

COMMISSION ADOPTS KENOSHA PLANNING DISTRICT PLAN

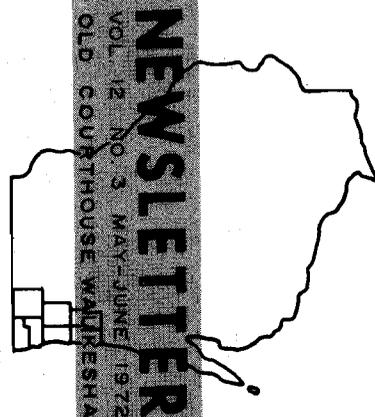
At its annual meeting on June 1, 1972, the Commission formally adopted the Comprehensive Plan for the Kenosha Planning District, which represents an additional element of the comprehensive plan for the development of the seven-county Region. The plan was prepared by the Commission and local planning and engineering staffs and consultants working under the direction of a citizens advisory committee created by the Commission for this purpose. The plan was subsequently presented to county, city, and town officials at a public hearing in August 1967.

The plan, the eighth to be adopted by the SEWRPC as part of the comprehensive plan for the development of the Region, was previously adopted by the City of Kenosha Plan Commission on June 6, 1968.

The Kenosha Planning District includes all that portion of Kenosha County lying east of IH 94, consisting of the City of Kenosha and the Towns of Pleasant Prairie and Somers. It was the first urban district plan to be completed within the Region. The preparation of the plan was undertaken by the Commission upon the joint request of the city and the two towns.

The purpose of the District planning program was twofold: to provide the city and towns in the District with a comprehensive community development plan, which could be cooperatively adopted and jointly implemented, containing recommended proposals for land use, transportation, and community facility and public utility development

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necessary to meet the needs of the District to 1990; and to carry the adopted regional plans into the greater depth and detail necessary for full integration of regional and local development objectives and plans, thereby promoting ultimate plan implementation at both the regional and local levels.

The salient District plan recommendations, as well as the inventories and forecasts on which the plan recommendations are based, were summarized in a previous issue of this Newsletter (see Volume 7, No. 6, November-December 1967) and are fully documented in SEWRPC Planning Report No. 10, A Comprehensive Plan for the Kenosha Planning District, consisting of two volumes. Volume 1 contains the findings and recommendations of the studies, analyses, and forecasts of the planning proposals, including specific recommendations for plan implementation. Volume 2 contains detailed drafts of recommended implementation devices including zoning, official map, and subdivision control ordinances; and a capital improvement program.

The plan has been actively used as a guide to the making of important development decisions within the District by the city, towns, and certain state and federal agencies of government for four years. Examples of important plan implementation actions taken since completion of the plan include:

- Construction of the new sewage treatment plant on the Des Plaines River, as recommended in the adopted plan, to serve existing and proposed urban development in the Town of Pleasant Prairie.
- Reconstruction of the Sixth Avenue Bridge across the mouth of Pike Creek on the Lake Michigan shoreline in the City of Kenosha.
- The extension by the County of CTH E from 30th Avenue to STH 32 in the Town of Somers.

KENOSHA PLAN ADOPTED—continued

- The location of the new Ocean Spray Cranberries, Inc., plant and the Ladish Co. Tri-Clover Division plant in areas recommended for major industrial development in the plan.
- Acquisition of Anderson Park, a 95-acre public park to serve the developing southern portion of the District, by the City of Kenosha as recommended in the adopted plan.
- Preparation of TOPICS and Urban Aid System plans for highway improvement, all in full accordance with the plan.

Most recently, the City of Kenosha was awarded federal grants totaling nearly \$1.4 million for trunk sewer and sewage treatment plant improvements based upon conformance of the proposed sewerage improvements with the adopted District plan. Because the plan has been actively used as a guide for the making of day-to-day development decisions by local public officials from within the District as intended, it has remained a viable document still current and suitable for adoption by the Regional Planning Commission five years after its completion.

MENOMONEE RIVER WATERSHED STUDY BEGINS

The Southeastern Wisconsin Regional Planning Commission has begun work on a comprehensive three-year study of the Menomonee River Watershed, the fourth comprehensive watershed planning program to be undertaken by the Commission. Funding arrangements for the \$232,900 study have been completed, and the cost of the study will be shared by the U. S. Department of Housing and Urban Development; the U. S. Environmental Protection Agency; the Wisconsin Department of Natural Resources; and Milwaukee, Ozaukee, Washington, and Waukesha Counties.

One of the first steps to be taken in the conduct of the study was a public hearing held on April 19, 1972, in the Wauwatosa Memorial Civic Center.

MENOMONEE RIVER STUDY BEGINS—continued

The hearing was attended by about 54 persons, many of whom expressed their views on what they believed to be the major water resource and water resource-related problems within the watershed, as well as the priorities which these problems should be accorded in the Commission study.

Water pollution was most frequently mentioned by participants in the hearing as a serious problem deserving highest priority for resolution. Other problems frequently mentioned were the need for additional park and related open-space reservation and the need to enhance the watershed and particularly its riverine areas as a habitat for fish and wildlife. Flooding was also mentioned as an important problem, but the majority of those appearing asked that flood problems be resolved without resort to further channelization of the stream system of the watershed.

The comprehensive study of the watershed was requested on July 18, 1967, by the City of Wauwatosa Common Council and subsequently by the City of Brookfield Common Council and the Milwaukee County Board of Supervisors, in an attempt by these local governing bodies to seek sound, long-term solutions to the serious water pollution and flooding problems existing in the watershed. As a result of the requests, the Menomonee River Watershed Committee was formed by the Commission. The members of the Committee originally included the following 14 local public officials and citizen leaders from throughout the watershed:

Herbert A. Goetsch	Commissioner of Public Works, Chairman	City of Milwaukee
Francis D. Kuckuck	Vice-Chairman	City Engineer, City of Wauwatosa
Kurt W. Bauer	Secretary	Executive Director, SEWRPC
James F. Egan		Commissioner, SEWRPC
Louis W. Falk		Executive Vice-President and Secretary, The Falk Corporation, Milwaukee

MENOMONEE RIVER STUDY BEGINS—continued

Frederick Gottlieb	Village Commissioner, Village of Menomonee Falls
Howard W. Gregg	General Manager, Milwaukee County Park Commission
George C. Keller	President, Wauwatosa State Bank
Maurice L. Kimbrough . . .	City Engineer, City of West Allis
Thomas A. Kroehn	District Director, Southeast District, Wisconsin Department of Natural Resources
Ray D. Leary	Chief Engineer and General Manager, Milwaukee-Metropolitan Sewerage Commissions
John P. Murphy	Milwaukee County Board Supervisor; Chairman, Milwaukee County Plan Commission
Walter J. Tarmann . . .	Executive Director, Waukesha County Park and Planning Commission
Jeremy C. Zimmerman	Consulting Engineer, Village of Germantown

Other individuals who participated actively in the work of the Committee include Robert E. Seaborn, Plant Engineer, The Falk Corporation; Gilbert Vosswinkel, Sewer Research Engineer, City of Milwaukee Department of Public Works; and Donald G. Wieland, Division Engineer, Milwaukee-Metropolitan Sewerage Commissions.

Since the original committee was named, two of its members have been replaced. Mr. Kuckuck, who was recently elected Mayor of Wauwatosa, has been replaced by J. William Little, City Administrator for Wauwatosa; and Mr. Zimmerman has been replaced by Mr. Thomas Muth, newly appointed engineer for the Village of Germantown.

Recently the Commission, in an effort to broaden the interests and skills represented on the Committee, voted to add the following members:

MENOMONEE RIVER STUDY BEGINS—continued

Glenn H. Evans. President, Citizens for Menomonee
River Restoration, Inc.
Raymond J. Kipp Dean, School of Engineering,
Marquette University
Clark Wangerin City Engineer, City of Brookfield

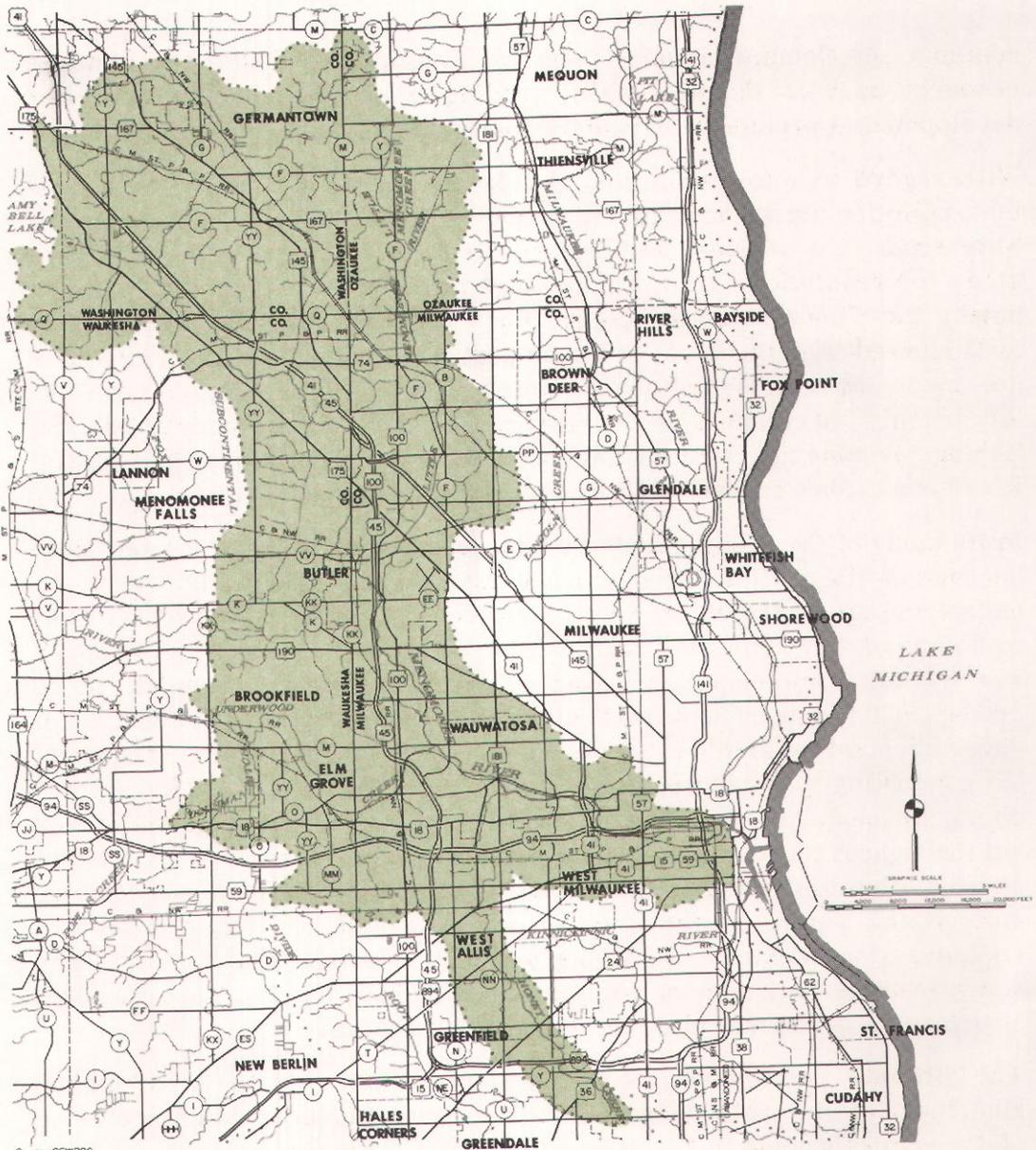
The Committee, working from March 1968 to October 1969, prepared a Prospectus for the needed study. The Prospectus, published by the Commission in November 1969, documented the need for the watershed planning program, specified the scope and content of the various work elements which are to comprise the study, provided sufficient cost data for the development of an initial budget, and recommended the best means for establishing and funding the study.

The watershed, a natural surface water drainage basin of about 136 square miles, has its source in a large wetland area located in the northeastern corner of the Village of Germantown. It includes all or major parts of the Cities of Greenfield, Milwaukee, Wauwatosa, and West Allis in Milwaukee County; the City of Mequon in Ozaukee County; the Village of Germantown in Washington County; and the Cities of Brookfield and New Berlin and the Villages of Butler, Elm Grove, and Menomonee Falls in Waukesha County (see Map 1).

From its source, the Menomonee River flows southeasterly through Washington, Waukesha, and Milwaukee Counties until it joins the Milwaukee River-Lake Michigan estuary near N. Water Street and E. Chicago Avenue in the City of Milwaukee. The River has four major tributaries: Honey Creek, Underwood Creek, Dousman Ditch, and the Little Menomonee River. Of the approximately 180 acres of surface water area within the watershed, about 147 acres, or 82 percent, are provided by the Menomonee River and its four major tributaries.

The Committee in the Prospectus identified the major problems of the watershed as flooding, water pollution, park and open-space reservation, industrial water use and supply, and changing land use. If allowed to

Map 1
 MEMOMONEE RIVER WATERSHED



Source: SEWRPC

MENOMONEE RIVER STUDY BEGINS—continued

continue, the Committee said, these would ultimately destroy the natural resource base of the watershed, leading to severe environmental and developmental problems extremely costly and difficult to correct.

With regard to water pollution, the Committee said in the Prospectus that pollution throughout much of the 66-mile channel system of the watershed is a serious problem requiring comprehensive basin-wide study for resolution. The regional stream water quality survey carried out by the Commission in cooperation with state and local agencies in 1963 showed that the level of water quality in the River generally does not meet the state-established water use objectives and standards. Where only 30 years ago the River was used for swimming and for fishing for bluegill, sunfish, and perch, today recreational use of the River has all but ceased and only forage fish are found.

In its study of the problems of the watershed, the Committee noted that, because of its multiple effects, changing land use is the basic problem underlying all of the other water resource and water resource-related problems of the watershed. Occupation of the watershed floodplains by residential, commercial, and industrial developments preempts more proper use for park and recreation facilities, not only forcing local governments to use other, more costly lands for recreation purposes, but generating a demand for costly flood control works. Unplanned and poorly planned land use development, not only within the riverine areas but throughout the watershed, may overload sewage treatment facilities, causing them to discharge raw or partially treated wastes to the surface and ground waters of the watershed; cause soil erosion and stream sedimentation; destroy woodlands and wetlands essential for a healthy and attractive environment within the watershed; and increase the cost of providing essential public facilities and services.

The ultimate purpose of the comprehensive study is to assist in the abatement of the water resource and water resource-related problems of the watershed and in the preservation and enhancement of the natural resource base. The study will use a seven-step watershed planning

MENOMONEE RIVER STUDY BEGINS—continued

process which includes study design; formulation of objectives and standards; inventory; analysis and forecast; preparation, testing, and public evaluation of alternative plans; plan selection and adoption; and preparation of precise plans.

The study design phase, which will include careful consideration of the results of the initial public hearing on the problems of the watershed, will specify the content of the necessary fact gathering operations, define the geographic subareas for which the data will be gathered and plans prepared, outline the manner in which the data collected are to be processed and analyzed, specify requirements for forecasts, and define the nature of the plans to be prepared and the criteria to be used in their evaluation and adoption.

The watershed development objectives and standards may range from general development goals for the watershed as a whole to detailed planning and engineering criteria covering rainfall intensity-duration-frequency relationships, rainfall-runoff relationships, channel capacity formulae, backwater computations, and water use objectives and supporting water quality standards.

Because reliable basic planning and engineering data collected on a uniform, areawide basis is essential to the formulation of workable watershed development plans, inventory becomes the first operational step in the planning process. This phase will include base mapping and related control surveys, as well as necessary hydrologic, hydraulic, water quality, water use, soil capability, land use, economic and population base, park and related open space, public utility, and water law inventories.

The analysis and forecast phase is necessary to estimate future needs for land, water, woodland and wetland, fish and wildlife, and open-space resources. The technical analysis of water resource problems, characteristics, and capabilities as well as the analyses of economic and

MENOMONEE RIVER STUDY BEGINS—continued

population growth trends and related resource requirements are necessary so that the availability of physical resources and the demand for these resources can be determined.

The ultimate purpose of the proposed watershed planning program is the preparation and presentation of several feasible alternative watershed plans for public evaluation and the selection of a final plan for adoption and implementation. Alternative plans may include proposals for pollution abatement and water quality management, sanitary sewerage, flood protection, park and open-space reservation, and land use development within the watershed as a whole and particularly within the watershed riverine areas. High water surface profiles and attendant large-scale flood hazard maps will be developed for critical areas of the watershed as a basis for sound shoreland and floodland zoning by the concerned local units of government. The study will be accomplished primarily by the Commission staff, supplemented by consulting services as necessary, under the policy direction of the Watershed Committee. The study is scheduled to be completed by April 1975.

The Commission has to date completed watershed plans for the Root, Fox, and Milwaukee River basins, each of which have been adopted by the Commission, most of the counties, and many of the local units of government which are affected by the plans.

MILWAUKEE AREA TRANSIT PLAN ADOPTED

As announced in the previous issue of this Newsletter (Vol. 12, No. 2), the Southeastern Wisconsin Regional Planning Commission on March 2, 1972, adopted a Milwaukee Area Transit Plan, which reaffirmed original findings of the Commission that a flexible, rubber-tire transit system is the best means for providing a high level of rapid transit service within the Region. The Transit Plan represents a refinement of and amendment to the rapid and modified rapid transit recommendations contained in the regional transportation plan adopted by the Regional Planning Commission in 1966.

TRANSIT PLAN ADOPTED—continued

One of the specific plan implementation actions recommended in the 1966 regional transportation plan was that the Milwaukee County Expressway Commission assume jurisdictional responsibility for implementation of the recommended rapid transit and modified rapid transit plan elements. These included construction of an exclusive transitway in the East-West freeway corridor of Milwaukee County, and the provision of the necessary stations, peripheral parking lots, and other appurtenances required to make the recommended transit element fully effective. The first step in this process was for the Expressway Commission to obtain state legislation that would enable it to assume responsibility for certain transit, as well as freeway, facilities in Milwaukee County. Enabling legislation to at least permit the Milwaukee County Expressway Commission to begin implementation of the transit plan was obtained in 1968 and resulted in a change in the formal name of the Commission to the Milwaukee County Expressway and Transportation Commission.

In 1968, the Expressway and Transportation Commission began preliminary engineering studies required to implement the rapid transit and modified rapid transit plan recommendations of the adopted regional plan. It created a Mass Transit Study Advisory Committee, composed of individuals representing a broad variety of interests from throughout the Milwaukee metropolitan area, and a Mass Transit Study Technical Committee, composed of planning and engineering technicians from local, state, and federal agencies in the Region to assist in the engineering study. The Southeastern Wisconsin Regional Planning Commission was represented on each of these two committees.

The study itself was conducted by an interagency staff which included representatives from the staffs of the Expressway and Transportation Commission, the SEWRPC, the Milwaukee and Suburban Transport Corporation, and Barton-Aschman Associates, Inc., a nationally known

TRANSIT PLAN ADOPTED—continued

planning and transportation engineering firm in Chicago, Illinois. The \$582,000 engineering study was jointly funded by the U. S. Department of Housing and Urban Development, which contributed 38 percent of the total cost; the U. S. Department of Transportation, which contributed 38 percent of the total cost; the Wisconsin Department of Transportation, which contributed 9 percent of the total cost; and Milwaukee County, which contributed 15 percent of the total cost.

As part of the transit plan, the SEWRPC prepared a set of objectives, principles, and standards for transit system development. Objectives are defined as goals toward the attainment of which plans and policies are directed. Principles are tenets used to support objectives and to prepare standards and plans. Standards are criteria used as a basis of comparison to determine the adequacy of plan proposals to attain objectives. According to the objectives which were outlined, transit facilities should:

- Be located and coordinated so as to effectively serve the existing land use pattern and promote the implementation of adopted land use plans.
- Be located and designed so as to preserve and enhance desirable existing community facilities and land use patterns and to promote efficient land use.
- Promote total transportation flexibility, allowing transit service to be readily adapted to changes in the requirements of, or the balance between, private and mass transportation and to changes in transit technology.
- Provide a means of access to areas of employment and essential services for all segments of the population, but especially for low- to middle-income families and others who do not or cannot operate an automobile.
- Be located and designed to provide user convenience and comfort, thereby promoting transit use.

TRANSIT PLAN ADOPTED—continued

- Be located and designed in relation to the urban environment so as to minimize any harmful effects they may have on the surrounding physical environment, and to assist in the improvement of the design of the total urban environment.
- Be economical and efficient, meeting all other objectives at the lowest possible cost.

Recommendations concerning the type of vehicle which could best provide the desired transit service for the Milwaukee metropolitan area were made only after careful study by the Barton-Aschman firm of alternative transit equipment systems, including conventional rail rapid transit. In the study of the various systems, manufacturers of various equipment systems were interviewed and test rides made on operational and prototype vehicles. Performance criteria were established to help in evaluating the various systems, and included the following:

- Equipment must have a top speed of at least 50 mph and preferably 70 mph. A minimum 50 mph speed is necessary to create travel times that are competitive with those of the automobile. Speed in excess of 70 mph has little or no application in an urban system which contains a reasonable number of station stops.
- The line haul sections of the system shall have the capacity to move 22,500 seated passengers per hour in one direction on a single lane or track width.
- Equipment shall be capable of an acceleration rate of 2.5 mph per second from 0 to 30 mph and a deceleration rate of 3.5 mph per second.
- For passenger comfort and convenience, vehicle performance and passenger-related elements of equipment shall be consistent with the standards established by the National Research Council.
- Air pollution produced by equipment shall be minimal and must be at or below the levels established by the Federal Clean Air Act.

TRANSIT PLAN ADOPTED—continued

- The cost feasibility of the recommended system must be established relative to other alternative equipment systems.
- Equipment and control systems used in the initial transit system must be operational by 1975 to meet the desired implementation schedule.

Using these criteria, the firm evaluated the following system categories:

1. Fixed rail systems, which include monorail (vehicles suspended from or operating astride an elevated beam structure), and rail rapid transit (standard and large automated vehicles operating on rails or guideways, some with bi-modal wheel-on-rail transit).
2. Flexible route equipment, such as bus rapid transit, controlled manually on streets and freeways and either manually or automatically on special rights-of-way. A dual-mode rail-bus was also considered. This type of bus is modified to operate under manual control on streets and freeways with special suspension systems for operating on rails.
3. Continuous flow systems, consisting of automatically controlled vehicles operating at relatively low speeds on various types of guideways, with automatic control of speeds, headways, and routings.
4. Continuous motion equipment, or high-speed, automatic continuous-motion vehicles, often moving in trains, using some form of conveyor.
5. Other types of equipment, such as vehicles propelled by vacuum or gravity through a tube-like structure.

After evaluating the transit systems, Barton-Aschman Associates reaffirmed the Regional Planning Commission's original findings that a flexible, rubber-tire transit system, using the motor coach as the vehicle, is the best for providing a high level of transit service within

TRANSIT PLAN ADOPTED—continued

the Region. The resulting rapid and modified rapid transit system recommended for the Milwaukee area depends largely upon completion of the proposed freeway network and, very significantly, upon the construction of an exclusive bus rapid transitway in the East-West corridor.

The Milwaukee Area Transit Plan contains the following significant recommendations:

1. The construction on a recommended alignment of a fully grade-separated transitway for the high-speed operation of buses in the East-West freeway corridor of Milwaukee County, from a point near N. 13th Street at Marquette University in the Milwaukee central business district to a point along IH 94 near the Milwaukee-Waukesha county line, a distance of about eight miles (see Map 2). The original transitway in this corridor, as recommended in the adopted regional transportation plan, was about 4.5 miles long. The transitway would be partially automated, using a guideway system to control the lateral placement of the buses on the transitway.
2. The expansion of the number of miles of rapid and modified rapid transit lines in the total rapid transit system from 84 miles, as proposed in the adopted regional transportation plan, to a total of 107 miles. Nearly all of the route mileage would be either on the freeway system or on the exclusive transitway (see Map 2).
3. The construction of transit terminal stations at 39 locations in Milwaukee transit service area. These locations, together with the year proposed for initial operation, are shown on Map 2. The original recommendation in the adopted regional transportation plan was to construct 35 such stations. The Milwaukee area transit plan contains criteria for the design of such stations, as well as specific designs for three of the stations, including one proposed to be located at State Fair Park, one to be located near the Capitol Court Shopping Center, and one proposed to

TRANSIT PLAN ADOPTED—continued

be located along IH 94 near Holt and Morgan Avenues. Such stations would provide for adequate vehicle parking, for local transit feeder service, and for pedestrian access.

4. A recommended detailed land use plan for the East-West freeway-transitway corridor.
5. A recommended surface distribution system for rapid and modified rapid mass transit vehicles in the Milwaukee central business district.
6. The utilization of advanced design motor coaches on the rapid and modified rapid transit system.
7. Operation of the proposed rapid and modified rapid transit system by Milwaukee County, including the purchase of the existing assets of the Milwaukee and Suburban Transport Corporation, pending creation of a larger areawide transit authority.
8. Funding of the proposed transit system through federal grants and a fare structure which provides for initial fares of 50 cents per ride on the rapid transit system and 30 cents per ride on the local transit system.

Full implementation of the mass transit recommendations contained in the adopted Milwaukee Area Transit Plan is essential to attain a more balanced transportation system within the Region. Failure to implement the plan can only result in a continued decline in the use of the existing local mass transit system, together with concomitant requests for cut-back in service and increasing reliance on the private automobile as the sole mode of transportation in the area.

SEWRPC NOTES

FIRST COUNTY ADOPTS MILWAUKEE RIVER WATERSHED PLAN

Sheboygan County on May 16, 1972, adopted the Milwaukee River Watershed Plan, becoming the first county in southeastern Wisconsin to adopt it. Although the county is not one of the seven counties which make up the Southeastern Wisconsin Region, it contains important headwater areas of the watershed. Nearly 40 percent of the 694-square mile watershed, consisting of the headwater area, lies outside the Region in Fond du Lac and Sheboygan Counties, with a very small portion in Dodge County. The rest of the watershed lies in Milwaukee, Ozaukee, and Washington Counties.

The Commission at its quarterly meeting on March 2, 1972, formally adopted the watershed plan, which includes a set of carefully coordinated recommendations concerning land use development, natural and recreational resources protection, flood control, water pollution abatement, and water supply development within the most populous watershed of the Region.

The Milwaukee River Watershed Plan is the third watershed plan to be completed and adopted by the Commission.

NEW COMMISSION REPORTS AVAILABLE

The Commission has recently published an additional issue in its Technical Report series, two additional issues in its Technical Record series, and the Proceedings of the seventh regional planning conference sponsored by the Commission on January 19, 1972.

The publications include SEWRPC Technical Report No. 9, Residential Land Subdivision in Southeastern Wisconsin; Volume 3, Nos. 3 and 4 of the SEWRPC Technical Record; and the Proceedings of the Conference on Land Use Policies and Regional Growth Strategies.

SEWRPC Technical Report No. 9 describes the methodology and summarizes the findings of a study of historic land subdivision activity within the Region. Urban development has been taking place in south-

eastern Wisconsin since about 1840, and from that time until 1940 occurred primarily in the form of concentric, outward expansion of the existing urban centers of the Region. Some modest change occurred in this basic pattern of urban development within the Region from 1940 to 1950, when, in addition to the concentric outward expansion of the existing urban centers, some new urban development began to extend in a finger-like pattern outward, generally following major highway routes, stream valleys, and the Lake Michigan shoreline. From 1950 to 1970, the pattern of urban development within the Region changed drastically. Large tracts of rural lands were subdivided for urban use, resulting in a highly dispersed, discontinuous, low-density urban development pattern that has become known as "urban sprawl." Almost 54,400 acres of land were subdivided for urban use within the Region during this 20-year period, five times the amount of land so subdivided in the preceding 20 years. Several factors, including housing demand, improved highways, the widespread availability of electric power, the use of the septic tank and private well, and the availability of relatively low-cost suburban land contributed to this change in the development pattern.

In order to more fully understand these changes in urban development patterns, a study was undertaken by the Commission of the quantity, character, rate, and geographic location of residential land subdivision activity within the Region during the 50 years from 1920 through 1969. The result of this study was SEWRPC Technical Report No. 9, which is a descriptive analysis of residential platting activity within the Region with respect to the quantity, character, and geographic location of such activity over time. The report presents definitive data concerning changing land subdivision design and development practices in terms of average subdivision size, average lot size, lineal miles of street created, type of subdivision design patterns, and subdivision design efficiencies. The data in the report should be interesting and useful to land developers, builders, planners, municipal engineers, and land surveyors within the Region.

SEWRPC NOTES—continued

Land subdivision is, of course, far more than a means of marketing land. It is the first step in the process of building a community. Much of the form and character of a community are determined by the quality of its land subdivisions, and once land has been divided into blocks and lots, streets established, and utilities installed, the development pattern is permanently established and unlikely to be changed. It is hoped that the data presented in the report will, therefore, contribute to a better understanding of the changes in the pattern of urban development that have occurred in the Region the past 50 years, and of the timing, spacing, and quality of land subdivision within the Region, thereby influencing in a positive way the character of future land subdivision within the Region.

The technical reports are intended to make available to public and private agencies information compiled by the Commission staff during studies that precede the publication of the official planning reports and planning guides. Copies of SEWRPC Technical Report No. 9 are available from the Commission at \$1.50 within the Region and \$3 outside the Region.

Volume 3, No. 3 of the Technical Record contains a paper entitled "Hydrogeologic Considerations in Liquid Waste Disposal, With a Case Study in Southeastern Wisconsin." The paper, which was written by Miss Martha J. Katelle, Department of Geology and Geophysics, University of Wisconsin-Madison, analyzes geologic factors, hydrologic factors, surface conditions, and cultural limitations which relate to the disposal of liquid and solid wastes in the Region by infiltration into or burial in the ground. While general in nature, the analysis and resulting suitability map provide a basis for making preliminary decisions pertaining to the locations of liquid and solid waste disposal sites.

Volume 3, No. 4 of the Technical Record contains two articles that deal with General Mitchell Field, the major airport within the Region, and a third that deals with changes in centers of population within the Region from 1960 to 1970.

SEWRPC NOTES—continued

The first article, entitled "Characteristics of Air and Ground Travel Generated by General Mitchell Field Airport Terminal—May 1968," by Sheldon W. Sullivan, Chief of Data Collection for the Commission, presents the results of a special travel survey conducted by the Commission in cooperation with Milwaukee County at General Mitchell Field in May 1968.

During a 16-hour period, approximately 7,200 vehicles were stopped and about 11,100 persons interviewed as part of the origin-destination study of air and ground travel generated by the airport terminal facilities. Among the conclusions reached are the following:

- Airline passenger activity at General Mitchell Field peaks in the late afternoon when nearly 500 enplanements and deplanements occur in a single hour.
- Although the attraction of General Mitchell Field reached into virtually every part of southeastern Wisconsin and beyond, about 85 percent of the total trips were generated from within an 18-mile radius of the terminal.
- The average distance of ground travel to the airport terminal was found to be approximately 14 miles for persons, approximately 12 miles for vehicles, and about 17 miles for airline passengers.
- On the survey date, origins or ultimate destinations of airline passenger travel were recorded in 45 states of the U. S. and the District of Columbia. In addition, 89 transatlantic flights, 26 transpacific flights, and 66 flights having origins or destinations in various North and South American countries were recorded.

- About 4,100 airline passenger enplanements and deplanements were generated by the airport terminal on the survey date representing about 30 percent of all person travel generated by the terminal on that date. An approximately equal number and consequently equal percentage consisted of those friends and relatives who came to meet or accompanied the airline passengers.
- Of a total of approximately 14,200 daily person trips generated by the airport terminal, 90 percent were auto oriented, with 58 percent of the trips made as auto drivers and 32 percent made as auto passengers. Trips made by airport limousine or by taxi comprised less than 4 percent of the total, and trips made by bus less than 3 percent.
- Only 16 percent of the total daily airline passenger travel was generated in the Milwaukee central business district (CBD). This percentage falls within the lower range among other metropolitan areas for which such data is available.
- Persons between the ages of 35 and 50 account for nearly 50 percent of airline passengers at General Mitchell Field. Three of four airline passengers are male.
- Vehicle trips generated by the airport terminal amounted to approximately 8,900 trips. Of these, about 7,400 trips (83 percent) were made by automobile; about 700 trips (8 percent) were made by trucks; about 600 trips (about 7 percent) were made by taxis; and the remaining approximately 200 trips were made by limousines and motor buses.
- Vehicle trips made directly between the airport terminal and Milwaukee CBD amounted to about 900 trips, or about 10 percent of the total.

SEWRPC NOTES—continued

The second article in the issue, entitled "Shifts in Centers of Population Within the Region," by Wayne H. Faust, Associate Planner for the Commission, presents a descriptive analysis of the changes in centers of population within the Region from 1960 to 1970.

The final article, entitled "The Development of General Mitchell Field," traces the historic development of the airport from its start on a 163-acre site to its expansion by 1970 to approximately 2,000 acres. In the early 1920's, airport operations consisted largely of airmail service on the Chicago to Milwaukee to Minneapolis-St. Paul route. By 1970, airline service was being provided to 1,767,000 passengers annually.

Both issues of the Technical Record are available from the Commission at a cost per issue of \$1 within the Region and \$2 outside the Region.

The Proceedings of the Conference on Land Use Policies and Regional Growth Strategies includes texts of talks presented at the Conference. Speakers during the morning session included former Governor Warren P. Knowles, who discussed the work of the Wisconsin Land Resources Committee, of which he is chairman.

Other morning session speakers included Norman M. Clapp, Secretary, Wisconsin Department of Transportation; Donald E. Wilkinson, Secretary, Wisconsin Department of Agriculture; Donald J. Mackie, Assistant Secretary, Wisconsin Department of Natural Resources; and Charles M. Hill, Secretary, Wisconsin Department of Local Affairs and Development. Each presented the viewpoints of their respective departments on a state land use policy.

Richard C. Van Dusen, Under Secretary of the U. S. Department of Housing and Urban Development, was the featured luncheon speaker.

Copies of the Proceedings are available from the Commission at a cost of \$1 per copy inside the Region and \$2 per copy outside the Region.

AROUND THE REGION

WASHINGTON COUNTY ADOPTS BUILDING CODE

The Washington County Board on May 16, 1972, adopted a revised county building code based on a uniform building code drafted by the Building Inspectors Association of Southeastern Wisconsin. The Board, however, made two revisions before adopting the final code. It removed the category of agricultural accessory buildings from the jurisdiction of the code, and deleted plumbing and heating fees from the fee schedule.

The Association, which was formed in 1967, was the result of a promotion begun in 1959 by the Metropolitan Builders Association of Greater Milwaukee toward a uniform building code throughout the Milwaukee metropolitan area. In 1963, a committee of suburban municipalities worked with the Metropolitan Builders Association of Greater Milwaukee toward the creation of a uniform building code. A first draft of the code was released in 1965, and in 1967 the Building Inspectors Association was formed which completed the work and printing of the uniform building code that year. The code is amended annually to reflect changes in building technology or materials.

All communities in the Region are eligible for membership in the Association. When a community adopts the uniform building code it may elect to change some of the provisions, although to the extent such changes are made the concept of uniformity is defeated. Any amendments proposed and approved by the Association do not automatically go into effect in each community which has adopted the code.

To date there are 53 municipalities in southeastern Wisconsin that are members of the Association, 43 of which have adopted the uniform building code (see Map 3).

QUESTION BOX

IS THE "COMPREHENSIVE PLAN" AN OBSOLETE CONCEPT IN URBAN PLANNING TODAY?

The concept of the "comprehensive plan"—or "master plan" as it is sometimes called—is indeed an old one; and a large body of literature exists on it extending back at least to the turn of the century. Until recently, the preparation, adoption, and use of the comprehensive plan were considered to be the primary objectives of the urban planning process; and all other planning and plan implementation techniques were based at least theoretically on the comprehensive plan. Recent changes in the character and rate of urban development, together with recent advances in planning technology, have focused attention on the need for a reevaluation of this concept. The continued validity of the concept of the comprehensive plan is being questioned by some members of the planning profession. This questioning has been reinforced by the emphasis on the part of certain federal agencies on planning as a process and by recent efforts to broaden the scope of governmental planning efforts to encompass social, economic, and fiscal, as well as physical development.

As originally conceived, the comprehensive plan was an official public document formally adopted by a local government as a guide to the making of community development decisions. Its fundamental purpose was to provide a sound basis for coordinating development decisions within a given jurisdictional area by relating all such decisions to a set of consistent development objectives. In the past, these objectives were usually expressed only implicitly in the plan in terms of a two-dimensional, relatively general design for the physical development of the jurisdictional area. Thus, objectives were conceived of as idealized end states of the environment toward which all development should be directed or guided, while the comprehensive plan was conceived of as the embodiment of these objectives. The major proposals advanced in the plan and their relationship to each other were usually presented in map form. The comprehensive plan was to encompass the entire jurisdictional area of the governmental unit concerned, as well as all functional elements which related directly to the physical—and indirectly to the social and economic—development of that unit. The plan was also to be long-range, looking well beyond the obvious needs of the moment.

In Wisconsin, the concept of the comprehensive plan is written into the state planning enabling legislation which governs the conduct of planning at the city, village, town, and regional levels. Indeed, Section 62.23 of the Wisconsin Statutes, under which cities, villages, and towns may carry out planning functions, makes the preparation and adoption of a master plan for the physical development of the municipality by local plan commissions mandatory. The Act further outlines the permissible scope of the master plan, which is made very broad and specifies the manner of its adoption. Interestingly enough, the concept of the comprehensive plan is not explicitly embodied in the county planning enabling legislation in Wisconsin.

Although the content of the comprehensive plan is undergoing an expansion as the scope of governmental planning activities is broadened, at least three elements are commonly included: 1) a plan for the use of land; 2) a plan for transportation; and 3) a plan for community facilities, the latter including at least water supply, waste disposal, and recreational facilities. The comprehensive plan not only documents the recommended development proposals concerning the foregoing elements but should also document the

QUESTION BOX—continued

salient supporting planning data in the form of inventories, analyses, and forecasts. Although broadening the scope and content of the comprehensive plan may be desirable, particularly to encompass problems of environmental deterioration and natural resource base conservation, which were usually totally neglected in the older form of comprehensive plans typically prepared for cities, such broadening in scope should never occur at the expense of provision of a sound design for the physical development of the area.

The Commission not only believes that the concept of the comprehensive plan is still a sound one which deserves vigorous application at the local as well as regional level, but also believes that certain important and relatively recent social, economic, and technological changes have made the concept and its application more important than ever. The two most important of these recent changes are rapid, area-wide urban development and the creation of serious areawide developmental and environmental problems; and the development of systems engineering techniques and the application of these techniques to urban problems.

The concept of the comprehensive plan intrinsically provides a potential means by which the necessary coordination of development on an areawide basis can be achieved and sound solutions, which can be cooperatively implemented, found to problems of environmental deterioration. The concepts embodied in the comprehensive plan can provide the required hierarchy of consistent objectives ranging from long-term to short-term, from areawide to localized, required to find sound solutions to the growing developmental and environmental problems of rapidly urbanizing areas on a cooperative intergovernmental basis.

The application of systems engineering techniques to urban problems is essential if the environmental and developmental problems of our huge, highly complex, and dynamic urban areas are to be managed. The comprehensive plan still provides the best conceptual basis available for the application of these systems engineering skills to urban problems. This is true because systems engineering must basically focus upon a design of physical systems. It seeks to achieve good design by setting good objectives, determining the ability of alternative plans to meet these objectives through quantitative analysis, while seeking to consider all of the relationships involved, both within the system being designed and between the system and its environment. Thus, the comprehensive plan as a systems design provides the proper focus for the application of systems engineering to urban problems.

The foregoing considerations serve to reaffirm the soundness of the concept embodied in and underlying the comprehensive plan and its applicability to current urban problems. Such a plan provides the only sound basis for providing the comprehensive approach necessary to the resolution of the environmental and developmental problems of our urbanizing regions. In the absence of a comprehensive plan, governmental planning may produce ad hoc decisions which are little better and perhaps worse than those which would be produced by operating agencies without any planning at all, which may negate themselves; or what is worse, which may cause irreparable damage to the underlying and sustaining natural resource base. Firm devotion to consistent and reasonably stable development objectives is essential to the proper development of the massive and highly complex systems of public works facilities needed to sustain urban development today. This consistency and stability can only be provided through a comprehensive plan.

QUOTABLE QUOTE.....

"The purpose of the City Plan Commission ...is generally to develop and maintain a long-range plan....While its functions may be advisory in many respects, it is an important function in municipal government if the municipality is to be developed in accordance with any long-term program of city improvement and if the city is to have a definite objective in its planning. The representatives of the public constituting the city council frequently change and some may not be aware of the long-term policies of the city. It is in the public interest that each municipality have a long-term plan of development which should be adhered to unless the common council at any particular time desires to change it after being fully informed. Only by such method can any consistency in the planning of the future development of a city be achieved."

Justice E. Harold Hallows
 Supreme Court of Wisconsin
 Scanlon v. City of Menasha, 16 Wis.
 2d 437, 114. N.W. 2d 791 (1962).

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