

TWENTY-FIVE YEARS OF REGIONAL PLANNING

SOUTHEASTERN
WISCONSIN
REGIONAL
PLANNING
COMMISSION

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REGIONAL PLANNING COMMISSION**

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Philip C. Evenson, AICP Assistant Director
Kenneth R. Yunker, PE Assistant Director
Robert P. Biebel, PE Chief Environmental Engineer
John W. Ernst. Data Processing Manager
Gordon M. Kacala Chief Economic Development Planner
Leland H. Kreblin Chief Planning Illustrator
Donald R. Martinson Chief Transportation Engineer
Bruce P. Rubin Chief Land Use Planner
Roland O. Tonn, AICP Chief Community Assistance Planner
Joan A. Zenk Administrative Officer

TWENTY-FIVE YEARS OF REGIONAL PLANNING IN SOUTHEASTERN WISCONSIN : 1960-1985

PROLOGUE

Twenty-five years ago Gaylord Nelson, then Governor of Wisconsin, wrote a paper entitled "A Regional Planning Agency for Southeastern Wisconsin," which was published in the July 1960 issue of *Traffic Quarterly*, a scholarly publication of the Eno Foundation. In that paper, Governor Nelson discussed the need for areawide planning in southeastern Wisconsin, state planning enabling legislation, and the impending creation of an areawide planning agency for southeastern Wisconsin, together with his hopes of what such an agency would do to help resolve the growing environmental and developmental problems of that Region. Shortly after writing that paper, Governor Nelson issued the Executive Order creating the Southeastern Wisconsin Regional Planning Commission. In so doing, Governor Nelson acted in the spirit of a long tradition of areawide planning in southeastern Wisconsin, a tradition extending over many years and transcending partisan political viewpoints.

In his paper, Governor Nelson outlined certain tasks for an areawide planning agency in southeastern Wisconsin. These included coordinating the application of state programs and

policies within the Region; articulating regional development goals and objectives; coordinating the separate and potentially conflicting activities of the individual municipalities which comprise the Region; conducting basic planning inventories; and providing planning assistance to municipalities. The Commission has pursued these tasks with diligence and some success. It has equipped itself, as Governor Nelson asked, with "penetrating studies and well-thought-out plans" so that it can speak with intelligence about "state highway locations, wetland preservation, park development, and pollution and watershed control" within the Region. It is effectively coordinating municipal public works development in such areas as sewerage, stormwater drainage, water supply, highway and transit system development, park and open space preservation, airport development, and flood control. Although much remains to be done, the Commission has made progress to "preserve the natural beauty, protect the water resources, stave off pollution, and provide for efficient movement of traffic" within the Region. It has even made modest progress toward directing urban decentralization into a more orderly regional settlement pattern.

INTRODUCTION

August 8, 1985, marked the 25th anniversary of the Southeastern Wisconsin Regional Planning Commission. The Commission was formally created on August 8, 1960 by then Governor Gaylord A. Nelson, acting on petitions submitted by the Boards of Supervisors of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha Counties. On the occasion of the Commission's Silver Anniversary, it seems appropriate to pause and reflect on the regional planning effort and its accomplishments. While there are still some public officials in the Region who were involved in and remember the creation of the Commission, there are now many officials at the state, county, and local levels who have come to office in the years since that creation and who do not have knowledge of the reason for the Commission's creation, nor understanding of its purpose in being. Accordingly, this report was prepared to document briefly the activities and accomplishments of the Commission in its first quarter century, and thereby provide a means by which local elected officials and citizens alike can gain a better understanding of the Commission's purpose and work.

HISTORIC BACKGROUND

The recognition of the need for, and the beginnings of, regional planning in southeastern Wisconsin can be traced at least as far back as 1909, when Milwaukee County began to develop a plan for a countywide system of parks and parkways. Milwaukee County's areawide planning efforts were later centered in a County Department of Regional Planning, which, in addition to developing a plan for a system of parks and parkways, developed a plan for a countywide arterial street and highway system, and a plan to help guide land use development within Milwaukee County. This approach to areawide planning worked well as long as urban development remained confined to Milwaukee County. As World War II drew to a close, however, the character of urban development within the greater Milwaukee area began to change.

Urban development began to spread out in a highly diffused pattern beyond established public utility and community facility service areas and across county boundaries into once remote rural-agricultural areas. At the same time, urban population densities began to decline significantly, the auto-

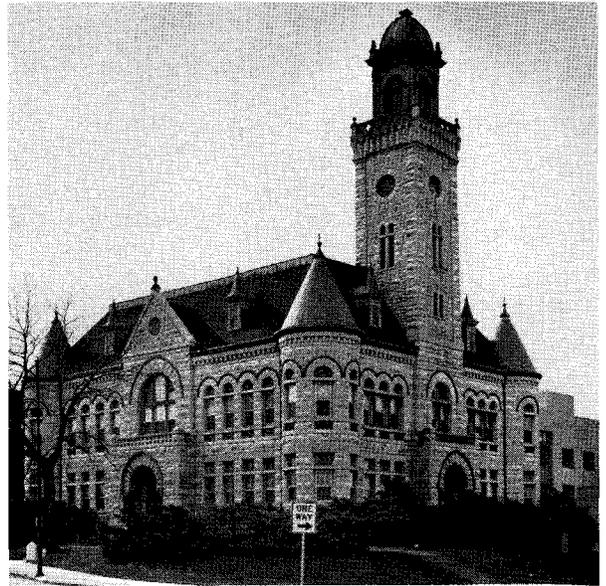
mobile increasingly became the dominant mode of personal travel, and once isolated and independent communities began to grow together. In general, the form of urban development changed from that of the traditional single-centered city to that of a many-centered urban Region. In recognition of these changing conditions, certain civic leaders and public officials in the Milwaukee area saw a need to develop a means by which the problems created by the diffusion of urban development across municipal and county boundary lines could be addressed in a technically sound, cooperative manner.

These leaders included men like Leo Tiefenthaler, the Civic Secretary of the City Club of Milwaukee, which had a long and distinguished record of contributions toward civic betterment in the area; Elmer Krieger, City Planner for the City of Milwaukee; Jacob H. Beuscher, Professor of Law at the University of Wisconsin-Madison; Richard W. Cutler, a Milwaukee Attorney specializing in municipal law; and such citizen leaders as, among others, Walter H. Bender, William Norris, and Baltus Rolfs. Together, these leaders and their colleagues worked for about eight years to obtain enactment of State legislation enabling the creation of regional planning commissions. The legislation was signed into law by then Governor Walter J. Kohler, Jr., in July 1955. This original state enabling legislation, much of which remains in place, embodied all of the basic concepts which have guided the work of the Commission to this day.

Having obtained the necessary state enabling legislation, the same group of civic leaders and public officials set about the task of obtaining the county actions required, actions petitioning the Governor to create a regional planning commission for southeastern Wisconsin. The Waukesha County Board of Supervisors was the first board to file such a petition, doing so in November 1957. The Milwaukee and Ozaukee County Boards of Supervisors followed with petitions in July and November 1958, respectively; and the Kenosha, Racine, Walworth, and Washington County Boards of Supervisors followed with petitions in June 1960, July 1960, April 1960, and August 1960, respectively. Having received the petitions necessary to create a regional planning commission for a logical geographic planning area, then Governor Gaylord Nelson issued the Executive Order creating the Southeastern Wisconsin Regional Planning Commission on August 8, 1960.

In a very real sense, the work and accomplishments of the Commission over the past 25 years represent not just the efforts of the Commission and the

COMMISSION OFFICES
OLD COURTHOUSE
WAUKESHA



many public officials and citizens who labor on Commission advisory committees, nor even the efforts of citizen leaders who in years past, like Leo Tiefenthaler, saw a need for an areawide planning body in southeastern Wisconsin and worked to define the functions and duties of such a body and to obtain needed legislation to create such a body. Importantly, the Commission's work reflects the efforts of the elected officials that comprise the constituent County Boards and the local municipalities within the Region, without whose staunch support neither the creation nor the continued existence of the Commission would have been possible. Over the past 25 years, the Commission has built upon that foundation of support, refining and carrying out the collective ideas of a great many elected officials and citizen leaders in southeastern Wisconsin.

The first meeting of the Southeastern Wisconsin Regional Planning Commission was held on September 21, 1960, in the County Board Room of the Waukesha County Courthouse. The Commission developed an organizational structure to conduct its work, including the establishment of an Executive Committee which is empowered to act for the full Commission on all matters except adoption of plan elements and of an annual work program and budget; a Planning and Research Committee to oversee the technical work of the

Commission; an Intergovernmental and Public Relations Committee to address relationships with other units and agencies of government; and an Administrative Committee to perform housekeeping functions. This working committee structure has served the Commission well for 25 years. The accompanying inset identifies the individuals who have served as regional planning commissioners over the past 25 years.

The state enabling legislation assigns three basic functions to the Commission: 1) inventory—that is, planning data base development and maintenance; 2) plan preparation and adoption; and 3) promotion of intergovernmental cooperation and coordination in addressing the developmental and environmental problems of southeastern Wisconsin. Since its creation in 1960, the Commission has diligently pursued these three functions, although the relative emphasis placed on each has changed over time. Initially, major emphasis was on the inventory function, with increasing attention being directed over the years to the plan preparation and intergovernmental coordination functions. A review of the work and accomplishments of the Commission in its first quarter century is probably best presented in the context of these three basic functions.

BUILDING AND MAINTAINING A DECISION-MAKING DATA BASE— THE INVENTORY FUNCTION

The framers of the regional planning legislation in Wisconsin recognized that there was a need for an organization in the greater Milwaukee area to collect and analyze the basic planning and engineering data needed by the various units and agencies of government, and by private investors operating within the Region, to better make decisions concerning development and redevelopment. They recognized that, to a great extent, areawide development could be guided and shaped in the public interest simply through the task of collecting, analyzing, and disseminating planning and engineering data on a continuing, uniform, areawide basis. Experience has shown that if the areawide inventory function is properly carried out, the resulting information will indeed be used and acted upon by federal, state, and local units and agencies of government and by private investors. If the information is properly used to prepare regional plans, it will then be used to arrive at public and private development decisions on a day-to-day basis and contribute in a major way toward the shaping of development in accordance with those plans.

At the time of the creation of the Commission, there was an almost total lack of definitive data within the Region on such important matters as, among others, streamflows and attendant stages; the location and extent of floodways and floodplains; surface- and groundwater quality; the location, extent, and quality of woodlands, wetlands, and wildlife habitat areas; the location of sites having scenic, scientific, cultural, and recreational value; existing land use; soils; travel habits and patterns; and transportation system capacity and utilization. The Region had not even been mapped to modern standards. Areawide inventory, then, was a most important function for the Commission to perform and has been, in every respect, the most popular of its functions. That function must, moreover, be ongoing because it requires continuing effort to maintain in a current and useful form the information that constitutes a planning information system.

All of the Commission inventory efforts have been carried out in accordance with a predesigned structure for such a planning information system formulated in 1961. This planning structure explicitly addresses socioeconomic, land use, transportation, and water resources planning and development information needs. The inventory efforts conducted by the Commission in accordance with this structure have ranged from aerial photography and base mapping to demographic, economic, land use, transportation and utility system, and travel inventories, and to detailed operational soil surveys, stream gaging, and water quality monitoring efforts. Outputs of this information system have ranged from a geographic base file of socioeconomic, land use, and trip origin and destination and traffic flow data, to large-scale flood hazard maps, and to second order control survey data.

Pioneering Inventory Efforts

The Commission's inventory efforts not only have been truly massive but, in a number of cases, have involved new techniques that have substantially advanced the state-of-the-art concerned. Two examples of such pioneering inventory efforts deserve mention. The first of these efforts involved the completion of detailed soil surveys for the entire seven-county Planning Region by the U. S. Soil Conservation Service (SCS) in 1966 under contract to the Commission. The regional soil survey was unprecedented in several respects: first, in the geographic extent of the area surveyed; second, in the type of photo-maps utilized, and third and most importantly, in the soils data and interpretive information provided. At the request

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSIONERS: 1960-1985

COMMISSION OFFICERS			
Chairman	Vice-Chairman	Secretary	Treasurer
Henry J. Schmandt 1960-1961 George C. Berteau 1961-1980 Alfred G. Raetz 1981-1984 Anthony F. Balestrieri 1985-	George C. Berteau 1960-1961 Joseph A. Schmitz 1961-1965 James F. Egan 1966; 1971-1973 Eugene A. Hollister 1967 Arthur E. Weiner 1968 Ray F. Blank 1969-1970 Lawrence W. Hillman 1974 Francis J. Pitts 1975-1977 Evelyn L. Petshek 1978-1979 Anthony F. Balestrieri 1980 Harout O. Sanasarian 1981-	Charles B. Coe 1960-1962 Richard W. Cutler 1963-1967; 1969-1977; 1981-1984 Garth R. Seehawer 1968 Anthony F. Balestrieri 1978-1979 Harout O. Sanasarian 1980 Irene M. Brown 1985-	Fortney Larson 1960-1964 Lyle L. Link 1965-1966; 1979-1980 Mervin L. Brandt 1967-1968 Joseph A. Schmitz 1969-1978 William D. Rogan 1981-

KENOSHA COUNTY COMMISSIONERS		
County Board Commissioner	Gubernatorial Appointee	Shared County Board/ Gubernatorial Appointee*
George L. Schlitz 1960-1965 Charles A. Hollencamp 1965-1966 Jacob Kammerzelt 1966-1970 Donald L. Knapp 1970-1972 Francis J. Pitts 1972-	Erwin W. Lange 1960-1964 Dario F. Madrigano 1964-1969 Marlin M. Schnurr 1969-1970 Donald L. Klapper 1970-1978 Leon T. Dreger 1980-1982 Mary A. Plunkett 1983-	George C. Berteau 1960-1971 Donald E. Mayew 1972-1983 Sheila M. Siegler 1983-

RACINE COUNTY COMMISSIONERS		
County Board Commissioner	Gubernatorial Appointee	Shared County Board/ Gubernatorial Appointee*
Wilfred Patrick 1960-1966 Garth R. Seehawer 1966-1972 John Margis, Jr. 1972-1977 Raymond J. Moyer 1977-1984 John R. Hansen 1984-	Milton F. LaPour 1960-1971 George C. Berteau 1972-1980 Michael W. Wells 1981-	Lynn E. Stahlbaum 1960-1961 Lester O. Hoganson 1961-1964 Sam Rizzo 1964-1968 Leonard C. Rauen 1968-1976 Earl G. Skagen 1977-

MILWAUKEE COUNTY COMMISSIONERS		
County Board Commissioner	Gubernatorial Appointee	Shared County Board/ Gubernatorial Appointee*
John P. Murphy 1960-1968 Richard C. Nowakowski 1968-1972 Emil M. Stanislawski 1972-1976 Harout O. Sanasarian 1976-	Richard W. Cutler 1960-1984 Jean B. Tyler 1984-	Henry J. Schmandt 1960-1968 Norman C. Storck 1969-1975 Evelyn L. Petshek 1975-1979 Irene M. Brown 1981-

WALWORTH COUNTY COMMISSIONERS		
County Board Commissioner	Gubernatorial Appointee	Shared County Board/ Gubernatorial Appointee*
Eugene A. Hollister 1960-1974 Harold H. Kolb 1974-1982 Allen L. Morrison 1982-	Charles B. Coe 1960-1964 Ray Schmidt 1964-1970 Henry S. Lauterbach 1970-1971 Anthony F. Balestrieri 1972-	John D. Voss 1960-1972 John B. Christians 1972-1975 Eugene A. Hollister 1975-1976 John D. Ames 1976-

OZAUKEE COUNTY COMMISSIONERS		
County Board Commissioner	Gubernatorial Appointee	Shared County Board/ Gubernatorial Appointee*
Ray F. Blank 1960-1970 Ralph J. Huiras 1970-1972 John P. Dries 1972-1980 Allen F. Bruederle 1980-	E. Stephan Fischer 1960-1963 Nicholas R. Didier 1963-1964 Frank D. Meyer 1964-1965 Albion O. Behrens 1965-1970 Thomas H. Buestrin 1970-1983 Sara L. Johann 1983-	James F. Egan 1960-1976 Alfred G. Raetz 1976-

WASHINGTON COUNTY COMMISSIONERS		
County Board Commissioner	Gubernatorial Appointee	Shared County Board/ Gubernatorial Appointee*
Joseph A. Schmitz 1960-1978 Harold F. Ryan 1978-	James D. Reigle 1960-1961 Arthur E. Weiner 1962-1970 Lawrence W. Hillman 1970-1976 Frank F. Uttech 1977-	Carlton M. Herman 1960-1968 Arnold R. Finch 1968-1970 Paul F. Quick 1969-1979 Thomas J. Sackett 1980-

WAUKESHA COUNTY COMMISSIONERS		
County Board Commissioner	Gubernatorial Appointee	Shared County Board/ Gubernatorial Appointee*
Fortney Larson 1960-1964 Mervin L. Brandt 1964-1969 Theodore F. Matt 1969-1976 Robert F. Hamilton 1976-	Lyle L. Link 1960-1980 Paul G. Vrakas 1980-	Maynard W. Meyer 1960-1968 Charles J. Davis 1969-1979 William D. Rogan 1980-

*Prior to 1965 these appointments were made solely by the Governor.

of the Commission, the SCS modified its mapping procedures to utilize ratioed and rectified aerial photographs provided by the Commission as base maps for the survey, instead of the photos produced from aerial mosaics typically used. These photographs were controlled to both the U. S. Public Land Survey and State Plane Coordinate Systems. This important departure from past practice permitted the mapped soils data to be accurately quantified and correlated with both real property boundary line and topographic information in the Commission data files. It additionally facilitated the eventual conversion of the mapped soil data to digital computer-readable form, and facilitated their use in graphic and numeric form in areawide and local land use planning, zoning, and land subdivision control, in tax assessment and development financing, and in the location and design of public works. The survey mapped the geographic locations of the various kinds of soils; identified their physical, chemical, and biological properties; and provided interpretations of those properties for agricultural applications as had been typical practice up to that time. Even more importantly, the regional soil survey, for the first time in the United States, provided interpretations of the soil properties for land use and public works planning purposes, including specific interpretations of the suitability of the soils for various types of urban land use development. The findings of the soil survey were reported in SEWRPC Planning Report No. 8, Soils of Southeastern Wisconsin, a hallmark report subsequently used as a model nationally, and from which seven individual county soil survey reports were prepared. The regional soil survey has been among the most useful of the Commission's inventory efforts and has materially influenced development decisions within the Region.

A second far-sighted, pioneering, inventory effort by the Commission involved the preparation of large-scale topographic maps, based upon a unique system of horizontal and vertical survey control developed by the Commission. This system combines the U. S. Public Land Survey and State Plane Coordinate Systems, permitting for the first time within the Region the accurate and precise correlation of real property boundary line and earth science data. Such correlation, while always important for good planning and engineering, has over the years become essential to the equitable application of shoreland, floodland, and wetland zoning, which requires the accurate and precise correlation of certain natural resource base features with real property boundary lines. At the Commis-

sion's urging, and through its own efforts, the large-scale topographic mapping and attendant control survey network has, as of 1985, been extended into over 1,173 square miles, or about 44 percent of the total area of the Region. A total of 6,210 U. S. Public Land Survey corners, or about 53 percent of all such corners in the Region, have been relocated and monumented, and placed upon the State Plane Coordinate System as a basis for the mapping.

Under the Commission-recommended program, Racine County became the first county in the United States to complete large-scale topographic mapping and attendant control surveys, including remonumentation of the U. S. Public Land Survey System. Kenosha and Waukesha Counties have followed with major mapping and control survey programs. Importantly, this mapping and survey control network has provided the Region with the geometric framework necessary for the creation of modern, automated, land record and planning data banks. Such automated multipurpose "cadastres" are only now beginning to be created by public utilities and county governments, the first pilot application for an entire civil division within the Region being in Kenosha County.

A more detailed recounting of the major accomplishments of the Commission under the important inventory function over the past 25 years is contained in the accompanying inset.

PREPARING REGIONAL DEVELOPMENT RECOMMENDATIONS—THE PLAN-MAKING FUNCTION

The Importance of a Master Plan

The Commission is charged by law with the duty and function of making and adopting a master plan for the physical development of the Region. The Commission has placed great importance on this function, and the literal interpretation it has given to the statutory language relating to plan formulation and adoption is probably unprecedented in metropolitan planning within the United States. The Commission believes that the importance of formulating areawide development plans and of securing agreement on such plans through their formal adoption not only by the Commission but by the constituent county and local units of government, and by implementing state and federal agencies, cannot be overemphasized.

SOUTHEASTERN WISCONSIN'S PLANNING AND ENGINEERING DATA BANK

The various planning programs of the Commission have over a 25-year period resulted in the creation of an invaluable planning and engineering data bank. This data bank contains a wide variety of information of use to those concerned with planning and development matters. The following summarizes the types of information assembled by the Commission in that data bank. While some of the data were collated from other sources, most of the data were collected by the Commission and constitute data which would probably not otherwise be available.

Mapping, Aerial Photography, and Survey Control

No planning and engineering function is more basic or important than mapping, aerial photography, and related control surveys. Accurate maps, based upon a sound system of survey control, depicting the elevation and configuration of the land surface and the location of its physical features, both natural and man-made, are essential basic planning and engineering tools. Maps are necessary to the intelligent use and management of natural resources, and to every phase of urban development. Their value extends not only to every level and agency of government, but also to private individuals and groups who are concerned in some way with the development and use of land. Major accomplishments by the Commission in the mapping of the Region include:

- **Regional Base Mapping.** At the time of the creation of the Commission, there were no modern base maps available of the Region and its constituent counties. The Commission learned in 1961 that the U. S. Geological Survey was preparing modern 7½-minute quadrangle maps of the Region for national defense purposes, and the Commission entered into a contract with that agency under which advance prints of the color-separate map manuscripts were provided to the Commission on dimensionally stable base material as the mapping progressed. These separations were used by the Commission to prepare a set of high-quality planning base maps to national map accuracy standards for the entire Region at scales ranging from one inch equals 8,000 feet to one inch equals 8 miles; for each of the seven counties at scales ranging from one inch equals 2,000 feet to one inch equals 8,000 feet; and for individual watersheds at scales ranging from one inch equals 1,000 feet to one inch equals 8,000 feet. These series of base maps, which included contour lines at 10-foot intervals, are updated periodically and thus maintained current and useful for many types of regional, county, and local planning and plan implementation work.
- **Regional Aerial Photography.** Up-to-date aerial photographs of the Region are essential to regional and local planning and plan implementation. Aerial photographs have been obtained by the Commission in the years 1963, 1967, 1970, 1975, 1980, and 1985 at two scales: one inch equals 400 feet with each photo covering four U. S. Public Land Survey sections; and one inch equals 2,000 feet with each photo covering one U. S. Public Land Survey township. The photographs are prepared in accordance with Commission specifications, being ratioed and rectified to the Commission's horizontal survey control network so that they approach photo maps in character. These aerial photographs have proven extremely useful to the Commission, to local units and agencies of government, to state and federal agencies, and to private individuals and businesses. A number of counties and communities now routinely obtain duplicate reproducible copies of the Commission aerial photographs so that they can make their own inexpensive paper copies on blueprint machines. Over the years the Commission has sold at the nominal cost of reproduction over 100,000 prints of its aerial photographs. In a number of cases the large-scale aerial photographs have been adapted for use as local zoning maps, as well as used as base maps for many different types of planning and engineering inventories.
- **Local Base Mapping.** Over the years the Commission, through its community assistance program, has prepared special base maps for many local communities and school districts throughout the Region. These have included general-purpose base maps and special-purpose property boundary line, topographic, and flood hazard maps. Often the originals of these base maps are retained in the files of the Commission and updated as needed. The Commission provides copies of the maps upon request so that the smaller local units of government can obtain relatively inexpensive base maps without having to maintain a mapping and reproduction capability.
- **Large-scale Topographic and Cadastral Base Maps.** During the past quarter century, the Commission has itself prepared, and has encouraged its constituent county and local units of government and certain state agencies to prepare, one inch equals 100 feet scale and one inch equals 200 feet scale, two-foot contour interval, topographic and cadastral maps to national map accuracy standards. These maps are based upon a unique Commission-recommended monumented control survey network that accurately and precisely relates the U. S. Public Land Survey System to the State Plane Coordinate System. This control survey network, which has attracted national attention for its simplicity and cost-effectiveness, permits the accurate correlation of earth science and cadastral data. Importantly, the survey control network provides a sound basis for not only map production, but for the conduct of engineering and land surveys throughout the Region on a day-to-day basis. Through the use of this control survey network, all surveys are tied to the National Geodetic Vertical Datum and the State Plane Coordinate System, and thereby to the National Geodetic Horizontal Datum. Thus, surveys and survey data of all types can be precisely coordinated throughout the Region—of particular importance to water resources planning. And lines drawn on maps—whether representing zoning district boundaries, such as floodplain boundaries, or locations for proposed public works projects—can be readily reproduced on the ground. Importantly, the control survey network permits maps to be readily updated, and provides the foundation for the eventual creation of automated cadastres within the Region. Since its creation, the Commission has assisted local communities in the preparation of contracts and specifications for the recommended mapping and attendant control survey programs, and upon request has provided the necessary quality control. Since 1961, 17 cities, 14 villages, two towns, four counties, and the Milwaukee Metropolitan Sewerage District have undertaken Commission-recommended large-scale mapping and attendant control surveys to Commission specifications. As of 1985, large-scale topographic maps have been completed to Commission specifications for over 1,173 square miles, or about 44 percent of the total area of the Region.
- **Public Land Survey System Perpetuation.** Through the large-scale topographic and cadastral mapping and attendant control survey programs, the Commission has served as a catalyst for the perpetuation and revitalization of the U. S. Public Land Survey System within the Region, a system of inestimable value to real property ownership location. In connection with the Commission-recommended large-scale topographic mapping programs, U. S. Public Land Survey corners are relocated and monumented and placed upon the State Plane Coordinate System, thus providing a monumented control survey station of known elevation and of known position at about one-half-mile intervals throughout the Region. Since 1961, a total of 6,210 U. S. Public Land Survey corners have been relocated, re-monumented, and placed on the State Plane Coordinate System, representing about 53 percent of

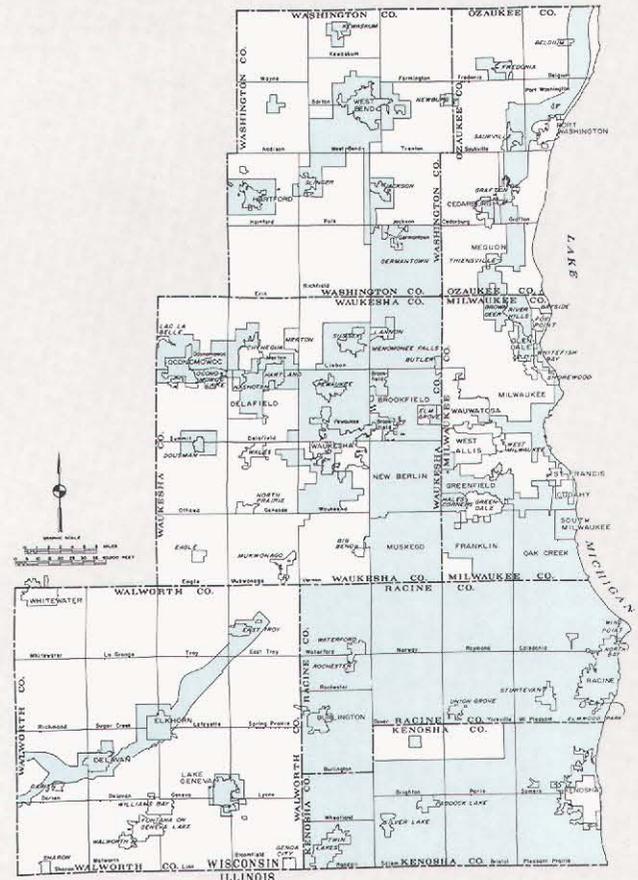
all such corners in the Region. As a part of this effort, the Commission serves as a regional center for the collection, collation, coordination, and dissemination of control survey data, and the Executive Director functions, in effect, as the County Surveyor for Milwaukee County.

Land and Natural Resources Information

One of the major data collection functions of the Commission is collecting information concerning land use and land-based natural resources. The collection of such data over time provides the basis for analyzing land use development trends in south-eastern Wisconsin and for determining the impacts of urban and rural land use development on the underlying and sustaining natural resource base. Major accomplishments in this area by the Commission include:

- **Land Use.** Using large-scale aerial photography, the Commission periodically inventories existing land use within the entire 2,689-square-mile Region. A classification system of approximately 80 categories is used in these inventories. The first regional land use inventory was conducted in 1963, and this inventory has been updated in 1970, 1975, 1980, and 1985. The various land use areas are delineated on aerial photographs and measured, thus not only permitting analyses to be made of long-term trends in urban and rural land use development, but permitting mathematical correlations to be established between land use and such phenomena as person trip generation and stormwater runoff. Such correlations are used in the formulation of mathematical simulation models essential to transportation and water resources planning. The most recent inventories have been carried out with the aid of computerized digital mapping equipment, thus enabling the computation by computer of land use areas and the preparation by machine of existing land use maps at a variety of scales. In conjunction with these land use inventories, the Commission has assembled, organized, chronologically interpreted, and mapped historic data tracing the successive patterns of urban development in the Region from 1850 through 1985.
- **Soil Survey.** From 1963 to 1966, the Commission worked with the U. S. Soil Conservation Service to complete detailed soil surveys for the entire seven-county Region, and to prepare a then-unprecedented series of interpretive analyses relating the characteristics of the various mapped soil types to their suitability for various kinds of rural and urban development. These soil data continue to be extremely useful in regional and local planning and development work, including extensive use in recent years in county efforts aimed at agricultural land preservation and soil erosion control. The Commission has been gradually converting the mapped soil data to digital computer-readable form. To date, such conversion has been completed for Kenosha, Ozaukee, and Racine Counties.
- **Existing Park and Open Space Sites.** The Commission maintains an extensive file on existing park and open space sites in the Region. This file was initially created in 1964 and updated in 1967 and 1973. The file is being updated again in 1985, particularly at the county level in conjunction with county park and open space planning. Data collected about each site include location, size, ownership, use, and significant recreation-related resources. These data permit coordination of park and parkway characteristics with user demand.
- **Potential Park and Open Space Sites.** The Commission maintains a file of about 700 potential park and open space sites in the Region. This file was first created in 1964, and updated in 1968 and again in 1975. Each of the sites in the file is value-rated for its potential use as a park, based on an analysis of the suitability of each site for development of such facilities as, among others, camping and picnicking areas, golf courses, swimming facilities, and hiking and skiing trails.

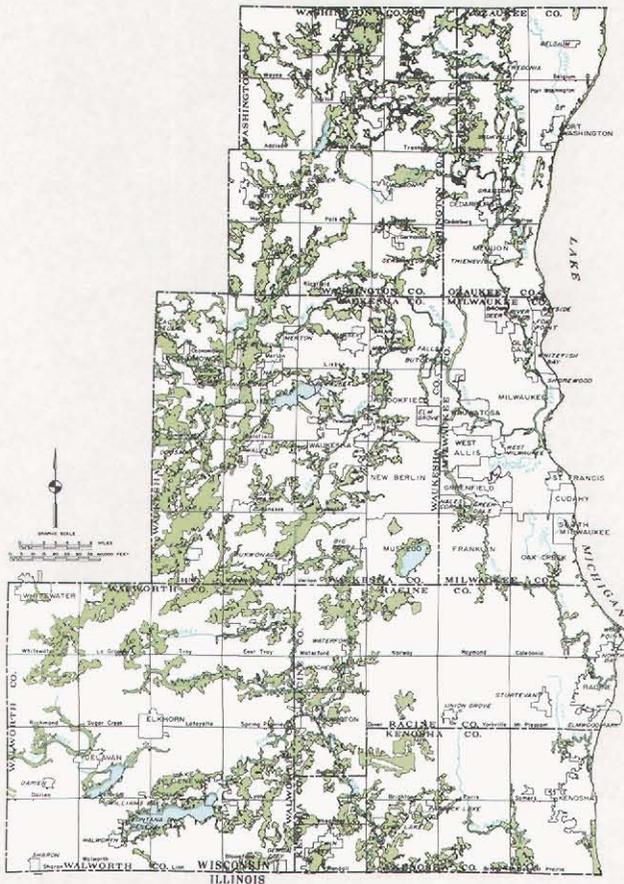
TOPOGRAPHIC MAPPING COVERAGE IN THE REGION



Large-scale topographic maps and attendant control surveys prepared to Commission-recommended specifications have now been completed for about 44 percent of the Southeastern Wisconsin Region. These maps are based upon a unique system of horizontal and vertical survey control developed by the Commission. That system combines the U. S. Public Land Survey and State Plane Coordinate systems and permits the accurate and precise correlation of real property boundary line and earth science data. This correlation makes the maps extremely useful in day-to-day planning and engineering practice. In addition, the control survey network put in place through Commission coordinated mapping efforts provides the Region with a geometric framework necessary for the creation and maintenance of automated land record systems; while the topographic maps provide the base maps for such systems.

- **Outdoor Recreation Use.** In 1972, the Commission conducted a series of special outdoor recreation surveys. These surveys obtained data on the nature of outdoor recreational activities, the characteristics of the participants in such activities, and the degree of use of the facilities provided for outdoor recreation. Special user surveys were conducted of both winter and summer outdoor recreation activities. These surveys provided important benchmark data upon which to base future regional and local planning efforts to accommodate recreational activities.
- **Scientific and Natural Areas.** The Commission maintains an inventory of those tracts of land and/or water that have been so little modified by man's activities, or that have sufficiently recovered from the effects of such activity, that they contain intact native plant and animal com-

PRIMARY ENVIRONMENTAL CORRIDORS IN THE REGION



Primary environmental corridors are linear areas in the landscape which not only encompass the most important natural resource base elements—woodlands, wetlands, wildlife habitat areas, shorelands, floodlands, organic soils, areas of groundwater recharge and discharge, and rough topography—but also consist generally of those lands which are poorly suited for urban development. Over the last 25 years, the Commission through its planning efforts has successfully applied the environmental corridor concept on a regional scale, with the corridors now finding their way into county and local land use plans and into state regulations. Preservation in natural open uses of these corridor lands will do much not only to ensure the maintenance of the overall environmental quality of the Region, but to help prevent the creation of new environmental and developmental problems.

munities believed to be representative of the pre-European settlement landscape. These areas are termed natural areas. The very best of these areas have been designated as state scientific areas. Information concerning such natural and scientific areas is kept up-to-date by the Commission.

- **Wetlands.** The Commission maintains a file on wetlands in the Region. This file was first developed as part of the initial Commission land use inventory in 1963, and has most recently been refined, detailed, and updated in conjunction with a statewide wetland inventory conducted by the Commission for the Wisconsin Department of Natural Resources in 1982.
- **Woodlands.** An initial inventory of all woodlands within the Region in excess of 20 acres in area was conducted for the Commission in cooperation with the Wisconsin

Department of Natural Resources in 1963. That inventory located, identified, and mapped all such woodlands, rating each woodland in terms of its aesthetic and commercial values.

- **Wildlife Habitat.** The Commission maintains a file on all wildlife habitat areas in the Region. Wildlife habitat areas were first located, identified, and quality-rated by the Wisconsin Department of Natural Resources for the Commission in 1963, with the inventory being updated in 1970.
- **Primary Environmental Corridors.** The Commission maintains an extensive data base on primary environmental corridors within the Region. Such corridors represent a composite of the best remaining natural resources in the Region. The corridors are “inventoried” by overlaying all of the appropriate land use and natural resources data to determine where there are significant concentrations of such resources. The inventory of primary environmental corridors is updated periodically in conjunction with the regional land use inventories in order to determine the extent to which the primary environmental corridors are being protected and preserved—or lost—over time.
- **Prime Agricultural Land.** The Commission maintains a file on the extent of prime agricultural lands in the Region. Prime agricultural lands were first delineated in 1963. This file has recently been refined, detailed, and updated through the preparation of county agricultural land preservation plans. Inventories of prime agricultural lands take into account soil suitability ratings, the size of individual farms, the aggregate area of land being farmed, and the extent to which urban development has intruded, or is planned to intrude, into the rural landscape.
- **Land Subdivisions.** The Commission maintains a file of residential land subdivision activity. The file includes information attendant to land subdivision plats recorded in the Region since 1920, and includes data concerning the amount of land committed to development and the number of building sites created by the plats, the temporal and spatial descriptions of the plats, the relationship to the provision of sanitary sewer service, and certain land subdivision design factors, such as average subdivision size, average lot size, lineal miles of streets created, type and amount of dedicated lands, and development pattern. This file is updated annually.

Transportation Information

Another major data collection function of the Commission is the collection of information about air and surface transportation. This data base is used in the preparation of regional transportation plans for arterial highway, mass transit, and airport facilities. Major accomplishments in this area by the Commission include:

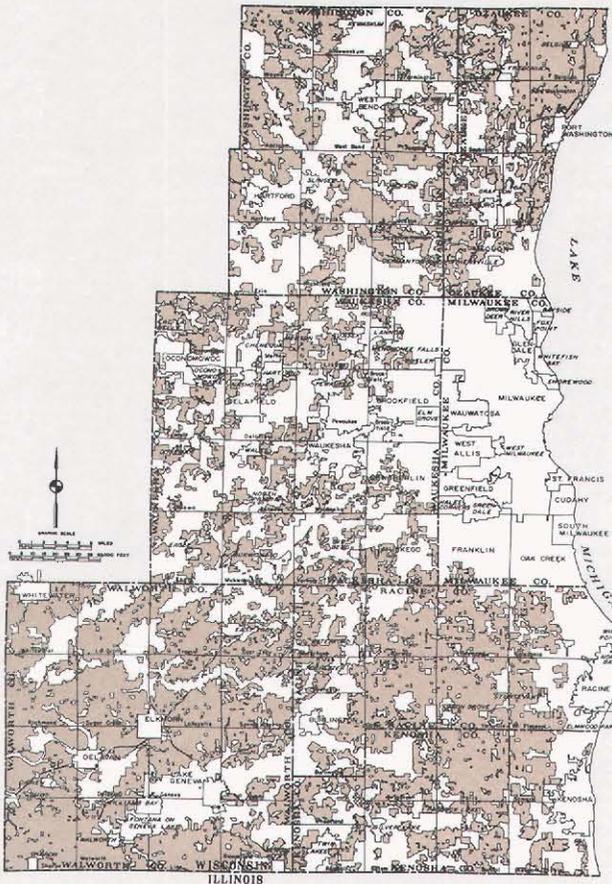
- **Transportation Facilities.** The Commission maintains data on the major transportation facilities in the Region. With respect to arterial highway facilities, these data include facility type; jurisdictional system designation; federal aid category; segment or link location by state plane coordinates, traffic analysis zone, district, and county; right-of-way width; pavement width; pavement type; number of traffic lanes; number and type of turning lanes; vertical alignment; percent passing opportunity; speed limit; and parking restrictions. In the area of public transit facilities, the Commission maintains data on the number, size, and type of buses; number and location of bus shelters; and number, location, and condition of transit facility storage, maintenance, and administration buildings. With respect to transportation terminal facilities, the Commission data base includes information on the location, type, and capacity of automobile parking facilities; on the location, type, and size of truck terminals; and on the location and size of air, rail, and transit terminals.

PRIMARY ENVIRONMENTAL CORRIDORS



These photographs typify the two types of primary environmental corridors in the Region. The corridor in the top photo is in an urban area and consists of the Menomonee River Parkway along the Menomonee River west of the "Old Village" area of the City of Wauwatosa. Parkway and corridor lands such as these provide an attractive setting for adjacent residential development and contain conveniently located recreational activities. Much of the natural floodplain of the Menomonee River in this location is also located within the parkway. The corridor in the bottom photo follows the Milwaukee River valley in a rural setting south of the Village of Fredonia in Ozaukee County. The wetlands, woodlands, and other resources found in such corridors provide important wildlife habitat, as well as an attractive setting for very low-density rural residential development.

PRIME AGRICULTURAL LANDS IN THE REGION



Although early in the Commission's history recommendations attendant to the preservation of prime agricultural lands were greeted with skepticism and at times hostility, in recent years the concept of preserving the best remaining agricultural lands has met with growing acceptance. By avoiding the intrusion of urban land uses in prime agricultural areas, not only can farming communities be maintained intact and conflicts between farming activities and residential land uses avoided, but the demand for urban services in rural areas of the Region could be avoided.

- **Travel Inventories.** An understanding of travel habits and patterns is essential to transportation system planning. Over the years, the Commission has conducted a number of travel surveys of both surface travel on highway and transit facilities and air travel. In 1963, the Commission conducted a comprehensive travel origin and destination survey that included volume and vehicle classification counts, and the collection of information on trip origins and destinations; trip lengths, frequencies, and purposes; modes used; and the reasons for selecting the modes used. These data were gathered through home interview, roadside interview, and truck and taxi fleet interview survey techniques. This survey was replicated in full in 1972 and again in part in 1985. Special surveys pertaining to air travel of both enplaning passengers at General Mitchell Field and general aviation pilots and users throughout the Region were conducted in 1971 and again in 1984. The data obtained in these travel surveys provide a comprehensive, quantitative picture of daily travel within, into, out of, and through the Region, and permit the formulation, calibration, and validation of the travel and traffic simulation models used in transportation system plan test and evaluation.

- **Transportation Service Levels.** The Commission maintains data on average running speeds and concomitant delays on the arterial street and highway system; the level of service on the public mass transit systems, including type of service, hours of service, frequency, and regularity of service; and the type and location of transit lines and line capacities during peak and off-peak service periods. The Commission also maintains current data on the number of transit revenue passengers carried annually, fare structures, operating costs and subsidies, and transit accidents. Data are also maintained on airport capacity and utilization and on railway service within the Region.

Water Resources Information

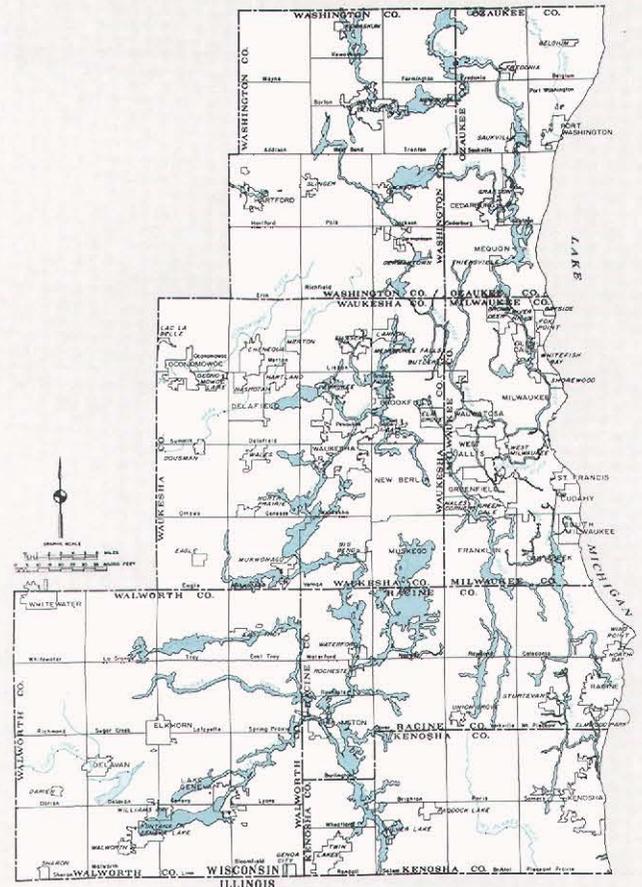
As part of its planning programs dealing with floodland and water quality management, the Commission maintains an extensive water resources data base. This data base is used in the making of comprehensive watershed plans, single-purpose drainage and flood control plans, and water quality management plans, and in the engineering of bridges, culverts, dams, and other water control facilities. Major accomplishments in this area by the Commission include:

- **Streamflows.** When the Commission was created, only minimal streamflow data were available, there being just two continuous recording streamflow gages in operation on the entire regional stream network. In 1962, the Commission, in cooperation with the U. S. Geological Survey and the county and local governmental units in the Region, established an extensive streamflow gaging program. A total of 35 continuous recording stream gaging stations were established and maintained for at least 10 years at key locations on the stream system of the Region. At the present time, 18 of those 35 gaging stations are still in operation and have records approaching 25 years in length. In addition, flood crest gages have been installed in many locations throughout the Region as a part of the Commission's comprehensive watershed planning programs. These gages provide definitive information on peak flood stages and the extent and severity of flooding along the Region's major river systems.
- **Flood Damages.** The Commission maintains a data file on historic flood damages in those watersheds where comprehensive plans have been completed. Such damages are determined by special inventory efforts following major floods. These data are essential to assessing the annual risk of monetary flood damage and to forecasting such risk under alternative development proposals.
- **Flood Flows and Stages.** The Commission maintains an extensive data base on flood flows and stages developed through the use of stream gaging and streamflow simulation modeling. Through its own planning efforts, the Commission has prepared flood hazard data, including 100-year recurrence interval flood flows and stages, for about 721 miles of major stream channels in the Region, as well as 124 miles of stream channels in the Milwaukee River watershed lying north of the Region in Sheboygan and Fond du Lac Counties. In addition, the Commission is a repository for all flood hazard data developed under the Federal Flood Insurance Program. For many of the miles of major stream network, the Commission has similar flood flow and stage data for lesser floods, primarily the 10- and 50-year recurrence interval floods.
- **Flood Hazard Areas.** The Commission maintains an extensive data base on flood hazard areas in the Region. This base has been developed over time through the Commission's own planning efforts and through those of other agencies, including the U. S. Army Corps of Engineers, the U. S. Soil Conservation Service, and the Federal Emergency Management Agency. Large-scale flood hazard maps—one inch equals 100 feet and one inch equals 200 feet scale with two-foot-interval contour lines—have been

prepared by the Commission for about 350 miles of major stream channels, showing the locations of the 10- and 100-year recurrence interval flood hazard lines.

- Water Quality.** Beginning with a major benchmark stream-water quality study in 1965, the Commission has collected data on lake- and streamwater quality conditions within the Region. The initial streamwater quality effort involved the operation of 87 stream sampling stations on 43 streams and watercourses throughout the 12 major watersheds in the Region. Following that initial study, the Commission has, both through primary data collection efforts of its own and through collation of data from other studies, obtained a massive amount of invaluable lake- and streamwater quality data. Data derived from the analyses of literally thousands of water quality and sediment quality samples provide basic information on the chemical, physical, and bacteriological quality of waters. These data provide the basis for characterizing lake- and streamwater quality and establishing trends in water quality over time.
- Milwaukee Harbor Estuary Data.** In an intensive effort, the Commission has collected special water level and flow data for the Milwaukee Harbor estuary, where a special water quality study conducted by the Commission in cooperation with the Milwaukee Metropolitan Sewerage District, the Wisconsin Department of Natural Resources, and the U. S. Geological Survey required the evaluation of the complex hydrodynamic characteristics of the estuary associated with the interaction of Lake Michigan, man-made flushing tunnels, a major electric power generation plant cooling water intake, and the tributary rivers—the Kinnickinnic, Menomonee, and Milwaukee Rivers. Those data needed to characterize the complex flow and quality patterns within the estuary were collected. Extensive data on water column quality were collected at 34 key locations, while extensive sediment quality data were collected at 15 key locations in the Milwaukee Harbor estuary. Water quality data were collected through intensive sampling during major storm events, as well as during periods of dry weather. Related data were collected in this study on existing fishery and aquatic life toxicity.
- Meteorologic and Hydrologic Data.** The Commission maintains an extensive data base of meteorologic and hydrologic information. These data relate to the hydrologic processes by which rain and snowfall are converted to runoff and streamflow. The data include rainfall intensity-duration-frequency curves prepared specifically for use in stormwater management planning and engineering within the Region; historic information on rainfall, snow depth, and frost depth conditions that are primary determinants of major runoff events and critical low-flow conditions in the Region; drainage basin delineations, including certain key hydrologic characteristics of the basins, such as hydrologic soil type and area; and streamflow discharge-frequency curves based on stream gaging station records.
- Hydraulic Data.** The Commission has assembled a great deal of definitive hydraulic data on major perennial stream channels and associated floodlands. Flow capacity data have been obtained by the Commission for 1,160 bridges and culverts, and for 170 dams and other water control structures. Data are also available for up to 25 years of record for flood crest stages at about 130 locations on the stream network of the Region. In addition, data are available for channel bottom profiles; representative channel-floodplain cross-sections; and channel and floodplain roughness coefficients. Finally, all river crossings having inadequate flow capacities have been identified. An extensive network of benchmarks referenced to the National Geodetic Vertical Datum has been established along the stream systems for use in water resources planning and engineering.

FLOODLANDS IN THE REGION



The Commission pioneered the development of definitive flood hazard data in the Region. Over the years, such data have been developed by the Commission for about 721 miles of major stream channels. The flood hazard areas attendant to these channels are shown in blue. When the Commission was created, such definitive flood hazard data and attendant mapping were non-existent; yet such data are essential in the making of decisions about the location of new urban development, about urban redevelopment, about the location and design of public facilities such as sewage and water treatment plants, and even about the proper management of agricultural lands. By discouraging the location of flood-prone development in the floodlands of the Region, such data not only avoid the future construction of very costly flood control works, but help to enhance the overall quality of the environment by keeping important portions of the environmental corridors of the Region in essentially natural, open uses.

- Groundwater Data.** As a part of its watershed study efforts, the Commission has collected and collated groundwater information, including the location of recharge areas; the hydraulics of certain aquifers, including permeability and transmissivity; groundwater quality data at selected sites; trends in groundwater pumpage; and trends in groundwater levels as related to precipitation, pumpage, lake levels, streamflows, and wetlands.
- Pollution Sources.** As part of its water quality planning programs, the Commission maintains a data base of both point and nonpoint sources of pollution. Data are maintained concerning the quantity and quality of the discharges from public and private sewage treatment plants

and from industrial wastewater outfalls. In relation to nonpoint sources of pollution, data has been developed concerning the amounts of pollutant runoff from various types of land uses in both urban and rural areas. Factors taken into account in determining nonpoint pollution loadings include land use, land surface slopes, soil types, land management practices, and stormwater drainage systems. Together, the pollution source data are used in conjunction with data concerning the physical characteristics of streams and lakes to establish water quality conditions throughout the Region.

- **Coastal Erosion Problems.** The Commission has developed data on coastal erosion problems along the Lake Michigan shoreline and conducted detailed studies of some of those areas where the most severe problems exist. Data available for selected reaches include shoreline erosion and bluff recession rates; the types and causes of shoreline erosion and bluff recession; and the location, type, and effectiveness of existing structural shore protection measures and regulatory nonstructural shore protection measures. In addition, data on alternative shore protection measures, both structural and nonstructural, are available.

Population and Economic Information

Fundamental to regional and local planning is an understanding of the population and economy of the area being planned. Major accomplishments in the area of demographic and economic data collection by the Commission include:

- **Employment Data.** Drawing from secondary sources at the state and federal levels, the Commission maintains a file on employment in the Region. This file includes information on the number of jobs by employment categories, as well as on the location of jobs. This employment information is essential to the Commission's conduct of regional economic studies and is also useful in local planning and economic development efforts.
- **Population Data.** Drawing from secondary sources at the state and federal levels, the Commission maintains a file on population levels in the Region by county and civil division. This file includes information on existing population levels for all civil divisions in the Region. The file also contains data on current birth and death levels and rates within the Region by county, allowing annual estimates of natural increase and net migration to be made for the Region and the individual counties. This population information is essential to the Commission's regional planning efforts and is also useful in local planning and economic development efforts.
- **School Enrollment.** The Commission maintains a file of public and private school enrollment in the Region by school district. In addition, the Commission maintains a map series identifying school district boundaries.
- **Small Area Data Files.** Estimates of population, housing units, and employment for small geographic areas are vital components of various Commission regional planning programs, particularly land use, transportation, and sewerage system planning programs. The Commission has chosen to use the U. S. Public Land Survey one-quarter section as the smallest geographic area for which it collects data on a uniform basis throughout the Region. New files of these components by one-quarter section are produced every five years. In addition to their essential nature to the development of various regional plan elements, the files permit the development of estimates of population, housing units, and employment for "nonstandard" or nonreported geographic areas, which makes them useful also in local and private planning and economic development efforts.

To assist in the preparation of these data files, geographic base files, address-matching files, and a variety of indices and maps must be acquired or compiled and kept current.

In addition to supporting the preparation of the population, housing unit, and employment files, these ancillary materials have direct value as reference and resource material for Commission planning programs and for local planning and economic development efforts.

- **Census Coordination.** The Commission serves as a clearing-house and central repository for a wide variety of census data holdings through its participation in the Census Bureau's State Data Center Program. This is a nationwide program under which the governor of each state identifies an agency or group of agencies within the state government to serve as the lead group within that state—the State Data Center—for the dissemination of the large volume of information collected and reported by the Census Bureau. Within the State of Wisconsin, the State Data Center is a joint function of the Wisconsin Department of Administration and the University of Wisconsin-Madison. Under a joint agreement between the Commission and the Wisconsin State Data Center, the Commission serves as an affiliate member of the State Data Center.

Included in the census material held by the Commission are all published reports, maps, and microfiche cards which contain data for the Southeastern Wisconsin Region, as well as unpublished information available only on computer tape files. This information not only is used in regional planning efforts, but is made available to county and local planners and private sector interests on a day-to-day basis.

In addition, over the years the Commission has assisted the U. S. Bureau of the Census in preparing the federal metropolitan map series and related geographic base file. The geographic base file is a description in computer-readable form of the streets, street address ranges, and statistical tabulating and reporting unit boundaries of a given geographic area. In addition to their primary use in geocoding federal census questionnaires, the geographic base files have a variety of local applications—one of the more useful of which is address matching. In an address-matching application, a group of records containing street addresses can be processed against the geographic base file to identify the specific geographic area—for instance, a census tract or individual urban block—in which the particular street address occurs. The numeric code for the specific geographic area can be attached to the record containing the street address, thereby enabling the data associated with the record to be aggregated by particular geographic units. The files have been utilized in this manner by the Commission, the State of Wisconsin Department of Health and Social Services, the University of Wisconsin-Milwaukee, and several local governmental units to geocode survey questionnaires and administrative records containing street addresses.

Other Information

During the Commission's 25-year existence, data collection and planning efforts were undertaken in three additional areas that contributed to the development of the Commission data bank. These three areas are air quality, housing, and library facilities and services. While the Commission no longer maintains planning programs in these three areas, the Commission's data bank does include a variety of information collected at the time these three major programs were undertaken, and that information is available for use by those who may have continuing interests in these areas. For example, in 1969 and 1970 the Commission undertook a series of inventories of library facilities and services in the Region, including surveys of the then-current use of the library facilities and services. The major user surveys provided data on the use of public libraries in the Region, as well as on the characteristics, needs, and desires of individual users. While these library facilities, services, and user data collection efforts have never been replicated, the basic historic information remains, and may prove useful as a benchmark in future library planning efforts.

The Commission has placed great emphasis on the development 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 each of the others; if serious and costly environmental and developmental problems are to be avoided; and if a more attractive 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 efforts are related to the comprehensive plan. It is recognized, in this respect, that the validity of the concept of the comprehensive plan has been questioned, 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 intelligently coping with the 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, but also provides the best conceptual basis available for the application of systems engineering technology to the growing problems of such regions.

The Systems Approach to Plan Design

Systems engineering basically must focus on design. It seeks to achieve good design by, first of all, setting good objectives. Good design is further achieved by determining, through quantitative analysis, the ability of alternative plans to meet these objectives, and by cultivating interdisciplinary team activity considering all of the relationships involved both within the systems being designed and between the system and its environment. The Commission's emphasis on systems engineering has served to revitalize the concept of the comprehensive plan, and has proven most valuable in establishing good working relationships with plan implementation agencies.

This emphasis on systems engineering led the Commission to incorporate the use of mathematical simulation models in the quantitative test and evaluation of alternative plans. The Commission thus pioneered the application of demographic and economic growth models within the Region. These models include a dynamic input-output matrix; a full battery of travel and traffic simulation models, including trip generation, trip distribution, modal split, and traffic assignment models; a full battery of water resource management

simulation models, including streamflow and stage, lake volume and level, and stream and lake water quality models; and a full battery of ambient air quality simulation models. The Commission also did pioneering work under contract to the U. S. Department of Housing and Urban Development on the development of a land use design model. The Commission simulation modeling capabilities permitted technically sound system plans to be prepared for the development of arterial streets and highways, transit systems, and sewerage and drainage and flood control systems, and for air and water quality management. Through the use of these modeling capabilities, the Commission could take a true interdisciplinary approach to plan design, test, and evaluation. Some of the analytical methods developed by the Commission, such as the rank based expected value method of alternative plan evaluation and the alternative future scenarios approach to forecasting, were drawn from aerospace technology and applied to public planning for the first time.

The emphasis on systems engineering also disciplined the Commission's data collection efforts and permitted regional plan elements to be prepared in sufficient depth and detail to provide a sound basis for plan implementation. This means that in the regional plans, the location and alignment of major facilities and the boundaries of, for example, proposed flood hazard and shoreline erosion areas could be determined with sufficient accuracy to provide a basis for the advanced reservation of right-of-way, and for the application of public land use regulations at the county and local level. Only through such detailed planning can transportation facilities such as freeways and transitways, and water control facilities such as reservoirs and drainage channels, be properly related to the developing land use pattern and to each other. And only through such planning can the advanced reservation of land needed for public facilities be achieved through the cooperative efforts of federal, state, and local units and agencies of government.

Regional Plans Prepared and Adopted

The performance of a planning agency can be measured in a number of ways. One measure is the extent to which plans have been prepared. Another measure is the extent to which those plans have been formally adopted by the planning body. A third measure is the extent to which those plans have been carried out by the agencies designated in the plan to have implementation responsibilities. And yet a final measure—and the ultimate test of performance—is the degree to which the plan implementation solves the problems and meets the objectives intended.

During its 25-year existence, the Commission has placed a great deal of emphasis on plan preparation and adoption. The comprehensive regional development plan mandated by State Statute has evolved over time to include a land use plan element; a transportation plan element, including highway, transit, and airport subelements; a park and open space plan element; a housing plan element; a library facilities and services plan element; a sanitary sewerage system plan element; a water quality management plan element; an air quality management plan element; and comprehensive drainage and flood control plan elements for the Root, Fox, Milwaukee, Menomonee, Kinnickinnic, and Pike River watersheds and the Oak Creek watershed. The Commission has also prepared detailed "city" plans for the Kenosha and Racine urbanized areas. These district plans, prepared at the request of the two cities, carry the regional plan elements into greater detail, integrating local and regional development objectives. A listing of the major plan elements adopted by the Commission over the past 25 years is contained in the accompanying inset.

Plan adoption is considered by the Commission to be very important, along with subsequent certification to the appropriate federal, state, and local units and agencies of government. The Commission holds that formal adoption of a plan by the Commission and by the other governmental agencies concerned is an important means of assuring a common understanding of, and agreement on, needed courses of action. This common understanding and agreement enables the staffs of the many units and agencies of government concerned with land use, public works development and redevelopment, and environmental protection to program the necessary plan implementation work in a cooperative manner.

Perhaps to a greater degree than any other inter-governmental planning agency in the nation, the Commission has been successful in securing plan endorsement or adoption. For example, the initial regional highway and transit plan was adopted or endorsed by the county boards of supervisors of all seven of the constituent counties in the Region, by the state and federal transportation agencies, and by numerous local governing bodies. Similarly, the initial regional land use plan was adopted by six of the seven county boards, by many of the local units of government, and by key state and federal agencies concerned with land use development. The park and open space plan was adopted by

six of the seven county boards. Each of the drainage and flood control plans was adopted by the county boards concerned.

Planning Concepts Advanced by SEWRPC

The Commission's planning efforts have served to advance some very basic and important concepts which, while new at the time of their advancement and often greeted with skepticism and at times hostility, have now become widely accepted not only within the Region, but within the State and nation. Some of these concepts deserve a brief discussion here.

Integrated Land Use and Public Works Facilities Planning

Beginning with the regional land use and transportation study in the early 1960's, the Commission has taken an integrated approach to the planning of land use and of such public works as highway and transit, sewerage, and drainage and flood control systems. The sound planning of public works facilities cannot be separated from land use planning. The land use pattern determines the amount and spatial distribution of travel within an urban area, and thereby the loadings on the transportation system. At the same time, whatever transportation system is planned and built becomes an important determinant of the future land use pattern. Similarly, the land use pattern is an important determinant of sewerage facility needs. Sewage flows from residential, commercial, industrial, and institutional land uses must be quantitatively determined in order to plan effectively for a system of trunk sewers and sewage treatment works. The sewerage facilities, in turn, become even more important than transportation facilities in determining the future land use pattern. The land use pattern is also an important consideration in planning for drainage and flood control works, since the type, location, extent, and intensity of land use affects the quantity of stormwater runoff and downstream flood flows and stages. Flood flows and stages and attendant flood hazard areas, in turn, are an important determinant of the future land use pattern.

The Commission's approach to integrating land use and public works facilities planning has not been one of simply projecting land use development through analyses of historic trends. Rather, the Commission's approach has been a normative one in the sense that the Commission first prepares a

regional land use plan designed to help shape future land use into a safer, more healthful, and more attractive and efficient pattern while preserving and protecting the underlying and sustaining natural resource base. That normative land use plan, then, becomes the basis for the design of supporting public works systems. This serves to provide sound system plans for transportation, sewerage, and flood control, and to coordinate the development of the individual systems of public works with each other and re-enforce the influence of those systems on shaping land use development in the public interest. This normative approach has served the Region well over the years.

Environmental Corridors

Beginning with the first regional land use plan in the early 1960's, the Commission has advanced the concept of the environmental corridor. This concept was not originated by the Commission; indeed, it has its roots in southeastern Wisconsin as far back as the earliest parkway system planning in Milwaukee County at the turn of the twentieth century. More recently, this concept was articulated and advanced in an academic sense by Professor Phillip H. Lewis, Jr., of the Department of Landscape Architecture of the University of Wisconsin. The Commission, however, in its land use planning efforts, accomplished the first practical application of the concept on a regional scale. Primary environmental corridors are defined as linear areas in the landscape which encompass the most important elements of the natural resource base, including the best remaining woodlands, wetlands, and wildlife habitat areas; surface waters and associated shorelands and floodlands; areas covered by organic soils; areas containing rough topography and significant geological formations; sites having scenic, historic, and scientific value; and areas of groundwater recharge and discharge.

Through its land use planning efforts, the Commission has not only collected the information necessary to delineate these corridors, but has accurately delineated the corridors and promoted their protection and preservation in essentially natural open uses. The Commission has found the corridors to be essential to the protection and wise use of the natural resource base, to the preservation of the cultural heritage and natural beauty of the Region, and to the enrichment of the physical, intellectual, and spiritual development of the resident population of the Region. The preservation of the corridors will not only do much to ensure the

maintenance of the overall environmental quality of the Region, but will also help prevent the creation of serious and costly environmental and developmental problems. These problems include surface and groundwater pollution; poor drainage and flooding; failing onsite sewage disposal systems; excessive infiltration of clear water into sanitary sewerage systems; wet basements and excessive operation of sump pumps; and settlement and structural failure of roadways, parking areas, utilities, and buildings.

Through the Commission's planning efforts, the environmental corridor concept has been institutionalized not only in southeastern Wisconsin but throughout the State, finding its way into both regional, county, and local land use plans and state water pollution abatement regulations. The concept of the environmental corridor has become well established in contemporary planning practice within the Region.

Prime Agricultural Land Preservation

A second concept advanced by the Commission in its initial land use planning efforts was the preservation in agricultural use of the most productive agricultural lands remaining in the Region. These lands were defined on the basis of soils, the size and productivity of the individual farms, and the size of blocks of farms so as to constitute viable agricultural areas. In the first regional land use plan, these lands were defined and mapped as prime agricultural lands, and recommendations made for their preservation, including recommendations for tax credits. This concept and the recommendations were at first received with great skepticism, and some hostility, by farmers, local elected officials, and even state and federal agricultural officials. The Commission, however, persisted in working with local units of government toward preserving and protecting that important resource from urban encroachment. It was believed that by avoiding the intrusion of urban land uses into the prime agricultural areas, conflicts between farming activities and, in particular, residential land uses would be avoided; farming communities maintained intact; the demand for urban services with attendant increases in the cost of local government avoided; and farmers given more confidence in investing in improvements to provide greater productivity and reduce soil erosion. The latter would, in turn, have water quality benefits. The first exclusive agricultural zoning ordinance in Wisconsin designed to protect prime farmlands

**MAJOR PLANS ADOPTED BY THE SOUTHEASTERN WISCONSIN
REGIONAL PLANNING COMMISSION OVER THE PERIOD 1960-1985**

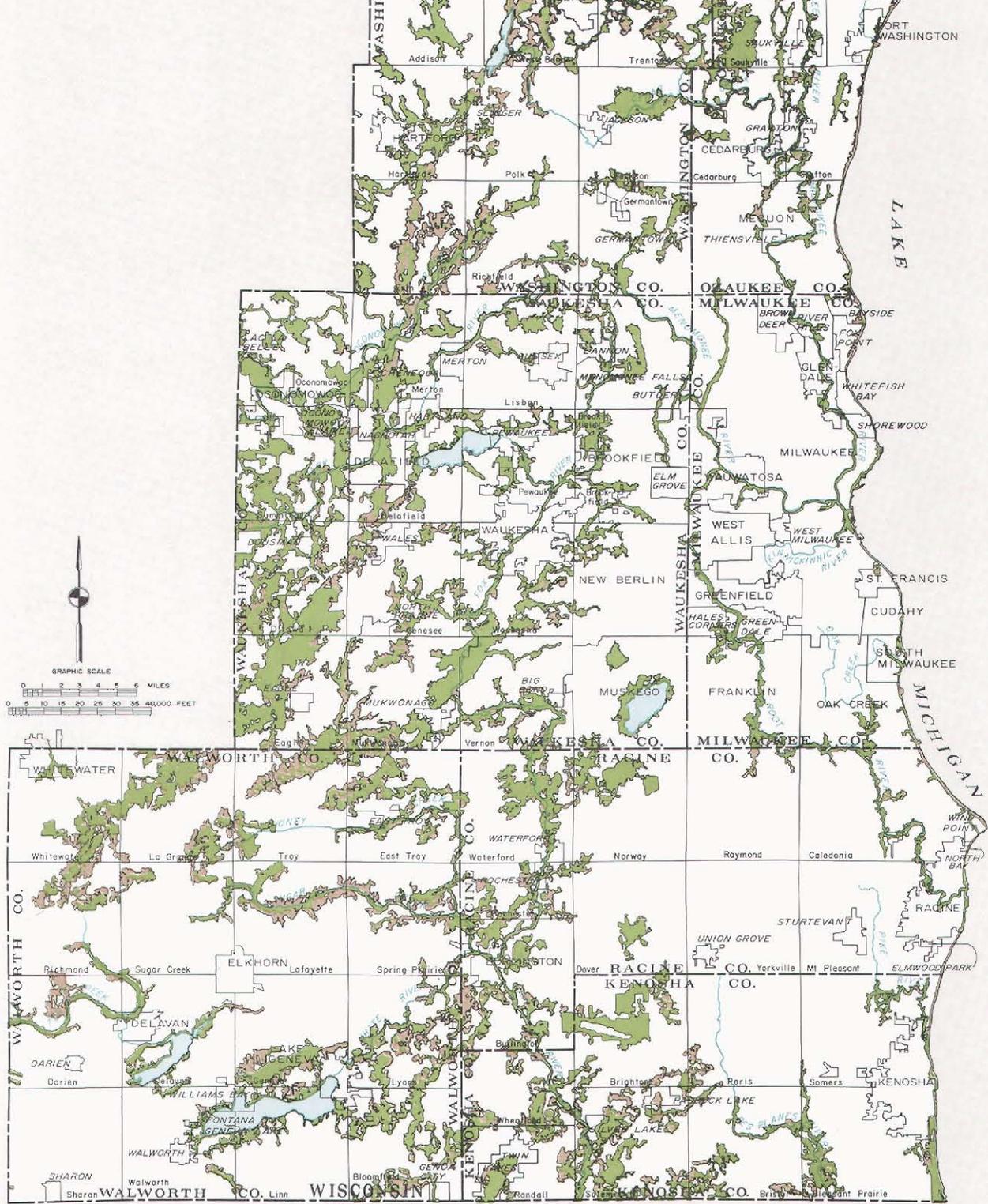
Functional Area	Plan Name	Plan Document	Date of Adoption
Land Use	Regional Land Use Plan: 1990	Planning Report No. 7, <u>The Regional Land Use-Transportation Study, Volume One, Inventory Findings: 1963, Volume Two, Forecasts and Alternative Plans: 1990, and Volume Three, Recommended Regional Land Use-Transportation Plans: 1990</u>	December 1, 1966
	Regional Land Use Plan: 2000	Planning Report No. 25, <u>A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings, and Volume Two, Alternative and Recommended Plans</u>	December 19, 1977
	Kenosha County Farmland Preservation Plan	Community Assistance Planning Report No. 45, <u>A Farmland Preservation Plan for Kenosha County, Wisconsin</u>	June 17, 1982
	Racine County Farmland Preservation Plan	Community Assistance Planning Report No. 46, <u>A Farmland Preservation Plan for Racine County, Wisconsin</u>	June 17, 1982
	Ozaukee County Farmland Preservation Plan	Community Assistance Planning Report No. 87, <u>A Farmland Preservation Plan for Ozaukee County, Wisconsin</u>	June 16, 1983
Community Facilities	Regional Library Facilities and Services Plan	Planning Report No. 19, <u>A Library Facilities and Services Plan for Southeastern Wisconsin</u>	September 12, 1974
	Regional Park and Open Space Plan	Planning Report No. 27, <u>A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000</u>	December 1, 1977
	Ozaukee County Park and Recreation Plan	Community Assistance Planning Report No. 23, <u>A Park and Recreation Plan for Ozaukee County</u>	September 14, 1978
Housing	Regional Housing Plan	Planning Report No. 20, <u>A Regional Housing Plan for Southeastern Wisconsin</u>	June 5, 1975
Transportation	Regional Transportation Plan: 1990	Planning Report No. 7, <u>The Regional Land Use-Transportation Study, Volume One, Inventory Findings: 1963, Volume Two, Forecasts and Alternative Plans: 1990, and Volume Three, Recommended Regional Land Use-Transportation Plans: 1990</u>	December 1, 1966
	Milwaukee County Jurisdictional Highway System Plan	Planning Report No. 11, <u>A Jurisdictional Highway System Plan for Milwaukee County</u>	March 2, 1972
	Walworth County Jurisdictional Highway System Plan	Planning Report No. 15, <u>A Jurisdictional Highway System Plan for Walworth County</u>	March 4, 1973
	Ozaukee County Jurisdictional Highway System Plan	Planning Report No. 17, <u>A Jurisdictional Highway System Plan for Ozaukee County</u>	March 7, 1974
	Waukesha County Jurisdictional Highway System Plan	Planning Report No. 18, <u>A Jurisdictional Highway System Plan for Waukesha County</u>	June 5, 1975
	Washington County Jurisdictional Highway System Plan	Planning Report No. 23, <u>A Jurisdictional Highway System Plan for Washington County</u>	September 11, 1975
	Kenosha County Jurisdictional Highway System Plan	Planning Report No. 24, <u>A Jurisdictional Highway System Plan for Kenosha County</u>	September 11, 1975
	Racine County Jurisdictional Highway System Plan	Planning Report No. 22, <u>A Jurisdictional Highway System Plan for Racine County</u>	December 4, 1975
	Racine Area Transit Plan: 1975-79	Community Assistance Planning Report No. 3, <u>Racine Area Transit Development Program: 1975-1979</u>	September 12, 1974
	Regional Airport System Plan	Planning Report No. 21, <u>A Regional Airport System Plan for Southeastern Wisconsin</u>	March 4, 1976
	Kenosha Area Transit Plan: 1976-1980	Community Assistance Planning Report No. 7, <u>Kenosha Area Transit Development Program: 1976-1980</u>	June 3, 1976

**MAJOR PLANS ADOPTED BY THE SOUTHEASTERN WISCONSIN
REGIONAL PLANNING COMMISSION OVER THE PERIOD 1960-1985 (continued)**

Functional Area	Plan Name	Plan Document	Date of Adoption
Transportation (continued)	Regional Transportation Plan: 2000	<u>Planning Report No. 25, A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings, and Volume Two, Alternative and Recommended Plans</u>	June 1, 1978
	Regional Elderly/Handicapped Transportation Plan	<u>Planning Report No. 31, A Regional Transportation Plan for the Transportation Handicapped in Southeastern Wisconsin: 1978-1982</u>	April 13, 1978
	Transportation Systems Management Plan	<u>Community Assistance Planning Report No. 50, A Transportation Systems Management Plan for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1981</u>	December 4, 1980
	Milwaukee Area Transit Plan	<u>Planning Report No. 33, A Primary Transit System Plan for the Milwaukee Area</u>	June 17, 1982
	Milwaukee Northwest Side/Ozaukee County Plan	<u>Planning Report No. 34, A Transportation System Plan for the Milwaukee Northwest Side/Ozaukee County Study Area</u>	September 8, 1983
	Kenosha Area Transit Plan: 1984-1988	<u>Community Assistance Planning Report No. 101, Kenosha Area Transit System Plan and Program: 1984-1988, City of Kenosha, Wisconsin</u>	March 11, 1985
Drainage and Flood Control	Root River Watershed Plan	<u>Planning Report No. 9, A Comprehensive Plan for the Root River Watershed</u>	September 22, 1966
	Fox River Watershed Plan	<u>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</u>	June 4, 1970
	Milwaukee River Watershed Plan	<u>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</u>	March 2, 1972
	Menomonee River Watershed Plan	<u>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</u>	January 20, 1977
	Kinnickinnic River Watershed Plan Pike River Watershed Plan	<u>Planning Report No. 32, A Comprehensive Plan for the Kinnickinnic River Watershed</u> <u>Planning Report No. 35, A Comprehensive Plan for the Pike River Watershed</u>	March 1, 1979 June 16, 1983
Water Quality	Regional Sanitary Sewerage System Plan	<u>Planning Report No. 16, A Regional Sanitary Sewerage System Plan for Southeastern Wisconsin</u>	May 13, 1974
	Wastewater Sludge Management Plan	<u>Planning Report No. 29, A Regional Wastewater Sludge Management Plan for Southeastern Wisconsin</u>	September 14, 1978
	Regional Water Quality Management Plan	<u>Planning Report No. 30, A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings, Volume Two, Alternative Plans, Volume Three, Recommended Plan</u>	July 12, 1979
Air Quality	Regional Air Quality Plan	<u>Planning Report No. 28, A Regional Air Quality Attainment and Maintenance Plan for Southeastern Wisconsin: 2000</u>	June 20, 1980
Urban Area	Kenosha Area Comprehensive Plan	<u>Planning Report No. 10, A Comprehensive Plan for the Kenosha Planning District, Volumes One and Two</u>	June 1, 1972
	Racine Area Comprehensive Plan	<u>Planning Report No. 14, A Comprehensive Plan for the Racine Urban Planning District, Volume One, Inventory Findings and Forecasts, Volume Two, The Recommended Comprehensive Plan, Volume Three, Model Plan Implementation Ordinance</u>	June 5, 1975

PRIMARY ENVIRONMENTAL CORRIDORS PROTECTED

- LEGEND**
- PRIMARY ENVIRONMENTAL CORRIDORS**
- PROTECTED THROUGH PUBLIC OWNERSHIP OR PUBLIC REGULATION
 - UNPROTECTED



Through a number of significant actions, including public land acquisition, public land regulation, and a major change in public utility extension policies, the long-standing Commission recommendations to preserve and protect the primary environmental corridors of the Region have been substantially carried out. As shown on this map, 147 square miles, or 31 percent of the total corridor area of 467 square miles, may be considered to be permanently protected from inappropriate development through public acquisition, and an additional 202 square miles, or 44 percent, protected through joint state-local zoning utility extension policies, and federal wetland regulation.

was prepared by the Commission for the Town of Belgium in Ozaukee County. That ordinance was adopted by the Town Board in 1966. One of the first approaches to exclusive agricultural zoning at the county level in the State or nation was taken by Walworth County in 1974. Since that time, the concept of the preservation of prime agricultural areas, aided by zoning and tax relief, has spread throughout southeastern Wisconsin, and indeed the State and nation.

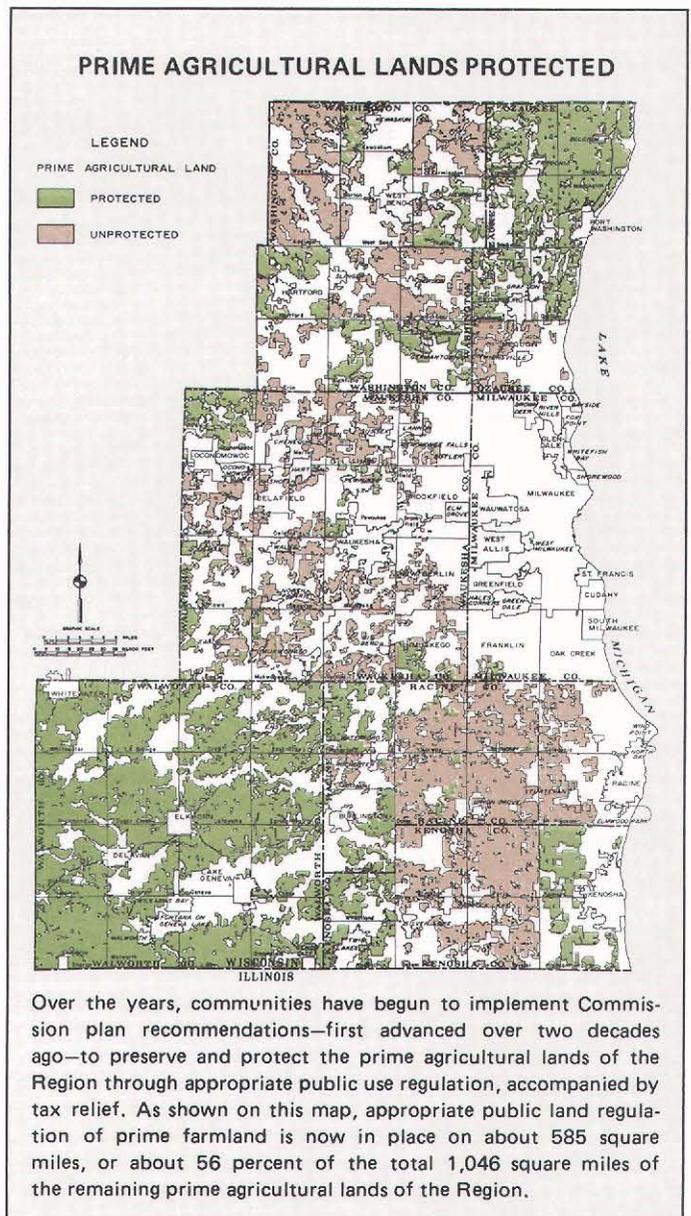
Containment of Urban Sprawl

A third concept advanced by the Commission in its initial planning efforts which has become widely accepted since was the concentration of new urban development in areas covered by soils well suited to urban use; in areas not subject to special hazards, such as flooding and erosion; and in areas which could be readily and economically provided with essential urban services, including centralized sanitary sewerage, water supply, and mass transit. It was believed that by so doing, a more orderly and economic development pattern would be achieved, the intensification of existing and development of new environmental and developmental problems would be avoided, and a safer, more healthful, and more efficient land use pattern would evolve.

The containment of urban development as proposed in the regional land use plan thus complemented the regional land use objectives of preserving and protecting the environmental corridors and prime agricultural lands. The urban containment component of the regional land use plan has been institutionalized at the state level through the imposition of water quality-related planning requirements that call for the delineation of urban sanitary sewer service areas. The delineation of these areas has become a powerful and important plan implementation commitment, along with the determination by the State not to approve sanitary sewer extensions to lands either lying beyond the boundaries of such areas, or designated as primary environmental corridors within such areas.

Protection of Floodlands

Beginning with the preparation of the first of a series of watershed plans in the early 1960's—the plan for the Root River watershed in Milwaukee and Racine Counties—the Commission has advocated the exclusion of new flood-damage-prone development into floodlands, and the preservation of the floodlands in essentially natural, open uses. It was believed that by protecting the existing floodwater storage capacity of these floodlands, the construction of costly structural flood control works could be avoided which, by their very nature, tend to destroy the natural environment



along a stream course. Under the Commission's floodland protection concept, both floodways and flood fringe areas are recommended for protection and preservation in natural, open uses. (The floodway is the area along a stream which conveys the floodwaters during a major flood; flood fringe areas are important to storing floodwaters and reducing downstream peak flood flows and stages.) The only exceptions are those floodlands already developed for permanent urban land uses, such development taking place before the knowledge of the extent of the natural floodplains became available. The Commission has promoted this concept in its planning and has worked extensively with local units of government throughout the Region—and did so far in advance of the state-mandated floodland protection program now in place—to implement the zoning necessary to achieve these objectives. The first floodland zoning ordinance based upon definitive, recurrence interval flood hazard data prepared by the Commission was adopted by the City of Racine in 1970. Since then, such zoning has become universal in Wis-

NATURAL FLOOD CONTROL



The Commission's approach to floodland management in the Region has been largely nonstructural in nature, involving protection and preservation in open uses of natural floodwater storage areas which serve to attenuate peak flood flows. This photograph identifies the Tamarack Swamp in the Village of Menomonee Falls north of W. Good Hope Road recommended for preservation for flood control and environmental protection purposes by the Commission since 1970. The storage of floodwaters in the Tamarack Swamp serves to significantly reduce downstream peak flood flows along both the Menomonee and Fox Rivers.

consin. The data developed by the Commission provided the sound basis required for the implementation of State legislation adopted in 1967 mandating floodland zoning throughout the State.

Balanced Approach to Transportation System Planning

Two years after the creation of the Commission, the U. S. Congress, in the 1962 federal highway act, mandated transportation system planning in all of the metropolitan areas of the United States. The major metropolitan area transportation planning efforts in the United States, undertaken pursuant to that act, focused exclusively on planning for highway development. The Commission from the inception of its work chose to approach transportation system planning in a more balanced way, looking in particular to find ways to provide for the more efficient and environmentally sound movement of people by mass transit. Thus, the Commission's original regional transportation plan, adopted in 1966, contained not only an arterial street and highway element but an equally important mass transit element. The planning for these two elements recognized that, to the extent it was possible to accommodate travel on mass transit

facilities, the need to provide highway facilities would be reduced. This integrated approach to highway and mass transit planning was unprecedented in the United States, and took place at a time when mass transit services were still being profitably provided in the private sector. As a part of the initial mass transit plan element, the Commission proposed a system of rapid transit bus service in the Milwaukee area operating from remote parking lots over the then emerging freeway system to the Milwaukee central business district. This new concept in Milwaukee area transit service proved to be highly successful, to the point where today freeway flyer bus service is operated in the Milwaukee area from 22 outlying parking terminals, with ridership on this special bus service currently totaling about 1.5 million passengers annually. Of the 22 outlying parking terminals, 13 are permanent, publicly owned park-ride lots.

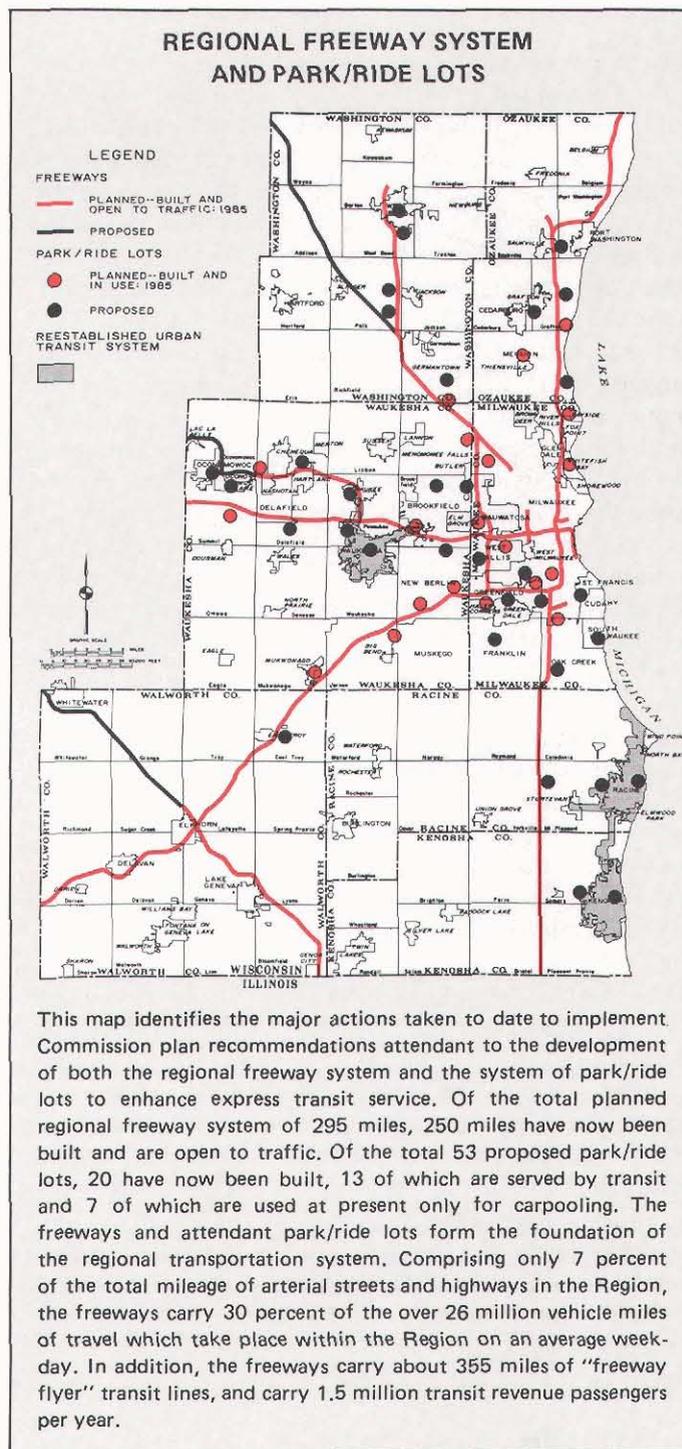
Jurisdictional Highway System Planning

All of the highway system planning for metropolitan areas in the United States prior to the Commission's work was functional in nature; that is,

such planning was intended to identify the types and locations of highway facilities necessary to accommodate metropolitan area travel patterns. The Commission's approach to transportation planning was not only functional but also jurisdictional. After completing the first functional arterial street and highway system plan for the Region in 1966, the Commission undertook, on a county-by-county basis, the preparation of a coordinated set of jurisdictional highway system plans. These plans identify which of the arterial highway facilities included in the functional plan should be constructed, operated, and maintained by state government, which by county government, and which by local government. This reassignment of jurisdictional responsibility was based upon a rational set of criteria relating to trip volumes, trip lengths, and land uses served, as well as to the operational characteristics of the facilities, and provided a way in which to more equitably address the highway system needs in a dynamic metropolitan area.

Alternative Futures

In the late 1970's, the Commission began to apply an "alternative futures" approach to the planning process. Traditionally, long-range land use and transportation system planning involved the preparation of a single forecast of future levels of population and economic activity, and of such factors as the cost of automobile operation, and the use of these forecasts in system plan design, test, and evaluation. While this approach works well in periods of relative socioeconomic stability, when historic trends can be expected to continue over the plan design period, this approach does not work very well during periods of major social and economic changes, when the assumption that historic trends will continue becomes highly uncertain. The alternative futures approach to planning attempts to deal with that uncertainty and has, therefore, been applied by the Commission in its more recent public works system planning efforts. The approach requires the definition of a range of possible future conditions affecting system development. For example, in transit system planning, a range of possible conditions would be determined for energy cost and availability, population lifestyles, and land use centralization and decentralization. Once the range of possible future conditions is determined, public works facilities can be identified that may be expected to perform well under a wide range of futures. This enables the synthesis of a facilities plan that can be expected to be viable under greatly varying future conditions. The alternative futures approach should continue to be useful in system planning within the Region for many years to come.



Participatory Planning Process

The Commission, since its inception and long before the concept became popular in the early 1970's, has been strongly committed to a participatory planning process. The structure of the Commission itself, of course, provides for citizen participation directly in the planning process in the most meaningful manner possible by including citizen members on the Commission itself. That participation has been broadened, however, by the creation of an advisory committee for every Commission work effort culminating in the preparation of a plan, to ensure the active participation of all concerned interests in the planning process.

Such participation is essential to any planning effort intended to promote consensus and cooperation between public and private, urban and rural, and local, state, and federal interests. All of the Commission's work contributing to the evolving regional plan is reviewed by an advisory committee, beginning with the study design to assure that the "right" issues are being addressed and ending with final plan recommendations. The advisory committees are purposefully structured to ensure that, whatever the given planning task at hand, all of the relevant interests from local, state, and federal agencies and units of government and from various private sector interests are represented. In its work, the Commission endeavors to respond to the comments and concerns of advisory committee members in a meaningful way, a commitment that leads to the adoption of recommendations that are not always the most efficient or cost-effective technical solutions to the identified problems, but which are perceived to better meet community goals and objectives. The Commission believes that without a full commitment to a participatory planning process through the advisory committee mechanism, regional plans would not be well received.

Cyclical Approach to Planning

One of the planning process concepts advanced by the Commission involves the cyclical nature of that process. In the Commission's view, the planning process should alternate between system—or areawide—planning and project—or local—planning. For example, in transportation planning, transportation facilities development and management proposals are initially advanced at the areawide systems level of planning, and then an attempt is made to implement the proposals through more detailed local project planning. If for whatever reasons a particular facility construction or management proposal advanced at the areawide level cannot be implemented at the local level, that determination is taken into account in the next phase of systems planning. As the planning process proceeds, therefore, resultant system level plans incorporate the feedback from the project level plans. This planning concept ensures that the regional planning process in southeastern Wisconsin remains relevant to the concerns and needs of the citizens and communities in the Region.

PROVIDING A CENTER FOR INTERGOVERNMENTAL COORDINATION— THE PLAN IMPLEMENTATION FUNCTION

The third major function of the Commission involves the promotion of intergovernmental cooperation and coordination in addressing the

developmental and environmental problems of southeastern Wisconsin. To a large degree, this function involves efforts to implement the regional plans described in the foregoing section. In effect, the Commission provides a center for the coordination of the day-to-day planning and plan implementation activities of the units and levels of government operating in the Region. In this way, the Commission seeks to integrate regional and local plans and planning efforts, and thereby to promote regional plan implementation.

Information and Education

One of the ways in which the Commission promotes regional plan implementation is through information and education. This has included publication of a bimonthly newsletter, periodic issuance of news releases, publication of annual reports, and sponsorship of regional planning conferences. Over the 25 years, the Commission has held 14 regional planning conferences in an effort to bring together local, state, and federal officials and concerned citizens in a mutually beneficial exchange of information, concepts, and opinions. The information and education effort has also included the preparation and distribution of local planning guides, which are manuals of local planning practice intended to be used by local public officials. Six such guides have been prepared on the subjects of the organization of local plan commissions; zoning; land subdivision control; official mapping; floodland and shoreland management; and the use of soils data in planning and development.

Extension of Data

Another important way in which the Commission promotes plan implementation is through the extension of planning and engineering data developed under the regional planning programs. These data are extended not only to local units and agencies of government, but to federal and state agencies and to private firms and individuals as well. This function includes such widely diverse activities as: the preparation of population forecasts for subareas of the Region for use by local governments, school districts, and private market research firms; the preparation, utilizing the Commission travel simulation model, of estimates of existing and probable future traffic flows in conjunction with the design of proposed arterial street improvements and large land development projects; the provision of interpretive soils and other natural resource data to land developers, builders, and prospective building site or home purchasers; the provision of detailed flood hazard data to developers and investors; the analysis,

through the application of the Commission flood flow simulation model, of the effects on flood flows and stages of proposed changes in stream channel and bridge and culvert capacities and in the limits of floodways and floodplains for use by federal, state, and local regulatory agencies and private developers; and the provision of horizontal and vertical control survey data to public and private engineers and land surveyors working in the Region. As the Commission's data base has grown over the years, this function has become increasingly diverse and important. This extension of Commission data to public and private decision-makers in the Region helps assure that day-to-day development decisions take into account the same information upon which the regional plans are prepared, and, accordingly, helps to assure that such decisions are made in a manner consistent with plan recommendations.

Community Assistance Program

A third way in which the Commission promotes plan implementation is through an ongoing community assistance program. Through this program, the Commission has attempted to build sound working relationships with the local units and agencies of government in the Region, and through those relationships foster regional plan implementation. Under this program the Commission provides functional guidance and advice to local governments on a wide variety of matters, ranging from proposed land subdivisions and rezonings, to site and alignment selections for public streets and highways, utilities, and buildings, to operational rules pertaining to dams and other water control facilities. In addition, the Commission provides extensive assistance to local governments in preparing important plan implementation devices, including comprehensive zoning ordinances and zoning district maps, special floodplain and shoreland zoning ordinances, and land division ordinances (see accompanying inset). Finally, under this program the Commission assists local governments in preparing local land use and transportation plans. These plans are prepared within the framework of the regional land use, transportation, and park and open space plans, serving to refine and detail those plans.

Under the community assistance program, the Commission also provides resident planning staff services to local governments on a contract basis. Under such an arrangement, a Commission staff member is assigned to work with the local community as its staff planner, attending plan commission meetings and providing professional assistance to local plan commissions in making day-to-day decisions. A number of communities have taken

advantage of this service over the years, including the Cities of Burlington, Cedarburg, Delavan, Franklin, Hartford, and West Bend; the Villages of Germantown and Sussex; and the Towns of Somers and Summit.

In recent years, the Commission has expanded its community assistance function to include assistance in the area of economic development program planning. Under this work effort, the Commission assists local development organizations and local governments in assessing the strengths and weaknesses of a local economy, and in charting a strategic course of action designed to strengthen the local economy through job retention and attraction. These services also extend to seeking available federal and state grants for economic development activities and to administering grant programs upon federal and state funding. Under this program, the Commission has assisted the Counties of Kenosha, Milwaukee, Washington, and Waukesha and the Cities of Elkhorn, Whitewater, and Oconomowoc in the preparation and implementation of economic development program plans.

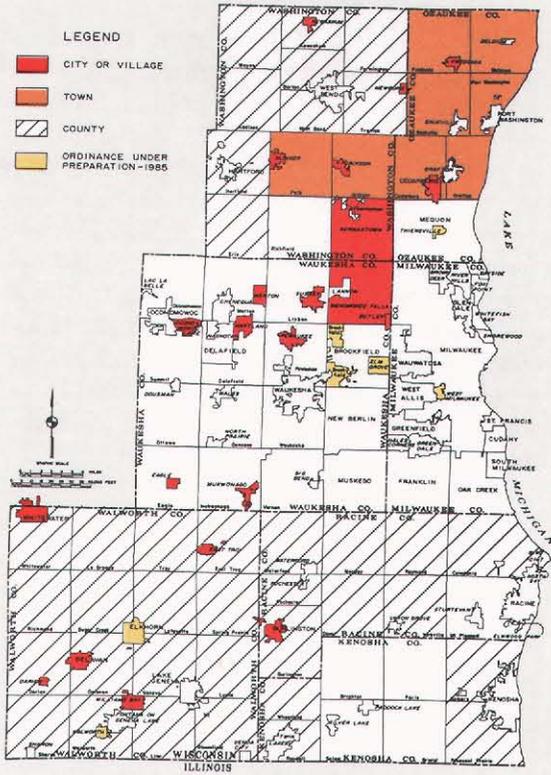
Review Services

Yet another way in which the Commission promotes plan implementation is by providing a wide variety of review services. In a review capacity, the Commission is able to have a significant impact upon development decisions and thereby help ensure that projects of various types are carried out in general accord with regional plan recommendations. Of particular importance in this respect was the federal Demonstration Cities and Metropolitan Act of 1966. This and subsequent federal acts, and most recently gubernatorial action, have provided for Commission review of applications for assistance from many federal grant programs. Over the years, the Commission has reviewed a total of 5,256 grant applications for a wide variety of projects that affect the development of the Region. Together, these applications have requested over \$4.4 billion in federal and state funds.

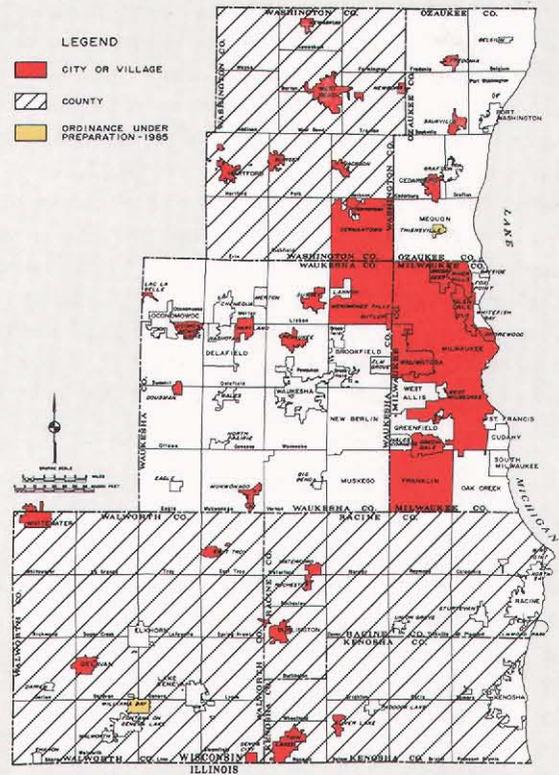
Other review activities of the Commission include review and comment on environmental and agricultural impact statements, of which 108 have been completed as of 1985; review of flood hazards attendant to lands and buildings involved in real estate and mortgage transactions, of which 4,568 have been completed; review of proposed public and private sanitary sewer extensions, of which 924 have been completed; and review of subdivision plats and certified survey maps, of which more than 400 have been completed.

PLAN IMPLEMENTATION DEVICES BASED ON SEWRPC MODEL ORDINANCES AND RECOMMENDATIONS

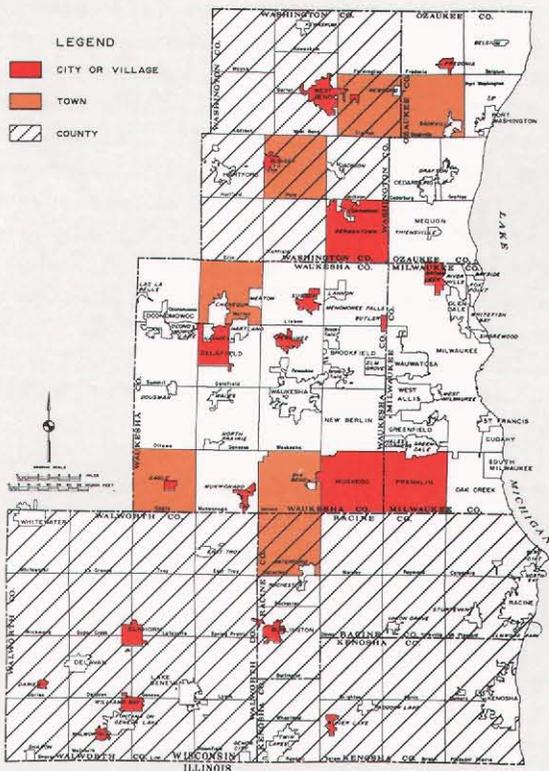
LOCAL GENERAL ZONING ORDINANCES



LOCAL FLOODPLAIN ZONING ORDINANCES



LOCAL SUBDIVISION CONTROL ORDINANCES



Over its 25-year history, the Commission has worked with many local units of government in promoting regional plan implementation through the preparation of sound local plan implementation ordinances. The map on the top left identifies those communities in the Region having general zoning ordinances based upon the SEWRPC model. Such zoning ordinances are in place for 4 counties, 8 towns, 4 cities, and 18 villages. The map on the top right identifies those communities basing their floodplain zoning ordinances on SEWRPC recommendations. This includes 4 counties, 10 cities, and 25 villages. The map on the bottom left identifies the subdivision control ordinances in the Region based upon the SEWRPC model ordinance. This includes 4 counties, 7 towns, 6 cities, and 13 villages.

Data Processing Services Program

While not directly related to regional plan implementation, one other activity of the Commission deserves comment. This activity is the operation of the Commission's regional data center, through which the Commission strives to provide cost-efficient data processing services to public agencies throughout the Region. Such services include the provision of professional advice on the selection of computer systems, as well as the provision of direct data processing services. Direct data services are provided in both the "batch" mode, whereby the community delivers data to the Commission for processing and the Commission returns appropriate reports and materials, and the "on-line" mode, whereby personnel in communities can control and process their own data through the use of computer terminals attached to the Commission's central processing units. The types of direct data processing services supported by the Commission through the regional data center are widely varied and include property tax data processing, payroll data processing, the processing of voter registration and poll lists, county and municipal accounting functions, utility billing, computer-aided mass appraisal, crime reporting systems, and library circulation and inventory systems. The Commis-

sion operates its regional data center on an at-cost basis. As of 1985, the Commission's data center serves more than 75 agencies and communities, including the Counties of Kenosha, Racine, Washington, and Waukesha; 13 cities, 26 villages, and 35 towns; 20 school districts; one sanitary district; and the Federal District Court of Eastern Wisconsin.

Regional Development Actions Influenced by Commission Plans

No review of activities under the Commission's plan implementation function would be complete without some recognition of the major regional plan implementation actions that have been taken by the many units and agencies of government and private sector interests concerned with the development of the Southeastern Wisconsin Region. Certainly, some of the actions that have occurred since 1960 would have occurred even if the Commission's planning programs had not been carried out. Other actions, however, can fairly be said to have been influenced by Commission plan recommendations, while yet others probably would not have occurred in the absence of the Commission's planning efforts. The accompanying inset summarizes these actions.

REGIONAL PLAN IMPLEMENTATION

The plans prepared and adopted by the Commission, taken together, represent the Commission recommendations concerning needed actions to address the developmental and environmental problems of the Region and promote the evolution of a more attractive and healthy, as well as a safer and more efficient, regional settlement pattern. The Commission recommendations are addressed primarily to those units and agencies of government operating within the Region which have responsibilities relating to the physical development and redevelopment of the Region. It is those agencies—federal, state, and local—which determine whether or not Commission recommendations are to be carried out, thereby influencing the development pattern of the Region; abating existing developmental and environmental problems within the Region; and avoiding the creation of new problems of this sort. Thus, the Commission, as a planning rather than a plan implementation agency, can take no credit for any of the actions taken by public bodies in a manner consistent with the plan recommendations. To the extent that the Commission plans have been, or are being, implemented, and development in the Region thereby influenced, the Commission can take credit only for providing a forum for cooperative, intergovernmental consideration and decision-making through an ongoing planning process.

Recognizing the role of the implementing agencies, then, the following is a summary of the major regional plan implementation actions that have occurred within the Region over the past 25 years:

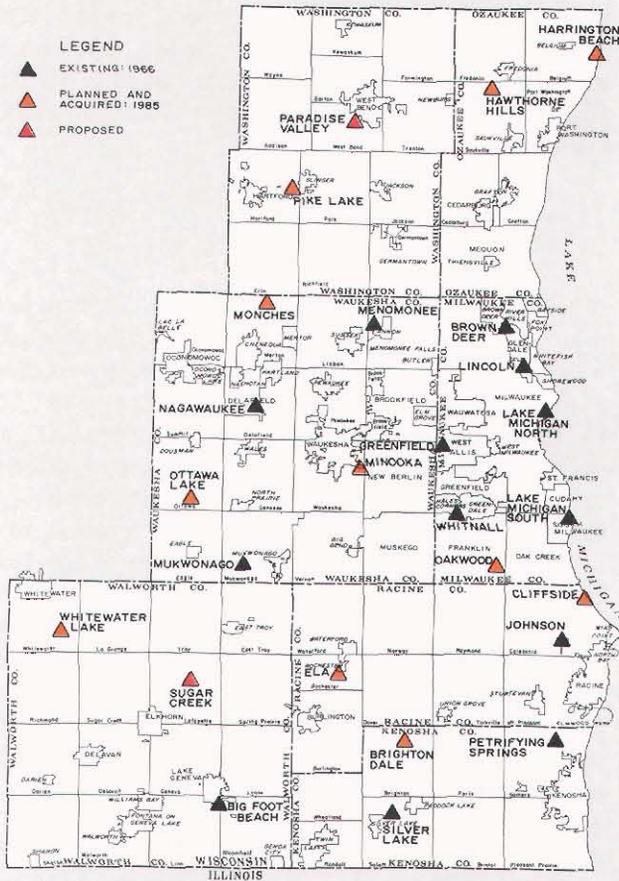
● Environmental Corridors

One of the most important recommendations made in the Commission plans is the preservation and protection of the primary environmental corridors of the Region. These

corridors comprise about 467 square miles of land and surface water, or about 17 percent of the total area of the Region, but contain almost all of the best remaining elements of the natural resource base of the Region. The preservation of these corridors is recommended not only for resource conservation and protection purposes, but to lend form and structure to urban development in the Region, and thereby avoid the inappropriate placement of urban development in areas poorly suited for such development. When the Commission made its initial recommendations in 1966 to preserve and protect these corridors, it was recognized that a number of coordinated measures would be required to achieve the corridor protection objective, including public acquisition of certain corridor lands, public regulation of other privately owned corridor lands, and reformulation of public utility extension policies to avoid utility service extensions that would support inappropriate urban development in the corridors.

Over the years, many important actions have been taken by implementing agencies toward achieving the corridor objectives. Over 147 square miles of primary environmental corridor land—including 71 square miles of inland lake surface water—representing 31 percent of the total corridors are now publicly owned and permanently protected. Through extensive joint state-local floodplain and shoreland-wetland zoning and federal wetland regulation, another 176 square miles, or 38 percent, may be considered to be permanently protected from inappropriate development. Of the remaining 144 square miles, about 26 square miles, or 6 percent of the total corridor area, are upland corridors lying within urban service areas in the Region and are protected from incompatible urban development by state administrative rules which prohibit

MAJOR PARK SITES IN THE REGION



Over the years, the Commission has recommended that the counties and the State acquire and develop 13 new major park sites within the Region, each site comprising an outstanding combination of natural resource features. As shown on this map, 11 of the 13 park sites have been publicly acquired, including two outstanding parks on Lake Michigan encompassing about two miles of undeveloped shoreline, including one mile of outstanding beach area. Development of these park sites is proceeding. The two remaining park sites—one each in Walworth and Washington Counties—have not yet been destroyed by the intrusion of urban development, but, unfortunately, have not yet been acquired.

sanitary sewer extensions for the purpose of effecting development of such lands. Even in rural areas, the state administrative rules prohibit the use of large onsite sewage disposal systems that would support inappropriate urban development on corridor lands. The state-mandated floodplain and wetland zoning has been significantly supplemented by the use of lowland and upland conservancy districts imposed on corridor lands through county and local zoning ordinances, and by federal wetland protection rules emanating from the Federal Water Pollution Control Act of 1972 and the River and Harbor Act of 1899.

What began in 1966 as a plan concept, then, has been integrated into federal, state, and local legislation and administrative rules, and into the day-to-day practice of planning at the state, county, and local levels. This institutionalization of the environmental corridor concept should

ensure that a great majority of the environmental corridor lands within the Region will be preserved and protected as development and redevelopment proceeds within the Region.

● Prime Agricultural Lands

In 1966, the Commission first recommended that the prime agricultural lands of the Region be preserved and protected from inappropriate development, not only to preserve the lands as a valuable resource for the production of food and fiber, but to complement companion Commission urban land use development recommendations. The Commission envisioned that such lands would be protected through exclusive agricultural zoning, supplemented by some form of property tax relief to encourage the continued farming of highly productive lands. While it took a number of years for this particular plan recommendation to gain public acceptance, the pioneering exclusive agricultural zoning efforts of the Town of Belgium in Ozaukee County and of Walworth County have now been widely extended throughout the Region and indeed the entire State. Exclusive agricultural zoning, which prohibits the division of prime farmland into parcels less than 35 acres in area, is now in effect in all 16 of the civil towns in Walworth County; in all six of the civil towns in Ozaukee County; in four of the eight civil towns in Kenosha County; in seven of the nine civil towns in Racine County; in five of the 13 civil towns in Washington County; in five of the 13 civil towns in Waukesha County; and in three incorporated communities which have relatively large amounts of agricultural land—the Cities of Franklin and Muskego, and the Village of Germantown. Together, these zoning efforts alone serve to protect from inappropriate urban development about 585 square miles, or 56 percent of the 1,046 square miles of prime agricultural land in the Region. In addition, the tax relief envisioned by the Commission in 1965 is now in place, albeit in the form of state income tax credits to participating farmers, instead of the direct property tax relief originally envisioned by the Commission. These steps represent major achievements toward the goal of preservation and protection of the prime agricultural lands of the Region.

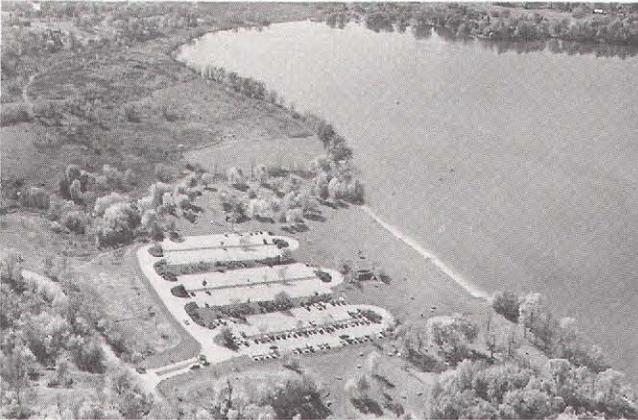
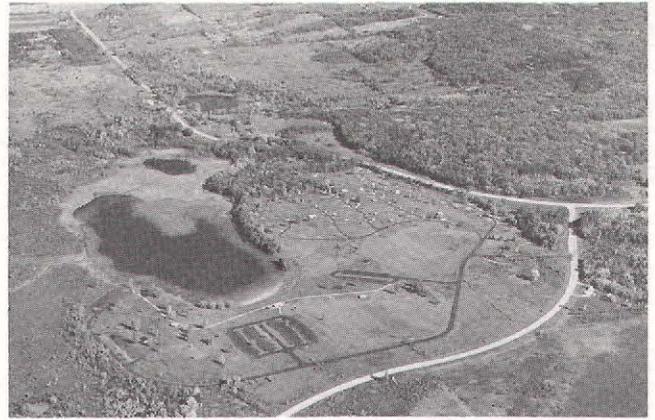
● Major Park Sites

Under one of its first inventory efforts, the Commission in 1966 recommended the acquisition and ultimate development of 13 new major parks within the Region. Each of the sites recommended for these large parks encompassed an outstanding combination of natural resource features, and these 13 sites therefore comprised the best remaining potential park sites in the Region. One of these sites contained the last remaining undeveloped major stretch of Lake Michigan beach in the Region. The Commission recommended that these 13 sites—all then in private ownership—be protected and acquired and developed for park purposes. State and county park agencies have since acted to acquire and substantially develop 11 of these 13 park sites: Brightondale Park in Kenosha County; Oakwood Park in Milwaukee County; Hawthorn Hills and Harrington Beach Parks in Ozaukee County; Cliffside and Ela Parks in Racine County; White-water Lake Park in Walworth County; Pike Lake Park in Washington County; and Minooka, Ottawa Lake, and Monches Parks in Waukesha County. Only two of the sites—the Sugar Creek Park site in Walworth County and the Paradise Valley Park site in Washington County—have not been protected or acquired to date.

● Major Industrial Sites

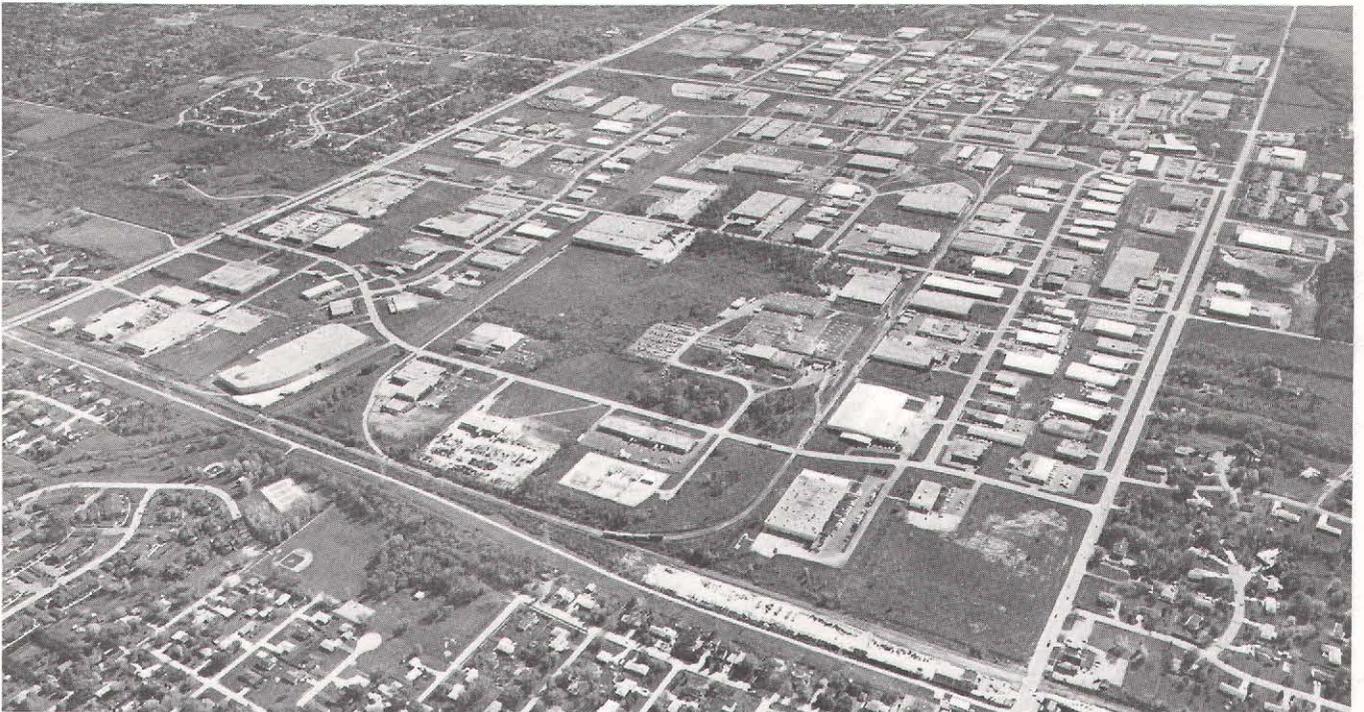
When the Commission began its land use planning efforts, there were 16 major industrial centers in the Region. The Commission recommended that provision be made for six new major industrial centers—one each in the Kenosha and Racine metropolitan areas; three in the Milwaukee metropolitan area, including one in New Berlin, one in Oak

REGIONAL OUTDOOR RECREATION AREAS



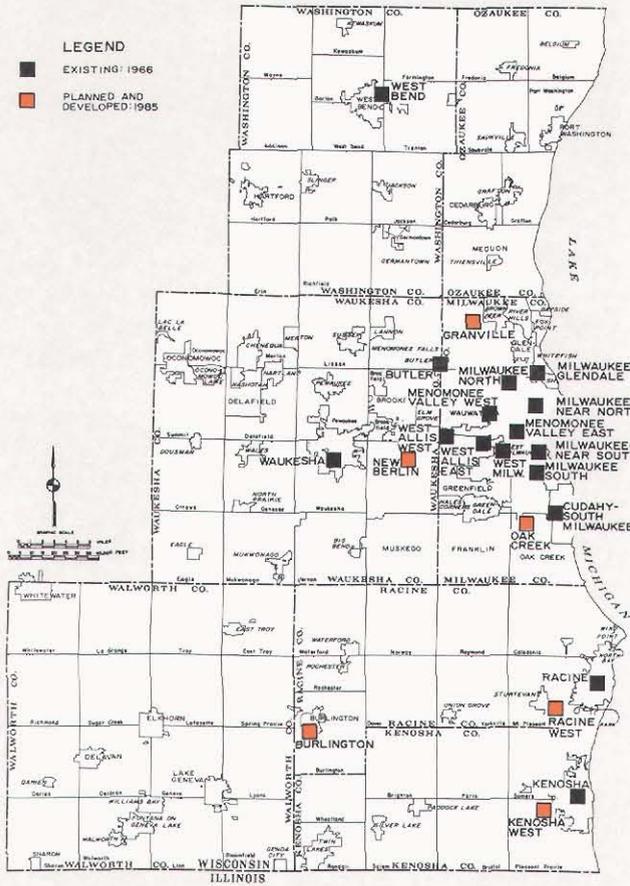
Three of the major outdoor recreation sites originally recommended by the Commission for preservation in its park and open space planning efforts are identified in these photographs. On the top left is Harrington Beach State Park in the Town of Belgium, Ozaukee County. This park, acquired and developed by the Wisconsin Department of Natural Resources in response to Commission plan recommendations, was created on the site of the virtually last remaining major stretch of Lake Michigan beach in the Region. That beach, together with an inland lake formed in a former local quarry, provide the setting for high-quality outdoor recreation opportunities. The top right and bottom left photographs are of Ottawa Lake State Recreation Area and Pike Lake State Park, respectively. The Ottawa Lake Recreation Area is in the Town of Ottawa, Waukesha County, in the heart of the Southern Unit of the Kettle Moraine State Forest. With its swimming beach, camping facilities, and access to miles of hiking and cross country skiing trails, the Ottawa Lake site also is popular for summer and winter activities. The Pike Lake State Park in the Town of Hartford, Washington County, provides opportunity for swimming, picnicking, and hiking on one of the Region's major inland lakes.

REGIONAL INDUSTRIAL CENTERS

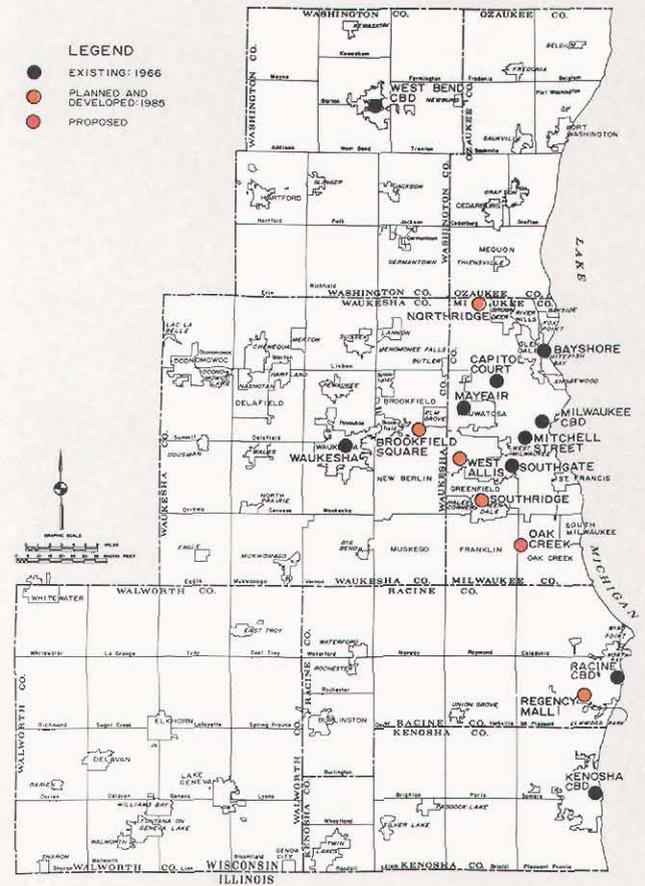


One of the new regional industrial centers proposed in the initial regional land use plan is shown in this photograph. This center, located on Moorland Road in the City of New Berlin, has convenient access to the regional freeway system via Moorland road to either the IH 94 Freeway on the north or the STH 15 Freeway on the south. This site is also served by railway trackage. This particular center is the most extensively developed of the six Commission-recommended new regional industrial employment centers.

MAJOR INDUSTRIAL SITES IN THE REGION



MAJOR COMMERCIAL SITES IN THE REGION



In its initial land use planning effort, the Commission recommended the creation of six new major industrial centers in addition to the 16 such centers which then existed in 1963. These industrial centers provide good locations for much of the employment base in the Region. As shown on this map, all six of these centers have been specifically identified in local plans and have been reserved for industrial development, with actual industrial development proceeding at all six locations.

In 1963, there were 10 major retail and service centers in the Region consisting of both older central business districts and newer outlying shopping centers and shopping strips. The Commission in its initial land use plan recommended that six additional regional retail and service centers be developed within the Region. As shown on this map, five of the six centers are now in existence. The one remaining undeveloped center is located in the City of Oak Creek.

Creek, and one in the Granville area of the City of Milwaukee; and one in the City of Burlington in Racine County. All six of these centers have subsequently been identified in local plans and have been reserved for industrial development. As of 1985, industrial development has proceeded at all six locations, with substantial amounts of development occurring in particular at the New Berlin, Granville, and Racine sites.

area in the City of West Allis; and the Southridge Shopping Center in the Village of Greendale and City of Greenfield. The only proposed regional commercial center not in place to date is one in the City of Oak Creek.

● Major Commercial Sites

When the Commission began its land use planning efforts, there were 10 major commercial retail and service centers in the Region, consisting of both older central business districts in the central cities in the Region and several large shopping strips and shopping centers. The Commission recommended that provision be made for six additional regional commercial centers, one in the Racine metropolitan area and the remaining five in the Milwaukee metropolitan area. As of 1985, five of these six centers have been developed, including the Regency Mall in the City of Racine; the Brookfield Square Shopping Center in the City of Brookfield; the Northridge Shopping Center in the City of Milwaukee; the STH 100/STH 15 shopping

● Regional Freeway System

One of the major Commission efforts over the years has been directed at meeting the transportation needs of the area through the preparation and implementation of areawide transportation system plans. The Commission transportation plans have from the inception—and long before it became popular to do so—attempted to provide a balanced approach to transportation system development, including emphasis on both arterial highways and mass transit. In addition, the Commission transportation system plans have always attempted to make maximum use of the transportation system capacity already in place through better management of that system.

Many actions have been taken to expand and improve the regional freeway system. Major new freeway segments contained in the original regional transportation plan and

REGIONAL SHOPPING CENTERS



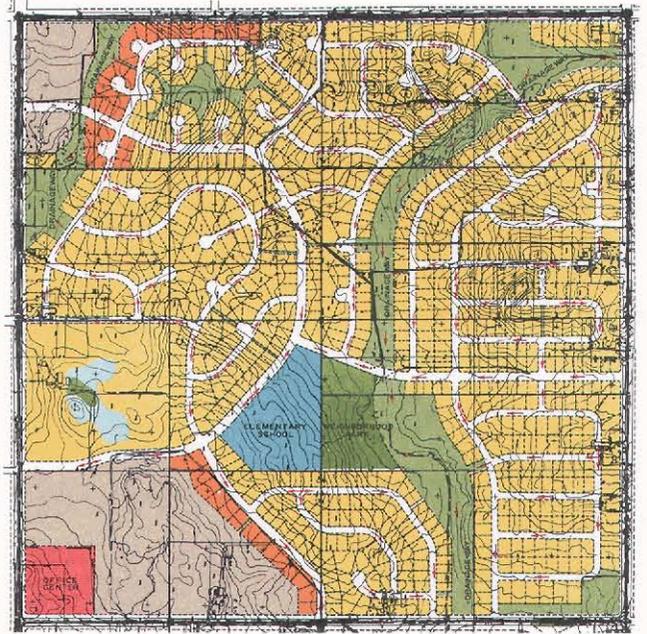
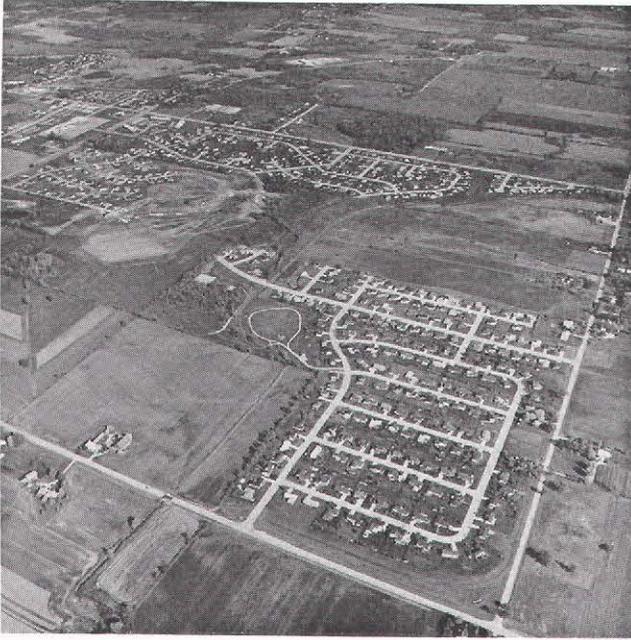
Three of the regional shopping centers proposed in Commission-recommended land use plans are shown on these photographs. On the top left is the Northridge Shopping Mall in the City of Milwaukee located at the intersection of W. Brown Deer Road and N. 76th Street, constructed in 1972. On the top right is the Brookfield Square Shopping Center located at the intersection of W. Blue Mound Road and Moorland Road in the City of Brookfield, constructed in 1967. On the bottom is the Regency Mall located at the intersection of Green Bay Road and Durand Avenue in the City of Racine, constructed in 1981. Regional shopping centers such as these, together with renewed shopping areas in older central business districts, such as the *Grand Avenue Mall in Milwaukee*, were envisioned and potential sites identified prior to their development in the Commission's first regional land use plan, and provide the Region's residents with conveniently located, climate-controlled locations for shopping and related activities.

implemented include the IH 43 Freeway through Ozaukee County; the STH 15 Freeway through Milwaukee, Waukesha, and Walworth Counties; the STH 16 Freeway through Waukesha County; the USH 45 Freeway through Milwaukee, Waukesha, and Washington Counties; and the Airport Spur Freeway in Milwaukee County. Important capacity additions to the freeway system have been implemented in accordance with the plan recommendations, including the addition of a third lane to the IH 94 Freeway in eastern Waukesha County, and the provision of a third lane to the IH 43 Freeway in central Milwaukee County. Importantly, transition improvements from uncompleted freeway "stub ends" to the arterial street system have been completed or are underway at the Hillside Interchange between the Park Freeway and the IH 43 Freeway in downtown Milwaukee; at the east end of the Park Freeway and at the north end of the Lake Freeway also in downtown Milwaukee; at the south end of the Stadium Freeway in the Village of West Milwaukee; and at the north end of the Stadium Freeway in the City of Milwaukee. In 1985, the regional freeway system totaled about 237 miles, or 7 percent of the total regional arterial street and highway

system. However, the freeway system carried about 30 percent of the total daily vehicle miles of travel within the Region.

When the Commission undertook its first regional transportation study in 1963, there were about 68 miles of freeways in existence. The original regional transportation plan, adopted in 1966, called for the addition of about 376 miles of freeways, which would have resulted in a total regional freeway system of about 444 miles. In the years immediately following the adoption of the 1966 first generation plan, every mile of proposed freeway was advanced to the detailed facilities planning stage where precise centerline and right-of-way requirements were preliminarily determined. As public hearings were held on each of the proposed new freeways, changing public attitudes caused a number of the originally planned freeways to be removed from the plan, including the Milwaukee metropolitan belt freeway, the extension of the Stadium Freeway-North through Milwaukee and Ozaukee Counties, the extension of the Stadium Freeway-South in Milwaukee County, the Park Freeway-West in Milwaukee

NEIGHBORHOOD PLAN IMPLEMENTATION



The Commission has encouraged developing local units of government to prepare very detailed neighborhood unit plans within the framework of regional plans. Residential neighborhood units are intended to provide for safe and healthy family home life and the activities associated with it. The above map and photograph are of the Jefferson Park Neighborhood in the Village of Germantown, Washington County. By comparing the neighborhood plan and the development as it existed in 1985, it can be seen that the planned neighborhood unit is beginning to take shape on the ground. As each farm is subdivided, portions of the ultimate collector street and drainageway systems are being provided so that when the entire approximately one-square-mile area is developed, the neighborhood will function efficiently and provide a pleasant place in which to live. A neighborhood park has been developed as recommended near the center of the neighborhood. Grading activities in the top center portion of the neighborhood are attendant to an extension of a subdivision that, when completed, will contribute to the street and drainage pattern as envisioned in the neighborhood plan.

County, the Bay Freeway in Milwaukee and Waukesha Counties, the Lake Freeway-South in Milwaukee, Racine, and Kenosha Counties, and the Racine Loop Freeway. As a result, the planned regional freeway system has been reduced to a total of about 295 miles.

● Surface Arterial Street and Highway System

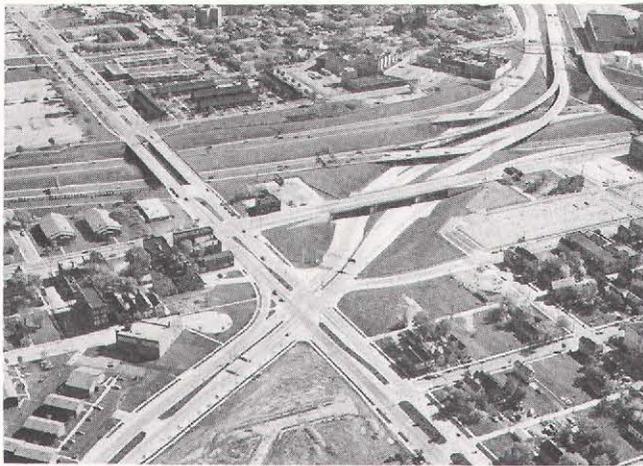
Many additions and improvements have been made to the surface arterial street and highway system in accordance with regional plan recommendations. Entirely new highways have been constructed to facilitate traffic movement in important portions of the Region as recommended in the transportation plan, including the CTH A/STH 59 bypass of Waukesha in Waukesha County; the CTH F connection from Waukesha to the STH 15 Freeway; the CTH F/CTH K connection with STH 36 in the Waterford area of Racine County; the connection of Pilgrim Road and Moorland Road in the Brookfield/Elm Grove area of Waukesha County; the extension of CTH E near the University of Wisconsin-Parkside in the Town of Somers, Kenosha County, including a new crossing of the Pike River; the extension of Falls Road in the Village of Grafton, Ozaukee County, including a new crossing of the Milwaukee River; and the extension of Good Hope Road across the Milwaukee River in the Village of River Hills. Major improvements to existing surface arterial streets and highways include such widening and reconstruction

improvements as STH 31 through the Town of Mt. Pleasant in Racine County; STH 50 through the Town of Pleasant Prairie in Kenosha County; STH 20 through the Town of Mt. Pleasant in Racine County; Moorland Road through the City of New Berlin in Waukesha County; and STH 100, S. Howell Avenue, W. Brown Deer Road, W. Mill Road, W. Good Hope Road, and N. 76th Street through several municipalities in Milwaukee County.

● Jurisdictional Highway System Transfers

In recent years, steps have begun to be taken to implement the changes in jurisdiction recommended in a series of jurisdictional highway system plans for the counties in the Region. Such changes are designed primarily to attain equity in the costs of construction and maintenance of the arterial highway system. Progress in this respect has been most significant in Waukesha County, where a number of important jurisdictional changes have been made, including the assumption of jurisdiction and the improvement by Waukesha County of Moorland Road in the City of New Berlin; the assumption of jurisdiction by Waukesha County of former STH 15; the assumption of jurisdiction by the State of Wisconsin of former Waukesha CTH A, converting that Waukesha bypass to a state trunk highway facility; and the assumption of jurisdiction by a number of municipalities in Waukesha County of former county trunk highways. Some progress in this respect has also

FREEWAY IMPROVEMENTS AND EXTENSIONS



These photographs identify three of the freeway extensions and improvements that have been completed in recent years to carry out Commission plan recommendations. The freeway on the top left is the STH 16 Freeway which bypasses Pewaukee and connects with IH 94 near Waukesha. The interchange shown is with STH 190 at Pewaukee. The photograph on the top right shows the northern end of the West Bend Freeway nearing completion in 1985. This freeway segment will replace an outmoded and extremely dangerous highway extending from the Milwaukee urbanized area north to West Bend. The photograph on the left shows the completed improvements at the Hillside Interchange of the Park Freeway-East and IH 43 Freeway just northwest of downtown Milwaukee. The completion of the Hillside Interchange following the removal of the Park Freeway-West from regional freeway plans included a direct connection of Fond du Lac Avenue to the freeway system.

been made in Milwaukee County, where the County has assumed jurisdiction over Mill Road. Negotiations concerning additional jurisdictional changes are ongoing.

● Racine, Kenosha, and Waukesha Transit Systems

Commission plan recommendations to reestablish abandoned, privately operated mass transit systems in the Racine, Kenosha, and Waukesha areas have been fully carried out. In each case, the Commission worked with the local community to evaluate the potential for reestablishing a mass transit system and to prepare detailed operational and capital facilities plans for such systems. The bus systems that are in place in these three communities today largely reflect those plan recommendations, and provide important public services to those residents of the Region—including the poor, the elderly, and the young—who have limited or no access to private automobiles and whose mobility is therefore restricted.

● Milwaukee Area Transit System

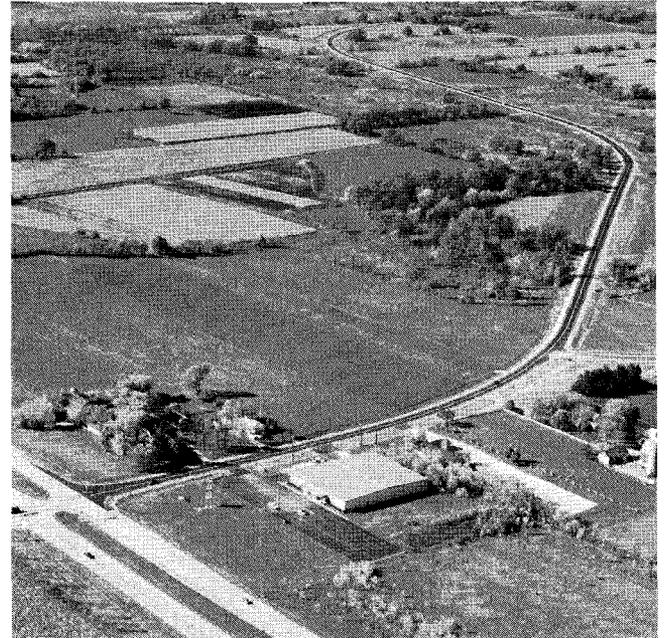
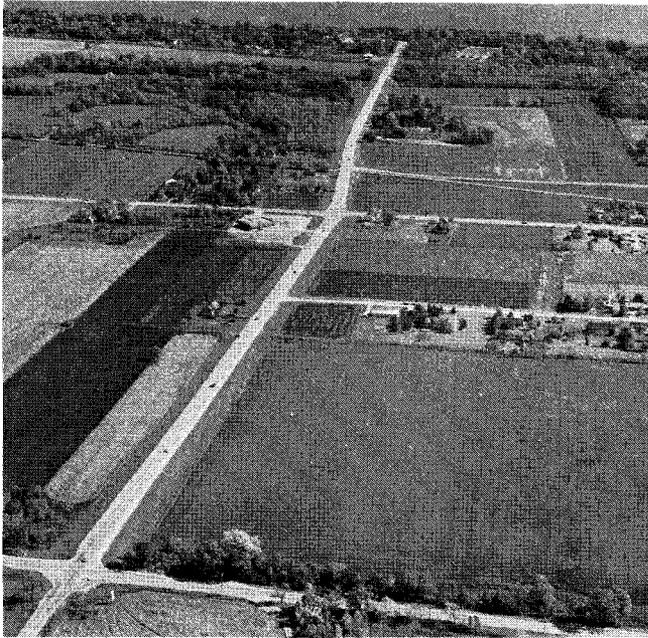
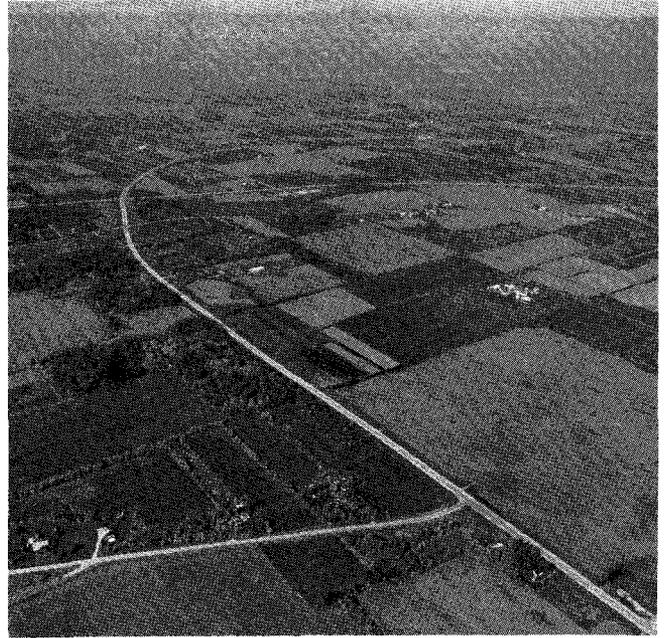
In the Milwaukee metropolitan area, the Commission's transit planning has been particularly instrumental in the establishment of the modified rapid transit components of the Milwaukee transit system, consisting of the construction of outlying park-ride lots and the provision of a network of express bus routes operating over the freeway

system. This particular plan recommendation has been implemented to the degree where today there are in the Milwaukee area 22 outlying park-ride lots, of which 13 are publicly owned, served by 15 express bus routes. The bus routes are used on a daily basis by about 6,800 passengers. The park-ride lots are used on a daily basis by about 2,200 vehicles, substantially reducing not only the traffic loading on the arterial streets of the Region, but also the parking demand in the central business district of Milwaukee.

● Airport Facilities

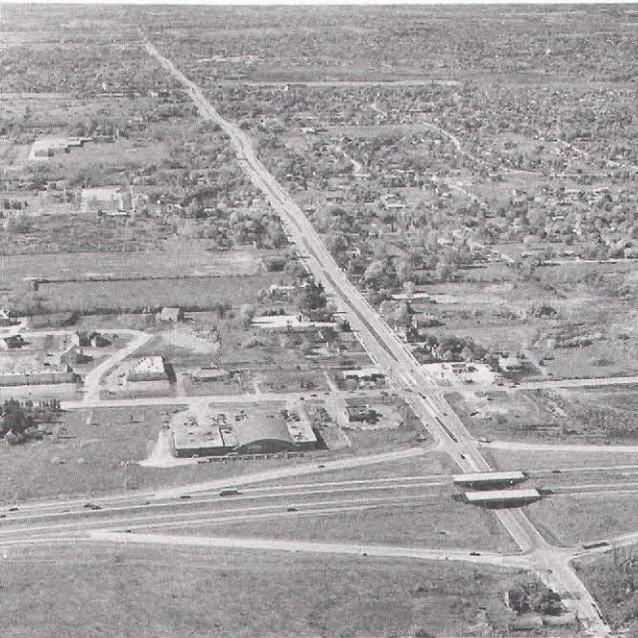
A number of important actions have been taken to provide improved airport facilities in accordance with the regional plan recommendations. As a first step, detailed airport master plans that refine and detail the regional system level plan recommendations have been completed for General Mitchell Field in Milwaukee County, Waukesha County Crites Field, and the Kenosha, West Bend, and Hartford Municipal Airports. At General Mitchell Field, major progress has been made in implementing nearly all of the terminal recommendations, and the Region's single scheduled air carrier airport now has an expanded up-to-date terminal facility. At the Kenosha Municipal Airport a new terminal facility has been constructed, a runway extension completed, and land has been purchased for the construction of a new primary runway. At Waukesha County Crites

NEW ARTERIAL STREETS AND HIGHWAYS



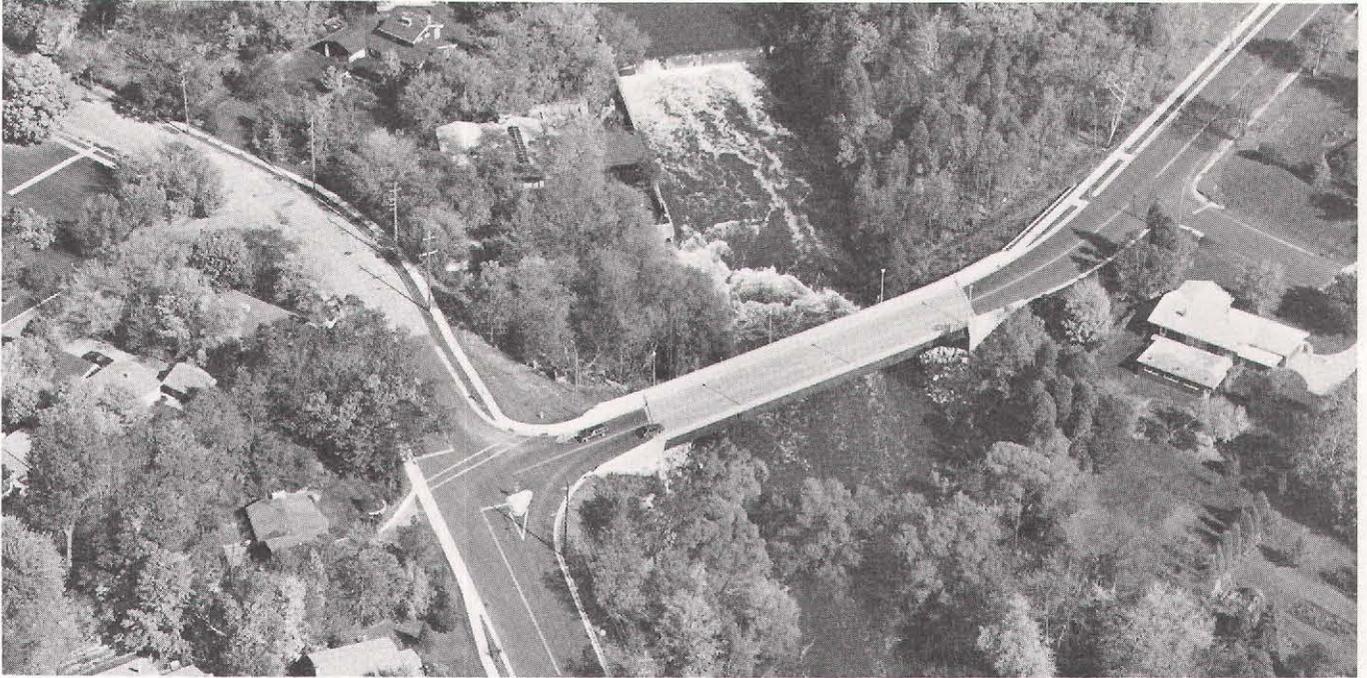
One of the Commission's important responsibilities is to determine through an examination of land use and of attendant daily travel habits and patterns, and of the changes in land use and travel habits and patterns over time, where new arterial highway facilities should be constructed. Based upon those determinations, the Commission transportation plans contain recommendations for the construction of new highway facilities. Four such facilities that have been recommended by the Commission and have been constructed by the implementing agencies are shown on these photographs. The upper left photograph identifies the Waukesha bypass arterial facility, originally built as CTH A but now a part of the state trunk highway system as STH 59. This bypass facilitates traffic flow to and from the Waukesha area, connecting with USH 18 in the foreground which in turn connects with the regional freeway system at IH 94 to the east. The lower left photograph identifies an extension of CTH E in Kenosha County easterly from 30th Avenue in the foreground to Sheridan Road near Lake Michigan. This new highway facility was recommended by the Commission to provide a direct east-west route along the north side of Kenosha from Lake Michigan to IH 94 and directly serves the University of Wisconsin-Parkside campus. The upper right photograph shows the connection between CTH K in the foreground and CTH F in the background in the Town of Waterford, Racine County. This new highway facility facilitates movement between southern Waukesha and western Racine County and, together with STH 36, enables through traffic to bypass the Village of Waterford. The bottom right photograph shows the recently completed connection between CTH F and CTH J in Waukesha County. This new highway greatly facilitates trip movements from the Waukesha and Pewaukee areas north, providing a direct route through Waukesha and Washington Counties to USH 41 near Slinger.

MAJOR ARTERIAL STREET AND HIGHWAY IMPROVEMENTS



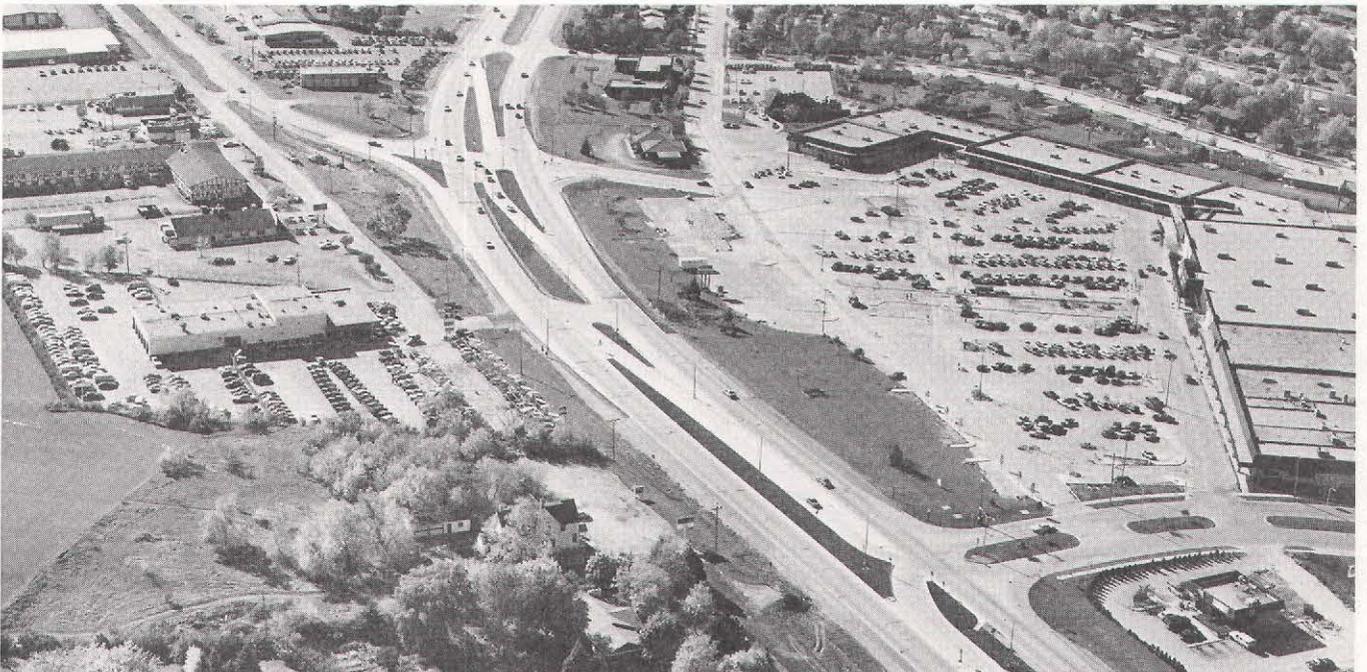
The provision of needed additional capacity on existing arterial streets and highways represents another aspect of the Commission's functional highway system plans. These photographs show three such major arterial street improvements completed in accordance with Commission plan recommendations. The photograph on the top left shows the widened and improved Moorland Road in the City of New Berlin, Waukesha County. A parking lot used by carpoolers has been developed at the interchange of Moorland Road and the STH 15 Freeway. The photograph on the bottom left shows the recently completed improvement on Mequon Road, City of Mequon, Ozaukee County. The photograph on the right shows the major improvement along W. Good Hope Road in the City of Milwaukee, including an interchange with the USH 41-45 Freeway. This road provides direct access to the developing Park Place area on the northwest side of the City of Milwaukee.

FALLS ROAD BRIDGE



The Commission transportation planning efforts are also focused on providing more convenient and safe circulation patterns within communities. At times this involves the provision of additional bridge crossings. This photograph shows the recently completed Falls Road bridge across the Milwaukee River in the Village of Grafton. While not a major arterial highway facility, the Falls Road bridge crossing—originally proposed by the Commission in 1966—provides a second major crossing of the Milwaukee River in the Village, thus providing a redundant crossing for emergency vehicles and eliminating circuitous travel patterns by residents from one side of the river to the other.

TRAFFIC ENGINEERING IMPROVEMENTS



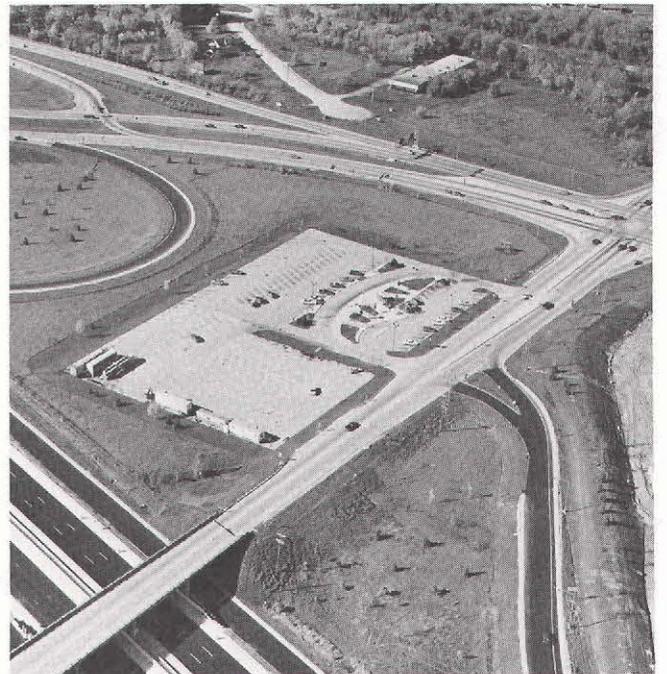
The Commission transportation planning efforts have also focused on detailed intersection situations that require low-cost traffic engineering improvements. This photograph identifies improvements recently made along Moreland Boulevard (USH 18) near the eastern limits of the City of Waukesha. The new intersection of Springdale Road and Moreland Boulevard is shown in the foreground. Toward the background is the new intersection of Moorland Road and CTH Y, including a new access to a community shopping center. The construction of channelized approaches to these intersections helps discipline traffic movement and provide for a safer, as well as more efficient, traffic flow pattern.

WAUKESHA TRANSIT TRANSFER STATION



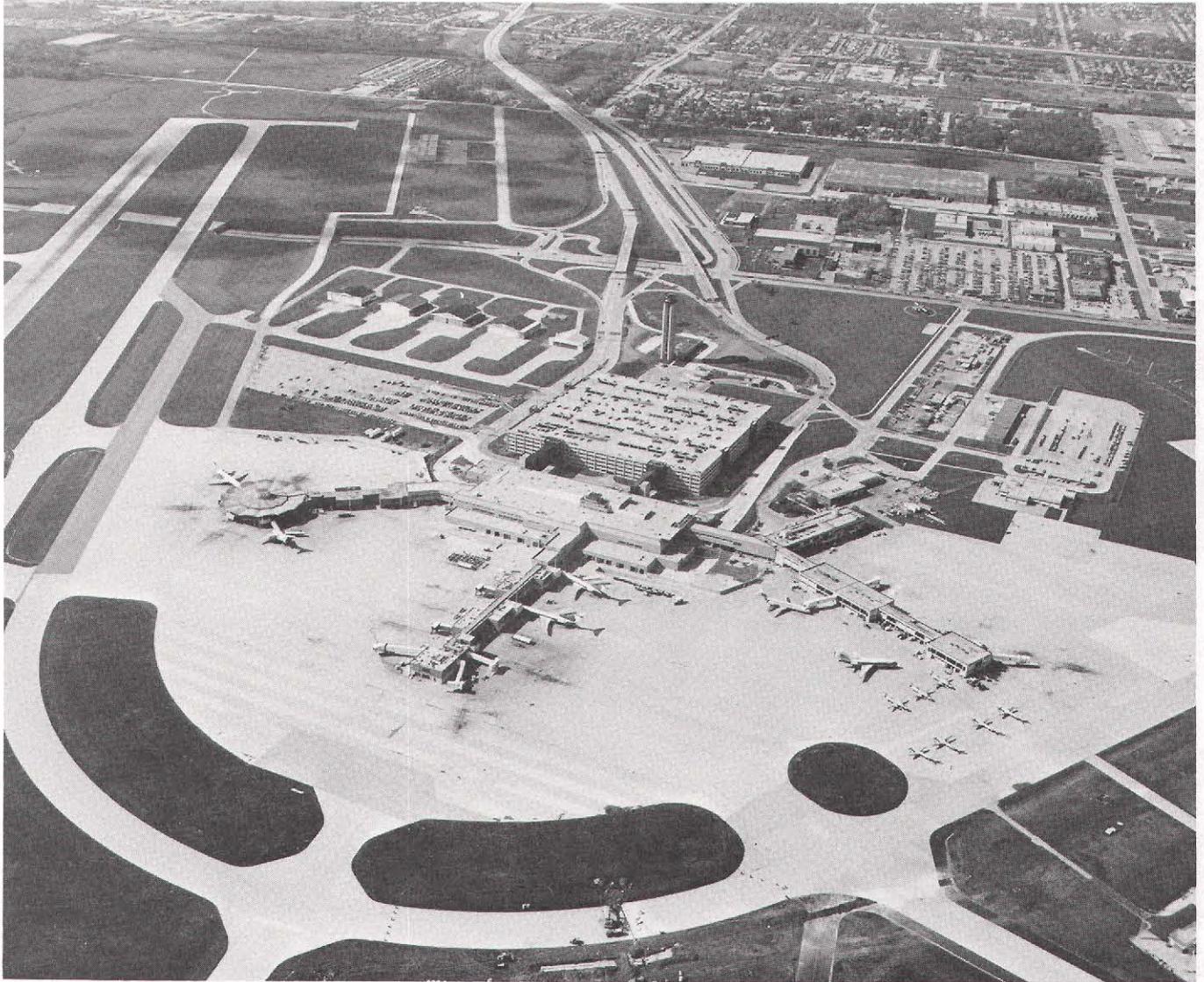
The Commission was instrumental in assisting the City of Waukesha in reestablishing a mass transit system. As a part of the planning for that system, the Commission assisted the City in selecting and designing a central transfer station. This station was completed in 1983 and provides a convenient transfer point for Waukesha transit system users.

TRANSIT PARK/RIDE LOTS



Park/ride lots facilitate improved express transit service in the Milwaukee metropolitan area over the regional freeway system, and reduce parking demand in downtown Milwaukee. The photograph on the left identifies the Watertown Plank Road park/ride lot in the City of Wauwatosa. This lot includes a direct access for buses to the freeway ramp. The photograph on the right identifies the Goerke's Corners park/ride lot in the Town of Brookfield, Waukesha County, on IH 94. This lot serves not only express buses to downtown Milwaukee but also local buses to downtown Waukesha and intercity buses between Milwaukee and Madison.

GENERAL MITCHELL FIELD TERMINAL



The Commission air transportation planning studies have confirmed the location of General Mitchell Field in Milwaukee as the Region's single scheduled air carrier airport. This photograph shows the terminal facilities as they existed in 1985, following completion of a major terminal expansion and renovation effort. The terminal is well served via a direct freeway connection to IH 94 and includes convenient multi-story parking ramps.

Field, the crosswind runway has been reconstructed and a taxiway provided. At the Horlick-Racine Airport, a major runway extension has been completed. At the Burlington and Hartford Municipal Airports, taxiways have been added to the primary runways, thus increasing runway capacity. Lighting and navigation aids have been provided at Burlington Municipal, Horlick-Racine, Kenosha Municipal, West Bend Municipal, and Waukesha County Crites Field Airports.

● Flood Control

Most of the Commission recommendations in the area of flood control are nonstructural in nature, consisting of

proposals to keep remaining undeveloped floodlands free from damage-prone land uses. This recommendation has been widely accepted and carried out throughout the Region. Thus, today nearly all of the identified floodplains in the Region are adequately protected from incompatible land uses. The permanent reservation in open space uses of major floodwater storage areas helps attenuate downstream flood flows and stages. For example, action taken to preserve the Menomonee Falls swamp and the Brookfield marsh ensures that flooding problems on the Fox River in downstream Waukesha are not aggravated.

Some of the Commission-recommended structural flood control improvements have been made. For example, the

KINNICKINNIC RIVER BRIDGE AND CHANNEL IMPROVEMENTS



In the densely urbanized Kinnickinnic River watershed, recurrent flooding problems plagued residents adjacent to the river even after the Milwaukee Metropolitan Sewerage District had sought to accommodate increased flood flows through concrete lining of the channel. Commission analyses indicated that the flooding along the Kinnickinnic River from about S. 6th Street to about S.16th Street could be abated—for all floods up to a flood that statistically would have a 1 percent chance of occurring in any given year—through the removal of a series of bridges, the reconstruction of the remaining bridge crossings to eliminate impediments to flood flow, and the construction of an improved channel through the former Chicago North Shore and Milwaukee Electric Railroad right-of-way replacing an inadequate waterway opening under that right-of-way. These improvements have now been completed. While floods having a statistical recurrence interval greater than once in one hundred years can occur and cause damages, residents along the channel are protected from all but those extremely rare events. Even during such extreme events, damages would be much less than in the absence of the improvements.

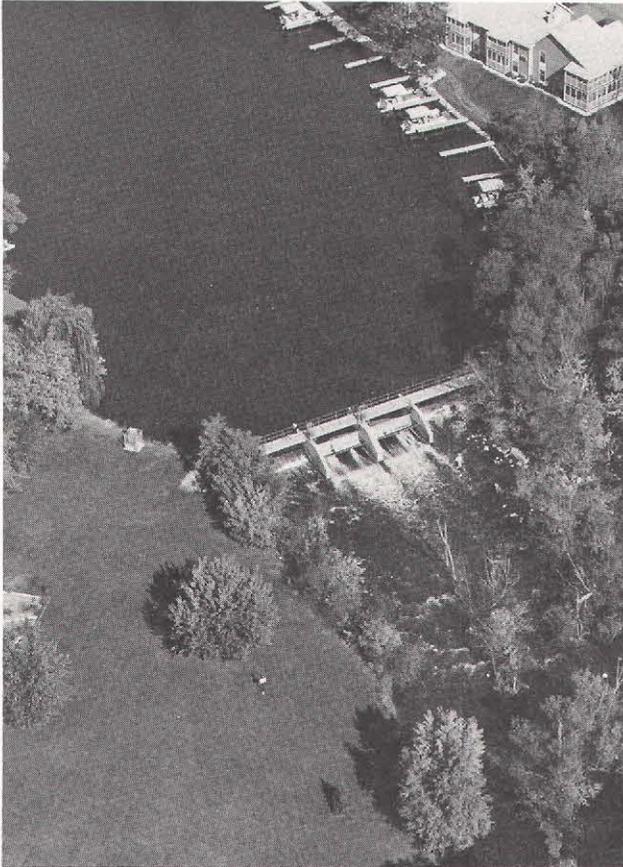
Milwaukee Metropolitan Sewerage District, Milwaukee County, and the City of Milwaukee have completed a major bridge removal and channelization project in the once dangerously flood-prone reach of the Kinnickinnic River from S. 6th Street to S. 16th Street, thus abating the worst of the costly recurrent flooding problems in that area. The City of Burlington has completed a portion of a Fox River dike/floodwall system to protect its downtown area. Work is being programmed on major channel improvement projects along Lincoln Creek in the northern part of Milwaukee County. Other recommended structural improvements have not, however, been implemented to date, including channel improvements along the Root River in West Allis; channel improvements along the

Menomonee River in Menomonee Falls, Wauwatosa, and Milwaukee; and dikes and floodwalls along the Fox River in the City of Waukesha.

● Sewage Treatment Plant Construction and Renewal

The Commission water quality planning efforts over the past 25 years have been in large part focused on providing recommendations for improved systems of wastewater treatment facilities, seeking in part to provide improved water quality through the consolidation of sewage treatment plants and the abandonment of small, inefficient, and poorly operated sewage treatment facilities. These construction and abandonment recommendations have

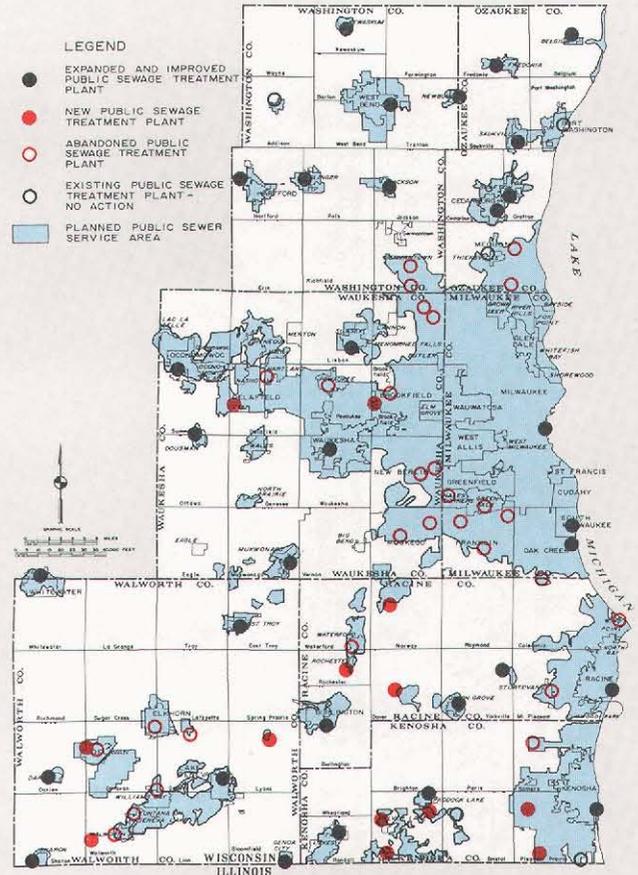
WATERFORD DAM



In an attempt to help reconcile conflicting objectives between upstream rural interests interested in rapid drawdown and low water levels, and downstream urban interests interested in maintaining high water levels for recreational purposes, the Commission recommended that Racine County rebuild the Waterford Dam on the Fox River and install new water level control gates. The new gates shown in this photograph were installed in 1977 and enable Racine County to better regulate water levels on the large impoundment upstream of the dam, maintaining a better balance in water levels for these conflicting interests.

been coupled with many recommendations to provide for higher levels of sewage treatment, and for trunk sewer construction leading to the abatement of separate sewer overflows. A great deal of progress has been made in implementing these recommendations. Major new areawide sewage treatment facilities have been constructed, including the Walworth County Metropolitan Sewerage District plant, which was built as an outgrowth of a Commission plan recommendation and which has permitted the abandonment of obsolescent sewage treatment plants in the City of Delavan, the City of Elkhorn, the Walworth County Institutions, and—soon—the Village of Williams Bay; the Dela-Hart Water Pollution Control Commission plant, which has permitted the abandonment of an obsolete sewage treatment plant in the Village of Hartland and

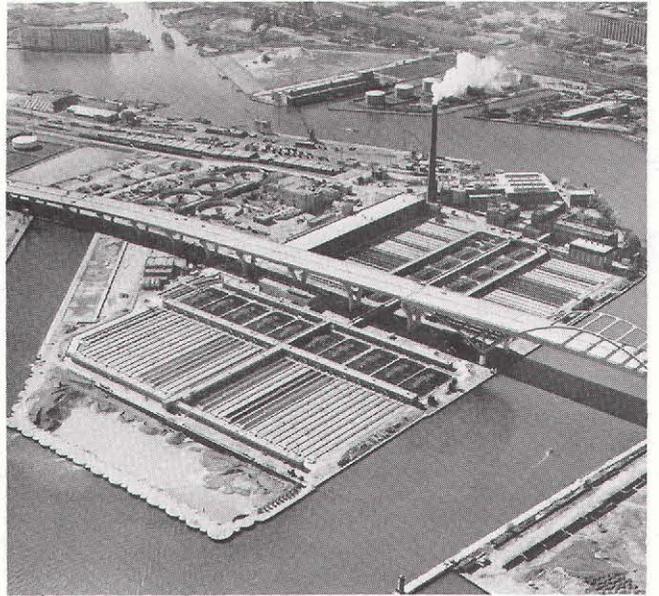
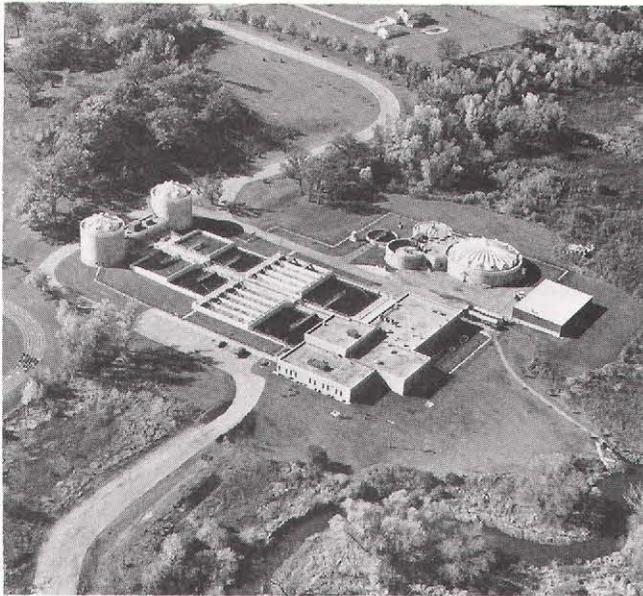
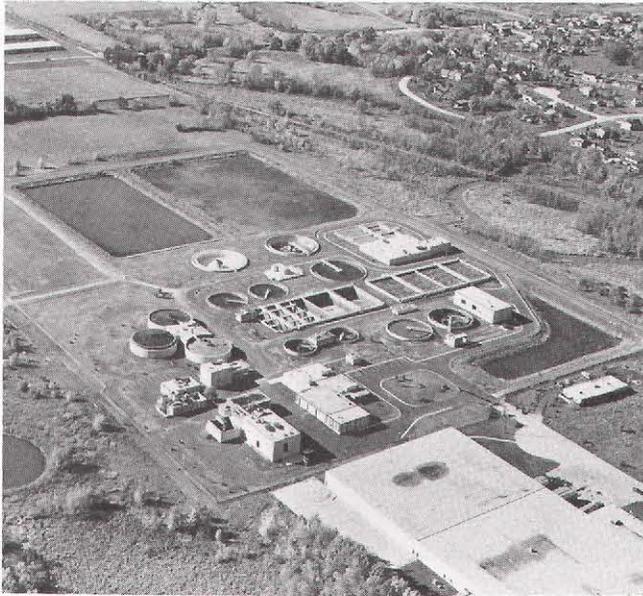
SEWAGE TREATMENT PLANTS IN THE REGION



One of the major Commission planning efforts over the years has been related to abating water pollution from municipal sewage treatment plants and from the attendant overflows of raw sanitary sewage from bypassing both at the older plants and in numerous places in the tributary sewerage systems. This involved elimination of small inefficient treatment plants, the construction of major new treatment facilities, the rebuilding and upgrading of certain existing treatment facilities, and the construction of trunk and relief sewers. As shown on this map, over the years a total of 29 small obsolete municipal treatment plants have been abandoned, 13 major new treatment facilities have been constructed in accordance with Commission plan recommendations, and 32 additional municipal sewage treatment plants have been rebuilt and upgraded. These efforts have involved not only treatment plant construction and reconstruction, but major sewerage system rehabilitation efforts.

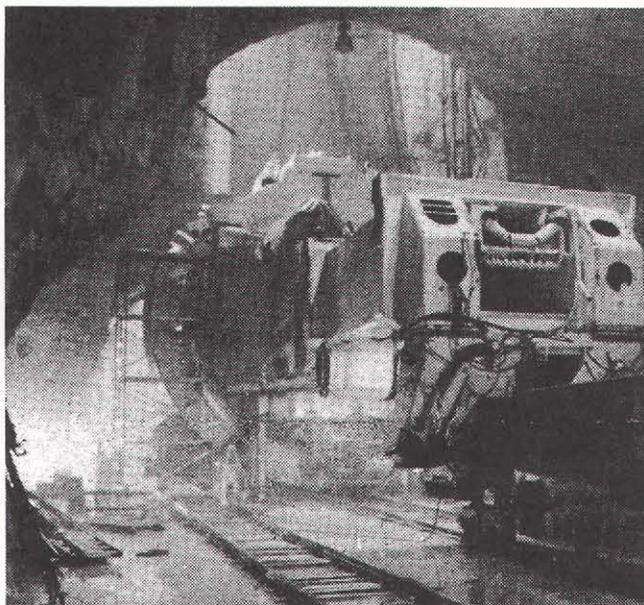
the extension of sewer service to previously unsewered areas in the City of Delafield and the Village of Nashotah; the plants in the Upper Fox River watershed area, where the Cities of Brookfield and Waukesha have constructed major new areawide sewage treatment facilities designed to serve multiple communities, and where a series of inter-community trunk sewers have been built to enable the abandonment, for example, of the obsolete Pewaukee sewage treatment plant and the extension of sewer service to the Pewaukee Lake area, thus helping to improve lake water quality; the Racine area, where an upgraded sewage treatment facility and trunk sewer system has enabled the abandonment of an obsolete sewage treatment facility at Sturtevant; the Kenosha area, where a new sewage treatment facility and trunk sewer system has enabled the

SEWAGE TREATMENT PLANTS



Major investments have been made over the past decade within the Region in constructing new, and upgrading existing, sewage treatment plants in accordance with recommendations contained in the Commission's areawide water quality management plan. These investments have resulted in the abatement of sewer overflows and significant improvements in stream and lake water quality. The accompanying photographs identify four major sewage treatment plant construction projects completed or underway in accordance with Commission plan recommendations. The plant in the upper left photograph is the Brookfield regional sewage treatment plant which was opened in 1985. This plant, operated by the City of Brookfield, serves a number of other communities in the upper Fox River watershed, including the City of New Berlin, the Villages of Menomonee Falls and Pewaukee, the Towns of Brookfield and Pewaukee, and the Lake Pewaukee Sanitary District. The plant is also designated to serve the Villages of Sussex and Lannon and the Town of Lisbon, and stands as an example of regional plan implementation by a series of intergovernmental agreements. The plant in the lower left photograph is the Walworth County Metropolitan Sewerage District treatment facility in Delavan. This facility, operated by a special district created for that purpose, currently serves the Cities of Delavan and Elkhorn, the Delavan Lake Sanitary District, and the Walworth County Institutions complex, and will shortly serve the Village of Williams Bay. The plant in the upper right photograph is the Dela-Hart facility operated by a joint commission created by the City of Delafield and Village of Hartland. This plant not only serves Hartland and Delafield but also the Village of Nashotah, and is planned to serve portions of the Town of Summit. The plant in the lower right photograph is the Jones Island sewage treatment plant operated by the Milwaukee Metropolitan Sewerage District. This major plant is currently undergoing an extensive rebuilding and rehabilitation which when completed will ensure that the oldest of the Region's sewage treatment plants will be positioned to adequately serve the Milwaukee metropolitan area for many years to come.

COMBINED SEWER OVERFLOW POLLUTION ABATEMENT



The Commission recommended in 1971 that the major combined sewer overflow water pollution problems in the Milwaukee area be abated through the construction of deep tunnel storage and conveyance facilities. These photographs are of a deep tunnel currently under construction in the Milwaukee area. When completed, the deep tunnel storage and conveyance network will capture, convey, and store large volumes of combined sewer overflows until treatment plant capacity becomes available in dry weather periods. Overflows of combined sewers in the Milwaukee area are currently a major source of water pollution and will be substantially abated upon completion of the deep tunnel network. The tunnels will also serve to abate separate sanitary sewer overflows and convey sewage to the Milwaukee area treatment plants.

Photos courtesy of Richard Back, Sr.

abandonment of an obsolete sewage treatment facility serving the Town of Somers; and the Milwaukee metropolitan area, where new sewage treatment facilities and trunk sewer systems have enabled the abandonment of obsolete sewage treatment plants in Muskego, New Berlin, Menomonee Falls, Hales Corners, Greendale, Franklin, and the Caddy Vista area of the Town of Caledonia. All of these projects and many more have significantly contributed to lessening the impact of major point sources of water pollution on the quality of the receiving water system, and have led to the elimination of many thousands of failing onsite sewage disposal systems throughout the Region.

● Combined Sewer Overflow Pollution Abatement

One of the major causes of water pollution in the older central cities of Milwaukee, Racine, and Kenosha has been combined sewer overflows during wet weather periods. In the Racine and Kenosha areas, Commission plans have recommended that the original combined sewer systems designed to convey mixed sanitary water and stormwater be totally separated through the construction of parallel systems. These recommendations have been fully implemented. In these two metropolitan areas, then, water pollution from combined sewer overflows has been eliminated. In the Milwaukee area, the Commission recommended in 1971 in the Milwaukee River watershed plan that the combined sewer system not be separated, but that instead a system of deep tunnel storage and conveyance facilities be constructed to capture, convey, and store large volumes of sewer overflows. Once captured, these overflows would be stored until treatment plant capacity became available during subsequent dry weather periods. This longstanding Commission plan recommendation was reexamined in great depth and detail and at great cost by

the Milwaukee Metropolitan Sewerage District. In 1981, the MMSD and the Wisconsin Department of Natural Resources made a final decision to implement the original Commission recommendations. Construction of the deep tunnel storage and conveyance facilities began in 1985 and will continue over the next several years. Once in place, this system will substantially abate pollution from combined sewer overflows in the Milwaukee area.

● Nonpoint Source Pollution Abatement Activities

Beginning with its series of watershed plans first developed in the mid-1960's and extending through the regional water quality management plan adopted in 1979, the Commission has recognized the need to achieve clean water through the abatement of pollution from nonpoint sources, primarily runoff from urban and rural land. Toward this end, the Commission has identified specific pollutant runoff reduction goals for the various watersheds in the Region. The Commission has recommended that detailed, site-specific planning and plan implementation programs be mounted to determine how best to achieve these goals. Implementation efforts attendant to this difficult pollution abatement effort are now beginning, being greatly aided by a new state grant program developed for this purpose. Initial efforts in this respect were made in the Root River watershed in Milwaukee and Racine Counties. Over the next decade, substantial progress should be made in carrying out these nonpoint source pollution abatement recommendations throughout much of the remainder of the Region.

● Library Facilities and Services

While the Commission is no longer active in library planning, steps are being taken to implement many of the

AUTOMOBILE INSPECTION AND MAINTENANCE STATION



One of the Commission recommendations in its air quality attainment and maintenance plan concerned the establishment of an inspection and maintenance program to ensure the properly continued operation of automobile exhaust pollution control systems. That recommendation has been carried out by the Wisconsin Departments of Transportation and Natural Resources through the establishment of such a program, including the construction of a series of conveniently located automobile inspection stations. This station serves central Milwaukee residents, being located in the Menomonee River Valley area of the City.

recommendations advanced in the regional library facilities and services plan. One of the major recommendations was that a single regionwide federated system of libraries be created to ensure access to library facilities and services to all residents of the Region. It was envisioned in the plan that this federation would evolve over time, beginning with federations at the county level. Since adoption of the plan, federated county library systems have been created in Milwaukee, Kenosha, Waukesha, Walworth, and Racine Counties, with the latter two merging to form a single two-county system. Progress has also been made in the construction of additional library facilities recommended in the plan. For example, new libraries have been constructed in accordance with plan recommendations in Kenosha, Hales Corners, and Greenfield, with an additional library now under construction as recommended to jointly serve several Milwaukee north shore communities.

● Air Quality

While the Commission is no longer directly involved in regional air quality planning, the Wisconsin Departments of Natural Resources and Transportation are continuing to take steps toward carrying out the recommendations of the regional air quality attainment and maintenance plan. For example, the system of automobile inspection and maintenance stations envisioned in the plan has been completed, largely as recommended, and is currently operational.

● Housing

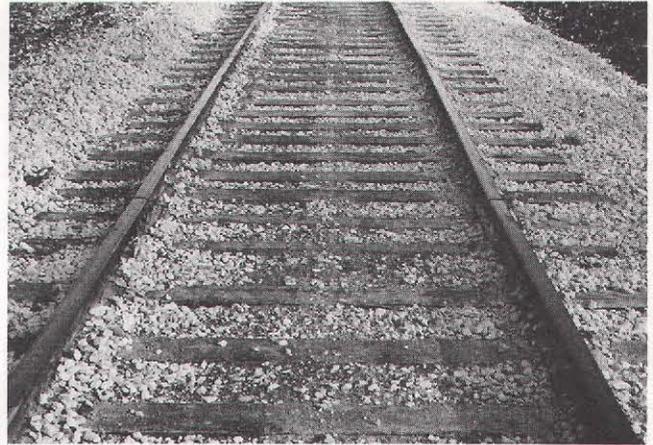
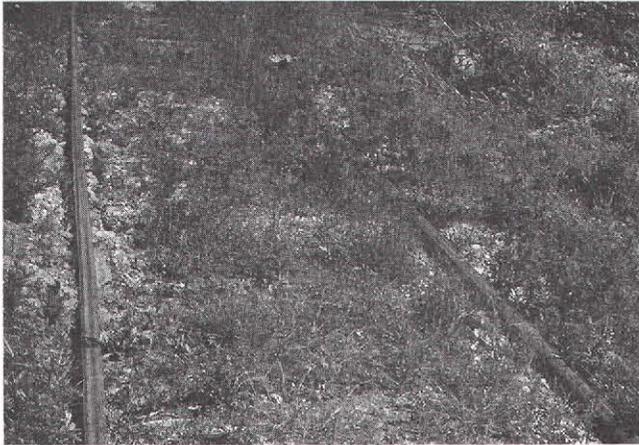
During the 1970's, the Commission maintained a housing planning effort. While the Commission is no longer funded for that effort, some progress has been made in imple-

menting the recommendations included in that program, in particular those recommendations relating to the geographic distribution of subsidized housing. The subsidized housing allocation strategy set forth in the plan identified 49 subareas of the Region. Over the years, progress toward meeting the allocation has been accomplished in 41 of those 49 areas, with 23 of the areas having met more than half of the goals and 11 areas having surpassed the recommended allocations.

● East Troy Railroad

While not illustrative of regional plan implementation, since the project was conceived and carried out as a local community assistance planning effort, the implementation of Commission recommendations for the rehabilitation of the Municipality of East Troy Wisconsin Railroad is illustrative of the extent to which such recommendations are often carried out locally. The Commission was asked to assist the Village of East Troy in evaluating alternatives attendant to the continued provision of publicly subsidized railway service to the Village in the form of a shortline railroad serving a number of local industries. As a result of that planning effort, the Village Board made a decision to continue to provide shortline railway service and to proceed with a major rehabilitation effort over its seven-mile trackage. The Commission assistance services extended not only to the planning and analysis effort that led to that decision, but also to the preparation of detailed plans and specifications attendant to the track rehabilitation effort, to the securing of federal and state funds to aid in the effort, and to the provision of construction inspection services. That track rehabilitation effort was completed and the shortline remains in operation today, serving to provide a vital rail link from the Village to the national railway system.

TRACK REHABILITATION ON THE MUNICIPALITY OF EAST TROY WISCONSIN RAILROAD



These two photographs show the general appearance of the track structure and roadbed on the main line of the Municipality of East Troy Wisconsin Railroad (METWRR) before and after track rehabilitation work done during 1979 and 1980. The left photograph shows the dangerously deteriorated condition of the track structure and roadbed prior to reconstruction. The right photograph shows the condition of same after completion of the work. Most cross-ties were replaced, and the line was rebalasted to provide proper support, alignment, and drainage for the track.

CONCLUDING COMMENTS

Careful review of the regional planning program over its first 25 years of existence, as that program is summarized herein, indicates that regional planning can indeed be an effective force in creating a more attractive, healthful, safer, and efficient regional settlement pattern. Under the Commission work program, an extremely useful planning and engineering data bank has been established and maintained which is being well used by both the public and private sectors. A framework of area-wide development plans designed to address the most pressing areawide problems in the Region has been created and widely adopted by key federal, state, and local implementing agencies. The problems addressed have been as controversial as they have been complex, including freeway, rapid transit, and airport system development; sewage treatment plant location and capacity; sludge and solid waste management; combined sewer overflow abatement; flood control; and containment of urban sprawl. The planning efforts have often involved development projects regionally needed or desired, but objectionable locally. A center for coordinating planning and plan implementation activities within the Region has been established, and through that center substantial progress made

in implementing some of the most important of the recommendations contained in the adopted regional plans.

Modest success has been achieved in influencing three major elements of regional development: the location and capacity of major transportation routes and facilities; the location and extent of major park and open space reservations, including the preservation of the environmental corridors of the Region in essentially natural open uses and the preservation of the prime agricultural lands in agricultural use; and the location, service areas, and capacities of sanitary sewerage and drainage and flood control facilities, which strongly influence the type and location of urban land uses in the Region. Urban development has been encouraged to occur in areas of the Region that are covered by soils suitable for urban use; that are not subject to special hazards, such as flooding and lakeshore erosion; and that can be economically provided with essential public services, including centralized sanitary sewerage, public water supply, and mass transit. Importantly, major progress has been made in abating surface water pollution—primarily, to date, from point sources—and in restoring the environmental integrity of the lakes and streams of the Region. The best remaining woodlands,

wetlands, and wildlife habitat areas of the Region have been protected from deterioration and destruction and a beginning made in the protection of the important groundwater recharge areas of the Region.

The Commission has taken an intergovernmental approach to regional planning which seeks to strengthen the traditional forms of local government within the Region, enhancing the ability of those governments to deal with the serious and costly problems created by areawide urbanization. This intergovernmental approach has certain inherent strengths. Being intergovernmental and, therefore, basically voluntary and cooperative in nature, the Commission has placed great emphasis in its work upon the promotion and attainment of a consensus among the various federal, state, and local units and agencies of government and the private interests concerned with areawide problems and their resolution. This approach depends primarily upon the introduction of relevant information into the complex bargaining process whereby community development decisions are reached in an area which consists of many communities holding diverse, and at times conflicting, goals and objectives. This voluntary, cooperative approach has required the Commission to stress the active participation of all of the public and private interests concerned in the planning effort, a participation which has helped not only to promote a higher level of technical quality in the adopted plans themselves, but also to promote plan implementation.

This intergovernmental approach has also led the Commission to attach great importance to the validity, accuracy, and relevance of the data collected; to the depth and detail of the plans prepared; and to the full exploration and careful evaluation of alternatives to the recommended plans. It has also led the Commission to attach

great importance to the use of the legally adopted comprehensive plan as the primary focal point for the areawide coordination of land use development; for the coordination of such development with supporting transportation and utility systems; for the coordination of the development of each of these systems with the others; and for the abatement of serious environmental problems. The use of the comprehensive plan has, moreover, provided an excellent focal point for meaningful citizen participation in the planning process.

The Commission views its work as a continuing planning process, providing public and private agencies throughout the Region with the data and materials necessary to make sound development decisions. The Commission hopes that the seven constituent counties and the 147 constituent municipalities, as well as the concerned state and federal agencies, will in the years ahead continue to provide the support needed for the Commission to continue its work and to bring its planning efforts to full fruition in the service of the present and future residents of the Region. The real test of regional planning ultimately lies not in the extent to which plan recommendations are made, or even to the extent to which such recommendations are implemented, but in the extent to which the implemented measures actually resolve the areawide problems requiring resolution. The measurements for this real test must be made over the next 25 years as reflected in real conditions attendant to such factors as traffic movement and congestion, ambient air and water quality, and the use of park and outdoor recreation facilities. The Commission is confident that its constituent counties and municipalities and the concerned state and federal agencies will continue to assist in making those measurements, in adapting to change as may be necessary, and in meeting whatever new developmental and environmental challenges may lie ahead.

WHAT OTHERS HAVE SAID

Newspapers serving the Region comment from time-to-time on the Commission's work. The following are editorials selected from many that have been published over the past 25 years.

Plan Guide

THE MILWAUKEE JOURNAL
June 6, 1964

The southeastern Wisconsin regional planning commission has provided the area's communities with a good working guide for modern, orderly planning and zoning, so necessary to growth and prosperity.

Without over-all co-ordinated planning, local planning and zoning boards, however competent, cannot solve regional problems. Each municipality in southeastern Wisconsin, as elsewhere in the state, plans for itself as though it were an isolated, self-contained economic unit.

But the communities are not isolated. They are, as the Milwaukee metropolitan study commission reported several years ago, part of a metropolitan community drawn together by economic, social and cultural ties. Divided as this community is into a hodgepodge of small, separate political subdivisions, some regional uniformity is badly needed. For poor planning and zoning in one city, town or village inevitably affects all surrounding municipalities.

The regional planning commission has now offered a way out of the disorder and chaos in land use practices with a comprehensive plan, including a model zoning ordinance. The commission's 158 page document offers not only the promise of some co-ordination in the seven county region but also of substantial planning and zoning improvements within each of the municipalities in the region. The report points the way toward the most economical and advantageous use of land in the region, without which the resources of the area would be frittered away by fragmented and conflicting local practices.

The regional planning commission has no legal authority to enforce its recommendations. But the seven counties which finance the commission, and the many local governmental units that make up these counties, would be short-sighted if they failed to seize this opportunity for more rational planning. The alternative is continued land use anarchy, under which all the people of the region are the losers.

A Guide to the Future of All Who Live in Milwaukeeand

A special section of this Sunday Journal is a vital document for the decision making now at hand on whether the Milwaukee metropolitan region will grow sickly or healthily in the next 25 years and, if healthily, by which choice of public policies. It is a revealing guide for every citizen, taxpayer and voter in the seven counties.

The explosion of planless urban sprawl that began about 15 years ago led to creation of the southeastern Wisconsin regional planning commission in 1960. It has been making an exhaustive study of land use and transportation patterns in the region as a whole—what they

are now, what will result if they continue unmanaged, how they can be brought under planned control by joint community action.

The first report a year ago told what the situation is now. The second, a key report on alternate courses of action, is the subject of today's 10 page special section, including four full page multi-color maps. After the 150-odd local governments have considered it, a third report will develop the final plan.

The front cover map shows the minimum approach to any planning at all—a "control of existing trends" policy, just not letting sprawl create impossible sewerage

problems, pollute all the ground water, chew up all the natural resources, overload all the roads. The two options for more effective control are a "corridor" plan, guiding urban development along major transportation routes, and a "satellite city" plan, channeling most population growth into clusters around Port Washington, West Bend, Oconomowoc, Whitewater and Burlington.

The back cover map raises the alarm. It shows the dreadful mess the region will be in by 1990 if we just do nothing in particular—if we just let the sprawl go on sprawling aimlessly.

THE MILWAUKEE JOURNAL
April 17, 1966

All in the Same Boat

THE MILWAUKEE JOURNAL

April 21, 1966

The regional planners have presented southeastern Wisconsin with a choice:

Allow current development trends to continue and this region, with a million more people, will be a hodgepodge of eroding sprawl in 1990.

Or, use the land wisely and provide plenty of room for the newcomers while retaining most of the natural blessings.

The decision will be up to the more than 150 local units of government that make up the counties of Milwaukee, Waukesha, Racine, Kenosha, Washington, Walworth and Ozaukee. They are the only forces that can implement the guidelines being set forth by the regional planning commission.

They must take these guidelines seriously, giving them precedence over local planning conflicts, with a mutual attack that doesn't change goals at each municipal boundary

line. Each community must recognize its responsibilities as part of a whole.

They must set aside ample land for park and recreational space and reserve those corridors that contain our natural resources, support our wildlife and replenish our ground water. This would include saving or developing sections of our lake and river shore lines for public or conservation purposes. In some cases, it will mean reclaiming portions of aging, overdeveloped areas or taking land for park purposes that already has been spoken for by exurbanites and speculators. This will inconvenience a relative few, but bring an added reward. Public parks generally increase surrounding property values and generate new income for an area.

They must check the spread of pollution by stringent building controls and installation of sewers and treatment facilities in the many

areas where they are badly needed. Opponents of this are trying to weigh dollars and cents against something that can't be added up on a cash register—the loss of our lakes, rivers and well water.

These programs all require cooperation, a word some of our Milwaukee county communities don't recognize as yet. The lack of cooperation is one reason we find ourselves reacting to problems instead of anticipating them. Recent cooperative gestures on the part of some suburbs and the city and the county are encouraging, and hopefully will expand.

The recent "Journal Visits" series showed that most of the communities growing up in the rural areas have similar high aspirations and similar problems. In short, we are all in the same boat. It will travel more smoothly if we all row in the same direction.

To Revive a River

With remarkably few exceptions the history of the lower Milwaukee river basin is a sorry tale of error compounded by indifference; of roads, housing and other structures built on flood plains, to be soused each time the river rises; of septic tanks weeping filth, of inadequate community and industrial treatment plans, of soil erosion, of marshes drained and filled.

These matters are tightly interrelated and must be considered togeth-

er. This comprehensive approach is proposed by a committee of the southeastern Wisconsin regional planning commission. If the full commission and the five involved counties agree, a three year, \$516,000 study of the river basin would be made and a comprehensive plan drafted. The federal government may finance two-thirds of the cost.

Counties which would be asked to participate are Milwaukee, Fond du Lac, Ozaukee, Washington and She-

boygan. They should welcome the opportunity as offering a mighty economy in the long run. Cost of the study will be minor compared with the massive future bill for rescuing unplanned development from the consequences of human folly and trying to revive a river.

THE MILWAUKEE JOURNAL

May 16, 1966

More Express Buses

The proposal to experiment with expanded express bus service in Milwaukee now seems to us to be worth sympathetic consideration. If the common council approves, the city would apply for \$420,000 in federal funds available for experimentation in mass transit ideas. The Transport Co. would operate five new "park and ride" Freeway Flyer express bus routes into the downtown area. Express bus service via freeway already has demonstrated modest strength here and an even greater potential.

The city would reimburse the company for the added costs of opening and operating the service, estimated

at \$210,000 for three years. The company itself would make no profit. The city also would provide \$50,000 to improve or build the required new fringe parking lots. The southeastern Wisconsin regional planning commission would evaluate the success of the experiment during its three year span.

When the idea first was proposed we were skeptical. On re-evaluation, however, it seems that any idea which offers hope of checking the seemingly endless spiral of more autos, more freeways and more impact on city beauty is worth careful study.

Use of public funds to underwrite such an experiment could prove an economy in the long run. Spending today for fringe parking lots may be cheap compared with spending tomorrow for new downtown parking garages on prime real estate. Dollars spent now to attract riders aboard express buses are nothing compared with possible millions spent for future freeways.

THE MILWAUKEE JOURNAL

May 16, 1966

Now We Have the Plan

Not every day will 600 local government officials turn out for a full day of detailed discussion on regional planning. They did so Tuesday at a public hearing on the proposed land use and transportation plan for southeastern Wisconsin.

The commission staff of the regional planning commission has performed an awesome chore in data gathering, in planning and in public relations with government units involved. It has spent more than three years and nearly \$2 million assembling its plan. In the process it assembled an estimated 92.5 million bits of data on the region, stored on

punch cards. It has painstakingly explained what it is doing and why.

Two developments attest to commission effectiveness. G. H. Bakke, chairman of the state highway commission, announced Wednesday that his agency will use the planners' blueprint as a general guide to locating freeways in the region once the seven county boards approve it. The state resource development department, new guardian of Wisconsin's water quality, has earmarked the seven county area as one of five major regions in the state for carrying out the battle against pollution.

The 21 member commission is ex-

pected to approve the master plan in December. Then the real test begins. The plan is a point of departure, a skeleton by which to judge future development in the region. It will be up to the 153 local units of government to put flesh on the bones with detailed land use plans.

Unless they implement the plan, as one speaker remarked, "it's just an academic exercise." The blueprint is not immutable. It needs to be, and will be, refined to meet changing needs and prospects. Its chinks need filling in. It is up to local government to fill them wisely.

THE MILWAUKEE JOURNAL

October 27, 1966

PLANNING FOR AREA GROWTH

Impressive was the last Thursday night meeting when representatives of the Southeastern Wisconsin Regional Planning Commission presented in detail their studies and projections of the effects of population growth in southeast Wisconsin and specifically its effect on Waukesha County and the general local area.

Covered was the effect of planned versus unplanned land use, on sanitation, traffic and other potential problem items. The projected population increases were given by county, towns and cities. (See news story, page 1, section 1).

Pointed out was that uncontrolled land use would expand over twice the area than would controlled use planning which would preserve farm land. It would also control population density per square mile. Involved is the cost of needed streets, roads, highways, schools, parks and the all important matter of sanitary services.

The speaker also pointed out the need to provide space for growing cities and for expanding their facilities into continuous population areas. Stressed was the interlocking dependency upon cooperation to deal with those needs.

The statement was made that much of the land area in Waukesha County is of a type that does not provide efficient operations of septic tanks. This involves health and sanitation, including possible contamination of wells.

The well attended meeting included representatives of the towns of Summit, Oconomowoc, Concord, Ixonia and Ashippun, the city of Oconomowoc and the villages of Oconomowoc Lake and Lac La Belle.

Those at the meeting reflected open-minded and serious attention to the overall problems to be faced in the future. Obvious was the interest in the welfare of people without regard to political boundaries.

The character of the interest and attitude indicated that there would be recognition in the future of the need to jointly face up to growth problems. That fact gave every indication that this area is ready to meet those problems to gain the best possible end result for the citizens. With that spirit the area can face the future with confidence.

OCONOMOWOC ENTERPRISE

December 15, 1966

Planning On An Area-Wide Basis

"The functions of the regional planning commission shall be solely advisory to the local governments and local government officials comprising the region."
[s. 66.945 (8), Wis. Statutes]

In spite of this clear and concise language in the Wisconsin statute, there have been some misunderstandings and misleading statements as to the powers of regional plan commissions in Wisconsin.

There are a few vocal critics of regional planning who are urging local governments to withdraw from regional plan commissions because they claim "the commissions have unlawful power to tax and regulate property." The only power the commissions have "to tax" is that granted by the legislature to raise up to 3 cents on each \$100 of value. The commissions have absolutely no power to "regulate property." Commissions are supposed to recommend to local officials how local governments regulate the use of property through zoning ordinances, but if those officials do not care to take such advice there is nothing that can be done to force them to do so.

Critics also claim that regional plan commissions are a step toward regional or metropolitan government. They view the whole thing as part of some kind of a plot controlled by unnamed national or international forces. Actually "metro" government is far more likely to occur

if local governments do not voluntarily cooperate through multi-jurisdictional advisory agencies than if they do utilize such agencies to solve area-wide problems in ways that the officials of the local governments feel are in the best interests of their constituents. Metro governments, with the power to dictate to local governments, have only occurred in other states when local governments, acting as islands unto themselves, have not been able to find solutions to area-wide problems affecting their people.

Sometimes these umbrella governments have been forced onto people by a state government, but sometimes they have been created by voters in the area who are frustrated because they cannot get the services they need from their local governments acting individually. City and village home rule can best be preserved if municipalities prove their ability to handle the problems that confront their citizens. Sometimes this can best be accomplished through voluntary cooperation of all the local governments in an area.

Sure, regional plan commissions are going to make recommendations which are not universally acceptable. But it is far better to work within the established framework to have these proposals modified or abandoned than to isolate yourself from the establishment and thereby deny yourself any input into the system. (E. J.)

THE MUNICIPALITY

VOL. 69 MAY, 1974 NO. 5

Walworth's Strong Zoning Ordinance

After years of difficult and sometimes controversial work, Walworth County has won nearly full acceptance from town governments of the county's strong new zoning ordinance. The plan closely follows recommendations of the Southeastern Wisconsin Regional Planning Commission, as based on Soil Conservation Service soil sur-

veys.

It is unusual, but highly commendable, for SEWRPC's land use plans to be accepted with the dedication shown by the Walworth County Board. It is even more unusual to get such widespread acceptance by the unincorporated towns within a county.

While the Walworth plan is

not perfect — some deviations from the SEWRPC plan were enacted — the county seems now to have a better chance than many other parts of the region to cope with the pressure of urban sprawl that surely will continue in the years ahead.

THE MILWAUKEE JOURNAL

June 1, 1976

Root River Ripoff

Milwaukee area residents have been blessed by having the region dotted with ample portions of green space. It is an asset to be treasured. Any action that would infringe upon the area's park lands and green belts ought to be firmly resisted.

Currently under consideration is a plan that would significantly alter the Root River Parkway — that corridor of green meandering through the southwestern portion of the metropolitan area. It has been proposed that the river be channelized, that is, transformed from a natural stream to a concrete lined ditch that would cut through West Allis, Greenfield and part of Greendale. Forget that such a man made channel would alter the flow of the stream, devastate

the wildlife along the water corridor and destroy the beauty of the parkway. Forget also that construction would cost taxpayers an estimated \$6 million.

The aim of channelization is to control periodic flooding of the Root River and protect a number of homes and other structures along the parkway from water damage. Channelization, unfortunately, may be the only realistic answer in West Allis because sewer lines already have been constructed in anticipation of deepening and ditching the river bed. But it certainly need not be the answer for Greenfield where most of the support for the project seems to be.

The Southeastern Wisconsin Regional Planning Commission

(SEWRPC), which has made several studies of the problem, recommends that the county buy and remove the affected homes and structures, which should never have been built in the flood plain in the first place. Cost is estimated at \$1.2 million.

If remedial steps are to be taken along the Root River, the SEWRPC recommendation is vastly preferable. It would cost less money while preserving the parkway's natural environment. Some homeowners would be forced to move. But Milwaukee area taxpayers should not be asked to pay \$6 million to protect a few landowners who knew the risks, or should have known them, when they bought property along the parkway.

Land Use Controls Pollution Fight Key

You can't just stand on the riverbank throwing dollars into the water and expect the pollution to go away.

We've been doing too much of that in southeastern Wisconsin. And it's not likely that people are much smarter about it elsewhere in the state.

A new study by the Southeastern Wisconsin Regional Planning Commission (SEWRPC) indicates that, despite tens of millions of dollars spent

on pollution abatement, with significant local gains, overall the region's rivers are more polluted than a decade ago.

It's deplorable, but maybe not surprising. The crux of the problem, after all, is land use, and we haven't been awfully smart in dealing with rapid urbanization, faulty septic systems, overloading of sewerage and treatment plants, or increased urban and agricultural runoff.

Generally, SEWRPC does a marvelous research and planning job, and repeatedly warns of the land use dangers. But too often this good advice goes unheeded. And if SEWRPC, the most comprehensive and effective regional planning agency in the state, can't make its plans stick sufficiently, then surely some other approach is needed. Legislation on that problem is in the works.

What it comes down to

is whether this self-governing society is capable of prospering without destroying the natural resource base for future generations. It seems that the laws and procedures we've been using so far aren't much more effective, overall, than standing on the riverbank throwing dollars at pollution.

THE MILWAUKEE JOURNAL
February 23, 1977

Visionary Park Plan Offers Splendid Recreation

It's spring, and another monumentally dull report has bloomed in the offices of the Southeastern Wisconsin Regional Planning Commission.

But this one truly fits the season. SEWRPC has turned its painstaking scrutiny toward the outdoor recreational needs of the region's people.

Those of us who live here often take for granted the variety, beauty and charm of the region's glacial geology, Lake Michi-

gan shoreline, inland lakes, quiet rivers, fertile soils and four glorious seasons. The new SEWRPC study puts it all together.

Several years ago, SEWRPC was asked by its member counties to prepare such a plan. Delayed by other business, it now is nearing completion after intensive surveys of people's preferences and outstanding parksites.

However prosaic the writing, its vision is poet-

ry. The plan proposes 20 new parks of 250 acres or more to protect our best natural amenities. The parks would be connected by 400 miles of trails following streams, lakeshore and kettle moraines. Such a system would offer true escape for the 2.2 million persons expected to live here by the year 2000 — a particularly important point if the energy squeeze makes today's trips to faraway parks less possible.

The report will be the subject of public hearings in the seven counties before being offered to the county boards as a guide to park and open space spending. Here's the chance of a lifetime to support a plan whose fulfillment would assure the protection of the natural environment that makes our area a joy to be in.

THE MILWAUKEE JOURNAL
April 26, 1977

COMMENT

Channel Four - WTMJ Radio - WKTJ 94

19-9

Broadcast by Ed Hinshaw.

WTMJ-TV within News Four Milwaukee, Monday, September 15, 1980.

WTMJ Radio at 6:15 p.m. and 10:58 p.m., Monday, September 15, 1980 and 12:15 a.m. and 8:35 a.m., Tuesday, September 16, 1980.

WKTJ-FM at 12:15 a.m., Monday, September 15, 1980 and 8:20 a.m., Tuesday, September 16, 1980.

MR. HINSHAW: They call it SEWRPC - the Southeastern Wisconsin Regional Planning Commission. It does some very important things for all of us. It puts together plans for transportation, physical development and similar things.

Now, there's talk of working up a comprehensive plan for economic development. It's a darn good idea. With changes in the economy and with changes in federal and state policies, the need for a comprehensive, long-range economic plan for this area has become immense. The Regional Planning Commission - SEWRPC - is the proper organization to do it.

There's just one problem - the same problem SEWRPC faces all the time. Any sensible recommendations made by SEWRPC are likely to be overlooked or ignored by some - or all - of the local and county governments which have the task of carrying out the regional plan.

SEWRPC has little power. It needs more clout in order to get things done.

Planning without action is an exercise in futility. We'd like to see SEWRPC have the power to turn some plans into action. Local and county governments can provide that power simply by listening and thinking.

Septic failures show sewers' value

You wash your clothes at a laundromat. You take only quick showers or none at all. You flush the toilet only when it's full. You eat on paper plates.

Those are the rules of the house for the Jim Hediger family in the Town of Lisbon. Their septic tank has failed and they can't afford a replacement system. Thus, virtually every drop of water that goes down the drain courts trouble.

The Hedigers' case may be extreme. However, it's not altogether unique. As The Journal's Deborah Hurley reported last week, an estimated 20% of the 35,000 septic systems in Waukesha County aren't working properly and thus may be contaminating ground

or surface waters. Poorly draining soils and antiquated disposal systems, built before state standards were strengthened, are among the causes, compounded by too-rapid urban growth.

As long as 25 years ago, the Southeastern Wisconsin Regional Planning Commission was warning correctly that the only responsible, long-term solution to waste disposal was connection to a sewage treatment plant. While some communities, such as the Town of Brookfield, are commendably (if belatedly) planning for sewers, much of Waukesha County, sad to say, still hasn't gotten the message.

Political disputes have stymied some hook-ups. And, de-

spite a study recommending that the Town of Oconomowoc build a sewage collection system and connect it to the City of Oconomowoc's treatment plant, town residents have angrily beaten back any such effort.

Understandably, no one wants to pay the thousands of dollars it would cost each homeowner to construct the system. But those costs, spread over a period of years, pale beside the larger burden of coping with failing septic systems and degraded lakes.

As the old saying goes, nature bats last.

THE MILWAUKEE JOURNAL
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Blue Mound jam teaches sad lesson

Pity the unfortunate motorist who must use Blue Mound Rd. in the City and Town of Brookfield. Buildings have sprouted along parts of the highway about as swiftly as quack grass in an untended lawn, and traffic volume has swelled wildly beyond projections.

The crush did not occur overnight, although recent development has been extremely rapid. After all, the Southeastern Wisconsin Regional Planning Commission has been suggesting for 20 years that portions of Blue Mound be widened to six lanes. But the State Transportation Department says the badly needed widening is unlikely to begin before the early to mid-

1990s because of the lead time needed for such projects.

If nothing else, the Blue Mound experience teaches the need to adhere to intelligent planning. In our opinion, a community has a duty to ensure that commercial development is matched with adequate support systems, including roads capable of handling the traffic. A community unable or unwilling to finance the support system has no business letting even the most enticing developments proceed.

In our opinion, the Blue Mound jam-up stems from shortsightedness by the two Brookfields. SEWRPC asserts that population, employment and the number of households near the Blue Mound strip, as

well as traffic, have reached or exceeded the levels expected for the year 2000. Though a city moratorium on construction along the road was recently enacted, the pause is only temporary — and far too late.

We sympathize with the Elmbrook School Board member who opposes widening Blue Mound because he sees Brookfield being "paved under." But his remarks are more appropriately directed at the misguided folks who allowed willy-nilly development in the first place.

THE MILWAUKEE JOURNAL
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