SANITARY SEWER SERVICE AREAS FOR THE VILLAGES OF LANNON AND MENOMONEE FALLS

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Special acknowledgement is due SEWRPC planner Joel E. Dietl for his contribution to this report.
SUBJECT: Certification of Amendment to the Adopted Regional Water Quality Management Plan (Village of Lannon and Village of Menomonee Falls Sanitary Sewer Service Areas)

TO: The Legislative Bodies of Concerned Local Units of Government within the Southeastern Wisconsin Region, namely: the County of Waukesha; the City of Brookfield; the Villages of Lannon, Menomonee Falls, and Sussex; and the Milwaukee Metropolitan Sewerage District

This is to certify that at the annual meeting of the Southeastern Wisconsin Regional Planning Commission, held at the Washington County Courthouse, West Bend, Wisconsin, on the 16th day of June 1993, the Commission did by unanimous vote by all Commissioners present, being 16 ayes and 0 nays, and by appropriate Resolution, a copy of which is made a part hereof and incorporated by reference to the same force and effect as if it had been specifically set forth herein in detail, adopt an amendment to the regional water quality management plan, which plan was originally adopted by the Commission on the 12th day of July 1979, as part of the master plan for the physical development of the Region. The said amendment to the regional water quality management plan pertains to the proposed sanitary sewer service areas for the Village of Lannon and the Village of Menomonee Falls and consists of the inventory findings, maps, charts, figures, and supporting data, plans and plan implementation recommendations contained in SEWRPC Community Assistance Planning Report No. 208, entitled, Sanitary Sewer Service Areas for the Village of Lannon and the Village of Menomonee Falls, Waukesha County, Wisconsin, published in June 1993, attached hereto and made a part hereof. Such action taken by the Commission is recorded on, and is a part of, said plan, and the plan as amended is hereby transmitted to the constituent local units of government for consideration, adoption, and implementation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal and cause the Seal of the Southeastern Wisconsin Regional Planning Commission to be hereto affixed. Dated at the City of Waukesha, Wisconsin, this 17th day of June 1993.

[Signature]
David B. Falstad
Southeastern Wisconsin Regional Planning Commission

ATTEST:

[Signature]
Kurt W. Bauer, Deputy Secretary
RESOLUTION NO. 93-18


WHEREAS, pursuant to Section 66.945(10) of the Wisconsin Statutes, the Southeastern Wisconsin Regional Planning Commission, at a meeting held on the 12th day of July 1979, duly adopted a regional water quality management plan as documented in the three-volume SEWRPC Planning Report No. 30, A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000; and

WHEREAS, the adopted regional water quality management plan includes recommended delineations of urban sanitary sewer service areas and primary environmental corridors, together with a recommendation that new sewered urban development in the Region occur within such delineated sewer service areas but not within such primary environmental corridors; and

WHEREAS, the adopted regional water quality management plan specifically recommended that the concerned local units of government work cooperatively with the Commission toward the refinement and detailing of the delineated sanitary sewer service areas and primary environmental corridors so as properly to reflect local, as well as regional, needs and objectives; and

WHEREAS, the Village of Menomonee Falls, on February 3, 1993, and the Village of Lannon on May 5, 1993, requested that the Commission assist the Villages in refining and detailing the recommended Lannon and Menomonee Falls sanitary sewer service areas; and

WHEREAS, the Commission, working with the Villages of Lannon and Menomonee Falls and other concerned units and agencies of government, has completed a refined sanitary sewer service area plan for the areas to be served, such plan being set forth in SEWRPC Community Assistance Planning Report No. 208, Sanitary Sewer Service Areas for the Villages of Lannon and Menomonee Falls, Waukesha County, Wisconsin, dated June 1993; and

WHEREAS, the refined sanitary sewer service areas, as documented in SEWRPC Community Assistance Planning Report No. 208, addressed the pertinent comments made at a joint public hearing held on June 2, 1993; and

WHEREAS, the Village Board of the Village of Lannon on June 14, 1993, and the Village Board of the Village of Menomonee Falls on June 7, 1993, approved the refined and detailed sanitary sewer service area plan for the Villages of Lannon and Menomonee Falls; and

WHEREAS, Section 66.945(9) of the Wisconsin Statutes authorizes and empowers the Regional Planning Commission, as the work of making the whole master plan progresses, to amend, extend, or add to the master plan or carry any part or subject thereof into greater detail;

NOW, THEREFORE, BE IT HEREBY RESOLVED:

FIRST: That the regional water quality management plan for the Southeastern Wisconsin Region, being a part of the master plan for the physical development of the Region and comprised of SEWRPC Planning Report No. 30, Volumes One, Two, and Three, which was adopted by the Commission as a part of the master plan on the 12th day of July 1979, be, and the same hereby is, amended to include the refined sanitary sewer service area plan for the Villages of Lannon and Menomonee Falls, as set forth in SEWRPC Community Assistance Planning Report No. 208.
SECOND: That the said SEWRPC Community Assistance Planning Report No. 208, together with the maps, charts, programs, and descriptive and explanatory matter therein contained, is hereby made a matter of public record; and the originals and true copies thereof shall be kept, at all times, at the offices of the Southeastern Wisconsin Regional Planning Commission, currently located in the Old Courthouse Building in the City of Waukesha, County of Waukesha, and State of Wisconsin, or at any subsequent office the said Commission may occupy, for examination and study by anyone who may desire to examine the same.

THIRD: That a true, correct, and exact copy of this resolution, together with a complete and exact copy of SEWRPC Community Assistance Planning Report No. 208, shall be forthwith distributed to each of the local legislative bodies of the local governmental units within the Region entitled thereto and to such other bodies, agencies, or individuals as the law may require or as the Commission, its Executive Committee, or its Executive Director, at their discretion, shall determine and direct.

The foregoing resolution, upon motion duly made and seconded, was regularly adopted at the meeting of the Southeastern Wisconsin Regional Planning Commission held on the 16th day of June 1993, the vote being: Ayes 16; Nays 0.

David B. Falstad, Chairman

ATTEST:

Kurt W. Bauer, Deputy Secretary
COMMUNITY ASSISTANCE PLANNING REPORT
NUMBER 208

SANITARY SEWER SERVICE AREAS FOR THE VILLAGES OF LANNON AND MENOMONEE FALLS
WAUKESHA COUNTY, WISCONSIN

Prepared by the
Southeastern Wisconsin Regional Planning Commission
P. O. Box 1607
Old Courthouse
916 N. East Avenue
Waukesha, Wisconsin 53187-1607

The preparation of this report was financed in part through a planning grant from the Wisconsin Department of Natural Resources.

June 1993

Inside Region $2.50
Outside Region $5.00
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TO: The Common Council of the City of Brookfield, the Village Boards of the Villages of Lannon, Menomonee Falls, and Sussex, the Milwaukee Metropolitan Sewerage District, and the Waukesha County Park and Planning Commission

The adopted regional water quality management plan for Southeastern Wisconsin identifies in a preliminary manner recommended sanitary sewer service areas tributary to each of the existing and proposed sewage treatment plants within the Region. The plan recommends that these service areas be refined and detailed through the cooperative efforts of the local units and agencies of government concerned so that the service areas properly reflect local, as well as areawide, development objectives. This refinement and detailing is particularly important in light of provisions in the Wisconsin Administrative Code which require that the Wisconsin Department of Natural Resources with respect to public sanitary sewers, and the Wisconsin Department of Industry, Labor and Human Relations with respect to private sanitary sewers, make a finding that all proposed sanitary sewer extensions be in conformance with the adopted regional water quality management plan and the sanitary sewer service areas identified in that plan.

These Departments, in carrying out their responsibilities in this respect, require that the Southeastern Wisconsin Regional Planning Commission, as the designated areawide water quality management planning agency for the Southeastern Wisconsin Region, review and comment on each proposed sewer extension as to its relationship to the approved plan and sewer service area. If such review can be based on a refined service area cooperatively identified by the local units of government concerned, then no conflicts concerning sanitary sewer extensions should arise, and the entire sewerage system and related land use development process can proceed in a smooth and efficient manner.

Acting in response to the recommendations made in the adopted regional water quality management plan, the Village of Menomonee Falls on February 3, 1993, and the Village of Lannon on May 5, 1993, requested that the Regional Planning Commission assist the Villages in refining and detailing the recommended Village of Lannon and the Village of Menomonee Falls sanitary sewer service areas. This report documents the results of that refinement process.

The report contains a map showing not only the recommended refined sanitary sewer service areas, but also the location and extent of the environmental corridors within these areas. These environmental corridors contain the best and most important elements of the natural resource base within the sewer service areas. Their preservation in essentially natural, open uses is important to the maintenance of the overall quality of the environment in the area, while avoiding the creation of serious and costly developmental problems. Accordingly, urban development should not be encouraged to occur within these corridors, a factor which should be taken into consideration in the extension of sanitary sewer service.

A public hearing was held on June 2, 1993, to discuss the preliminary findings and recommendations of the sewer service area refinement process and to receive the comments and suggestions of the local elected officials concerned and of interested citizens. The recommendations contained in this report reflect the pertinent comments and suggestions made at the hearing.

The sanitary sewer service areas herein presented are intended to constitute a refinement of the areawide water quality management plan adopted by the Regional Planning commission in July 1979. Accordingly, upon adoption of this report by the local units and agencies of government concerned and subsequent adoption by the Regional Planning Commission, this report will be certified to the Wisconsin Department of Natural resources and the U. S. Environmental Protection Agency as an amendment to the adopted, areawide water quality management plan.

The sanitary sewer service areas presented in this report provides a sound guide which can assist the responsible local public officials in the making of sewer service-related development decisions in the Villages of Lannon and Menomonee Falls. Accordingly, careful consideration and adoption of this report by all parties concerned is respectfully urged. The Regional Planning Commission stands ready to assist the various units and agencies of government concerned in implementing the recommendations contained in this report.

Respectfully submitted,

Kurt W. Bauer
Executive Director
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Chapter I
INTRODUCTION

BACKGROUND

On July 12, 1979, the Southeastern Wisconsin Regional Planning Commission formally adopted an areawide water quality management plan for Southeastern Wisconsin. The plan is aimed at achieving clean and wholesome surface waters within the seven-county Region, surface waters that are “fishable and swimmable.”

The plan has five basic elements: 1) a land use element, consisting of recommendations for the location of new urban development in the Region and for the preservation of primary environmental corridors and prime agricultural lands; 2) a point source pollution abatement element, including recommendations concerning the location and extent of sanitary sewer service areas, the location, type, and capacity of, and the level of treatment to be provided at, sewage treatment facilities, the location and configuration of intercommunity trunk sewers, and the abatement of pollution from sewer system overflows and from industrial wastewater discharges; 3) a nonpoint source pollution abatement element, consisting of recommendations for the control of pollutant runoff from rural and urban lands; 4) a sludge management element, consisting of recommendations for the handling and disposal of sludges from sewage treatment facilities; and 5) recommendations for the establishment of continuing water quality monitoring efforts in the Region.

The plan was formally certified over the period July 23 to September 20, 1979, to all of the local units of government in the Region and to the concerned State and Federal agencies. The plan was formally endorsed by the Wisconsin Natural Resources Board on July 25, 1979. Such endorsement is particularly important because under State law and administrative rules, certain actions by the Wisconsin Department of Natural Resources (DNR) must be found to be in accordance with the adopted and endorsed plan. These actions include, among others, DNR approval of waste discharge permits, DNR approval of State and Federal grants for the construction of wastewater treatment and conveyance facilities, and DNR approval of locally proposed sanitary sewer extensions.

NEED FOR REFINEMENT AND DETAILING OF LOCAL SANITARY SEWER SERVICE AREAS

The adopted regional water quality management plan includes recommended sanitary sewer service areas attendant to each recommended sewage treatment facility (see Map 1). There were in the plan, as initially adopted, a total of 85 such identified sanitary sewer service areas. The initially recommended sanitary sewer service areas were based upon the urban land use configuration identified in the Commission-adopted regional land use plan for the year 2000. As such, the delineation of the areas was necessarily general and may not have reflected detailed local planning considerations.

Section NR 110.08(4) and Section ILHR 82.20(4) of the Wisconsin Administrative Code require that the Wisconsin Department of Natural Resources, with respect to public sanitary sewers, and the Wisconsin Department of Industry, Labor and Human Relations, with respect to private sanitary sewers, make a finding that all proposed sanitary sewer extensions be in conformance with adopted areawide water quality management plans and the sanitary sewer service areas identified in such plans. These areas are documented in SEWRPC Planning Report No. 30, A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings; Volume Two, Alternative Plans; and Volume Three, Recommended Plan.


2 See SEWRPC Planning Report No. 25, A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings; and Volume Two, Alternative and Recommended Plans.
Map 1

RECOMMENDED SANITARY SEWER SERVICE AREAS IN THE REGION: 2010

LEGEND

- UNREFINED SANITARY SEWER SERVICE AREA
- Refined sanitary sewer service area
- Existing public sewage treatment plant
- Existing public sewage treatment plant to be abandoned
- Proposed public sewage treatment plant

Source: SEWRPC.
Departments, in carrying out their responsibilities in this respect, require that the Southeastern Wisconsin Regional Planning Commission, as the designated areawide water quality management planning agency for the Southeastern Wisconsin Region, review and comment on each proposed sewer extension as to its relationship to the approved plan and sewer service areas. In order to properly reflect local, as well as areawide, planning concerns in the execution of this review responsibility, the Regional Planning Commission, in adopting the areawide water quality management plan, recommended that steps be taken to refine and detail each of the 85 sanitary sewer service areas delineated in the plan in cooperation with the local units of government concerned. The refinement and detailing process consists of the following seven steps:

1. The preparation of a base map at an appropriate scale for each sanitary sewer service area identified in the areawide water quality management plan.

2. The delineation on that base map of the design year 2010 sanitary sewer service area consistent with the objectives set forth in the adopted regional land use plan.  

3. The conduct of intergovernmental meetings involving the local or areawide unit or units of government operating the sewage treatment facility or facilities concerned and the other local units of government that are to be provided sanitary sewer service by the sewage treatment facility or facilities concerned. At these meetings, the initial sanitary sewer service area delineation is to be presented and discussed and the positions of each of the units of government concerned solicited.

4. The preparation of modifications to the initially proposed sanitary sewer service area to reflect the agreements reached at the intergovernmental meetings, meeting to the fullest extent practicable the objectives expressed both in the adopted areawide water quality management and regional land use plans and in any adopted local land use and sanitary sewerage system plans.

5. The holding of a public hearing jointly by the Commission and the local or areawide unit or units of government operating the treatment facility or facilities concerned to obtain public reaction to site-specific sewer service area issues that might be raised by the proposed sewer service area delineation.

6. The preparation of a final sanitary sewer service area map and accompanying report.

7. Adoption of the final sewer service area map by the Commission and certification of the map to the Wisconsin Department of Natural Resources and the U.S. Environmental Protection Agency as an amendment to the adopted, areawide, water quality management plan. Desirably, such adoption by the Commission would follow endorsement of the map by the local or areawide unit or units of government operating the sewage treatment facility or facilities concerned and by the governing bodies of the local units of government that are to be served by the sewage treatment facility or facilities. While such a consensus by the local governments concerned will always be sought by the Commission, it is recognized that in some cases unanimous support of the refined and detailed sanitary sewer service areas may not be achieved. In those cases, the Commission will have to weigh the positions of the parties concerned and make a final determination concerning the issues involved.

THE VILLAGE OF LANNON AND THE VILLAGE OF MENOMONEE FALLS SANITARY SEWER SERVICE AREAS REFINEMENT PROCESS

By memorandum dated February 3, 1993, the Village of Menomonee Falls requested that the Regional Planning Commission undertake the

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3 The sewer service areas in the water quality management plan were based upon the urban land use configurations as set forth in the Commission's year 2000 land use plan. The Commission has since completed a series of alternative year 2010 land use plans, which served as a point of departure in the delineation of the sewer service area set forth in this report.
refinement and detailing of the proposed year 2010 sanitary sewer service area for the Village. By letter dated May 5, 1993, the Village of Lannon also requested the Commission to undertake the refinement and detailing of the proposed year 2010 sanitary sewer service area for their Village and agreed to work with the Village of Menomonee Falls in preparation of a joint sewer service area plan addressing both communities.

The Regional Planning Commission recognized that this would be a particularly appropriate time to undertake a joint sewer service area effort for these two communities because of the fact that planning and engineering studies have been recently completed, or were underway, which address this issue. Such studies include a report entitled, Reevaluation of Regional Wastewater Treatment for the Upper Fox River Watershed, prepared by Strand Associates, for the Joint Sewer Study Committee, dated August 1988; a report prepared by the Regional Planning Commission entitled, Amendment to the Regional Water Quality Management Plan—2000, Upper Fox River Watershed, Brookfield and Sussex Sewage Treatment Plants, dated May 1989; a community land use plan for the Village of Menomonee Falls, prepared by the Village of Menomonee Falls with the assistance of the Regional Planning Commission, as documented in SEWRPC Community Assistance Planning Report No. 162, A Land Use and Transportation System Plan for the Village of Menomonee Falls: 2010, dated April 1990; a draft facility plan for the Village of Sussex as set forth in Village of Sussex Wastewater Treatment Facility, prepared by Ruekert & Mielke, Inc., dated December 1990; and draft facility plans for the Village of Lannon as set forth in Village of Lannon Sanitary Sewer Interceptor Facility Plan, dated June 1992, and Village of Lannon Wastewater Disposal Facility Plan, Waukesha County, Wisconsin, dated June 1992, both prepared by Ruekert & Mielke, Inc. A series of interagency staff meetings attended by representatives of the Villages of Lannon and Menomonee Falls and of the Regional Planning Commission were also held concerning the sewer service area refinement effort. At the conclusion of these meetings, the parties concerned had agreed upon revised sanitary sewer service areas for their respective communities.

A copy of an initial draft of this report setting forth preliminary proposed sanitary sewer service areas for the Village of Lannon and Village of Menomonee Falls was provided to the City of Brookfield, the Villages of Lannon, Menomonee Falls and Sussex, the Milwaukee Metropolitan Sewerage District, the Waukesha County Park and Planning Commission, and the Wisconsin Department of Natural Resources for review and comment prior to the public hearing on the plan proposal. A joint public hearing was held on June 2, 1993. The public reaction to the proposed sanitary sewer service areas, as documented in the minutes contained in Appendix A, is summarized later in this report. The final, agreed-upon Village of Lannon and Village of Menomonee Falls sanitary sewer service areas are described in Chapter III of this report. The delineation of these areas reflects the sanitary sewerage facilities planning work completed by consultants and the Regional Planning Commission, the intergovernmental decisions made in the aforesaid meetings, and pertinent comments made at the public hearing held on this matter.
Chapter II

STUDY AREA DESCRIPTION

LOCATION

The study area considered in the refinement of the Village of Lannon and Village of Menomonee Falls sanitary sewer service areas is shown on Map 2. The area consists of all the lands encompassed within the corporate limits of the Villages of Lannon and Menomonee Falls. The total study area is 35.9 square miles in extent, of which 33.5 square miles, or about 93 percent, lie within the Village of Menomonee Falls, and 2.4 square miles, or about 7 percent, lie within the Village of Lannon. These areas are based on 1993 civil division boundaries.

POPULATION

The resident population of the entire study area in 1990, as determined by the U. S. Bureau of the Census, was 27,764 persons. Of this total, 26,840 persons, or about 97 percent, resided in the Village of Menomonee Falls; 924 persons, or about 3 percent, resided in the Village of Lannon. Of these population totals, about 23,600 persons within the Village of Menomonee Falls, or about 88 percent of the Village, were provided with centralized sanitary sewer service. There was no provision of centralized sanitary sewer service to the Village of Lannon in 1990. It should be noted that of the 23,600 persons provided with centralized sanitary sewer service in the Village of Menomonee Falls, about 23,100 persons, or about 98 percent, were provided with sewer service through Milwaukee Metropolitan Sewerage District sanitary sewerage facilities; the remaining 500 persons, or 2 percent, were provided with sewer service through City of Brookfield sanitary sewerage facilities. The remaining 4,164 persons in the study area were served by onsite soil absorption sewage disposal systems or by onsite sewage holding tanks.

The forecast of probable future resident population levels for small geographic areas such as the Lannon-Menomonee Falls study area is a difficult task, accompanied by uncertainties and subject to periodic revision as new information becomes available. The practice that has been typically followed in forecasting population levels for physical development planning is the preparation of a single population forecast believed to be the most representative of future conditions. This traditional approach works well in periods of social and economic stability, when historic trends can be anticipated to continue relatively unchanged over the plan design period. During periods of major change in social and economic conditions, however, when there is great uncertainty as to whether historic trends will continue, alternatives to this traditional approach may be required. One such alternative approach proposed in recent years, and utilized to a limited extent at the national level for public and quasi-public planning purposes, is termed “alternative futures.” Under this approach, the development, test, and evaluation of alternative plans is based not upon a single, most probable forecast of socio-economic conditions, but upon a number of alternative futures chosen to represent a range of conditions which may be expected to occur over the plan design period.

Recognizing the increasing uncertainty inherent in estimating future population levels under the rapidly changing socio-economic conditions existing in the United States, the Regional Planning Commission began to incorporate the alternative futures approach into its planning program in the late 1970s, the first known attempt to apply this approach to areawide and local planning in the United States. In the exploration of alternative futures for the Southeastern Wisconsin Region, an attempt was made first to identify all those external factors which may be expected to directly or indirectly affect development conditions in the Region, together with the likely range of prospects for these factors. Thus, the preparation of the Commission’s new year 2010 regional land use plan incorporated a consideration of three alternative scenarios for regional growth and change. Two of these scenarios, the high-growth and low-growth scenarios, are intended to represent the upper and lower extremes of possible future regional growth and change, while the third is intended to represent an intermediate future between the two extremes. A set of population and employment projections was then developed for each of the three scenarios.

The Commission’s year 2010 land use plan also considered alternative development patterns for
STUDY AREA IDENTIFIED FOR PURPOSES OF REFINING AND DETAILING THE VILLAGE OF LANNON AND THE VILLAGE OF MENOMONEE FALLS SANITARY SEWER SERVICE AREAS

Source: SEWRPC.
accommodating the incremental population and employment levels envisioned under the afore-described growth scenarios. Two development patterns were considered in the preparation of the alternative land use plans: a centralized development pattern, which, like the first- and second-generation adopted regional land use plans, accommodated increases in population and economic activity by promoting a more compact regional settlement pattern, moderating to the extent practicable the current trend toward diffusion of population, employment, and attendant urban development; and a decentralized development pattern, which accommodated the continued diffusion of population and employment levels, but in a manner consistent with the protection of the natural resource base of the Region.

The intermediate-growth centralized land use plan, the Commission's recommended land use plan, would accommodate a year 2010 resident population level of about 37,100 persons in the Lannon-Menomonee Falls study area. Under the alternative futures approach utilized by the Commission for its work, however, the population level within the study area could range from a low of about 29,600 persons under the low-growth decentralized land use plan, to a high of about 55,100 persons under the high-growth decentralized land use plan.

ENVIRONMENTALLY SIGNIFICANT LANDS

Environmental corridors are defined as linear areas in the landscape containing concentrations of natural resource and resource-related amenities. These corridors generally lie along the major stream valleys, around major lakes, and in the Kettle Moraine area of Southeastern Wisconsin. Almost all of the remaining high-value wetlands, woodlands, wildlife habitat areas, major bodies of surface water, and delineated floodlands and shorelands are contained within these corridors. In addition, significant groundwater recharge and discharge areas, many of the most important recreational and scenic areas, and the best remaining potential park sites are located within the environmental corridors. Such corridors are, in effect, a composite of the most important individual elements of the natural resource base in Southeastern Wisconsin and have immeasurable environmental, ecological, and recreational value.

The land use element of the adopted regional water quality management plan recommends that lands identified as primary environmental corridors not be developed for intensive urban use. Accordingly, the plan further recommends that sanitary sewers not be extended into such corridors for the purpose of accommodating urban development in the corridors. It was, however, recognized in the plan that it would be necessary in some cases to construct sanitary sewers across and through primary environmental corridors and that certain land uses requiring sanitary sewer service could be properly located in the corridors, including park and outdoor recreation facilities and certain institutional uses. In some cases, very-low-density residential development on five-acre lots, compatible with the preservation of the corridors in essentially natural, open uses, may also be permitted to occupy corridor lands and it may be desirable to extend sewers into the corridors to serve such uses. Basically, however, the adopted regional land use plan seeks to ensure that the primary environmental corridor lands are not destroyed through conversion to intensive urban uses.

One of the first steps in refining the Village of Lannon and Village of Menomonee Falls sanitary sewer service areas was to map in detail the environmentally significant lands in the study area. Accordingly, Commission inventories were reviewed and updated as necessary with respect to the following elements of the natural resource base: lakes, streams, and associated shorelands and floodlands; wetlands; woodlands; wildlife habitat areas; areas of rugged terrain and high-relief topography; wet, poorly drained, and organic soils; and remnant prairies. In addition, inventories were reviewed and updated as necessary with respect to such natural resource-related features as existing parks, potential park sites, sites of historic and archaeological value, areas possessing scenic vistas or viewpoints, and areas of scientific value.

Each of these natural resource and resource-related elements was mapped on one inch equals 400 feet scale, ratioed and rectified aerial photographs. A point system for value rating the various elements of the resource base was established (see Table 1). The primary environmental corridors were delineated using this rating system. To qualify for inclusion in a primary environmental corridor, an area must exhibit a point value of 10 or more. In addition,
Table 1
VALUES ASSIGNED TO NATURAL RESOURCE BASE AND RESOURCE BASE-RELATED ELEMENTS IN THE PROCESS OF DELINEATING PRIMARY AND SECONDARY ENVIRONMENTAL CORRIDORS

<table>
<thead>
<tr>
<th>Natural Resource Base or Related Element</th>
<th>Point Value</th>
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<tbody>
<tr>
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<tr>
<td>Lake</td>
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<tr>
<td>Major (50 acres or more)</td>
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<tr>
<td>Minor (5-49 acres)</td>
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</tr>
<tr>
<td>Rivers or Streams (perennial)</td>
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<tr>
<td>Lake or Perennial River or Stream</td>
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<td>Intermittent Stream</td>
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<tr>
<td>Floodland (100-year recurrence interval)</td>
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<tr>
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<td>10</td>
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<tr>
<td>Wet, Poorly Drained, or Organic Soil</td>
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<tr>
<td>Woodland</td>
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<tr>
<td>Wildlife Habitat</td>
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<tr>
<td>Low-Value</td>
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<td>Steep Slope</td>
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<td>20 Percent or More</td>
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<tr>
<td>13-19 Percent</td>
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<td>10</td>
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<tr>
<td>Local Significance</td>
<td>5</td>
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</tbody>
</table>

Source: SEWRPC.

In the Lannon-Menomonee Falls study area the primary environmental corridor must be at least 400 acres in size, be at least two miles long, and have a minimum width of 200 feet. This environmental corridor refinement process is more fully described in SEWRPC Technical Record, Vol. 4, No. 2, in an article entitled, “Refining the Delineation of Environmental Corridors in Southeastern Wisconsin.” The primary environmental corridors as delineated in the Lannon-Menomonee Falls study area are shown on Map 3.

In addition, Map 3 identifies secondary environmental corridors. The secondary environmental corridors, while not as significant as the primary environmental corridors in terms of overall resource values, should be considered for preservation as the process of urban development proceeds, because such corridors often provide economical drainageways, as well as needed “green” space, through developing residential neighborhoods. To qualify for inclusion in a secondary environmental corridor, an area must exhibit a point value of 10 or more and have a minimum area of 100 acres and a minimum length of one mile.

Also identified on Map 3 are isolated natural resource areas. Isolated natural resource areas generally consist of those natural resource base elements that have “inherent natural” value such as wetlands, woodlands, wildlife habitat areas, and surface water areas, but that are separated physically from the primary and secondary environmental corridors by intensive urban or agricultural land uses. Since isolated natural resource areas may provide the only available wildlife habitat in an area, provide good locations for local parks and nature study areas, and lend aesthetic character and natural diversity to an area, they should also be protected and preserved in a natural state to the extent practicable. An isolated natural resource area must be at least five acres in size.

Lands encompassed within the primary environmental corridors of the Lannon-Menomonee Falls study area in 1993 totaled 5.6 square miles, or about 16 percent of the total study area. Lands encompassed within the secondary environmental corridors totaled about 0.4 square mile, or about 1 percent of the study area. Lands encompassed within isolated natural resource areas totaled about 0.9 square mile, or about 2 percent of the study area. Thus, all environmentally significant lands in the Lannon-Menomonee Falls study area comprise about 6.9 square miles, or 19 percent of the study area.

While the adopted regional water quality management plan places great emphasis upon the protection of the lands identified as primary environmental corridors in essentially natural, open space uses, it recognizes that there may be situations in which the objective of preserving...
Map 3
ENVIRONMENTALLY SIGNIFICANT LANDS IN THE LANNON-MENOMONEE FALLS STUDY AREA: 1993

LEGEND

- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL RESOURCE AREA

Source: SEWRPC.
the corridor lands directly conflicts with other legitimate regional and local development objectives. For example, the regional plan recognizes that if a community were to determine the need for a strategic arterial street extension through the primary environmental corridor lands in order to service an important local development project, the street extension may be considered to be of greater community benefit than the preservation of a small segment of the primary environmental corridor. When such conflicts in legitimate community development objectives occur, it is important that they be resolved sensitively and that any damage to the natural environment in the corridors be minimized.

It should also be noted that while almost all the delineated floodlands in the Lannon-Menomonee Falls study area are contained within the environmental corridors, there are small areas of the floodlands utilized for agricultural or other open space uses located outside such corridors. The Regional Planning Commission recognizes that such floodlands are generally unsuitable for intensive urban development owing to poor soil conditions and periodic flood inundation. The Commission thus recommends that as development of lands located within urban areas and adjacent to these floodland areas occurs, such floodland areas be preserved in essentially natural, open space uses.
Chapter III

PROPOSED SANITARY SEWER SERVICE AREA

SIGNIFICANCE OF SANITARY SEWER SERVICE AREA DELINEATION

As noted earlier in this report, recent changes in the Wisconsin Department of Natural Resources (DNR) and Wisconsin Department of Industry, Labor and Human Relations (DILHR) rules governing the extension of sanitary sewers have made the delineation of local sanitary sewer service areas an important process for local units of government and private land developers. Before the recent rule changes, DNR and DILHR review and approval of locally proposed sanitary sewer extensions was confined primarily to engineering considerations and was intended to ensure that the sewers were properly sized and constructed. The recent rule changes significantly expanded the scope of the State review process to include water quality-oriented land use planning considerations. Before the two State agencies concerned can approve a locally proposed sanitary sewer extension, they must make a finding that the lands to be served by the proposed extension lie within an approved sanitary sewer service area. Such areas are identified in the Commission’s adopted, area-wide, water quality management plan and any subsequent amendments thereto. If a locally proposed sanitary sewer extension is designed to serve areas not recommended for sewer service in an areawide water quality management plan, the State agencies concerned must deny approval of the extension. Consequently, it is important that an intergovernmental consensus be reached in the delineation of proposed sanitary sewer service areas.

CURRENTLY APPROVED VILLAGE OF LANNON AND VILLAGE OF MENOMONEE FALLS SANITARY SEWER SERVICE AREAS

The Village of Lannon and the Village of Menomonee Falls sanitary sewer service areas, as set forth in the Commission adopted regional water quality management plan, as amended, are shown on Map 4. The portion of the Village of Menomonee Falls sewer service area anticipated to be tributary to the Milwaukee Metropolitan Sewerage District sewage treatment facilities totals about 18.7 square miles, or about 52 percent of the total study area of 35.9 square miles and had, in 1990, a resident population of about 24,100 persons. The portion of the Village of Menomonee Falls sewer service area anticipated to be tributary to the City of Brookfield sewage treatment facility totals about 0.6 square mile, or about 2 percent of the total study area and had a resident population of 500 persons in 1990. Last, the Village of Lannon-Village of Menomonee Falls sewer service area anticipated to be tributary to the Village of Sussex sewage treatment facility totals 4.3 square miles, or about 12 percent of the total study area, and had a resident population of 1,900 persons in 1990. It should be noted that in 1990 there was no centralized sanitary sewer service provided to the Village of Lannon or the portion of the Village of Menomonee Falls anticipated to be served by the Sussex sewage treatment plant.

REFINED VILLAGE OF LANNON AND VILLAGE OF MENOMONEE FALLS SANITARY SEWER SERVICE AREAS

Factors taken into account in the delineation of the refined Village of Lannon and Village of Menomonee Falls sanitary sewer service areas included the report prepared by Strand Associates, Inc., for the Joint Sewer Study Committee; the May 1989 amendment to the regional water quality management plan; the year 2010 Village of Menomonee Falls land use plan; the facility planning work presently underway for the Villages of Lannon, Menomonee Falls, and Sussex; the year 2010 recommended and alternative futures regional land use plans as prepared by the Regional Planning Commission; and the suggestions made at a series of interagency meetings attended by representatives of the Villages of Lannon and Menomonee Falls and the Regional Planning Commission.

The refinement effort also considered the location, type, and extent of existing urban land use development; the location of areas where onsite soil absorption sewage disposal systems were known to be failing; the location and extent of gravity drainage areas tributary to major sewage system pumping stations and to sewage
Map 4

VILLAGE OF LANNON AND VILLAGE OF MENOMONEE FALLS SANITARY SEWER SERVICE AREAS AS DEFINED IN SEWRPC PLANNING REPORT NO. 30, AS AMENDED

LEGEND

- AREA TRIBUTARY TO THE MILWAUKEE METROPOLITAN SEWERAGE DISTRICT SYSTEM
- AREA TRIBUTARY TO THE VILLAGE OF SUSSEX SYSTEM
- AREA TRIBUTARY TO THE CITY OF BROOKFIELD SYSTEM

Source: SEWRPC.
treatment facilities; the location and capacity of existing and planned trunk sewers; the location of existing property ownership boundaries; and certain pertinent aspects of the natural resource base, including the location and extent of soils suitable for urban development, the location and extent of primary and secondary environmental corridors, and the location and extent of prime agricultural lands.

As previously noted, the Commission, as part of its regional planning program, including the delineation of sanitary sewer service areas and the subsequent refinements thereof, utilizes the "alternative futures" concept to deal with the uncertainties regarding factors affecting future growth and development within the Region. The sewer service area refinement effort for the Village of Lannon and the Village of Menomonee Falls thus incorporates a range of population levels, with the most reasonable lower end of the population range based upon the Commission's intermediate-growth centralized land use plan and most reasonable upper end of the population range based upon the Commission's high-growth decentralized land use plan.

Indeed, local sanitary sewer service area and sewerage facility planning work should consider a range of population levels in the evaluation of alternative facility plans in order to identify alternatives which perform well under a reasonable range of possible future conditions. Construction of such facilities and mechanical and electrical components of sewage treatment facilities as pumps, compressors, and chemical-feed equipment are typically based upon relatively short-term population and loading forecasts. These facilities are often replaced or rebuilt at intervals of 10 to 15 years and are amenable to expansion in a staged manner. Accordingly, capital investment in such facilities are often limited to those relatively certain to be needed over a 15- to 20-year design period. Thus the use of the intermediate population forecast may be most appropriate for use in the design of such facilities.

Consideration of a high-growth population forecast, however, may be appropriate in delineating a service area and in the design of certain components of the sewerage system that have a longer life, including gravity-flow conveyance facilities and certain treatment plant components such as hydraulic conduits and tanks. With respect to the size of the service area, the high-growth population forecast may be the most logical to use, since the Commission forecasting methodology analyses indicate that such a level is indeed potentially achievable within the Southeastern Wisconsin Region. A sanitary sewer service area size based upon that level may also be desirable in order to provide flexibility to communities in determining the spatial distribution of anticipated new urban development and to facilitate the operation of the urban land market. With respect to the design of certain components of the sewerage system, the use of the high-growth population forecast may also be desirable where the physical life of the facilities is substantially greater than 20 years. Thus, facility construction based upon the high-growth forecast and loading levels may be warranted where the physical life of the facilities extends beyond the 20-year planning period.

The refined year 2010 sanitary sewer service areas for the Village of Lannon and the Village of Menomonee Falls, as submitted to public hearing, are shown on Map 5, together with existing trunk sewers.

The Village of Lannon and the Village of Menomonee Falls sanitary sewer service areas are based upon the Commission's high-growth decentralized land use plan. The Village of Lannon sewer service area would encompass about 2.6 square miles, or about 7 percent of the total study area of 35.9 square miles. This gross sewer service area would include about 0.5 square mile of primary environmental corridors lands and less than 0.1 square mile of secondary environmental corridors lands. There are no isolated natural resource area lands located within the Lannon sewer service area. Therefore, a total of about 0.5 square mile, or about 19 percent of the Lannon sewer service area, would be encompassed in environmentally sensitive areas, consisting of primary and secondary environmental corridor lands.

As previously noted, the Village of Menomonee Falls sewer service area is to be tributary to three separate sewage treatment facilities. The portion of the Menomonee Falls sewer service area anticipated to be tributary to the Milwaukee Metropolitan Sewerage District sewage treatment facilities would encompass about 17.8 square miles, or about 50 percent of the total study area of 35.9 square miles. This gross sewer service area would include about 1.2 square miles of primary environmental corridor lands,
Map 6
PRE-PUBLIC HEARING VILLAGE OF LANNON AND VILLAGE OF MENOMONEE FALLS SANITARY SEWER SERVICE AREAS

LEGEND

- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL RESOURCE AREA
- GROSS SANITARY SEWER SERVICE AREA BOUNDARY
- NET SANITARY SEWER SERVICE AREA (EXISTING)
- NET SANITARY SEWER SERVICE AREA (2010)
- EXISTING TRUNK SEWER
- PROPOSED TRUNK SEWER
- PROPOSED PUMPING STATION
- PROPOSED FORCE MAIN
- PROPOSED LOCAL COLLECTOR STREET

Source: SEWRPC.
about 0.2 square mile of secondary environmental corridor lands, and about 0.4 square mile of isolated natural resource area lands. Therefore, a total of about 1.8 square miles, or about 10 percent of the Village of Menomonee Falls sewer service area anticipated to be tributary to the Milwaukee Metropolitan Sewerage District, would be encompassed in environmentally sensitive areas, primary and secondary environmental corridor lands and isolated natural resource area lands.

The portion of the Village of Menomonee Falls sewer service area anticipated to be tributary to the City of Brookfield sewage treatment facility would encompass about 0.6 square mile, or about 2 percent of the total study area. This gross sewer service area would include less than 0.1 square mile of isolated natural resource area lands. There are no primary or secondary environmental corridor lands within this service area.

Finally, the portion of the Village of Menomonee Falls sewer service area anticipated to be tributary to the Village of Sussex sewage treatment facility would encompass about 3.7 square miles, or about 10 percent of the total study area. This gross sewer service area would include about 0.4 square mile of primary environmental corridor lands, about 0.1 square mile of secondary environmental corridor lands, and about 0.2 square mile of isolated natural resource area lands. Therefore, a total of about 0.7 square mile, or about 19 percent of the Village of Menomonee Falls sewer service area anticipated to be tributary to the Village of Sussex sewerage treatment facility, would be encompassed within environmentally sensitive areas, that is, primary and secondary environmental corridor lands and isolated natural resource area lands.

It should be noted that the environmentally significant lands indicated on Map 5 total approximately 74 acres more than the environmentally significant lands indicated on Map 3. As indicated on Map 6, about 63 acres located in 18 areas within the 100-year recurrence interval floodplain, primarily adjacent to the Menomonee River and Lilly Creek, all in the Village of Menomonee Falls, are currently undeveloped but lie adjacent to primary environmental corridor lands. It is anticipated that, over time, these lands will be withdrawn from agricultural and other open space uses and revegetated to possess the characteristics of a primary environmental corridor. In addition, 25 acres located in eight areas within the 100-year recurrence interval floodplain, primarily adjacent to Lilly Creek, in the Village of Menomonee Falls, are currently undeveloped but lie adjacent to secondary environmental corridor lands. It is anticipated that, over time, these lands will be withdrawn from agricultural and other open space uses and revegetated to possess the characteristics of a secondary environmental corridor.

Also shown on Map 6 are seven areas of isolated natural resource area lands encompassing about 21 acres, all in the Village of Menomonee Falls, which are anticipated to be converted to urban uses primarily on the basis of locally committed development proposals. None of these areas encompasses any identified wetlands.

As further shown on Map 6, one acre currently classified as secondary environmental corridor would, over the plan design period, be reclassified as primary environmental corridor.

Finally, as shown on Map 6, two areas totalling about seven acres are proposed to remain undeveloped and added to the adjacent secondary environmental corridor as initially recommended in SEWRPC Community Assistance Planning Report No. 190, A Stormwater Management and Flood Control Plan for the Lilly Creek Subwatershed, Village of Menomonee Falls, Waukesha County, Wisconsin, dated February 1993.

As indicated in Table 2, the refined year 2010 Village of Lannon sanitary sewer service area anticipated to be tributary to the Village of Sussex sewage treatment plant would, under the Commission’s high-growth decentralized land use plan, accommodate a planned year 2010 resident population of about 2,900 persons. Population levels within this area, however, would approximate about 1,700 persons under the Commission’s intermediate-growth centralized land use plan. The incremental population and housing unit levels envisioned in the Village of Lannon sewer service area under the high-growth decentralized land use plan would be accommodated at a density of about 2.6 dwelling units per net residential acre. This density lies within the recommended density range for the

1Residential density calculations are set forth in Appendix B.
Map 6

ANTICIPATED CHANGE IN THE ENVIRONMENTALLY SENSITIVE LANDS IN THE VILLAGE OF LANNON AND THE VILLAGE OF MENOMONEE FALLS SEWER SERVICE AREAS: 1993-2010

LEGEND
- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL RESOURCE AREA
- PORTION OF EXISTING (1993) ISOLATED NATURAL RESOURCE AREA ANTICIPATED TO BE CONVERTED TO URBAN USES BY THE YEAR 2000
- FLOODLANDS PROPOSED TO REMAIN UNDEVELOPED AND ADDED TO THE SECONDARY ENVIRONMENTAL CORRIDOR
- AREA PROPOSED TO REMAIN UNDEVELOPED AND ADDED TO THE SECONDARY ENVIRONMENTAL CORRIDOR
- PORTION OF EXISTING (1993) SECONDARY ENVIRONMENTAL CORRIDOR ANTICIPATED TO BE RECLASSIFIED AS PRIMARY ENVIRONMENTAL CORRIDOR

Source: SEWRPC.
Table 2

PLANNED YEAR 2010 POPULATION LEVELS FOR THE VILLAGE OF LANNON AND THE VILLAGE OF MENOMONEE FALLS SANITARY SEWER SERVICE AREAS

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<thead>
<tr>
<th>Sewer Service Area</th>
<th>Planned Year 2010 Population Levels</th>
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</tr>
<tr>
<td>Tributary to Brookfield</td>
<td>700</td>
</tr>
<tr>
<td>Tributary to Sussex</td>
<td>1,300</td>
</tr>
</tbody>
</table>

Source: Wisconsin Department of Administration and SEWRPC.

Village of Lannon area of the Region as identified in the Commission-adopted regional land use plan for the year 2010.

As further indicated in Table 2, that portion of the refined year 2010 Village of Menomonee Falls sanitary sewer service area anticipated to be tributary to the Milwaukee Metropolitan Sewerage District sewage treatment facilities would, under the Commission's high-growth decentralized land use plan, accommodate a planned year 2010 resident population of about 43,000 persons. Population levels within this area, however, would approximate about 32,100 persons under the Commission's intermediate-growth centralized land use plan. The incremental population and housing unit levels envisioned in this portion of the Village of Menomonee Falls sewer service area under the high-growth decentralized land use plan would be accommodated at a density of about 3.7 dwelling units per net residential acre. This density lies within the recommended density range for this portion of the Village of Menomonee Falls area of the Region as identified in the Commission-adopted regional land use plan for the year 2010.

As indicated in Table 2, that portion of the refined year 2010 Village of Menomonee Falls sanitary sewer service area anticipated to be tributary to the City of Brookfield sewage treatment plant would, under the Commission's high-growth decentralized land use plan, accommodate a planned year 2010 resident population of about 2,100 persons. Population levels within this area, however, would approximate about 700 persons under the Commission's intermediate-growth centralized land use plan. The incremental population and housing unit levels envisioned in this portion of the Village of Menomonee Falls sewer service area under the high-growth decentralized land use plan would be accommodated at a density of about 4.6 dwelling units per net residential acre. This density lies within the recommended density range for this portion of the Village of Menomonee Falls area of the Region as identified in the Commission-adopted regional land use plan for the year 2010.

As indicated in Table 2, that portion of the refined year 2010 Village of Menomonee Falls sanitary sewer service area anticipated to be tributary to the Village of Sussex sewage treatment plant would, under the Commission's high-growth decentralized land use plan, accommodate a planned year 2010 resident population of about 3,600 persons. Population levels within this area, however, would approximate about 1,300 persons under the Commission's intermediate-growth centralized land use plan. The incremental population and housing unit levels envisioned in this portion of the Village of Menomonee Falls sewer service area under the high-growth decentralized land use plan would be accommodated at a density of about 2.2 dwelling units per net residential acre. This density lies within the recommended density range for this portion of the Village of Menomonee Falls area of the Region as identified in the Commission-adopted regional land use plan for the year 2010.

\[Ibid.\]

\[Ibid.\]
WATER QUALITY IMPACTS

Under the recommended sanitary sewer service area plan, it is envisioned that all urban lands located within the planned urban service areas would receive sanitary sewer service. It is also envisioned that all lands identified as primary environmental corridor would not be developed for intensive urban use. It is recognized, however, that certain land uses requiring sanitary sewer service could be properly located in the corridors, including park and outdoor recreation facilities, certain institutional uses, and, in some cases, extremely-low-density residential development on five-acre lots. In addition, provision of public sewer service within that portion of the identified sewer service areas currently developed, but outside the area served by public sewers, will reduce the pollutant loadings from the onsite sewage disposal systems to both surface and groundwater. Accordingly, assuming proper site development and construction practices, including appropriate construction erosion control practices and compatible development within primary and secondary environmental corridors, isolated natural resource areas, or lands adjacent to such areas, there should be no significant adverse water quality impacts attributable to the development of the planned sanitary sewer service areas.

COST-EFFECTIVENESS ANALYSIS OF SEWERAGE CONVEYANCE AND TREATMENT ALTERNATIVES

The extent of the planned sewer service area for the portion of the Village of Menomonee Falls tributary to the Milwaukee Metropolitan Sewerage District as shown on Map 5 is generally the same area which was evaluated in a detailed cost-effectiveness analysis prepared as a part of a facility planning program completed by the Milwaukee Metropolitan Sewerage District after the completion of the regional water quality management plan. That analysis is documented in the report entitled, “Milwaukee Metropolitan Sewerage District Wastewater System Plan,” June 1980. The major facilities needed to provide conveyance and treatment of sewage from that portion of the Village of Menomonee Falls proposed sewer service area tributary to the Milwaukee Metropolitan Sewerage District system are all in place. A review of the previous cost-effectiveness evaluation and the status of the construction of the facilities needed to serve the planned service area indicate that the most cost-effective alternative is clearly to serve the eastern portion of the Village sewer service area through the Milwaukee metropolitan sewerage system. Consequently, no further cost-effectiveness analysis was deemed to be required for this portion of the Village of Menomonee Falls sewer service area.

The proposed Village of Lannon sewer service area and a portion of the proposed Village of Menomonee Falls sewer service area lie immediately east of an area in the Town of Lisbon planned to be connected to the Village of Sussex sewage treatment plant and immediately north of the City of Brookfield sewer service area. Thus, connection of these areas could potentially be made to either the Sussex or the Brookfield sewage treatment plants. A cost-effective division of the aforementioned areas between these two sewage treatment plants is set forth in the adopted regional water quality management plan, as that plan was amended in May 1989 to provide for a permanent sewage treatment plant at Sussex. The boundary between the Brookfield and Sussex service areas as shown on Map 5 represents a refinement of the currently adopted boundary, as set forth in the May 1989 amendment, based upon local analyses of costs, topography, expected timing of service needs, and downstream trunk sewer capacity.

SEWAGE TREATMENT PLANT CAPACITY IMPACT ANALYSIS

The planned sewer service area will impact three sewerage systems and the treatment plants serving these systems: the Milwaukee Metropolitan Sewerage District, the City of Brookfield, and the Village of Sussex systems. With regard

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5 The Wisconsin Department of Natural Resources, in conjunction with the League of Wisconsin Municipalities, published a model ordinance which local units of government are encouraged to adopt to control construction site erosion as documented in “Model Ordinance,” The Municipality, Vol. 82, No. 1, January 1987.

to the potential impacts on the two sewage treatment plants operated by the Milwaukee Metropolitan Sewerage District, the size and capacity of the District facilities were developed in accordance with the District facility plan referenced previously. That plan was based upon an estimated year 2005 sewer service area population of 58,000 persons in the portion of the Village of Menomonee Falls sewer service area proposed to be tributary to the Milwaukee metropolitan system. The sewer service area herein delineated has a planned design year 2010 resident population level ranging from 32,100 persons, under the intermediate-growth land use plan, to 43,000 persons, under the high-growth decentralized land use plan, in that portion of the service area tributary to the Milwaukee Metropolitan Sewerage District sewerage system. The sewer service area tributary to the Milwaukee Metropolitan system is nearly the same as the service area set forth in the adopted regional water quality management plan and in the District facility plan. Since the planned population levels now envisioned in the Village of Menomonee Falls sewer service area tributary to the Milwaukee Metropolitan system are less than the planned population level used in the Milwaukee Metropolitan Sewerage District facility planning, the District sewerage facilities should have adequate capacity to serve the Village.

With regard to the potential impact of the Village of Menomonee Falls sewer service area tributary to the City of Brookfield sewage treatment plant, the City is currently conducting facility planning for a sewage treatment plant expansion and upgrading designed for the year 2014. Review of the draft facilities plan prepared by the City indicates that the planned design capacity is expected to be about 12.50 million gallons per day (mgd) on an average annual basis. The average hydraulic loading to be generated in the portion of Village of Menomonee Falls sewer service area tributary to the Brookfield sewage treatment plant is expected to range from about 0.10 mgd to about 0.27 mgd on an average annual basis, taking into account the potential range of populations being considered. The draft facility plan also includes specific design flow rates for peak wet-weather flow rates and loadings. Review of the draft Brookfield facility plan indicates that the proposed plant design specifically includes consideration of the portion of the Village of Menomonee Falls service area shown on Map 5 to be tributary to the City of Brookfield sewage treatment plant.

With regard to the potential impact of the Village of Lannon and Village of Menomonee Falls sewer service areas tributary to the Village of Sussex sewage treatment plant, the latter has recently completed facility planning for, and is beginning construction of, a sewage treatment plant expansion and upgrading designed for the year 2010. Review of the draft facilities plan indicates that the design capacity for this expanded and upgraded sewage treatment plant is expected to be 3.2 mgd on an average annual basis. The hydraulic loading to be generated in the portion of Village of Menomonee Falls and Village of Lannon on Map 5 to be tributary to the Village of Sussex sewage treatment plant is expected to range from about 0.40 mgd to about 0.81 mgd on an average annual basis taking into account the potential range of populations being considered. The facility plan prepared for the Village of Sussex sewage treatment plant also includes specific design flow rates for peak wet-weather flow rates and loadings. The facility plan and the subsequent transfer of design capacity from the Town of Pewaukee to the Village of Menomonee Falls indicates that adequate specific capacity is being provided for the Village of Lannon and the portion of the Village of Menomonee Falls sewer service areas proposed to be tributary to the Village of Sussex sewage treatment plant.

PUBLIC REACTION TO THE PROPOSED SANITARY SEWER SERVICE AREAS

A public hearing was held on June 2, 1993, for the purpose of receiving comments on the refined sanitary sewer service areas as shown on Map 5. This hearing was sponsored jointly by the Villages of Lannon and Menomonee Falls and by the Regional Planning Commission. Summary minutes of the public hearing are presented in Appendix A.

A brief summary of the findings and recommendations of the sewer service area refinement effort was presented prior to receiving public comment. The rationale for refining and detailing the sanitary sewer service areas for the Villages of Lannon and Menomonee Falls were presented and the importance of the delineation of the service areas were described, as was the importance of the delineation of environmentally sensitive lands within the service areas.
Comments on the report and accompanying maps were then solicited.

A review of the hearing record indicates that no substantive concerns were raised in regard to the delineation of the sewer service areas or of the environmentally sensitive lands within these areas. The only questions raised from those in attendance at the hearing concerned the timing as to when sewer service would be available to specific areas; the location and sizing of these sewers; and the potential costs to affected property owners. These concerns were addressed by the representatives of the Villages of Lannon and Menomonee Falls present at the public hearing.

Subsequent to the public hearing, the Commission received a letter dated June 2, 1993, from the Executive Director of the Milwaukee Metropolitan Sewerage District. A copy of this letter is presented in Appendix C. In that letter, the District indicated that it did not agree with the proposed revisions to the sanitary sewer service area delineations for the year 2010 for the Villages of Lannon and Menomonee Falls. The District indicated that it had not yet commenced any facility planning for facility needs beyond the year 2005. Moreover, the District indicated it would not undertake such planning for any community that does not have a contract with the District for sewage conveyance and treatment services. The District recommended that the Commission restudy the subject area on the assumption that the area will be served in the future, presumably beyond the year 2005, by conveyance and treatment facilities not owned or operated by the District.

The Lannon-Menomonee Falls study area is bisected by the subcontinental divide. Historic planning by the District dating back at least to 1956 was based upon the assumption that only that portion of the Village of Menomonee Falls lying east of the subcontinental divide would ultimately be fully served by the District. By definition, then, the Village of Lannon, which lies entirely west of the subcontinental divide, was never intended to be served by the District and any comments by the District at this time plainly pertain only to the service areas within the Village of Menomonee Falls.

When the Commission adopted the regional water quality management plan in 1979, that plan, consistent with historic District planning, incorporated the eastern portion of the Village of Menomonee Falls within the service area tributary to the treatment facilities owned and operated by the District. In so doing, the Commission relied upon a map of the proposed District service area, including the Village of Menomonee Falls, published by the District in 1976. Thus, with respect to the Village of Menomonee Falls, the original regional water quality management plan was intended to incorporate the western service area limits that historically had been established by the District. At the time of adoption of the regional water quality management plan, that portion of the Village of Menomonee Falls lying within the planned District service area was envisioned to accommodate a resident population of about 56,000 by the year 2000. Furthermore, the District's own facilities planning effort, which was completed in 1980, was based upon a future resident population of about 58,000 by the year 2005, incorporating the same Menomonee Falls sewer service area reflected on the 1976 District map. The design and construction of the District trunk sewers that enabled the subsequent abandonment of two then existing Menomonee Falls sewage treatment plants was also based upon the assumed development of the eastern portion of the Village of Menomonee Falls as that portion was identified on the 1976 District map and as generally reflected in the summary maps subsequently published by the Regional Planning Commission and the District.

As presented at the public hearing, the proposed refined and detailed Menomonee Falls sewer service area included relatively minor adjustments to the historically established western limits line of the District service area in the Village. The Director of Public Works proposed to add certain lands to the District service area and subtract other lands from that area. Overall, however, the differences would not have resulted in any significant change in the total area ultimately proposed to be served by the District in the Village of Menomonee Falls nor in the resident population of the service area.

In discussing the position of the District as reflected in the June 2, 1993, letter with the Director of Public Works of the Village of Menomonee Falls, the Director of Public Works suggested, and the Village Board concurred in its adopting action on June 7, 1993, that the proposal taken to public hearing be changed so
as to restore precisely the historic District service area limits. This would mean that the relatively minor changes previously proposed by the Director of Public Works to be made in the service area boundary are no longer proposed to be made. Accordingly, as adopted by the Village Board of Menomonee Falls, the sewer service area under consideration by the Commission does not in any way propose to change the historically agreed-upon western limits of the service area of the District in the Village of Menomonee Falls. Within the context of the District’s letter then, and extending at least until the year 2005, there is no change proposed to the currently adopted regional water quality management plan nor in the longstanding District-approved service area boundary. Furthermore, the proposed plan amendment envisions the future resident population within the District service area to range from about 32,000 to about 44,000 persons, well below the historically planned population levels. Accordingly, there should be no objection thereto by the District.

The final year 2010 Menomonee Falls sanitary sewer service area tributary to the Milwaukee Metropolitan Sewerage District sewage treatment facilities, including the aforesaid revisions, is shown on Map 7. The final sewer service area totals about 18.7 square miles, or about 52 percent of the total study area. This revised area reflects the addition of 722 acres to, and the subtraction of 139 acres from, the sewer service area as taken to public hearing, resulting in a net increase of 583 acres to the sewer service area. The area would accommodate a plan year 2010 resident population of about 44,000 persons, resulting in a density of about 3.6 dwelling units per net residential acre. This density lies within the recommended density range for this portion of the Village of Menomonee Falls area of the Region as identified in the Commission-adopted regional land use plan for the year 2010.

Detailed delineations of the final Lannon-Menomonee Falls sanitary sewer service areas, and environmentally significant lands within these areas, are shown on a series of aerial photographs reproduced as Map 8, beginning on page 24 and continuing through page 33 of this report.

IMPLEMENTING RECOMMENDATIONS

It is recommended that the following steps be taken to implement the sanitary sewer service area proposals contained in this report:

1. Formal adoption or endorsement of SEWRPC Planning Report No. 30, A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000, and this SEWRPC Community Assistance Planning Report by the Village Board of the Village of Lannon as the envisioned operator of the sanitary sewer collection system within the Village, by the Village Board of the Village of Menomonee Falls as the operator of the sanitary sewer collection system in the Village, and by the City of Brookfield, the Village of Sussex, and the Milwaukee Metropolitan Sewerage District as the operators of the sewerage treatment facilities and trunk sewer systems utilized or planned to be utilized by the Village of Lannon and the Village of Menomonee Falls.

2. Formal adoption of this SEWRPC Community Assistance Planning Report by the Regional Planning Commission as an amendment to the regional water quality management plan set forth in SEWRPC Planning Report No. 30, with certification of this report as a plan amendment to all parties concerned, including the Wisconsin Natural Resources Board and the U.S. Environmental Protection Agency.

3. Review by all of the local units of government concerned of their land use plans, zoning, land subdivision control, and related ordinances to ensure that the policies expressed in such ordinances reflect the urban development recommendations inherent in the final delineated Village of Lannon and Village of Menomonee Falls sanitary sewer service areas as shown on Maps 7 and 8. In particular, steps should be taken to ensure that those lands identified in this report as being environmentally significant are properly zoned to reflect a policy of retaining such lands, insofar as possible, in essentially natural, open uses.

4. Review by the Village of Lannon and the Village of Menomonee Falls of utility extension policies to ensure that such policies are consistent with the urban land development recommendations inherent in the delineation of the planned sanitary sewer service areas.
SUBSEQUENT REFINEMENTS TO THE VILLAGE OF LANNON AND VILLAGE OF MENOMONEE FALLS SEWER SERVICE AREAS

This report presents the refined sewer service areas for the Village of Lannon and the Village of Menomonee Falls. The refined sewer service areas were delineated cooperatively by the units and agencies of government concerned and was subjected to review at a public hearing. It is envisioned that the delineated sewer service areas will accommodate all new urban development anticipated in the Village of Lannon and the Village of Menomonee Falls areas to the year 2010. Like other long-range plans, however, this sewer service area plan should be periodically reviewed, every five years, to assure that it continues to reflect properly the urban development objectives of the communities involved, especially as such objectives may relate to the amount and spatial distribution of new urban development requiring sewer service. Should it be determined by the Village of Lannon or the Village of Menomonee Falls, as the operators of the sanitary sewer collection systems involved, that amendments to the sewer service area plan as presented herein are necessary, the Villages should ask the Southeastern Wisconsin Regional Planning Commission for assistance in undertaking the technical work required properly to amend the plan. Any such plan revision should be carried out in a manner similar to that utilized in the refinement effort described in this report. While plan amendment may be expedited because study area base maps have been prepared and certain inventories completed as part of the sewer service area planning documented herein, such amendment should be subject to the same analyses and interagency review and should include a public hearing to obtain the comments and suggestions of those citizens and landowners most affected by the proposed changes to the sewer service area boundary. Upon agreement on a revised sewer service area, the new plan map should be endorsed by the appropriate Village Board and by the Southeastern Wisconsin Regional Planning Commission prior to certification to the Wisconsin Department of Natural Resources and the U. S. Environmental Protection Agency.
Map 8-1
ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE VILLAGE OF LANNON AND THE VILLAGE OF MENOMONEE FALLS
U. S. Public Land Survey Sections 5, 6, 7, and 8
Township 8 North, Range 20 East

Source: SEWRPC.
Map 8-2
ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE VILLAGE OF LANNON AND THE VILLAGE OF MENOMONEE FALLS

U. S. Public Land Survey Sections 3, 4, 9, and 10
Township 8 North, Range 20 East

Source: SEWRPC.
Map 8-3

ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE VILLAGE OF LANNON AND THE VILLAGE OF MENOMONEE FALLS

U. S. Public Land Survey Sections 1, 2, 11, and 12
Township 8 North, Range 20 East

Source: SEWRPC.
Map 8-4
ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE VILLAGE OF LANNON AND THE VILLAGE OF MENOMONEE FALLS

U. S. Public Land Survey Sections 17, 18, 19, and 20
Township 8 North, Range 20 East

Source: SEWRPC.
Environmen tally Significant Lands and Planned Sanitary Sewer Service Area for the Village of Lannon and the Village of Menomonee Falls

U. S. Public Land Survey Sections 13, 14, 23, and 24
Township 8 North, Range 20 East

Source: SEWRPC.
Map 8-7

ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE VILLAGE OF LANNON AND THE VILLAGE OF MENOMONEE FALLS

U. S. Public Land Survey Sections 29, 30, 31, and 32
Township 8 North, Range 20 East

Source: SEWRPC.
ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER
SERVICE AREA FOR THE VILLAGE OF LANNON AND THE VILLAGE OF MENOMONEE FALLS

U. S. Public Land Survey Sections 27, 28, 33, and 34
Township 8 North, Range 20 East

Source: SEWRPC.
Map 8-9
ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE VILLAGE OF LANNON AND THE VILLAGE OF MENOMONEE FALLS

U. S. Public Land Survey Sections 25, 26, 35, and 36
Township 8 North, Range 20 East

LEGEND

Primary Environmental Corridor
Secondary Environmental Corridor
Isolated Natural Resource Area
Planned Sanitary Sewer Service Area
Gross Sanitary Sewer Service Area Boundary

Source: SEWRPC.
APPENDICES
Appendix A

MINUTES OF PUBLIC HEARING

Sanitary Sewer Service Area for the Villages of Lannon and Menomonee Falls
June 2, 1993

SPECIAL VILLAGE BOARD OF TRUSTEES MEETING

VILLAGE OF MENOMONEE FALLS

June 2, 1993

Meeting called to order at 7:30 P.M.

Village Board Members Present: Acting Village President Broesch, Village Trustees Dwyer, McDonald, Weiland and Holz

Village Board Members Absent: Village President Greco and Trustee Hinz.

Plan Commission Members Present: W. McDonald and M. McDonald

Plan Commission Members Absent: Greco, Jeskewitz, Rechlicz, Kauth and Lemke

Also Present: Lannon Village President Terry Gissal, Bruce Rubin, Roland Tonn and Joel Dietle of SEWRPC, Bill Mielke and Tom Ludwig of Ruekert & Mielke, Village Manager Richard Farrenkopf, Director of Community Development William Freisleben, Supt. of Engineering Jerome Brahm, Supt. of Development Albert Walker, and staff engineer Arlyn Johnson

PUBLIC HEARING ON VILLAGE OF LANNON AND VILLAGE OF MENOMONEE FALLS SANITARY SEWER SERVICE AREAS

Village Manager Farrenkopf read the Notice of Public Hearing.

Chief SEWRPC Land Use Planner Bruce Rubin made a presentation in which he explained the process used in arriving at the projected sewer service area. He stated that the process was begun in 1979 and that there are 3 distinct tributary areas of which approximately 17.85 square miles would flow to Milwaukee, one-half square mile would flow to Brookfield and 3.7 square miles to Sussex; the Village of Lannon is entirely within the Sussex service area. He indicated the environmentally significant areas are also shown on the maps and the areas shown in white are not envisioned for sewer service in the near future. This matter will be taken up by SEWRPC at their June 16, 1993 meeting, and if approved it will be sent on to the DNR for their approval.
There were approximately 35 residents from the Village of Menomonee Falls and the Village of Lannon present for the public hearing. Most of the questions and concerns raised dealt with when sewer service would be available, how it would affect their properties, the outcome of the FLOW lawsuit and how it may affect them, rather than the sewer service area maps themselves.

The following individuals spoke during the public hearing:

Karl Kieckbusch, N57 W21682 Memorial Court; Paul Randall, N80 W18617 Custer Lane; Sophie Schaarschmidt, W204 N5360 Lannon Road; Dan Davis of the Normandale Subdivision; Jerry Schmitz, N59 W18117 Spruce Lane, Don Bassette, 20784 State Street, Lannon; Mr. & Mrs. Helman of N56 W19813 Silver Spring Road; Earl Petermann, N56 W18541 Silver Spring; Gayle Yeko, N80 W18617 Custer Lane; Adrian Geiger of Silver Meadows Subdivision; and a resident of the City of Wauwatosa.

Trustee McDonald offered explanations on the proposed route of the interceptor sewers and how the proposed TIF District may affect the future installation of the sewers. Bill Mielke of Ruekert & Mielke explained that the Village of Lannon was applying for funds under the Clean Water Financing Program and that Menomonee Falls is seeking grants and low interest loans from the State of Wisconsin.

Public hearing closed at 9:05 P.M.

CONSIDERATION OF RESOLUTION ADOPTING SEWRPC COMMUNITY ASSISTANCE PLANNING REPORT NO. 208, SANITARY SEWER SERVICE AREAS FOR THE VILLAGE OF LANNON AND THE VILLAGE OF MENOMONEE FALLS, WAUKESHA COUNTY, WISCONSIN DATED MAY 1993

Due to lack of a quorum for the Plan Commission, a recommendation could not be made to the Village Board and no action could be taken at this time.

ADJOURNMENT

It was moved by Weiland, second by Holz, to adjourn. All ayes, motion carried. Meeting adjourned at 9:05 P.M.

Respectfully submitted,

Sharon L. Buss
Planning Technician
Appendix B

DETERMINATION OF NET INCREMENTAL RESIDENTIAL DENSITIES IN THE VILLAGE OF LANNON AND THE VILLAGE OF MENOMONEE FALLS SEWER SERVICE AREAS

Net incremental residential densities in the refined Village of Lannon sewer service area and the refined Village of Menomonee Falls sewer service areas, as set forth under the Commission's high-growth decentralized land use plan, were determined by dividing the total number of incremental dwelling units in each sewer service area in the design year by the net incremental residential land area anticipated within that sewer service area.

CHARACTERISTICS OF SEWER SERVICE AREAS

Village of Lannon Sewer Service Area
In the Village of Lannon sewer service area, the total number of incremental dwelling units anticipated, 566, was determined by first identifying the total number of dwelling units anticipated in that area by the year 2010, 950, and subtracting the number of existing dwelling units in that area in 1990, 384.

Incremental net residential land for this area, 220 acres, equals net developable land, 476 acres, minus lands allocated to other urban uses, 40 percent, or 190 acres, then minus land allocated to local streets, 23 percent or 66 acres. The total number of incremental dwelling units anticipated in the Village of Lannon sewer service area in the design year, 566 units, divided by the incremental net residential land within this area, 220 acres, results in an incremental net residential density of 2.6 dwelling units per acre.

Village of Menomonee Falls (Milwaukee Metropolitan Sewerage District) Sewer Service Area
In that portion of the Village of Menomonee Falls sewer service area tributary to the Milwaukee Metropolitan Sewerage District sewage treatment facilities, the total number of incremental dwelling units anticipated, 5,945, was determined by first identifying the total number of dwelling units anticipated in that area by the year 2010, 14,646, and subtracting the number of existing dwelling units in that area in 1990, 8,701.

Incremental gross residential land for this area, based upon the Village of Menomonee Falls land use plan, totals about 2,081 acres. Incremental net residential land for this area, 1,602 acres, equals gross residential land, 2,081 acres, minus lands allocated to local streets, 23 percent, or 479 acres. The total number of incremental dwelling units anticipated in that portion of the Village of Menomonee Falls sewer service area tributary to the Milwaukee Metropolitan Sewerage District in the design year, 5,945 units, divided by the incremental net residential land within this area, 1,602 acres, results in an incremental net residential density of 3.7 dwelling units per acre.

Village of Menomonee Falls (Brookfield) Sewer Service Area
In that portion of the Village of Menomonee Falls sewer service area tributary to the City of Brookfield sewage treatment facility, the total number of incremental dwelling units anticipated, 548, was determined by first identifying the total number of dwelling units anticipated in that area by the year 2010, 714, and subtracting the number of existing dwelling units in that area in 1990, 166.

Incremental gross residential land for this area, based upon the Village of Menomonee Falls land use plan, totals about 155 acres. Incremental net residential land for this area, 119 acres, equals gross residential land, 155 acres, minus lands allocated to local streets, 23 percent, or 36 acres. The total number of incremental dwelling units anticipated in that portion of the Village of Menomonee Falls sewer service area tributary to the City of Brookfield sewage treatment facility in the design year, 548 units, divided by the incremental net residential land within this area, 119 acres, results in an incremental net residential density of 4.6 dwelling units per acre.
Village of Menomonee Falls (Sussex) Sewer Service Area

In the portion of the Village of Menomonee Falls sewer service area anticipated to be tributary to the Village of Sussex sewage treatment facility, the total number of incremental dwelling units anticipated, 1,856, was determined by assuming that all undeveloped lands within this area would be developed primarily for residential uses on 20,000-square-foot lots, as envisioned by the Village of Menomonee Falls.

Incremental net residential land for this area, 852 acres, equals net developable land, 1,106 acres, minus lands allocated to local streets, 23 percent or 254 acres. The total number of incremental dwelling units anticipated in the portion of the Village of Menomonee Falls sewer service area anticipated to be tributary to the Village of Sussex sewage treatment facility in the design year, 1,856 units, divided by the incremental net residential land within this area, 852 acres, results in an incremental net residential density of 2.2 dwelling units per acre.
Appendix C

LETTER FROM THE MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

Milwaukee Metropolitan Sewerage District
260 West Seeboth Street Milwaukee, Wisconsin 53204-1446

Office of the Executive Director
414-225-2088

June 2, 1993

Mr. Kurt W. Bauer
Executive Director
Southeastern Wisconsin Regional Planning Commission
916 N. East Avenue
P.O. Box 1607
Waukesha, WI 53187-1607

Subject: Proposed 2010 Sanitary Sewer Service Area for the Village of Menomonee Falls and the Village of Lannon

Dear Mr. Bauer:

In your letter of May 18, 1993, you requested that the operators of the treatment plants proposed to serve the study area review and comment on the proposed 2010 sanitary sewer service area for the Village of Menomonee Falls and the Village of Lannon.

The Milwaukee Metropolitan Sewerage District has not yet commenced any facility planning beyond the year 2005. The District certainly would not undertake any facility planning for communities which do not have a contract with the MMSD for sewer service. Therefore, we recommend that you restudy the subject area based on the assumption that it will be served in the future, if at all, by facilities not owned or operated by the District.

In conclusion, the MMSD does not agree with the revised sanitary sewer service area delineations proposed in your transmittal of May 18, 1993.

Sincerely,

[Signature]
Ralph Hollmon
Executive Director

RH:SH:cls
RHSHEBSS2010.LTR