		$373,319.45	
Service Agreements		343.62	
Total Revenues			$373,663.07
Expenditures			
Salaries and Fringe Benefits		$107,267.21	
Office and Other Expenses			
Technical Consultants	$ 5,447.01		
Services by Other Public Agencies	2,043.25		
Outside Salaries and Services	1,893.04		
Data Processing Services	185,754.38		
Data Processing Machine Rental	1,583.00		
Office Drafting and DP Supplies	115.57		
Library Acquisition and Dues	413.91		
Reproduction and Publication	517.35		
Publication of Report	1,007.42		
Travel Expense	1,484.00		
Other Operating Expenses	753.92		
Automobile/Office Equipment Maintenance	5,291.78		
Total Office and Other Expenses		206,304.63	
Indirect Expense		60,091.23	
Total Expenditures			373,663.07
Excess Revenues over Expenditures			$ --
Fund Balance - Beginning of Year			(56,911.87)
Fund Balance - End of Year			$(56,911.87)

The notes which follow are an integral part of this statement.

EXHIBIT D-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Department of Transportation
Federal Highway Administration Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Total Assets	$ --	$ --
Liabilities		
Accounts Payable	$ 625.95	$ 7,053.78
Grant Balance	56,285.92	49,858.09
Total Liabilities	56,911.87	56,911.87
Fund Balance		
Fund Balance	(56,911.87)	(56,911.87)
Total Liabilities and Fund Balance	$ --	$ --

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Department of Transportation
Federal Highway Administration Fund
(FHWA Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the FHWA Fund are used to partially support the continuing planning programs of: transportation; planning research; and air quality.

   The required local match for the revenues reflected in the FHWA Fund is provided by the Southeastern Wisconsin Regional Planning Commission (SEWRPC) Fund and the Wisconsin Department of Transportation (WISDOT) Fund.

   For referenced continuing planning programs, FHWA revenues are used in concert with the Urban Mass Transportation Administration (UMTA) Fund and receipt of the revenues in the FHWA Fund is obtained by the Commission from the Wisconsin Department of Transportation in accordance with an agreed-upon method of invoicing.

EXHIBIT E-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Environmental Protecton Agency Section 175 Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues			
Grant Revenue		$172,549.93	
Total Revenues			$ 172,549.93
Expenditures			
Salaries and Fringe Benefits		$ 46,053.14	
Office and Other Expenses			
Services by Other Public Agencies	$ 5,017.57		
Outside Salaries and Services	232.28		
Data Processing Services	57,634.61		
Reproduction and Publication	135.42		
Publication of Report	35.55		
Travel Expense	225.82		
Other Operating Expenses	3,769.14		
Automobile/Office Equipment Maintenance	2,057.03		
Total Office and Other Expenses		69,107.42	
Indirect Expense		25,782.05	
Total Expenditures			140,942.61
Excess Revenues over Expenditures			$ 31,607.32
Fund Balance - Beginning of Year			(198,996.32)
Fund Balance - End of Year			$(167,389.00)

The notes which follow are an integral part of this statement.

EXHIBIT E-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Environmental Protection Agency Section 175 Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Total Assets	$ --	$ --
Liabilities		
Accounts Payable	$ 69.03	$ 3,969.02
Grant Balance	167,319.97	195,027.30
Total Liabilities	167,389.00	198,996.32
Fund Balance		
Fund Balance	(167,389.00)	(198,996.32)
Total Liabilities and Fund Balance	$ --	$ --

The notes which are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Environmental Protection Agency Section 175 Fund
(EPA 175 Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the EPA - 175 Fund are used to partially support the continuing planning programs of: transportation; planning research; and air quality.

   For the referenced continuing planning programs, receipt of the EPA revenues is obtained by the Commission in accordance with the terms and conditions of the U. S. Department of Treasury letter of credit procedures.

EXHIBIT F-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Department of Transportation
Federal Rail Administration Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Total Assets	$ --	$ --
Liabilities		
Accounts Payable	$ --	$ 80.64
Grant Balance	88.93	8.29
Total Liabilities	88.93	88.93
Fund Balance		
Fund Balance	(88.93)	(88.93)
Total Liabilities and Fund Balance	$ --	$ --

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Department of Transportation
Federal Rail Administration Fund
(FRA Fund)

Notes to Financial Statements
December 31, 1981

1. There are no revenues shown in the FRA Fund as this fund was discontinued at the end of 1980.

EXHIBIT G-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Administration Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues			
Contract Revenue		$39,832.24	
Total Revenues			$39,832.24
Expenditures			
Salaries and Fringe Benefits		$20,418.45	
Office and Other Expenses			
Reproduction and Publication	$ 88.10		
Publication of Report	794.18		
Travel Expense	535.27		
Automobile/Office Equipment Maintenance	332.12		
Total Office and Other Expenses		1,749.67	
Indirect Expense		11,436.39	
Total Expenditures			33,604.51
Excess Revenues over Expenditures			$ 6,227.73
Fund Balance - Beginning of Year			(6,162.96)
Fund Balance - End of Year			$ 64.77

The notes which follow are an integral part of this statement.

EXHIBIT G-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Administration Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Grant Available	$79.97	$ --
Total Assets	$79.97	$ --
Liabilities		
Accounts Payable	$15.20	$ 45.47
Grant Balance	--	6,117.49
Total Liabilities	15.20	$ 6,162.96
Fund Balance		
Fund Balance	64.77	(6,162.96)
Total Liabilities and Fund Balance	$79.97	$ --

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Administration Fund
(DOA Fund)

Notes to Financial Statement
December 31, 1981

1. The revenues reflected in the DOA Fund are used to partially support the continuing Coastal Zone Management Program.

   The revenues in the DOA Fund are U. S. National Oceanic and Atmospheric Administration (NOAA) grant funds that are administered by the DOA.

   The required local match is provided by the Southeastern Wisconsin Regional Planning Commission (SEWRPC) Fund.

   Receipt of the revenues in the DOA Fund is obtained by the Commission from the Wisconsin Department of Administration in accordance with an agreed-upon method of invoicing.

EXHIBIT H-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Transportation Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues			
Grant Revenue		$120,546.99	
Contract Revenue		74,034.24	
Service Agreements		171.81	
Total Revenues			$194,753.04
Expenditures			
Salaries and Fringe Benefits		$ 83,350.79	
Office and Other Expenses			
Technical Consultants	$ 1,344.52		
Services by Other Public Agencies	913.69		
Outside Salaries and Services	972.40		
Data Processing Services	55,857.92		
Data Processing Machine Rental	395.72		
Office Drafting and DP Supplies	30.24		
Library Acquisition and Dues	151.18		
Reproduction and Publication	259.44		
Publication of Report	1,367.18		
Travel Expense	720.38		
Postage Expense	5.62		
Other Operating Expenses	214.33		
Automobile/Office Equipment Maintenance	2,642.01		
Total Office and Other Expenses		64,874.63	
Indirect Expense		46,648.45	
Total Expenditures			194,873.87
Excess Expenditures over Revenues			$ 120.83
Fund Balance - Beginning of Year			(22,132.08)
Fund Balance - End of Year			$(22,252.91)

The notes which follow are an integral part of this statement.

EXHIBIT H-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Transportation Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Total Assets	$ --	$ --
Liabilities		
Accounts Payable	$ 237.24	$ 2,534.70
Grant Balance	22,015.67	19,597.38
Total Liabilities	22,252.91	22,132.08
Fund Balance		
Fund Balance	22,252.91	(22,132.08)
Total Liabilities and Fund Balance	$ --	$ --

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Transportation Fund
(WISDOT Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the WISDOT Fund are used to partially support the continuing planning programs of: transportation, planning research; and air quality. In addition, under a separate agreement, WISDOT provides partial support to the Commission for the conduct of the Milwaukee Area Primary Transit Systems Alternatives Analysis Study.

   Included in the WISDOT Fund are revenues generated from two separate agreements, both of which provide partial support of the required local match for funding by the Urban Mass Transportation Administration (UMTA) Fund and the Federal Highway Administration (FHWA) Fund.

   For the referenced continuing planning programs, receipt of revenues in the WISDOT Fund is obtained by the Commission in accordance with the terms and conditions of an agreed-upon method of invoicing patterned after the U. S. Department of Treasury letter of credit system.

EXHIBIT I-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Natural Resources Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues			
Grant Revenue		$104,016.67	
Contract Revenue		69,869.57	
Total Revenues			$173,886.24
Expenditures			
Salaries and Fringe Benefits		$ 81,896.36	
Office and Other Expenses			
Services by Other Public Agencies	$ 1,211.46		
Outside Salaries and Services	649.01		
Data Processing Services	48,847.64		
Office Drafting and DP Supplies	188.95		
Reproduction and Publication	1,446.23		
Publication of Report	1,661.43		
Travel Expense	564.63		
Other Operating Expenses	129.50		
Automobile/Office Equipment Maintenance	421.12		
Total Office and Other Expenses		55,119.97	
Indirect Expense		45,845.89	
Total Expenditures			182,862.22
Excess Expenditures over Revenues			$ 8,975.98
Fund Balance - Beginning of Year			(58,752.48)
Fund Balance - End of Year			$(67,728.46)

The notes which follow are an integral part of this statement.

EXHIBIT I-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Natural Resources Fund (Note 1)

Balance Sheet

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Total Assets	$ --	$ --
Liabilities		
Accounts Payable	$ 11,276.82	$ 12,856.53
Grant Balance	56,451.64	45,895.95
Total Liabilities	67,728.46	58,752.48
Fund Balance		
Fund Balance	(67,728.46)	(58,752.48)
Total Liabilities and Fund Balance	$ --	$ --

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Natural Resources Fund
(DNR Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the DNR Fund are used to partially support the continuing Floodland Management Planning Program.

   Receipt of revenues in the DNR Fund is obtained by the Commission from the Wisconsin Department of Natural Resources in accordance with an agreed-upon method of invoicing. Fiscal year contract for floodland management support and multi-year contract for special studies. Balance of 1981 expenditures to be received in calendar year 1982.

EXHIBIT J-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Development Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues			
Grant Revenue		$63,500.00	
Total Revenues			$ 63,500.00
Expenditures			
Salaries and Fringe Benefits		$35,871.18	
Office and Other Expenses			
Technical Consultants	$ 180.40		
Outside Salaries and Services	1,451.79		
Data Processing Services	461.92		
Office Drafting and DP Supplies	24.58		
Reproduction and Publication	461.81		
Publication of Report	525.96		
Travel Expense	250.44		
Total Office and Other Expenses		3,356.90	
Indirect Expense		20,063.85	
Total Expenditures			59,291.93
Excess Revenues over Expenditures			$ 4,208.07
Fund Balance - Beginning of Year			(58,274.86)
Fund Balance - End of Year			$(54,066.79)

The notes which follow are an integral part of this statement.

EXHIBIT J-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Development Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Total Assets	$ --	$ --
Liabilities		
Accounts Payable	$ 3.74	$ 164.61
Grant Balance	54,063.05	58,110.25
Total Liabilities	54,066.79	58,274.86
Fund Balance		
Fund Balance	(54,066.79)	(58,274.86)
Total Liabilities and Fund Balance	$ --	$ --

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Development Fund
(DOD Fund)

Notes to Financial Statements
December 31, 1981

1. In previous years this fund was entitled Wisconsin Department of Local Affairs and Development (DLAD). The revenues reflected in the DOD Fund are used to partially support the continuing planning programs of: land use and community assistance.

   Included in the DOD Fund are revenues generated from three separate funding sources of the Department of Development. Funding to the Commission from DOD is made up of Secretary's Discretionary Funding and State Planning Aides.

   The receipt of the revenues in the DOD Fund is obtained by the Commission in accordance with an agreed-upon method of invoicing.

EXHIBIT K-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Milwaukee County Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues			
Contract Revenue		$2,784.67	
Service Agreements		1,215.33	
Total Revenues			$ 4,000.00
Expenditures			
Salaries and Fringe Benefits		$5,652.47	
Office and Other Expenses			
Data Processing Services	$6,511.70		
Publication of Report	610.47		
Travel Expense	113.49		
Postage Expense	5.62		
Total Office and Other Expenses		7,241.28	
Indirect Expense		3,210.22	
Total Expenditures			16,103.97
Excess Expenditures over Revenues			$12,103.97
Fund Balance - Beginning of Year			2,765.16
Fund Balance - End of Year			$(9,338.81)

The notes which follow are an integral part of this statement.

EXHIBIT K-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Milwaukee County Fund (Note 1)

Balance Sheet

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Grant Available	$ --	$2,921.26
Total Assets	$ --	$2,921.26
Liabilities		
Accounts Payable	$ --	$ 156.10
Grant Balance	9,338.81	--
Total Liabilities	9,338.81	156.10
Fund Balance		
Fund Balance	(9,338.81)	2,765.16
Total Liabilities and Fund Balance	$ --	$2,921.26

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Milwaukee County Fund

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the Milwaukee County Fund are used to partially support the Milwaukee Area Primary Transit Systems Alternatives Analysis Study and the Carpool/Vanpool Study.

   Milwaukee County, in concert with the Wisconsin Department of Transportation (WISDOT) Fund and the Southeastern Wisconsin Regional Planning Commission (SEWRPC) Fund, provides the required local match for the Urban Mass Transportation Administration (UMTA) Grant to conduct the Milwaukee Area Primary Transit System Alternatives Analysis Study.

   For the referenced study, receipt of the revenues is obtained by the Commission from Milwaukee County in accordance with an agreed-upon method of invoicing.

EXHIBIT L-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

City of Milwaukee Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues (Note 2)			$ --
Expenditures			
Salaries and Fringe Benefits		$7,321.58	
Office and Other Expenses			
Data Processing Services	$235.42		
Travel Expense	48.90		
Total Office and Other Expenses		284.32	
Indirect Expense		4,113.09	
Total Expenditures			11,718.99
Excess Expenditures over Revenues			$ 11,718.99
Fund Balance - Beginning of Year			--
Fund Balance - End of Year			$(11,718.99)

The notes which follow are an integral part of this statement.

EXHIBIT L-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

City of Milwaukee (Note 1)

Balance Sheet

As at December 31, 1981

Assets	
Total Assets	$ --
Liabilities	
Grant Balance	$ 11,718.99
Total Liabilities	11,718.99
Fund Balance	
Fund Balance	(11,718.99)
Total Liabilities and Fund Balance	$ --

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

City of Milwaukee Fund

Notes to Financial Statements
December 31, 1981

1. The City of Milwaukee Fund is in support of a special flood control study plan for the Lincoln Creek. This project is supported under separate contract by the City of Milwaukee.

EXHIBIT M-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Service Agreements Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues			
Contract Revenue		$ 1,212.89	
Service Agreements		197,229.98	
Total Revenues			$198,442.87
Expenditures			
Salaries and Fringe Benefits		$ 98,568.76	
Office and Other Expenses			
Technical Consultants	$4,725.00		
Services by Other Public Agencies	874.28		
Outside Salaries and Services	1,004.24		
Data Processing Services	5,719.06		
Reproduction and Publication	398.63		
Publication of Report	714.53		
Travel Expense	2,172.26		
Postage Expense	180.00		
Other Operating Expenses	68.94		
Automobile/Office Equipment Maintenance	81.88		
Total Office and Other Expenses		15,938.82	
Indirect Expense		55,175.58	
Total Expenditures			169,683.16
Excess Revenues over Expenditures			$ 28,759.71
Fund Balance - Beginning of Year			19,653.43
Fund Balance - End of Year			$ 48,413.14

The notes which follow are an integral part of this statement.

EXHIBIT M-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Service Agreements Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Grant Available	$52,829.21	$19,676.46
Total Assets	$52,829.21	$19,676.46
Liabilities		
Accounts Payable	$ 4,416.07	$ 23.03
Total Liabilities	4,416.07	23.03
Fund Balance		
Fund Balance	48,413.14	19,653.43
Total Liabilities and Fund Balance	$52,829.21	$19,676.46

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Service Agreements Fund

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the Service Agreements Fund are used to partially support special studies or work efforts in a variety of program areas including: land use; transportation; watershed studies; and community assistance planning.

   Included in the Service Agreements Fund are revenues generated from letter agreements, memorandums of understanding, and contracts. Work efforts undertaken under the service agreements heading rarely require local matching.

   For the referenced programs, receipt of the revenues in the Service Agreements Fund is obtained by the Commission in accordance with the terms and conditions set forth in an individual agreement.

EXHIBIT N-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Environmental Protection Agency 208 Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues			
Grant Revenue		$244,650.00	
Total Revenues			$244,650.00
Expenditures			
Salaries and Fringe Benefits		$124,921.31	
Office and Other Expenses			
Services by Other Public Agencies	$ 4,644.31		
Outside Salaries and Services	3,899.31		
Data Processing Services	67,349.90		
Office Drafting and DP Supplies	378.06		
Reproduction and Publication	91.72		
Publication of Report	9,983.96		
Travel Expense	1,175.07		
Other Operating Expenses	137.84		
Automobile/Office Equipment Maintenance	204.79		
Total Office and Other Expenses		87,864.96	
Indirect Expense		70,022.83	
Total Expenditures			282,809.10
Excess Expenditures over Revenues			$ 38,159.10
Fund Balance - Beginning of Year			170,110.82
Fund Balance - End of Year			$131,951.72

The notes which follow are an integral part of this statement.

EXHIBIT N-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Environmental Protection Agency 208 Fund (Note 1)

Balance Sheets

For the Years Ended December 1981 and 1980

	1981	1980
Assets		
Grant Available	$132,045.25	$177,858.53
Total Assets	$132,045.25	$177,858.53
Liabilities		
Accounts Payable	$ 93.53	$ 7,747.71
Total Liabilities	93.53	7,747.71
Fund Balance		
Fund Balance	131,951.72	170,110.82
Total Liabilities and Fund Balance	$132,045.25	$177,858.53

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

U. S. Environmental Protection Agency
(EPA 208 Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the EPA 208 Fund are used to partially support the Continuing Water Quality Management Planning Program.

   The Wisconsin Department of Natural Resources - Water (DNR - Water) Fund, in concert with the Southeastern Wisconsin Regional Planning Commission (SEWRPC) Fund, provide the required local match for the EPA 208 Fund.

   For the referenced continuing planning program, receipt of the revenues in the EPA 208 Fund is obtained by the Commission in accordance with the terms and conditions of the U. S. Federal Reserve Bank letter of credit procedures.

EXHIBIT O-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Natural Resources Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Total Assets	$ --	$ --
Liabilities		
Accounts Payable	$ --	$ 1,294.90
Grant Balance	39,591.07	38,296.17
Total Liabilities	39,591.07	39,591.07
Fund Balance		
Fund Balance	(39,591.07)	(39,591.07)
Total Liabilities and Fund Balance	$ --	$ --

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Natural Resources Fund
(DNR - Water)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the DNR - Water Fund are used to partially support the Continuing Water Quality Management Planning Program.

   The DNR - Water Fund, in concert with the Southeastern Wisconsin Regional Planning Commission (SEWRPC) Fund, provides the required local match for the U. S. Environmental Protection Agency Section 208 grant.

2. In 1981 Work Activity and Revenue in support of such activity were shown in Fund Number 11, entitled Wisconsin Department of Natural Resources Fund (DNR).

EXHIBIT P-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Data Processing Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues			
Other Income		$1,551,101.98	
Total Revenues			$1,551,101.98
Expenditures			
Salaries and Fringe Benefits		$ 496,246.30	
Office and Other Expenses			
Outside Salaries and Services	$ 22,002.61		
Data Processing Machine Rental	810,779.44		
Office Drafting and DP Supplies	2,421.06		
Library Acquisition and Dues	36.00		
Travel Expense	4,714.07		
Digitizer Expense	91,404.90		
Other Operating Expenses	195.80		
Telephone Expense	17.62		
Automobile/Office Equipment Maintenance	19,960.65		
Total Office and Other Expenses		951,532.15	
Indirect Expense		277,984.61	
Total Expenditures			1,725,763.06
Excess Expenditures over Revenues			$ 174,661.08
Fund Balance - Beginning of Year			(9,048.84)
Fund Balance - End of Year			$ (183,709.92)

The notes which follow are an integral part of this statement.

EXHIBIT P-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Data Processing Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Due from Service Agreements	$ 138,072.15	$101,551.86
Due from Sale of Equipment	--	83,917.79
Total Assets	$ 138,072.15	$185,469.65
Liabilities		
Accounts Payable	$ 54,526.16	$ 92,089.20
Sales Tax	4.91	4.97
Grant Balance	267,251.00	102,424.32
Total Liabilities	321,782.07	194,518.49
Fund Balance		
Fund Balance	(183,709.92)	(9,048.84)
Total Liabilities and Fund Balance	$ 138,072.15	$185,469.65

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Data Processing Fund
(DP Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the DP Fund are used to support the Commission's data processing operations.

   The cost of supporting the Commission's Data Processing Operations is apportioned between the Continuing Planning Programs and the Community Assistance Data Processing Customers. Costs for data processing are distributed to the Continuing Planning Programs according to a "Direct Cost Allocation Plan" approved by the U. S. Environmental Protection Agency (USEPA) acting in the capacity as the Commission's cognizant agency. Cost for data processing services are directly billed to the Community Assistance Data Processing customers.

   Receipt of the revenues in the DP Fund is obtained by the Commission by including the costs distributed to the Commission's Continuing Planning Programs as a direct expense item on all letters of credit or requests for reimbursement. Revenue is also obtained in the DP Fund by directly billing the Community Assistance Data Processing Customers in accordance with an agreed-upon method of invoicing.

2. Excess expenditures over revenue are absorbed by the SEWRPC Fund.

EXHIBIT Q-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Milwaukee Metropolitan Sewerage District Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues		
Contract Revenue	$52,112.00	
Total Revenues (Note 2)		$ 52,112.00
Expenditures		--
Total Expenditures		$ --
Excess Revenues over Expenditures		$ 52,112.00
Fund Balance - Beginning of Year		(35,263.58)
Fund Balance - End of Year		$ 16,848.42

The notes which follow are an integral part of this statement.

EXHIBIT Q-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Milwaukee Metropolitan Sewerage District Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Grant Available	$16,848.42	$ --
Total Assets	$16,848.42	$ --
Liabilities		
Accounts Payable	$ --	$ 83.05
Grant Balance	--	35,180.53
Total Liabilities	--	35,263.58
Fund Balance		
Fund Balance	16,848.42	(35,263.58)
Total Liabilities and Fund Balance	$16,848.42	$ --

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Milwaukee Metropolitan Sewerage District Fund
(MMSD Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the MMSD Fund are used to partially support the work effort performed at the request of the Milwaukee Sewerage Commission staff.

   Included in the MMSD Fund are revenues from an original contract with amendments 1-3.

   Revenues generated in the MMSD Fund do not require a local match and receipt of the revenues in the MMSD Fund are obtained by the Commission in accordance with terms and conditions set forth in the grant contract.

2. Revenues
   Revenue as set forth in the audit statement are for calendar year 1979 and 1980 expenditures.

EXHIBIT R-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Stream Gaging Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues		
Contract Revenue	$58,275.00	
Total Revenues		$58,275.00
Expenditures		
Office and Other Expenses		
Services by Other Public Agencies	$69,875.00	
Total Expenditures		69,875.00
Excess Expenditures over Revenues		$11,600.00
Fund Balance - Beginning of Year		2,951.91
Fund Balance - End of Year		$ 8,648.09

The notes which follow are an integral part of this statement.

EXHIBIT R-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Stream Gaging Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Grant Available	$ --	$2,951.91
Total Assets	$ --	$2,951.91
Liabilities		
Accounts Balance	$ 4,131.85	$ --
Grant Balance	4,516.24	--
Total Liabilities	8,648.09	--
Fund Balance		
Fund Balance	(8,648.09)	2,951.91
Total Liabilities and Fund Balance	$ --	$2,951.91

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Stream Gaging Fund
(SG Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the SG Fund are used to partially support the continuing stream flow gaging station operations in calendar year 1981. During calendar year 1981, the Commission administered the stream gaging program for the United States Geological Survey (USGS) and the local participants.

   During 1981, the Commission administered 22 stream flow gages. One-half of the cost of this project is borne by the USGS, with the remaining one-half borne by the local participants.

   Receipt of the revenues in the SG Fund is obtained by the Commission in the format of a letter request to USGS and the local participants annually.

EXHIBIT S

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Indirect Expense Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Grant Available	$24,915.33	$50,474.26
Total Assets	$24,915.33	$50,474.26
Liabilities		
Accounts Payable	$24,915.33	$50,474.26
Total Liabilities	24,915.33	50,474.26
Fund Balance		
Fund Balance	--	--
Total Liabilities and Fund Balance	$24,915.33	$50,474.26

The note which follows is an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Indirect Expense Fund
(Indirect Fund)

Note to Financial Statement
December 31, 1981

1. The Indirect Fund is created annually for the purpose of identifying, categorizing, and distributing individual cost items which are not directly allocable to a specific project or program. Costs accumulated in the Indirect Fund are distributed to all of Commission's funding agencies in accordance with an Indirect Cost Proposal as approved by the U. S. Environmental Protection Agency acting in the capacity of the Commission's cognizant agency.

2. Total Indirect Expenses for calendar year 1981 were $1,003,192.42.

EXHIBIT T-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Pike River Watershed Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Total Assets	$ --	$ --
Liabilities		
Accounts Payable	$ --	$ 612.29
Grant Balance	15,952.93	15,340.64
Total Liabilities	15,952.93	15,952.93
Fund Balance		
Fund Balance	(15,952.93)	(15,952.93)
Total Liabilities and Fund Balance	$ --	$ --

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Pike River Watershed Fund
(Pike River Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the Pike River Fund are used to support a special watershed planning project for the Pike River. The study conducted by the Commission, and funded by Racine and Kenosha Counties, is a multi-year project which is estimated to be completed in calendar year 1980.

   Receipt of the revenues in the Pike River Fund is obtained by the Commission in accordance with specific terms and conditions set forth in the Pike River Watershed contract.

2. Project completed at the end of calendar year 1980.

EXHIBIT U-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Village of Slinger Mapping Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Total Assets	$ --	$ --
Liabilities		
Accounts Payable	$ --	$ 9,580.00
Grant Balance	22,913.48	13,333.48
Total Liabilities	22,913.48	22,913.48
Fund Balance		
Fund Balance	(22,913.48)	(22,913.48)
Total Liabilities and Fund Balance	$ --	$ --

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Village of Slinger Mapping Fund
(Slinger Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the Slinger Fund are used to support a special mapping project for the Village of Slinger. The project administered by the Commission and funded by the Village is estimated to be completed in calendar year 1980.

   Receipt of the revenues in the Slinger Fund is obtained by the Commission in accordance with specific terms and conditions set forth in the Village of Slinger contract.

2. Project completed at the end of calendar year 1980.

EXHIBIT V-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Kenosha County Topographic Mapping Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues			
Contract Revenue		$142,894.04	
Total Revenues			$142,894.04
Expenditures			
Salaries and Fringe Benefits		$ 1,857.07	
Office and Other Expenses			
Technical Consultants	$90,792.40		
Reproduction and Publication	1,161.00		
Travel Expense	1.87		
Total Office and Other Expenses		91,955.27	
Indirect Expense		1,003.19	
Total Expenditures			94,815.53
Excess Revenues over Expenditures			$ 48,078.51
Fund Balance - Beginning of Year			(20,194.70)
Fund Balance - End of Year			$ 27,883.81

The notes which follow are an integral part of this statement.

EXHIBIT V-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Kenosha County Topographic Mapping Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Grant Available	$27,883.81	$22,335.00
Total Assets	$27,883.81	$22,335.00
Liabilities		
Accounts Payable	$ --	$42,529.70
Total Liabilities	--	42,529.70
Fund Balance		
Fund Balance	27,883.81	(20,194.70)
Total Liabilities and Fund Balance	$27,883.81	$ 22,335.00

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Kenosha County Topographic Mapping Fund
(Kenosha Mapping Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the Kenosha Mapping Fund are used to support a special topographic mapping project in Kenosha County. Receipt of the revenues in the Kenosha Mapping Fund is obtained by the Commission in accordance with specific terms and conditions set forth in the Kenosha County Topographic Mapping Contract.

EXHIBIT W-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Natural Resources
Inspection and Maintenance Project Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues		
Contract Revenue	$20,000.00	
Total Revenues (Note 2)		$20,000.00
Expenditures		--
Total Expenditures		$ --
Excess Revenues over Expenditures		$20,000.00
Fund Balance - Beginning of Year		(6,329.49)
Fund Balance - End of Year		$13,670.51

The notes which follow are an integral part of this statement.

EXHIBIT W-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Natural Resources
Inspection and Maintenance Project Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Grant Available	$13,670.51	$ --
Total Assets	$13,670.51	$ --
Liabilities		
Grant Balance	$ --	$6,329.49
Total Liabilities	--	6,329.49
Fund Balance		
Fund Balance	13,670.51	(6,329.49)
Total Liabilities and Fund Balance	$13,670.51	$ --

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Wisconsin Department of Natural Resources
Inspection and Maintenance Project
(DNR I and M Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the DNR I and M Fund are used to support a special vehicle inspection and maintenance project in Southeastern Wisconsin.

   Receipt of the revenues in the DNR I and M Fund is obtained by the Commission in accordance with specific terms and conditions set forth in the Wisconsin Department of Natural Resources Contract.

2. Revenues received in 1981 for 1979 and 1980 expenditures.

EXHIBIT X-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Nationwide Urban Runoff Pollution Study Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Total Assets	$ --	$ --
Liabilities		
Accounts Payable	$ --	$ 738.92
Grant Balance	14,711.85	13,972.93
Total Liabilities	14,711.85	14,711.85
Fund Balance		
Fund Balance	(14,711.85)	(14,711.85)
Total Liabilities and Fund Balance	$ --	$ --

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Nationwide Urban Runoff Pollution Study Fund
(NURPS Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the NURPS Fund are used to support a special urban runoff pollution study funded by the U. S. Environmental Protection Agency (USEPA).

   Receipt of the revenues in the NURPS Fund is obtained by the Commission in accordance with specific terms and conditions set forth in the contract with the USEPA.

2. In 1981 work activity reported and work activity expenditures recorded in the Wisconsin Department of Natural Resources Fund (DNR).

EXHIBIT Y-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Oak Creek Mapping Study Fund (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues		
Contract Revenue	$84,000.00	
Total Revenues (Note 2)		$ 84,000.00
Expenditures		
Office and Other Expenses		
Technical Consultants	$58,345.00	
Total Expenditures		58,345.00
Excess Revenues over Expenditures		$ 25,655.00
Fund Balance - Beginning of Year		(27,810.50)
Fund Balance - End of Year		$ (2,155.50)

The notes which follow are an integral part of this statement.

EXHIBIT Y-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Oak Creek Mapping Study Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Total Assets	$ --	$ --
Liabilities		
Accounts Payable	$ --	$19,378.00
Grant Balance	2,155.50	8,432.50
Total Liabilities	2,155.50	27,810.50
Fund Balance		
Fund Balance	(2,155.50)	(27,810.50)
Total Liabilities and Fund Balance	$ --	$ --

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Oak Creek Mapping Study Fund
(Oak Creek Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the Oak Creek Fund support a special mapping project for the Oak Creek Watershed. This project is supported under separate contract, by the Milwaukee Metropolitan Sewerage District (MMSD).

   Receipt of the revenues in the Oak Creek Fund is obtained by the Commission in accordance with the terms and conditions set forth in the contract with MMSD.

2. Project completed at the end of calendar year 1980.

EXHIBIT Z-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Milwaukee Inner Harbor Estuary Fund (Note 1)

Balance Sheets

For the Years Ended December 31, 1981 and 1980

	1981	1980
Assets		
Total Assets	$ --	$ --
Liabilities		
Accounts Payable	$ --	$ 11.36
Grant Balance	29,512.47	29,501.11
Total Liabilities	29,512.47	29,512.47
Fund Balance		
Fund Balance	(29,512.47)	(29,512.47)
Total Liabilities and Fund Balance	$ --	$ --

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Milwaukee Inner Harbor Estuary Fund
(Inner Harbor Fund)

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the Inner Harbor Fund support a special study of the Milwaukee Inner Harbor. This project is supported under a separate contract with the U. S. Environmental Protection Agency (USEPA).

   Receipt of the revenues in the Inner Harbor Fund is obtained by the Commission in accordance with U. S. Department of Treasury letter of credit procedures.

2. Prospectus completed in calendar year 1980.

EXHIBIT AA-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Kenosha County Mapping - 1981 (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues		
Contract Revenue	$108,856.45	
Total Revenues		$108,856.45
Expenditures		
Office and Other Expenses		
Technical Consultants	$108,856.45	
Total Expenditures		108,856.45
Excess Revenues over Expenditures		$ -0-
Fund Balance - End of Year		$ -0-

The notes which follow are an integral part of this statement.

EXHIBIT AA-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Kenosha County Mapping - 1981 (Note 1)

Balance Sheets

As at December 31, 1981

Assets	
Grant Available	$38,017.73
Total Assets	$38,017.73
Liabilities	
Accounts Payable	$38,017.73
Total Liabilities	38,017.73
Fund Balance	--
Total Liabilities and Fund Balance	$38,017.73

The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Kenosha County Mapping - 1981

Notes to Financial Statements
December 31, 1981

1. The revenues reflected in the Kenosha County Mapping - 1981 Fund support a special large-scale topographic mapping project for Kenosha County. This project is supported under separate contract by Kenosha County.

EXHIBIT BB-A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Waukesha County Mapping (Note 1)

Statement of Revenues, Expenditures, and Changes in Fund Balance
for the Year Ended December 31, 1981

Revenues		$ --
Expenditures		
Salaries and Fringe Benefits	$125.06	
Indirect Expense	100.32	
Total Expenditures		$ 225.38
Excess Expenditures over Revenues		$ 225.38
Fund Balance - End of Year		$(225.38)

The notes which follow are an integral part of this statement.

EXHIBIT BB-B

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Waukesha County Mapping (Note 1)

Balance Sheets

As at December 31, 1981

Assets	
Total Assets	$ --
Liabilities	
Grant Balance	$225.38
Total Liabilities	$225.38
Fund Balance	(225.38)
Total Liabilities and Fund Balance	$ --

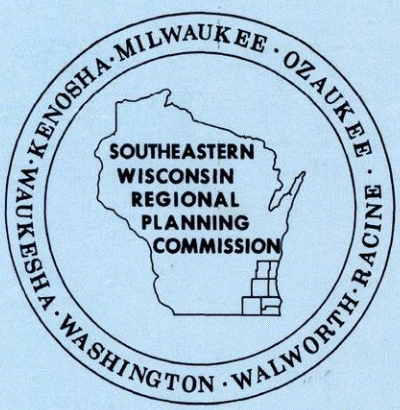
The notes which follow are an integral part of this statement.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

Waukesha County Mapping

Notes to Financial Statements
December 31, 1981

1. The Waukesha County Mapping Fund is in support of a special large-scale topographic mapping project for Waukesha County. This project is supported under separate contract by Waukesha County.



KURT W. BAUER
EXECUTIVE DIRECTOR

OLD COURTHOUSE
P. O. BOX 769
916 N. EAST AVE.
WAUKESHA, WISCONSIN
53187-1607
PHONE (414) 547-6721