

**SANITARY SEWER SERVICE
AREA FOR THE TOWN OF
SALEM UTILITY DISTRICT
NO.1, VILLAGE OF PADDOCK
LAKE, AND TOWN OF BRISTOL
UTILITY DISTRICT NOS.1 AND 1B**

**KENOSHA COUNTY
WISCONSIN**

**SOUTHEASTERN WISCONSIN
REGIONAL PLANNING COMMISSION**

KENOSHA COUNTY

Francis J. Pitts
Mary A. Plunkett
Sheila M. Siegler

RACINE COUNTY

John R. Hansen
James F. Rooney
Earl G. Skagen

MILWAUKEE COUNTY

Irene M. Brown,
Secretary
Harout O. Sanasarian,
Vice-Chairman
Jean B. Tyler

WALWORTH COUNTY

John D. Ames
Anthony F. Balestrieri,
Chairman
Allen L. Morrison

OZAUKEE COUNTY

Allen F. Bruederle
Sara L. Johann
Alfred G. Raetz

WASHINGTON COUNTY

Thomas J. Sackett
Patricia A. Strachota
Frank F. Uttech

WAUKESHA COUNTY

Robert F. Hamilton
William D. Rogan,
Treasurer
Paul G. Vrakas

SALEM/PADDOCK LAKE/BRISTOL OFFICIALS

**VILLAGE OF PADDOCK LAKE
VILLAGE BOARD**

Olga Hoffman, President
Douglas Bakum
Jeffrey Borndahl
Elmer C. Ladd
Michael E. Ladd
Malcolm Pickens
Richard Puhl

**TOWN OF BRISTOL
TOWN BOARD**

Noel Elfering, Chairman
Russell C. Horton
Donald Wienke

**TOWN OF SALEM
TOWN BOARD**

Richard W. Stetson,
Chairman
Estelle Bloss
Joseph Meier
Peter Tremonte
Josephine Weidman

**TOWN OF SALEM UTILITY
DISTRICT NO. 1**

Kathleen A. Gehrke,
Administrator

**SOUTHEASTERN WISCONSIN REGIONAL
PLANNING COMMISSION STAFF**

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

Special acknowledgement is due SEWRPC Planner Dennis K. Lefevre for his contribution to this report.

COMMUNITY ASSISTANCE PLANNING REPORT
NUMBER 145

SANITARY SEWER SERVICE AREA FOR
THE TOWN OF SALEM UTILITY DISTRICT NO. 1,
VILLAGE OF PADDOCK LAKE, AND TOWN OF
BRISTOL UTILITY DISTRICT NOS. 1 AND 1B
KENOSHA COUNTY, WISCONSIN

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.

October 1986

Inside Region \$1.50
Outside Region \$3.00

(This page intentionally left blank)

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

916 N. EAST AVENUE

P.O. BOX 1607

WAUKESHA, WISCONSIN 53187-1607

TELEPHONE (414) 547-6721

Serving the Counties of:

KENOSHA
MILWAUKEE
OSHAUKEE
RACINE
WALWORTH
WASHINGTON
WAUKESHA

October 31, 1986

TO: The Town of Salem Utility District No. 1, the Town of Bristol Utility District Nos. 1 and 1B, the Village Board of the Village of Paddock Lake, the Town Boards of the Towns of Bristol and Salem, and the Kenosha County Planning and Zoning Administration

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 Town of Salem Utility District No. 1, the Village of Paddock Lake, and the Town of Bristol Utility District Nos. 1 and 1B on November 9, 1985, November 22, 1985, and February 5, 1986, respectively, requested that the Regional Planning Commission assist them in refining and detailing the recommended sanitary sewer service area tributary to their respective wastewater treatment facilities. 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 those service 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 future extension of sanitary sewer service.

A public hearing was held on April 17, 1986, for the Town of Bristol Utility District Nos. 1 and 1B and a joint public hearing was held on May 6, 1986, for the Village of Paddock Lake and Town of Salem Utility District No. 1. These hearings were held 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 area herein presented is 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, the Governor, 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 provide a sound guide which can assist the responsible public officials in the making of sewer service-related development decisions in the Town of Salem Utility District No. 1, the Town of Bristol Utility District Nos. 1 and 1B, and the Village of Paddock Lake. Accordingly, careful consideration and adoption of this report by all parties concerned is respectfully urged. The Regional Planning Commission stands ready to assist the Districts and Village of Paddock Lake in implementing the recommendations contained in this report.

Respectfully submitted,



Kurt W. Bauer
Executive Director

(This page intentionally left blank)

TABLE OF CONTENTS

	Page
CHAPTER I - INTRODUCTION.....	1
Background.....	1
Need for Refinement and Detailing of Local Sanitary Sewer Service Areas.....	1
The Salem/Paddock Lake/Bristol Sanitary Sewer Service Area Refinement Process.....	4
CHAPTER II - STUDY AREA DESCRIPTION.....	7
CHAPTER III - PROPOSED SANITARY SEWER SERVICE AREA.....	11
Significance of Sanitary Sewer Service Area Delineation.....	11
Proposed Sanitary Sewer Service Areas as Set Forth in SEWRPC Planning Report No. 30.....	11
Determination of Environmentally Significant Lands in the Salem/Paddock Lake/Bristol Study Area.....	13
Refined Sanitary Sewer Service Areas.....	17
Public Reaction to the Proposed Sanitary Sewer Service Area.....	22
Implementing Recommendations.....	22
Subsequent Refinements to the Salem/Paddock Lake/ Bristol Sanitary Sewer Service Areas.....	23

LIST OF APPENDICES

Appendix	Page
A Public Hearing Minutes.....	45
A-1 Town of Bristol Utility District Nos. 1 and 1B Sanitary Sewer Service Area and Sewerage System Facilities Plan April 17, 1986, Bristol Town Hall.....	45
A-2 Town of Salem Utility District No. 1 and Village of Paddock Lake Sanitary Sewer Service Area and Sewerage System Facilities Plan May 6, 1986, Salem Town Hall.....	47

LIST OF TABLES

Table	Chapter III	Page
1 Values Assigned to Natural Resource Base and Resource Base-Related Elements in the Process of Delineating Primary and Secondary Environmental Corridors.....		15

LIST OF MAPS

Map	Page
Chapter I	
1	Recommended Sanitary Sewer Service Areas in the Region: 2000..... 3
Chapter II	
2	Study Area Identified for Purposes of Refining and Detailing the Salem/Paddock Lake/Bristol Sanitary Sewer Service Areas..... 8
Chapter III	
3	The Salem/Paddock Lake/Bristol Sewer Service Areas as Defined in SEWRPC Planning Report No. 30..... 12
4	Environmentally Significant Lands in the Salem/Paddock Lake/Bristol Study Area..... 16
5	Salem/Paddock Lake/Bristol Sanitary Sewer Service Areas..... 18
6	Anticipated Change in the Environmentally Significant Lands Within the Salem/Paddock Lake/Bristol Study Area: 1985-2000..... 21
7	Index of Maps Showing Environmentally Significant Lands and Planned Sanitary Sewer Service Areas for the Salem/Paddock Lake/Bristol Area..... 25
	7-1 Environmentally Significant Lands for the Salem/Paddock Lake/Bristol Area
	U. S. Public Land Survey Sections 33 and 34
	Township 2 North, Range 20 East..... 26
	7-2 Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the Salem/Paddock Lake/Bristol Area
	U. S. Public Land Survey Sections 35 and 36
	Township 2 North, Range 20 East..... 27
	7-3 Environmentally Significant Lands for the Salem/Paddock Lake/Bristol Area
	U. S. Public Land Survey Sections 31 and 32
	Township 2 North, Range 21 East..... 28
	7-4 Environmentally Significant Lands for the Salem/Paddock Lake/Bristol Area
	U. S. Public Land Survey Section 33
	Township 2 North, Range 21 East..... 29
	7-5 Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the Salem/Paddock Lake/Bristol Area
	U. S. Public Land Survey Sections 3, 4, 9, and 10, Township 1 North, Range 20 East..... 30
	7-6 Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the Salem/Paddock Lake/Bristol Area
	U. S. Public Land Survey Sections 1, 2, 11, and 12, Township 1 North, Range 20 East..... 31

7-7	Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the Salem/Paddock Lake/Bristol Area U. S. Public Land Survey Sections 5, 6, 7, and 8, Township 1 North, Range 21 East.....	32
7-8	Environmentally Significant Lands for the Salem/Paddock Lake/Bristol Area U. S. Public Land Survey Sections 4 and 9 Township 1 North, Range 21 East.....	33
7-9	Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the Salem/Paddock Lake/Bristol Area U. S. Public Land Survey Sections 15, 16, 21, and 22, Township 1 North, Range 20 East.....	34
7-10	Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the Salem/Paddock Lake/Bristol Area U. S. Public Land Survey Sections 13, 14, 23, and 24, Township 1 North, Range 20 East.....	35
7-11	Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the Salem/Paddock Lake/Bristol Area U. S. Public Land Survey Sections 17, 18, 19, and 20, Township 1 North, Range 21 East.....	36
7-12	Environmentally Significant Lands for the Salem/Paddock Lake/Bristol Area U. S. Public Land Survey Sections 16 and 21 Township 1 North, Range 21 East.....	37
7-13	Environmentally Significant Lands for the Salem/Paddock Lake/Bristol Area U. S. Public Land Survey Sections 27, 28, 33, and 34, Township 1 North, Range 20 East.....	38
7-14	Environmentally Significant Lands for the Salem/Paddock Lake/Bristol Area U. S. Public Land Survey Sections 25, 26, 35, and 36, Township 1 North, Range 20 East.....	39
7-15	Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the Salem/Paddock Lake/Bristol Area U. S. Public Land Survey Sections 29, 30, 31, and 32, Township 1 North, Range 21 East.....	40
7-16	Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the Salem/Paddock Lake/Bristol Area U. S. Public Land Survey Sections 28 and 33 Township 1 North, Range 21 East.....	41

(This page intentionally left blank)

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."¹

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

As noted above, the adopted regional water quality management plan includes recommended sanitary sewer service areas attendant to each recommended sewage treatment facility. There are a total of 85 such identified sanitary sewer

¹The adopted, areawide, water quality management plan is 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.

service areas in the plan, as shown on Map 1. These recommended sanitary sewer service areas are based upon the urban land use configuration identified in the Commission-adopted regional land use plan for the year 2000.² As such, the delineation of the areas is necessarily general, and may not reflect detailed local planning considerations.

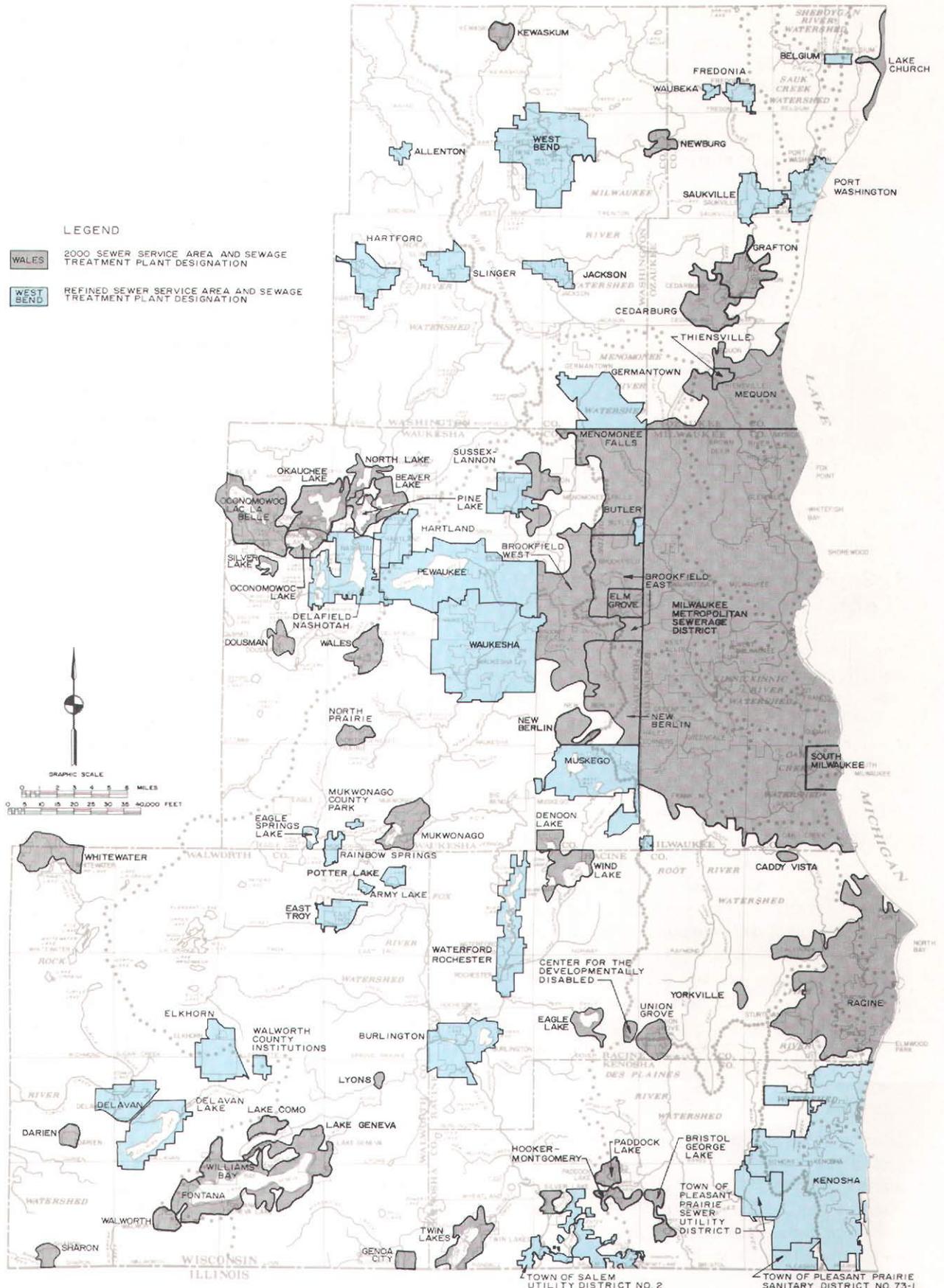
Section NR 110.08(4) and Section ILHR 82.20(4) of the Wisconsin Administrative Code require that the Wisconsin Department of Natural Resources, with respect to public sanitary sewers, and the Wisconsin Department of Industry, Labor and Human Relations, with respect to private sanitary sewers, make a 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 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 was envisioned to consist 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 adopted, areawide, water quality management plan.
2. The delineation on that base map of the design year 2000 sanitary sewer service area as proposed in the regional water quality management plan and 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.

²See 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: 2000



Source: SEWRPC.

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 SALEM/PADDOCK LAKE/BRISTOL SANITARY SEWER SERVICE AREA REFINEMENT PROCESS

The process of refining and detailing the sanitary sewer service areas in southeastern Wisconsin was initiated subsequent to the Commission adoption of the regional water quality management plan in July 1979. By letter dated November 9, 1985, the Town of Salem Utility District No. 1 requested that the Regional Planning Commission undertake the refinement and detailing of the proposed year 2000 sanitary sewer service area tributary to the Town of Salem Utility District No. 1 sewage treatment facility. In response, the Commission indicated that because of the adjacency of the Salem Utility District No. 1 sewer service area to the Village of Paddock Lake and the Town of Bristol Utility District Nos. 1 and 1B sewer service areas, a joint refinement effort should be undertaken. This joint effort would assure that the common boundaries of the three sewer service areas would be cooperatively identified. By letters dated November 22, 1985, and February 5, 1986, the Village of Paddock Lake and the Town of Bristol Utility District Nos. 1 and 1B, respectively, formally requested the Commission to prepare a joint Salem/Paddock Lake/Bristol sewer service area report. At about this same time, the Town of Bristol Utility District Nos. 1 and 1B and the Village of Paddock Lake were undertaking sewerage facilities planning efforts for their respective sewage treatment plants.³

³Cost-effectiveness analyses attendant to alternative sewage treatment facility configurations to serve the Salem/Paddock Lake/Bristol area was prepared jointly by the three communities concerned and the Regional Planning Commission. These analyses determined that it would be the most cost-effective to maintain three separate sewage treatment facilities, one each for Salem, Paddock Lake, and Bristol.

Intergovernmental meetings to consider the sewerage facilities planning alternatives, as well as the refined and detailed sanitary sewer service areas, were held over the period February through April 1986. The meetings were attended by representatives of the Town of Bristol Utility District Nos. 1 and 1B, the Village of Paddock Lake, the Town of Salem Utility District No. 1, the Kenosha County Planning and Zoning Administration, the Wisconsin Department of Natural Resources, and the Regional Planning Commission. Preliminary refined sewer service areas as agreed upon at those meetings were included in the draft sewer service area report which was provided to the Towns of Salem, Bristol, and Brighton; the Town of Salem Utility District No. 1; the Town of Bristol Utility District Nos. 1 and 1B; the Village of Paddock Lake; and the Kenosha County Planning and Zoning Administration for review and comment prior to a public hearing on the plan proposal.

A public hearing was held in the Town of Bristol on April 17, 1986, to consider the Bristol portion of the sewer service plan, and a joint public hearing was held in the Town of Salem on May 6, 1986, to consider the Salem and Paddock Lake portions of the plan. The public reaction to the proposed sanitary sewer service area, as documented in the minutes contained in Appendix A, is summarized later in this report. The final, agreed-upon, refined sanitary sewer service area for the Salem/Paddock Lake/Bristol area is described in Chapter III of this report. The delineation of that area reflects the intergovernmental decisions made in the referenced meetings and hearings held to consider this matter.

(This page intentionally left blank)

Chapter II

STUDY AREA DESCRIPTION

The study area considered in the refinement of the Salem/Paddock Lake/Bristol sanitary sewer service areas is shown on Map 2. The area consists of all of the Village of Paddock Lake, portions of the Towns of Salem and Bristol, and certain adjacent portions of the Towns of Brighton and Paris. The study area encompasses 49.1 square miles, of which 1.7 square miles, or about 3 percent, lie within the Village of Paddock Lake; 22.3 square miles, or about 46 percent, lie within the Town of Salem; 18.1 square miles, or about 37 percent, lie within the Town of Bristol; 4.0 square miles, or about 8 percent, lie within the Town of Brighton; and 3.0 square miles, or about 6 percent, lie within the Town of Paris. These areas and percentages are based on 1985 civil division boundaries.

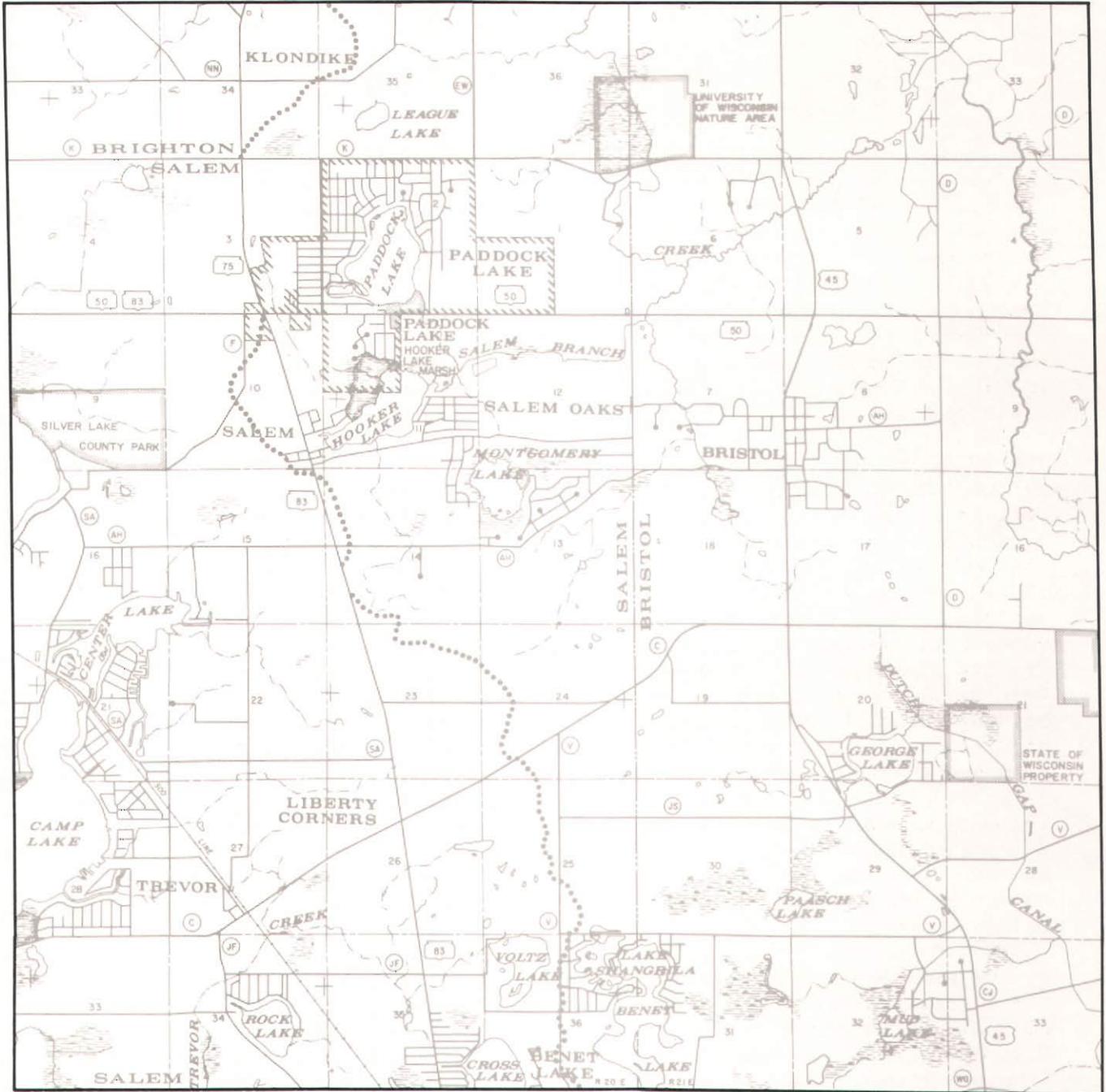
The 1980 resident population of the study area, as determined by the federal census, was 10,152 persons. Of this total, 2,207 persons, or about 22 percent, resided in the Village of Paddock Lake, with virtually the entire village population being provided with centralized sanitary sewer service extended from the Village of Paddock Lake sewage treatment facility. Also, of the total 10,152 persons residing in the study area, 4,992 persons, or about 49 percent, resided in the Town of Salem, and, of this total, about 920 persons were provided with centralized sanitary sewer service extended from the Town of Salem Utility District No. 1 sewage treatment facility. The remaining 4,072 persons were served by onsite soil absorption sewage disposal systems or by sewage holding tanks.¹ About 2,608 persons, or 25 percent of the study area population, resided in the Town of Bristol, with about 1,660 persons being provided with centralized sanitary sewer service extended from the Town of Bristol Utility District Nos. 1 and 1B sewage treatment facility. The remaining 948 persons in the Town of Bristol, as well as the 190 persons, or about 2 percent of the study area population, residing in the Town of Brighton and the 155 persons, or about 2 percent, residing in the Town of Paris, were served by onsite soil absorption sewage disposal systems or by onsite sewage holding tanks.

By the year 2000, it is estimated that 15,200 persons will reside in the identified study area. The areawide water quality management plan envisions that of this total, about 1,800 persons, or about 12 percent, will reside in the Town of Salem and be provided with centralized sanitary sewer service extended from the Town of Salem Utility District No. 1 sewage treatment facility; about 3,300 persons, or about 22 percent, will reside in the Village of Paddock Lake and be provided with sewer service extended from the Village of Paddock Lake sewage treatment facility; and about 2,000 persons, or about 13 percent, will reside in the Town of Bristol and be provided with sewer service extended from

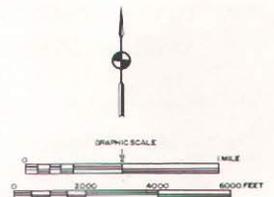
¹In January 1982, the Town of Salem Utility District No. 2 sewage treatment plant became operational, providing sewer service to about 2,900 additional persons in the Town of Salem portion of the study area.

Map 2

STUDY AREA IDENTIFIED FOR PURPOSES OF REFINING AND DETAILING THE SALEM/PADDOCK LAKE/BRISTOL SANITARY SEWER SERVICE AREAS



Source: SEWRPC.



the Town of Bristol Utility District Nos. 1 and 1B sewage treatment facility. About 4,700 persons, or about 31 percent of the population of the study area, may be expected to reside outside the Salem/Paddock Lake/Bristol sewer service areas and would be provided with sewer service extended from the Town of Salem Utility District No. 2 sewage treatment facility. The remaining 3,400 persons, or about 22 percent, would continue to rely on onsite sewage disposal systems. This report is directed toward the refinement of the Town of Salem Utility District No. 1, Village of Paddock Lake, and Town of Bristol Utility District Nos. 1 and 1B sewer service areas. Refinement of the Town of Salem Utility District No. 2 sewer service area has been completed and is documented in SEWRPC Community Assistance Planning Report No. 143, Sanitary Sewer Service Area for the Town of Salem Utility District No. 2, Kenosha County, Wisconsin.

It should be noted that the forecast of probable population levels for small geographic areas such as the Salem/Paddock Lake/Bristol study area is a difficult task accompanied by uncertainties and subject to periodic revision as new information becomes available. The practice typically followed in forecasting population levels for physical development planning has been to prepare a single population forecast believed to be 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 socioeconomic 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 socioeconomic conditions in the United States, the Regional Planning Commission began to incorporate the alternative futures approach into its planning program in the late 1970's, 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 that may be expected to directly or indirectly affect development conditions in the Region, together with the likely range of prospects for these factors. Two alternative scenarios for regional growth and change, involving different assumptions regarding three major external factors--the cost and availability of energy, population lifestyles, and economic conditions--were thus defined. These scenarios represent opposite extremes of the prospects identified for the external factors and, consequently, indicate relatively large potential differences in future population growth and economic activity. One scenario developed postulates moderate population and economic growth; the other scenario postulates stable or declining population and employment levels in the Region. Two alternative regional land use plans, a centralized plan and a decentralized plan, were then developed for each of the two alternative future scenarios, thus providing, in effect, four alternative futures as a framework for physical development planning and related demographic and economic studies.

The moderate growth, centralized land use alternative--the alternative future utilized by the Commission in the development of the areawide water quality management plan--envisions a year 2000 population level of 15,200 persons in the study area. Under the alternative futures approach, however, population levels within the study area could range from a low of 12,000 under the stable or declining growth, decentralized alternative, to a high of almost 19,200 under the moderate growth, decentralized alternative.

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 process of delineating local sanitary sewer service areas important for local units of government and private land developers. Prior to 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, areawide, 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.

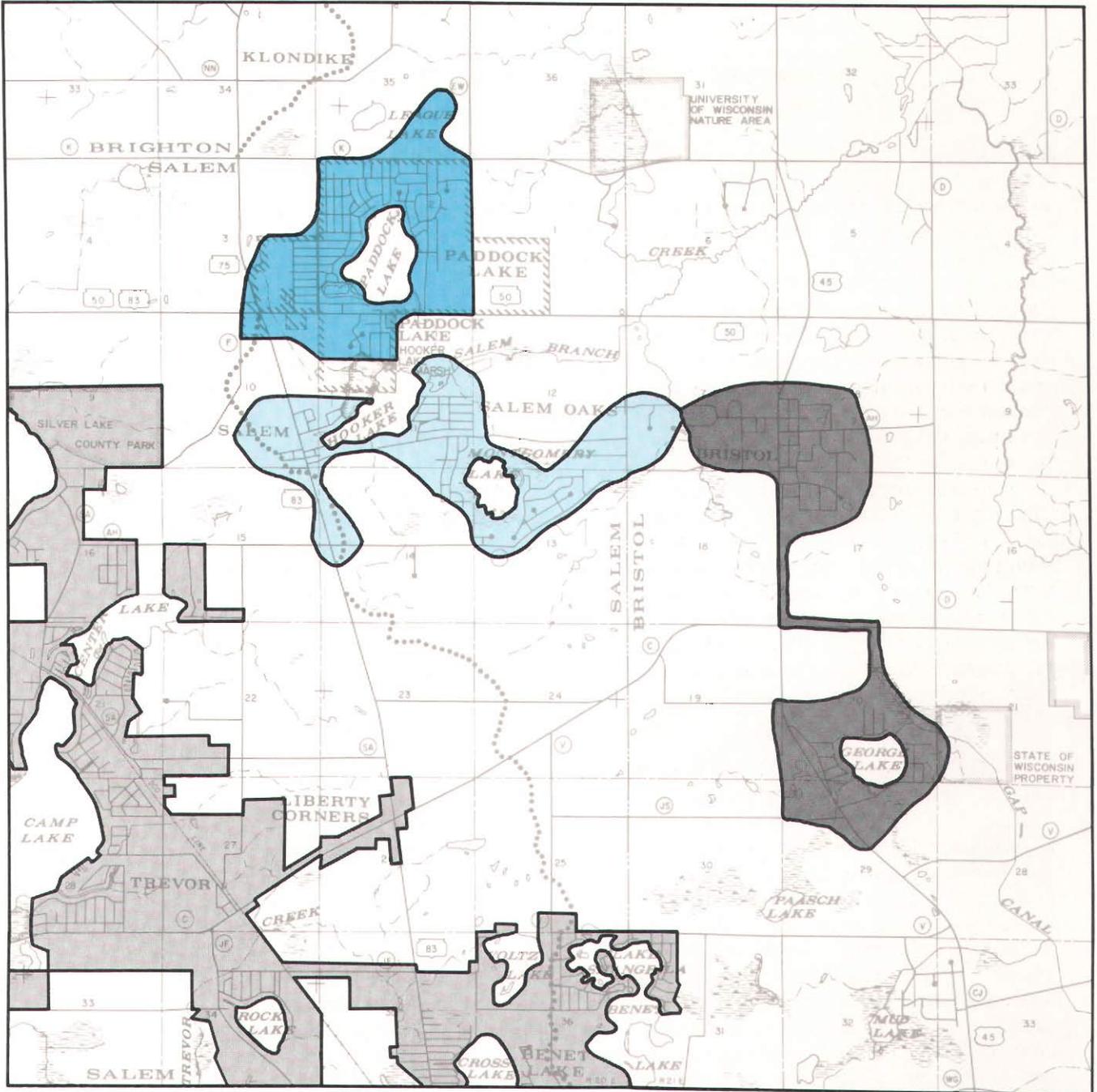
PROPOSED SANITARY SEWER SERVICE AREAS AS SET FORTH IN SEWRPC PLANNING REPORT NO. 30

A number of important factors were taken into account in the delineation of the recommended sanitary sewer service areas as set forth in SEWRPC Planning Report No. 30. These factors also comprised important considerations in the development of the adopted regional land use plan. These factors included, among others, 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 sewerage system pumping stations, or to sewage treatment plants; the location and capacity of existing and planned trunk sewers; 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.

This report is directed toward the refinement of the Salem Utility District No. 1, Village of Paddock Lake, and Town of Bristol Utility District Nos. 1 and 1B sanitary sewer service areas for the year 2000. These sewer service areas, as proposed in the adopted, areawide, water quality management plan, are shown on Map 3. The Town of Salem Utility District No. 1 sanitary sewer

Map 3

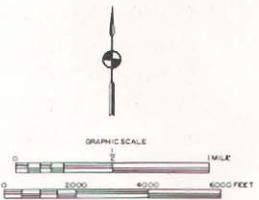
THE SALEM/PADDOCK LAKE/BRISTOL SEWER SERVICE AREAS AS DEFINED IN SEWRPC PLANNING REPORT NO. 30



LEGEND

- VILLAGE OF PADDOCK LAKE SEWER SERVICE AREA
- TOWN OF SALEM UTILITY DISTRICT NO. 1 SEWER SERVICE AREA
- TOWN OF BRISTOL UTILITY DISTRICT NOS. 1 AND 1B SEWER SERVICE AREA
- TOWN OF SALEM UTILITY DISTRICT NO. 2 SEWER SERVICE AREA

Source: SEWRPC.



service area totals about 1.4 square miles, or about 3 percent of the total study area of 49.1 square miles; the Village of Paddock Lake sanitary sewer service area totals about 1.7 square miles, or about 3 percent; and the Town of Bristol Utility District Nos. 1 and 1B also total about 1.7 square miles, or about 3 percent of the study area. In 1980, the resident populations of the Town of Salem Utility District No. 1, Village of Paddock Lake, and Town of Bristol Utility District Nos. 1 and 1B sewer service areas totaled 1,288, 2,247, and 1,089 persons, respectively. The combined population which may be expected to reside in the Salem/Paddock Lake/Bristol sanitary sewer service areas by the plan design year 2000 was estimated in SEWRPC Planning Report No. 30 at 7,100 persons. Of this total, 1,800 persons, or about 25 percent, may be expected to reside in the Town of Salem Utility District No. 1 sewer service area; 3,300 persons, or about 46 percent, in the Village of Paddock Lake sewer service area; and 2,000 persons, or about 28 percent, in the Town of Bristol Utility District Nos. 1 and 1B.

Also shown on Map 3 is a 4.0-square-mile portion of the Town of Salem Utility District No. 2 sewer service area tributary to the Town of Salem Utility District No. 2 sewage treatment facility. As noted earlier in this report, the sewer service refinement process has been completed for the Town of Salem Utility District No. 2.

As already noted, a population of 7,100 persons is expected to reside in the Salem/Paddock Lake/Bristol sanitary sewer service areas by the plan design year 2000. This population level is based upon the moderate growth, centralized land use alternative. Of this total, 1,800 persons are expected to reside in the Town of Salem Utility District No. 1 sewer service area. The population level within this proposed sewer service area, however, could range from a low of 1,200 persons under the stable or declining growth, decentralized land use alternative, to a high of almost 4,400 persons under the moderate growth, decentralized land use alternative. About 3,300 persons are expected to reside within the Village of Paddock Lake; however, the population level could range from a low of 2,400 persons under the stable or declining growth, decentralized land use alternative, to a high of 4,800 persons under the moderate growth, decentralized land use alternative. About 2,000 persons are expected to reside within the Town of Bristol Utility District Nos. 1 and 1B; however, the population level could range from a low of 800 persons under the stable or declining growth, decentralized land use alternative, to a high of 2,800 persons under the moderate growth, decentralized land use alternative.

DETERMINATION OF ENVIRONMENTALLY SIGNIFICANT LANDS IN THE SALEM/PADDOCK LAKE/BRISTOL STUDY AREA

Environmental corridors are defined as linear areas in the landscape containing concentrations of natural resource and 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 environmental 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 recreational 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 steps in refining the Salem/Paddock Lake/Bristol sanitary sewer service areas was to map in detail the environmentally significant lands in the Salem/Paddock Lake/Bristol 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 related elements was mapped on 1 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, a 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 Salem/Paddock Lake/Bristol study area are shown on Map 4.

In addition, Map 4 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.

Table 1

VALUES ASSIGNED TO NATURAL RESOURCE BASE AND RESOURCE BASE-RELATED ELEMENTS IN THE PROCESS OF DELINEATING PRIMARY AND SECONDARY ENVIRONMENTAL CORRIDORS

Resource Base or Related Element	Point Value
Natural Resource Base	
Lake	
Major (50 acres or more).....	20
Minor (5-49 acres).....	20
Rivers or Streams (perennial).....	10
Shoreland	
Lake or Perennial River or Stream.....	10
Intermittent Stream.....	5
Floodland (100-year recurrence interval).....	3
Wetland.....	10
Wet, Poorly Drained, or Organic Soil.....	5
Woodland.....	10
Wildlife Habitat	
High Value.....	10
Medium Value.....	7
Low Value.....	5
Steep Slope	
20 Percent or More.....	7
13-19 Percent.....	5
Prairie.....	10
Natural Resource Base-Related	
Existing Park or Open Space Site	
Rural Open Space Site.....	5
Other Park and Open Space Sites.....	2
Potential Park Site	
High Value.....	3
Medium Value.....	2
Low Value.....	1
Historic Site	
Structure.....	1
Other Cultural.....	1
Archaeological.....	2
Scenic Viewpoint.....	5
Scientific Area	
State Scientific Area.....	15
State Significance.....	15
County Significance.....	10
Local Significance.....	5

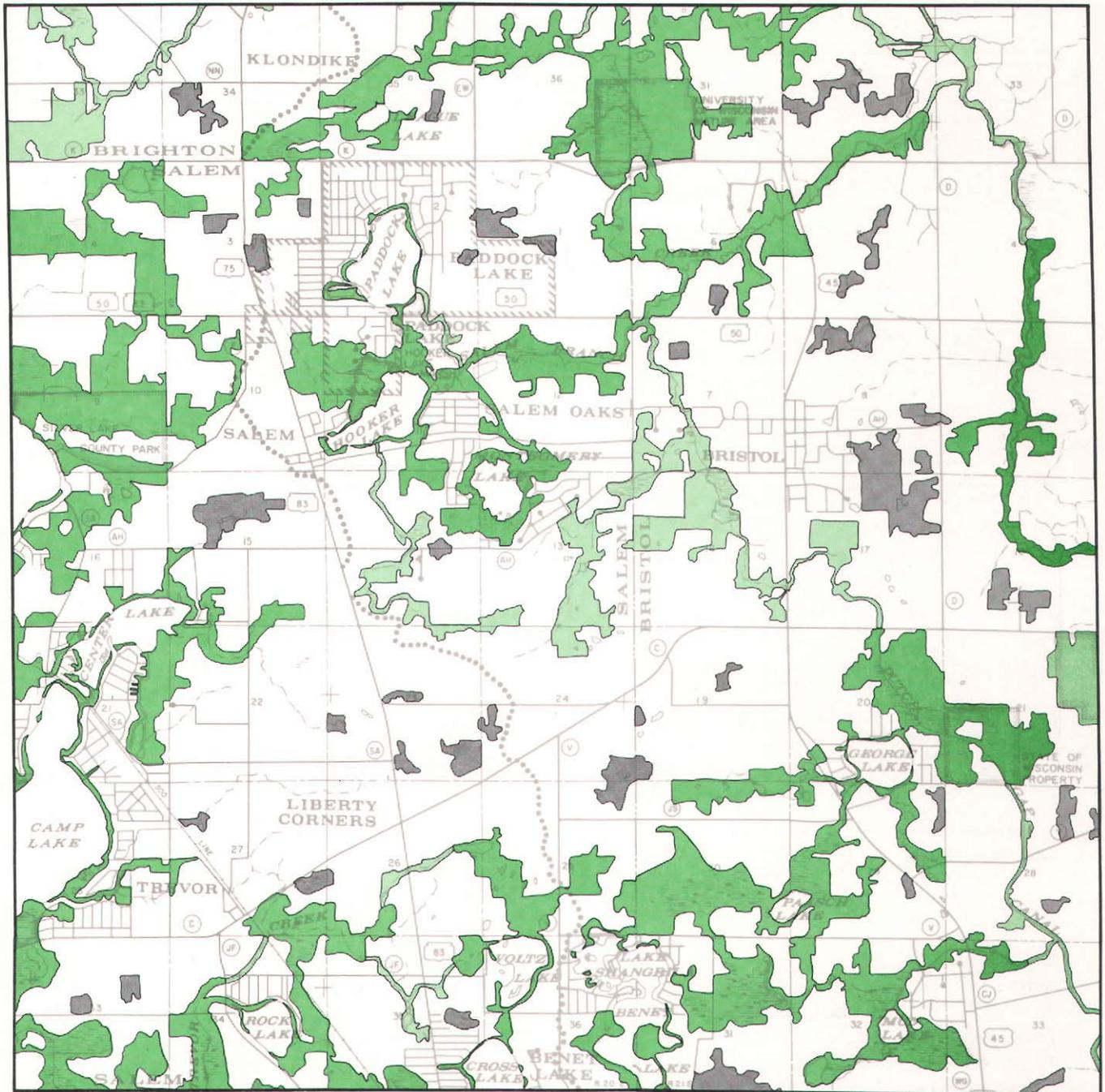
Source: SEWRPC.

Also identified on Map 4 are isolated natural areas. Isolated natural 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 and agricultural land uses. Since isolated natural 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 area must be at least five acres in size.

Lands in the study area encompassed within the primary environmental corridors total about 10.4 square miles, or about 21 percent of the total study area. Lands encompassed within secondary environmental corridors total about 1.6 square miles, or about 3 percent of the study area. Lands encompassed within

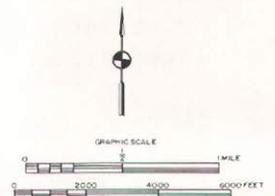
Map 4

ENVIRONMENTALLY SIGNIFICANT LANDS IN THE SALEM/PADDOCK LAKE/BRISTOL STUDY AREA



LEGEND

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



Source: SEWRPC.

isolated natural areas total about 1.2 square miles, or about 2 percent of the study area. Thus, all environmentally significant lands in the Salem/Paddock Lake/Bristol study area comprise about 13.2 square miles, or 26 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 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 benefit to the community 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.

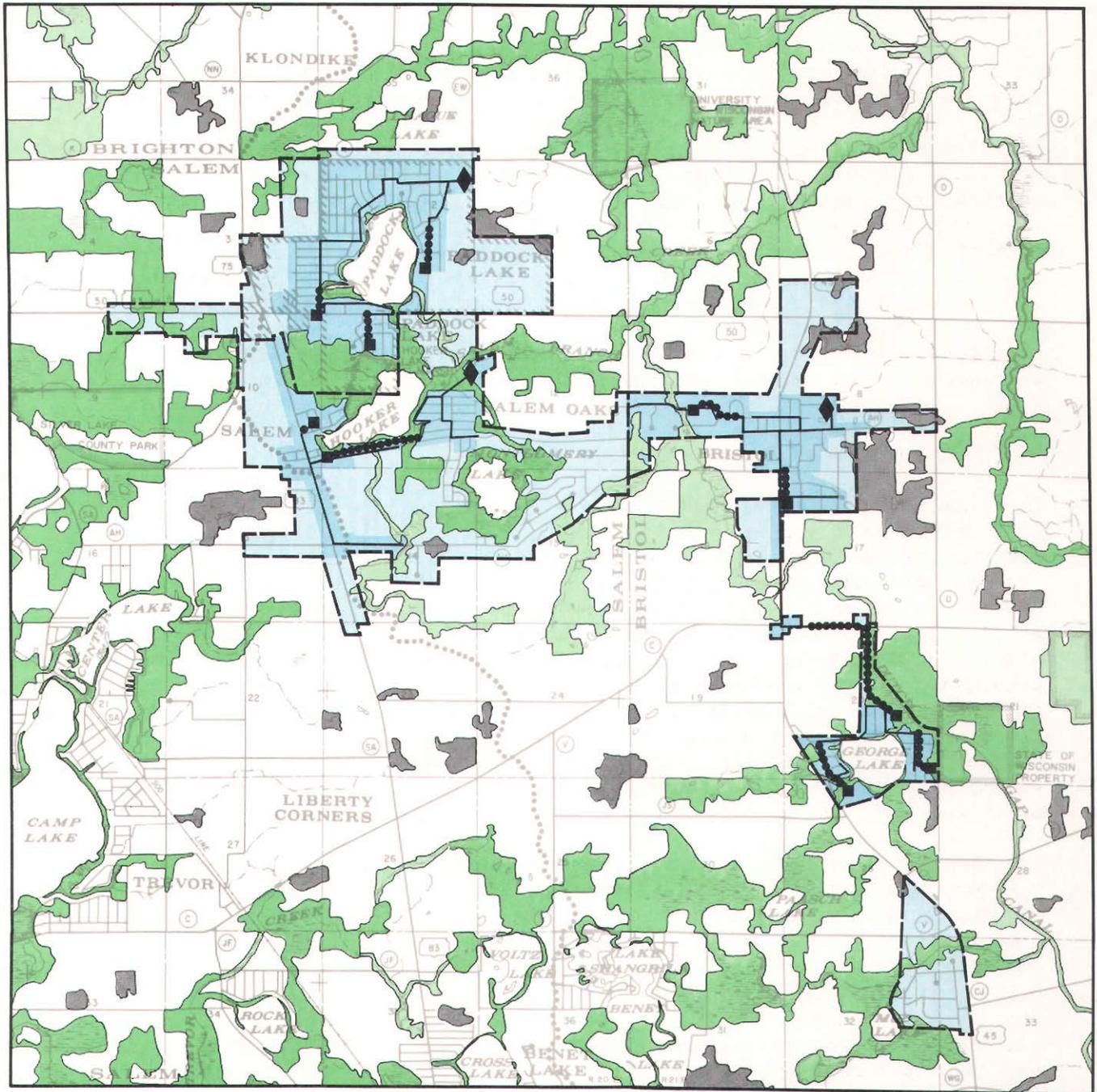
REFINED SANITARY SEWER SERVICE AREAS

The combined refined year 2000 sanitary sewer service area for Salem/Paddock Lake/Bristol, as agreed upon by the local government officials at the inter-governmental meetings and as submitted to public hearing, is shown on Map 5, together with the existing trunk sewers. The combined, gross, refined sanitary sewer service area totals about 6.8 square miles, or about 14 percent of the total study area of 49.1 square miles. Of this total area, about 2.8 square miles, or 41 percent, is encompassed within the gross, refined sewer service area tributary to the Town of Salem Utility District No. 1 sewage treatment facility; about 2.1 square miles, or 31 percent, is encompassed within the gross, refined sewer service area tributary to the Village of Paddock Lake sewage treatment facility; and about 1.9 square miles, or 28 percent, is encompassed within the gross, refined sewer service area tributary to the Town of Bristol Utility District Nos. 1 and 1B sewage treatment facility.

The combined, gross, refined sanitary sewer service area includes about 1.4 square miles of primary environmental corridor, about 0.1 square mile of secondary environmental corridor, and about 0.2 square mile of isolated natural area. Of these totals, about 0.7 square mile of primary environmental corridor, 0.1 square mile of secondary environmental corridor, and less than 0.1 square mile of isolated natural area are located in the Town of Salem Utility District No. 1 refined sanitary sewer service area; about 0.4 square mile of primary environmental corridor, less than 0.1 square mile of secondary environmental corridor, and about 0.1 square mile of isolated natural area are located in the Village of Paddock Lake refined sanitary sewer service area; and about 0.3 square mile of primary environmental corridor, less than 0.1 square mile of secondary environmental corridor, and about 0.1 square mile of isolated natural area are located in the Town of Bristol Utility District Nos. 1 and 1B refined sanitary sewer service area. Thus, a total of about 0.8 square mile, or 28 percent, of the Town of Salem Utility District No. 1 refined sanitary sewer service area; about 0.5 square mile, or 24 percent, of the Village of Paddock Lake refined sanitary sewer service area; and about 0.4 square mile, or 21 percent, of the Town of Bristol Utility District Nos. 1 and 1B refined sanitary sewer service area would be encompassed within envi-

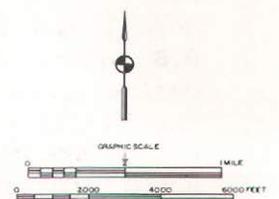
Map 5

SALEM/PADDOCK LAKE/BRISTOL SANITARY SEWER SERVICE AREAS



LEGEND

- | | | | |
|---|--|---|--|
|  | PRIMARY ENVIRONMENTAL CORRIDOR |  | GROSS SANITARY SEWER SERVICE AREA BOUNDARY |
|  | SECONDARY ENVIRONMENTAL CORRIDOR |  | EXISTING SEWAGE TREATMENT FACILITY |
|  | ISOLATED NATURAL AREA |  | EXISTING LIFT STATION |
|  | NET SANITARY SEWER SERVICE AREA (EXISTING) |  | EXISTING FORCE MAIN |
|  | NET SANITARY SEWER SERVICE AREA (2000) |  | EXISTING TRUNK SEWER |



Source: SEWRPC.

ronmentally significant areas. It should be noted that the environmentally significant lands within the study area indicated on Map 5 total approximately 27 acres less than the environmentally significant lands indicated on Map 4. As shown on Map 6, the deletions from the "inventoried" environmentally significant lands consist of 11 "upland" areas located throughout the study area. Such delineations were made to accommodate planned urban development.

The refined year 2000 Salem/Paddock Lake/Bristol sewer service areas combined would accommodate a plan year 2000 resident population of about 7,400 persons, resulting in a density of about 2.0 dwelling units per net residential acre.¹

¹Net residential density in the combined, refined sewer service area is determined by dividing the total number of dwelling units in the combined sewer service area in the design year by the net residential land area anticipated in the combined sewer service area. Prior to determining an overall net residential density for the combined service area, residential densities for each of the individual sewer service areas--the Town of Salem Utility District No. 1, the Village of Paddock Lake, and the Town of Bristol Utility District Nos. 1 and 1B--were determined.

In the Town of Salem Utility District No. 1 sewer service area, the total number of dwelling units anticipated--742--was determined by dividing the anticipated household population--1,800--by the anticipated average household size of 2.5 persons per dwelling, and adding 3 percent more units to account for housing vacancies. The net residential land anticipated in this sewer service area was determined by first identifying all developable land within the service area. Developable land was assumed to include all undeveloped land within the proposed sewer service area except environmental corridors, including wetlands, isolated natural areas, floodplains, and areas covered by soils poorly suited for urban development with sewer service. Developable land in the sewer service area totaled 775 acres. In order to provide flexibility to the community in determining the spatial distribution of new urban development and in order to facilitate operation of the urban land market, it was assumed that only 80 percent of the developable land--620 acres--would actually be developed for urban purposes by the design year of the plan. It was further assumed that 60 percent of the land to be developed, or 372 acres, would be allocated to "gross" residential uses, the remaining 40 percent being allocated to other urban uses. Of the 372 acres allocated to "gross" residential uses, it was assumed that streets would occupy 23 percent of the area, leaving the remaining 77 percent, or 286 acres, for new "net" residential development.

This area added to the 274 acres of existing net residential land in the service area provided a total net residential area of 560 acres. The number of dwelling units anticipated in the sewer service area in the design year--742--divided by the anticipated net residential land area--560 acres--results in an overall net residential density of 1.3 dwelling units per acre.

In the Village of Paddock Lake sewer service area, the total number of dwelling units anticipated--1,307--was determined by dividing the anticipated household population--3,300--by the anticipated average household size of 2.6 persons per dwelling, and adding 3 percent more units to account for housing vacancies. The net residential land anticipated in this sewer service area was determined by first identifying all developable land within the service area. Developable land was assumed to include all undeveloped land within the pro-

(Footnote 1 continued on page 20)

(Footnote 1 continued from page 19)

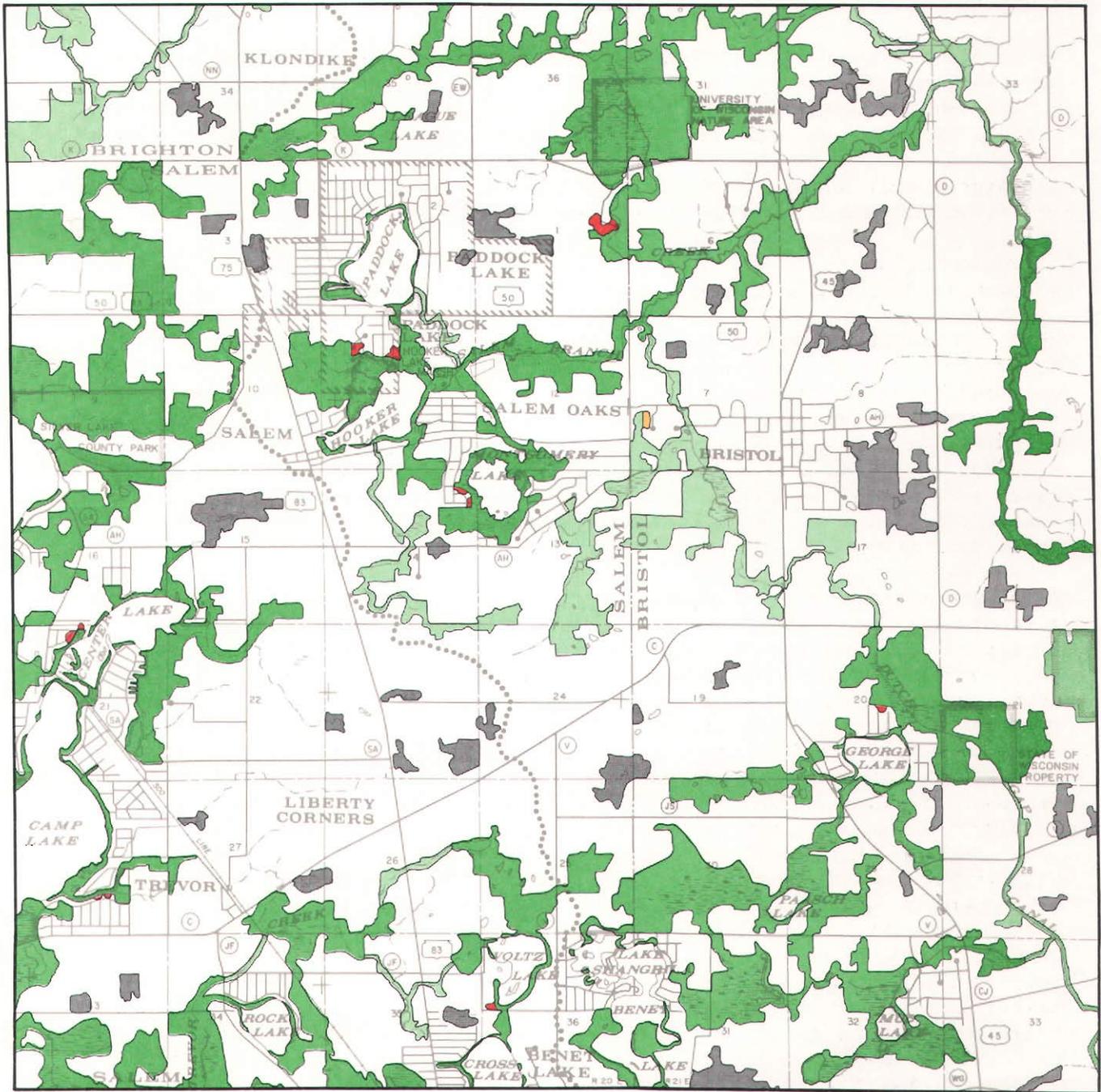
posed sewer service area except environmental corridors, including wetlands, isolated natural areas, floodplains, and areas covered by soils poorly suited for urban development with sewer service. Developable land in the sewer service area totaled 476 acres. In order to provide flexibility to the community in determining the spatial distribution of new urban development and in order to facilitate operation of the urban land market, it was assumed that only 80 percent of the developable land--381 acres--would actually be developed for urban purposes by the design year of the plan. It was further assumed that 60 percent of the land to be developed, or 229 acres, would be allocated to "gross" residential uses, the remaining 40 percent being allocated to other urban uses. Of the 229 acres allocated to "gross" residential uses, it was assumed that streets would occupy 23 percent of the area, leaving the remaining 77 percent, or 176 acres, for new "net" residential development. This area added to the 267 acres of existing net residential land in the service area provided a total net residential area of 443 acres. The number of dwelling units anticipated in the sewer service area in the design year--1,307--divided by the anticipated net residential land area--443 acres--results in an overall net residential density of 3.0 dwelling units per acre.

In the Town of Bristol Utility District Nos. 1 and 1B sewer service area, the total number of dwelling units anticipated--885--was determined by dividing the anticipated household population--2,300--by the anticipated average household size of 2.6 persons per dwelling, and adding 3 percent more units to account for housing vacancies. The net residential land anticipated in this sewer service area was determined by first identifying all developable land within the service area. Developable land was assumed to include all undeveloped land within the proposed sewer service area except environmental corridors, including wetlands, isolated natural areas, floodplains, and areas covered by soils poorly suited for urban development with sewer service. Developable land in the sewer service area totaled 425 acres. In order to provide flexibility to the community in determining the spatial distribution of new urban development and in order to facilitate operation of the urban land market, it was assumed that only 80 percent of the developable land--340 acres--would actually be developed for urban purposes by the design year of the plan. It was further assumed that 60 percent of the land to be developed, or 204 acres, would be allocated to "gross" residential uses, the remaining 40 percent being allocated to other urban uses. Of the 204 acres allocated to "gross" residential uses, it was assumed that streets would occupy 23 percent of the area, leaving the remaining 77 percent, or 157 acres, for new "net" residential development. This area added to the 283 acres of existing net residential land in the service area provided a total net residential area of 440 acres. The number of dwelling units anticipated in the sewer service area in the design year--885--divided by the anticipated net residential land area--440 acres--results in an overall net residential density of 2.0 dwelling units per acre.

The net residential density for the combined, refined Salem/Paddock Lake/Bristol sewer service area--2.0--was determined by dividing the total number of dwelling units in the combined sewer service area in the design year--2,934--by the net residential land area anticipated in the combined sewer service area in the design year--1,443 acres.

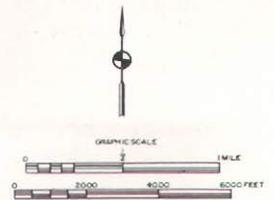
Map 6

ANTICIPATED CHANGE IN THE ENVIRONMENTALLY SIGNIFICANT LANDS
WITHIN THE SALEM/PADDOCK LAKE/BRISTOL STUDY AREA: 1985-2000



LEGEND

- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL AREA
- PORTION OF EXISTING (1985) PRIMARY ENVIRONMENTAL CORRIDOR TO BE DELETED DUE TO PLANNED URBAN DEVELOPMENT
- PORTION OF EXISTING (1985) SECONDARY ENVIRONMENTAL CORRIDOR TO BE DELETED DUE TO PLANNED URBAN DEVELOPMENT



Source: SEWRPC.

PUBLIC REACTION TO THE PROPOSED SANITARY SEWER SERVICE AREA

Two public hearings were held on the proposed Salem/Paddock Lake/Bristol sanitary sewer service areas. The first hearing, sponsored jointly by the Town of Bristol, and the Regional Planning Commission, was held in the Town of Bristol on April 17, 1986. The second public hearing, sponsored jointly by the Town of Salem Utility District No. 1, the Village of Paddock Lake, and the Regional Planning Commission, was held in the Town of Salem on May 6, 1986. Summary minutes of the public hearings are presented in Appendix A.

A review of the April 17, 1986, public hearing record indicates that one substantive concern was raised. This concern related to the possible addition of a 25-acre parcel of land to the sewer service area located directly southwest of the intersection of STH 45 and CTH AH in the Town of Bristol. The Bristol Town Board, in considering this matter, noted that the preliminary recommended sewer service area as presented at the public hearing was sufficient in size to accommodate planned urban development, and the addition of the parcel would serve only to unnecessarily enlarge the service area beyond currently anticipated needs. Thus, the Town Board determined that the parcel should not be added to the sewer service area. The preliminary plan map as presented at the public hearing and as it pertains to the Town of Bristol thus remained unchanged.

A review of the May 6, 1986, public hearing record indicates that one substantive concern was raised. This concern related to the manner in which sewer service should be provided to residences located along STH 50 west of CTH F and along CTH F for a distance of approximately one-half mile south of STH 50, where residences are experiencing failing onsite sewage disposal systems. The preliminary plan presented at the public hearing recommended that these areas be provided with sanitary sewer service via extensions of sewers from the Town of Salem Utility District No. 1 sewerage system. Village of Paddock Lake representatives questioned this recommendation, noting that sewer extensions from the village system likely could serve the areas in question equally as well. Following the public hearing, representatives of the Town of Salem Utility District No. 1 and Village of Paddock Lake suggested that the municipal engineers involved conduct a detailed analysis to determine the most feasible method of providing sewer service to these areas.

Upon completion of this analysis, representatives of the Town of Salem Utility District No. 1 and Village of Paddock Lake agreed that sewer service to the areas in question should be provided by the Town of Salem Utility District No. 1. The sanitary sewer service areas identified on the preliminary plan map as presented at the public hearing thus remained unchanged.

Detailed delineations of the final Salem/Paddock Lake/Bristol sanitary sewer service areas and environmentally significant lands within those areas are shown on a series of aerial photographs reproduced as Map 7 beginning on page 25 and continuing through page 41 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 governing bodies of the Town of Salem Utility District No. 1 and the Town of Bristol Utility District Nos. 1 and 1B; by the Town Boards of the Towns of Salem, Bristol, and Brighton as having lands affected by the planned sewer service area; and by the Kenosha County Planning and Zoning Administration as the county planning agency having joint responsibility with the Towns in planning and zoning and otherwise regulating the development of lands in the study area.
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 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 Salem/Paddock Lake/Bristol sanitary sewer service areas as shown on Maps 5 and 7. In particular, steps should be taken to ensure that those lands identified as being environmentally significant in this report are properly zoned to reflect a policy of retaining such lands, insofar as possible, in essentially natural, open uses.
4. Review by the Town of Salem Utility District No. 1, the Town of Bristol Utility District Nos. 1 and 1B, and the Village of Paddock Lake 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 area.

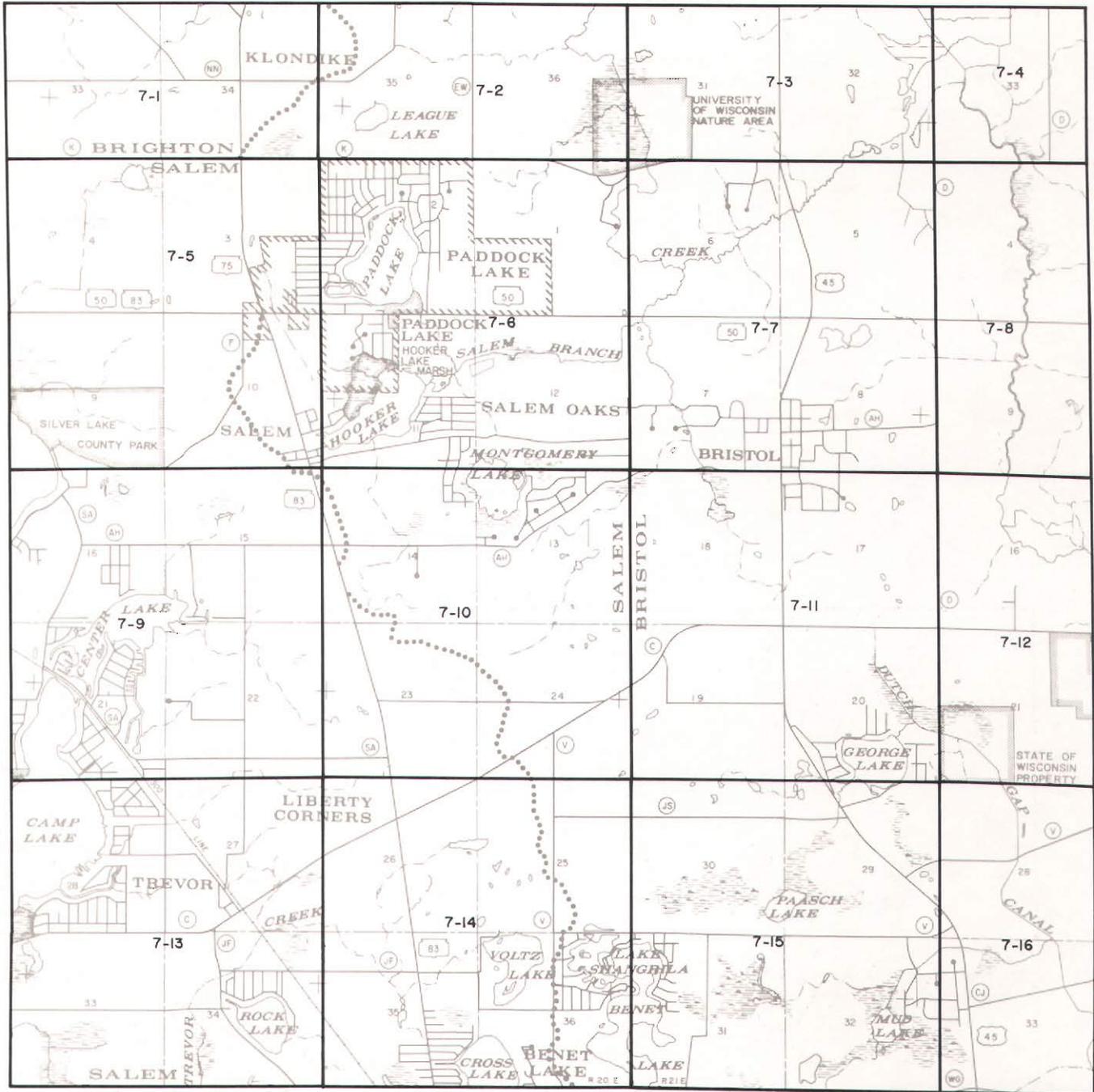
SUBSEQUENT REFINEMENTS TO THE SALEM/PADDOCK LAKE/BRISTOL SANITARY SEWER SERVICE AREAS

This report presents a combined refined sewer service area for the Town of Salem Utility District No. 1, Village of Paddock Lake, and Town of Bristol Utility District Nos. 1 and 1B. The refined sewer service areas were delineated cooperatively by the units and agencies of government concerned, and were subjected to review at intergovernmental meetings and at public hearings. It is envisioned that the combined sewer service area will accommodate all new urban development anticipated in the Town of Salem Utility District No. 1, the Village of Paddock Lake, and the Town of Bristol Utility District Nos. 1 and 1B to the year 2000. Like other long-range plans, however, this sewer service area plan should be periodically reviewed--every five years--to assure that it continues to properly reflect 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 Town of Salem Utility District No. 1, the Village of Paddock Lake, or the Town of Bristol Utility District Nos. 1 and 1B, as the operators of the sewage treatment facilities involved, that amendments to the sewer service area plan as presented herein are necessary, the Utility Dis-

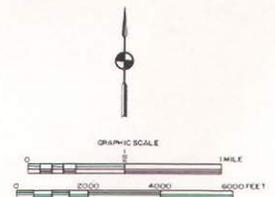
districts or Village should request the Regional Planning Commission for assistance in undertaking the technical work required to properly amend the plan. Any such plan revision should be carried out in a manner similar to that utilized in the refinement effort described in this report. While plan amendment 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 local unit or agency of government concerned 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 7

INDEX OF MAPS SHOWING ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREAS FOR THE SALEM/PADDOCK LAKE/BRISTOL AREA



Source: SEWRPC.



Map 7-1

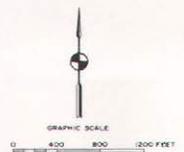
ENVIRONMENTALLY SIGNIFICANT LANDS FOR
THE SALEM/PADDOCK LAKE/BRISTOL AREA

U. S. Public Land Survey Sections 33 and 34
Township 2 North, Range 20 East



LEGEND

-  PRIMARY ENVIRONMENTAL CORRIDOR
-  SECONDARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL AREA
-  GROSS SANITARY SEWER SERVICE AREA BOUNDARY



Source: SEWRPC.

Map 7-2

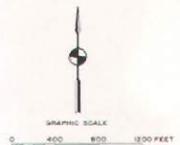
ENVIRONMENTALLY SIGNIFICANT LANDS AND
PLANNED SANITARY SEWER SERVICE AREA FOR
THE SALEM/PADDOCK LAKE/BRISTOL AREA

U. S. Public Land Survey Sections 35 and 36
Township 2 North, Range 20 East



LEGEND

-  PRIMARY ENVIRONMENTAL CORRIDOR
-  SECONDARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL AREA
-  PLANNED SANITARY SEWER SERVICE AREA
-  GROSS SANITARY SEWER SERVICE AREA BOUNDARY



Map 7-3

ENVIRONMENTALLY SIGNIFICANT LANDS FOR
THE SALEM/PADDOCK LAKE/BRISTOL AREA

U. S. Public Land Survey Sections 31 and 32
Township 2 North, Range 21 East



LEGEND

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

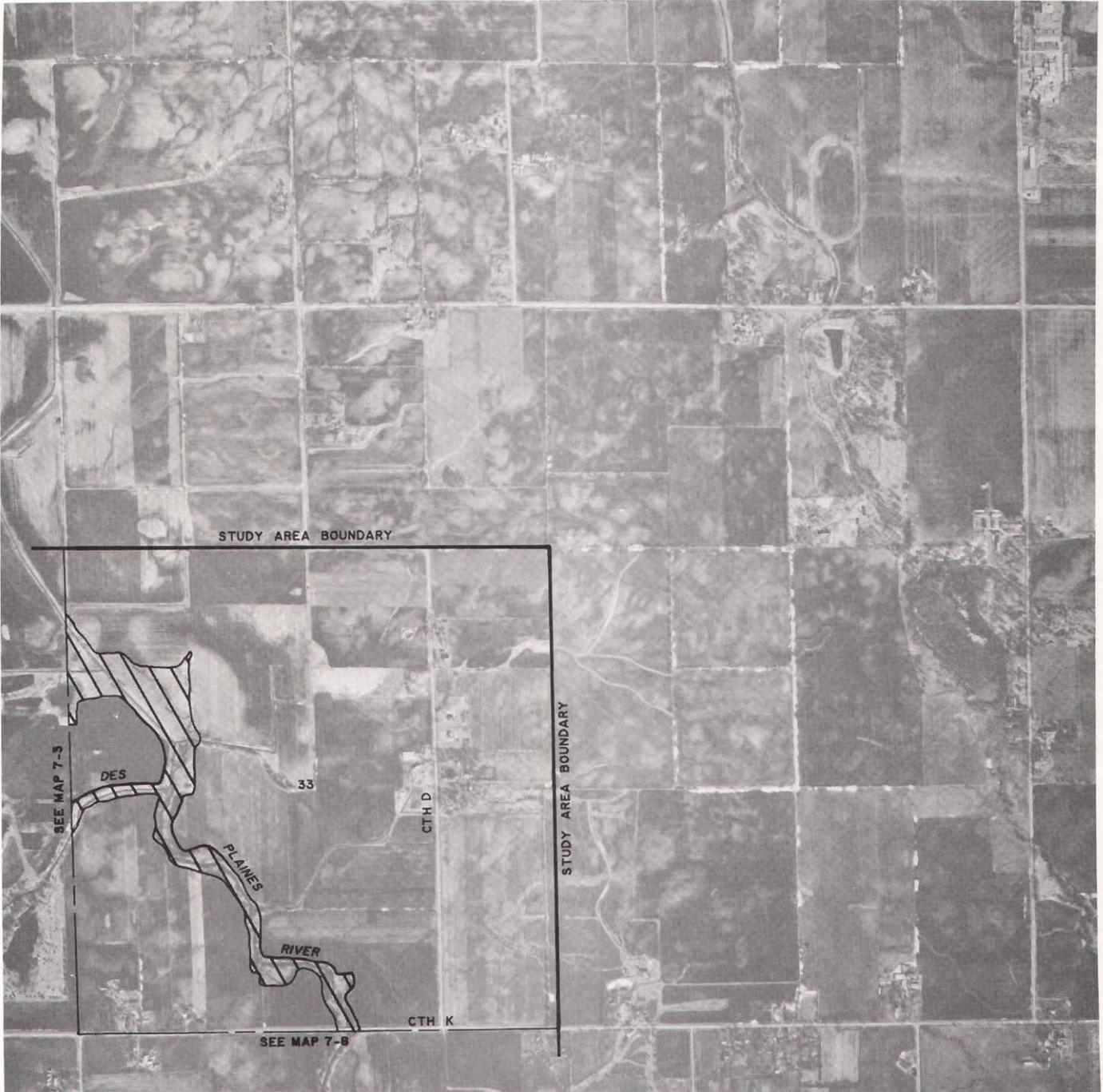


Source: SEWRPC.

Map 7-4

ENVIRONMENTALLY SIGNIFICANT LANDS FOR
THE SALEM/PADDOCK LAKE/BRISTOL AREA

U. S. Public Land Survey Section 33
Township 2 North, Range 21 East



LEGEND

 SECONDARY ENVIRONMENTAL CORRIDOR

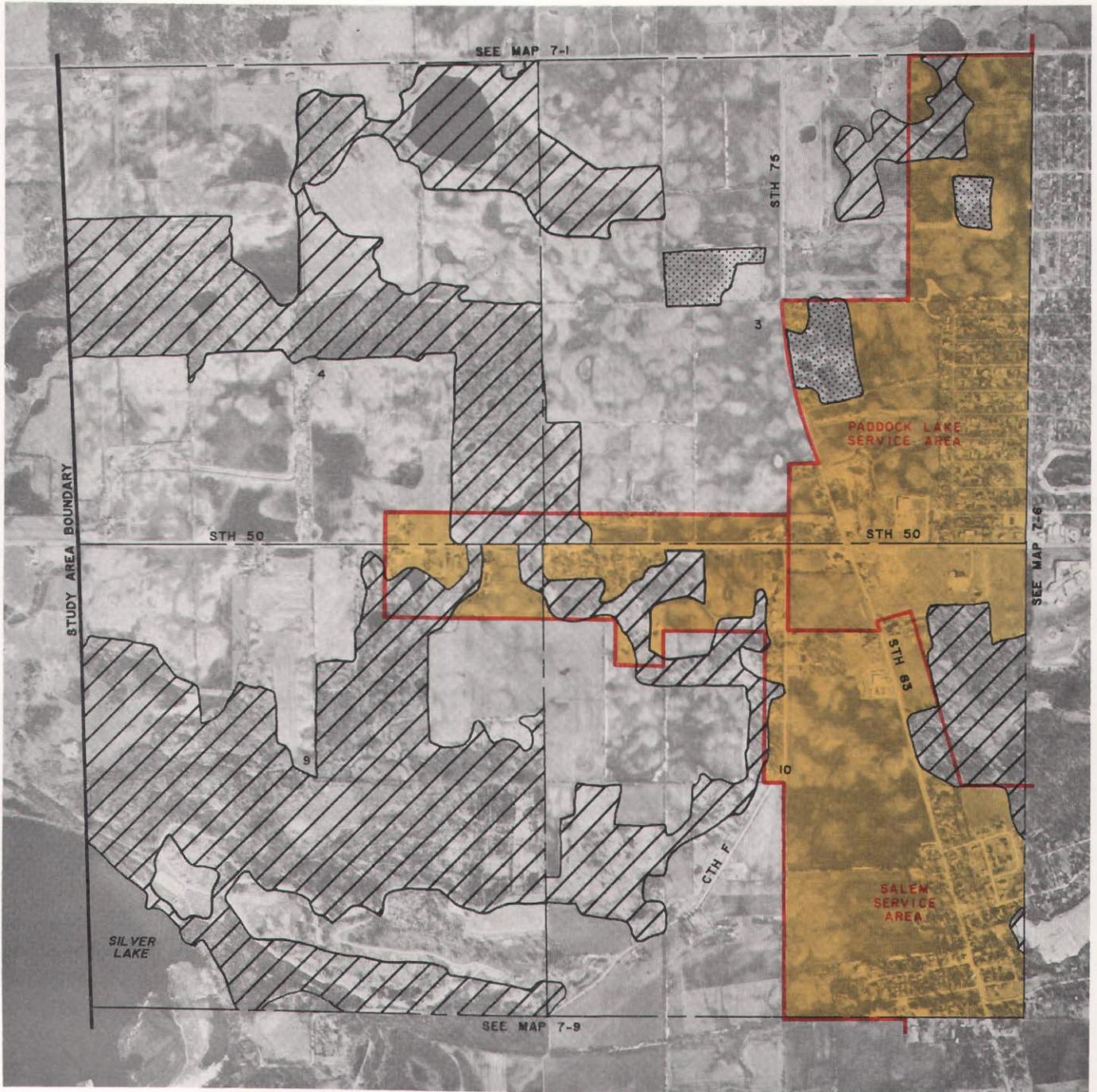


Source: SEWRPC.

Map 7-5

ENVIRONMENTALLY SIGNIFICANT LANDS AND
PLANNED SANITARY SEWER SERVICE AREA FOR
THE SALEM/PADDOCK LAKE/BRISTOL AREA

U. S. Public Land Survey Sections 3, 4, 9, and 10
Township 1 North, Range 20 East



LEGEND

-  PRIMARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL AREA
-  PLANNED SANITARY SEWER SERVICE AREA
-  GROSS SANITARY SEWER SERVICE AREA BOUNDARY

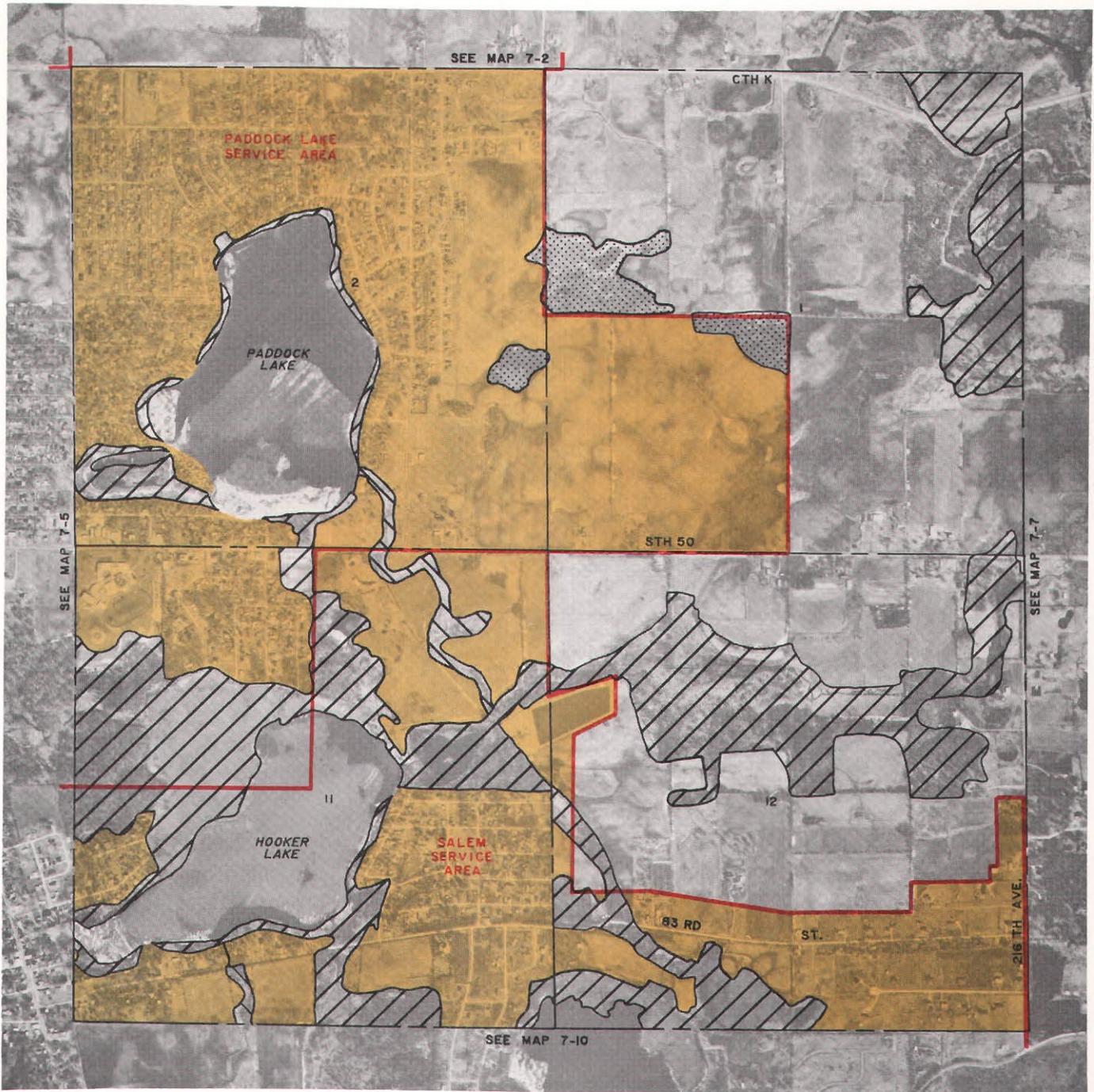


Source: SEWRPC.

Map 7-6

ENVIRONMENTALLY SIGNIFICANT LANDS AND
PLANNED SANITARY SEWER SERVICE AREA FOR
THE SALEM/PADDOCK LAKE/BRISTOL AREA

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



LEGEND

-  PRIMARY ENVIRONMENTAL CORRIDOR
-  SECONDARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL AREA
-  PLANNED SANITARY SEWER SERVICE AREA
-  GROSS SANITARY SEWER SERVICE AREA BOUNDARY

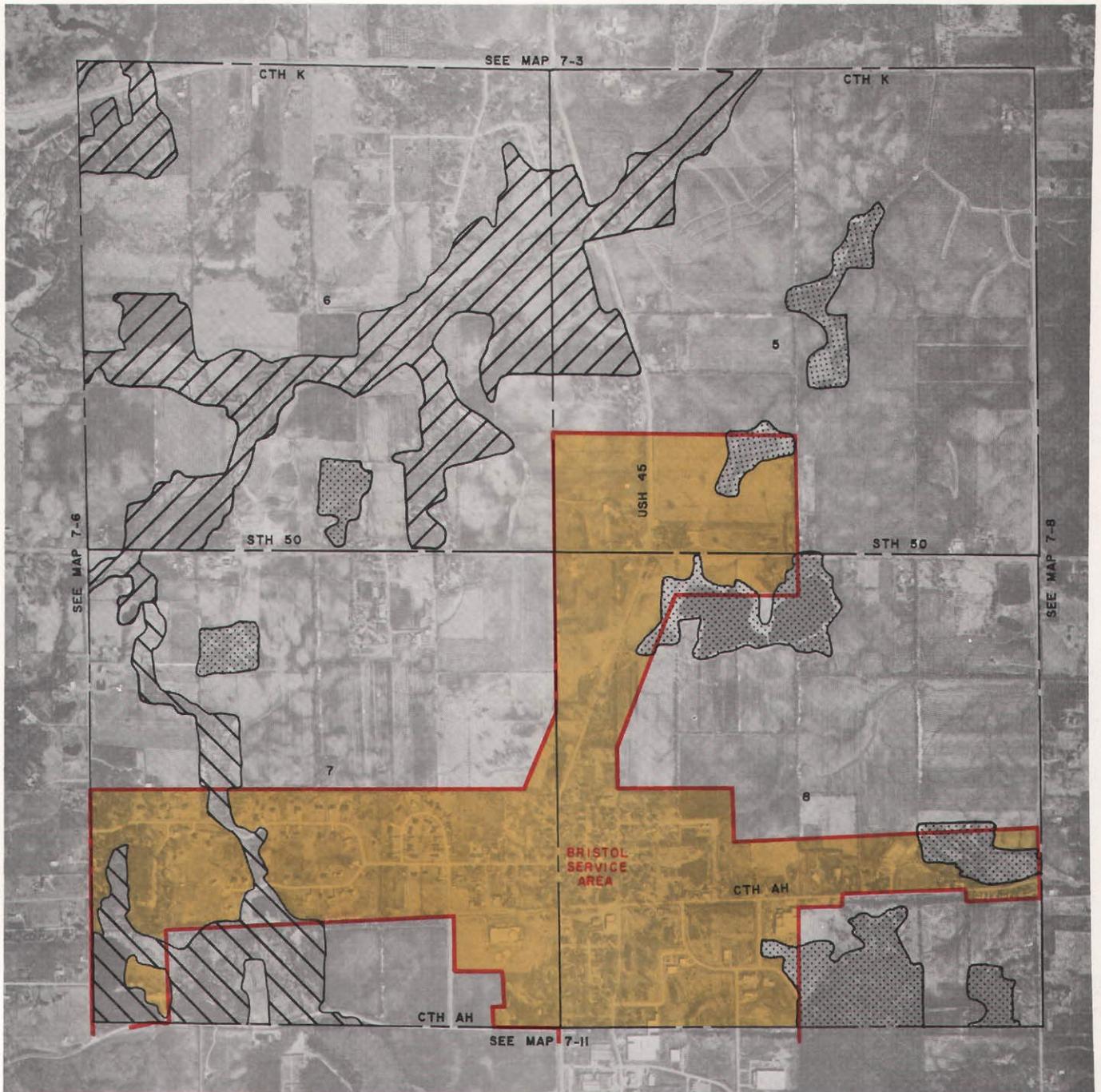
Source: SEWRPC.



Map 7-7

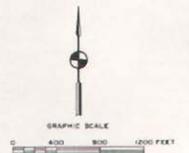
ENVIRONMENTALLY SIGNIFICANT LANDS AND
 PLANNED SANITARY SEWER SERVICE AREA FOR
 THE SALEM/PADDOCK LAKE/BRISTOL AREA

U. S. Public Land Survey Sections 5, 6, 7, and 8
 Township 1 North, Range 21 East



LEGEND

-  PRIMARY ENVIRONMENTAL CORRIDOR
-  SECONDARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL AREA
-  PLANNED SANITARY SEWER SERVICE AREA
-  GROSS SANITARY SEWER SERVICE AREA BOUNDARY



Source: SEWRPC.

Map 7-8

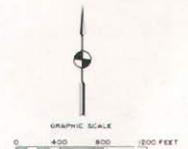
ENVIRONMENTALLY SIGNIFICANT LANDS FOR
THE SALEM/PADDOCK LAKE/BRISTOL AREA

U. S. Public Land Survey Sections 4 and 9
Township 1 North, Range 21 East



LEGEND

-  PRIMARY ENVIRONMENTAL CORRIDOR
-  SECONDARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL AREA
-  GROSS SANITARY SEWER SERVICE AREA BOUNDARY

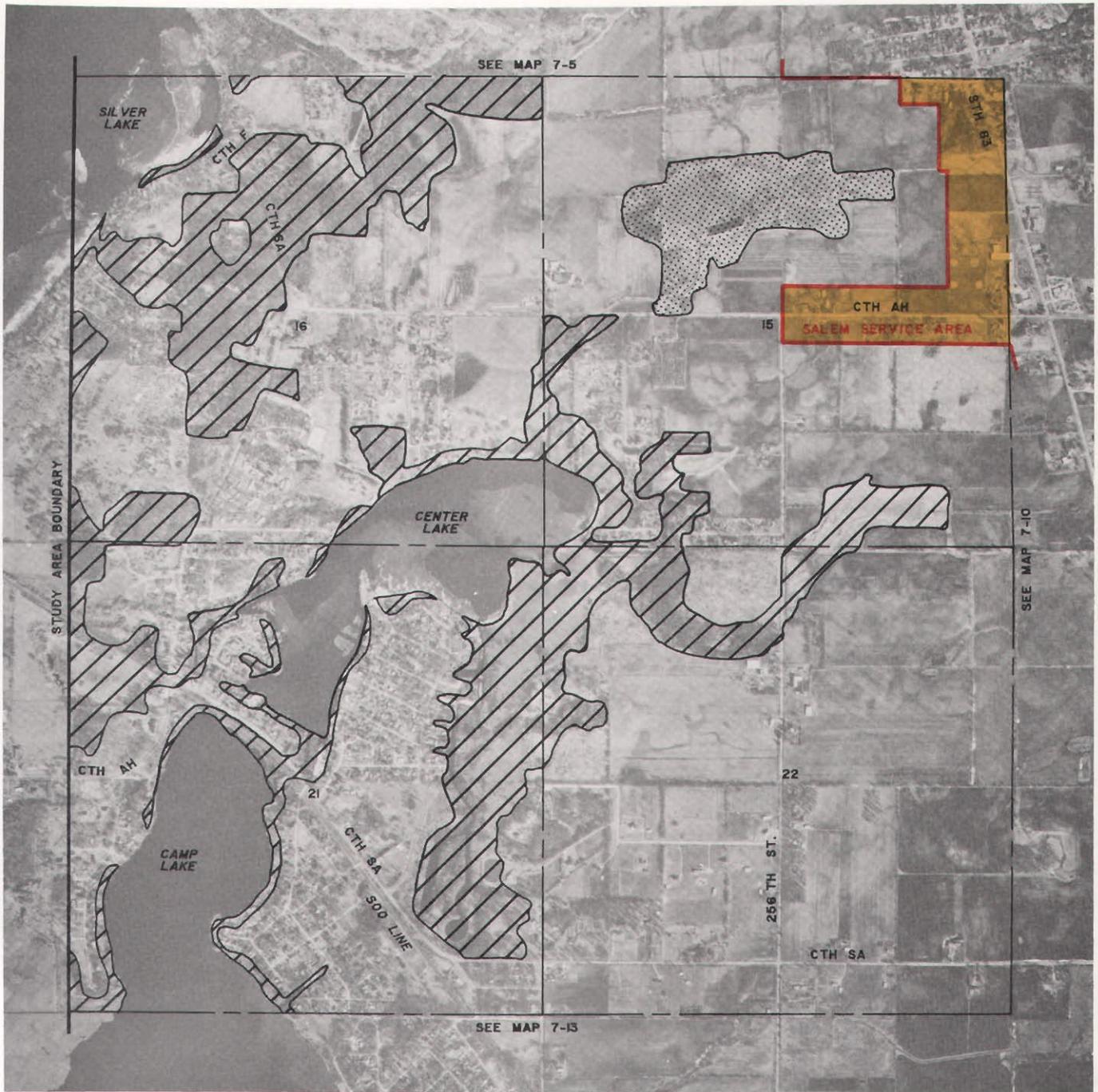


Source: SEWRPC.

Map 7-9

ENVIRONMENTALLY SIGNIFICANT LANDS AND
PLANNED SANITARY SEWER SERVICE AREA FOR
THE SALEM/PADDOCK LAKE/BRISTOL AREA

U. S. Public Land Survey Sections 15, 16, 21, and 22
Township 1 North, Range 20 East



LEGEND

-  PRIMARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL AREA
-  PLANNED SANITARY SEWER SERVICE AREA
-  GROSS SANITARY SEWER SERVICE AREA BOUNDARY

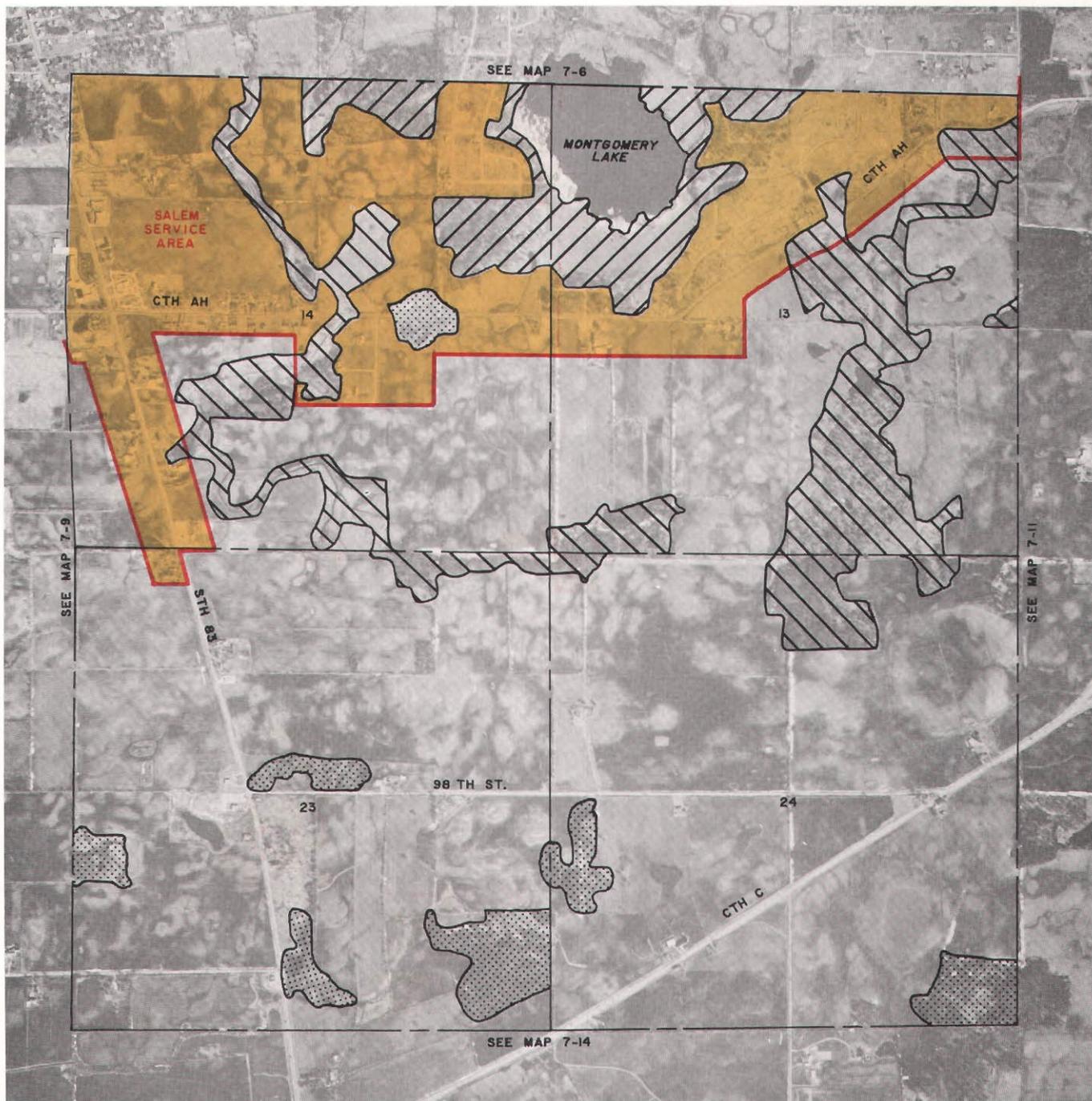
Source: SEWRPC.



Map 7-10

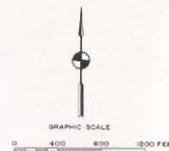
ENVIRONMENTALLY SIGNIFICANT LANDS AND
PLANNED SANITARY SEWER SERVICE AREA FOR
THE SALEM/PADDOCK LAKE/BRISTOL AREA

U. S. Public Land Survey Sections 13, 14, 23, and 24
Township 1 North, Range 20 East



LEGEND

-  PRIMARY ENVIRONMENTAL CORRIDOR
-  SECONDARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL AREA
-  PLANNED SANITARY SEWER SERVICE AREA
-  GROSS SANITARY SEWER SERVICE AREA BOUNDARY

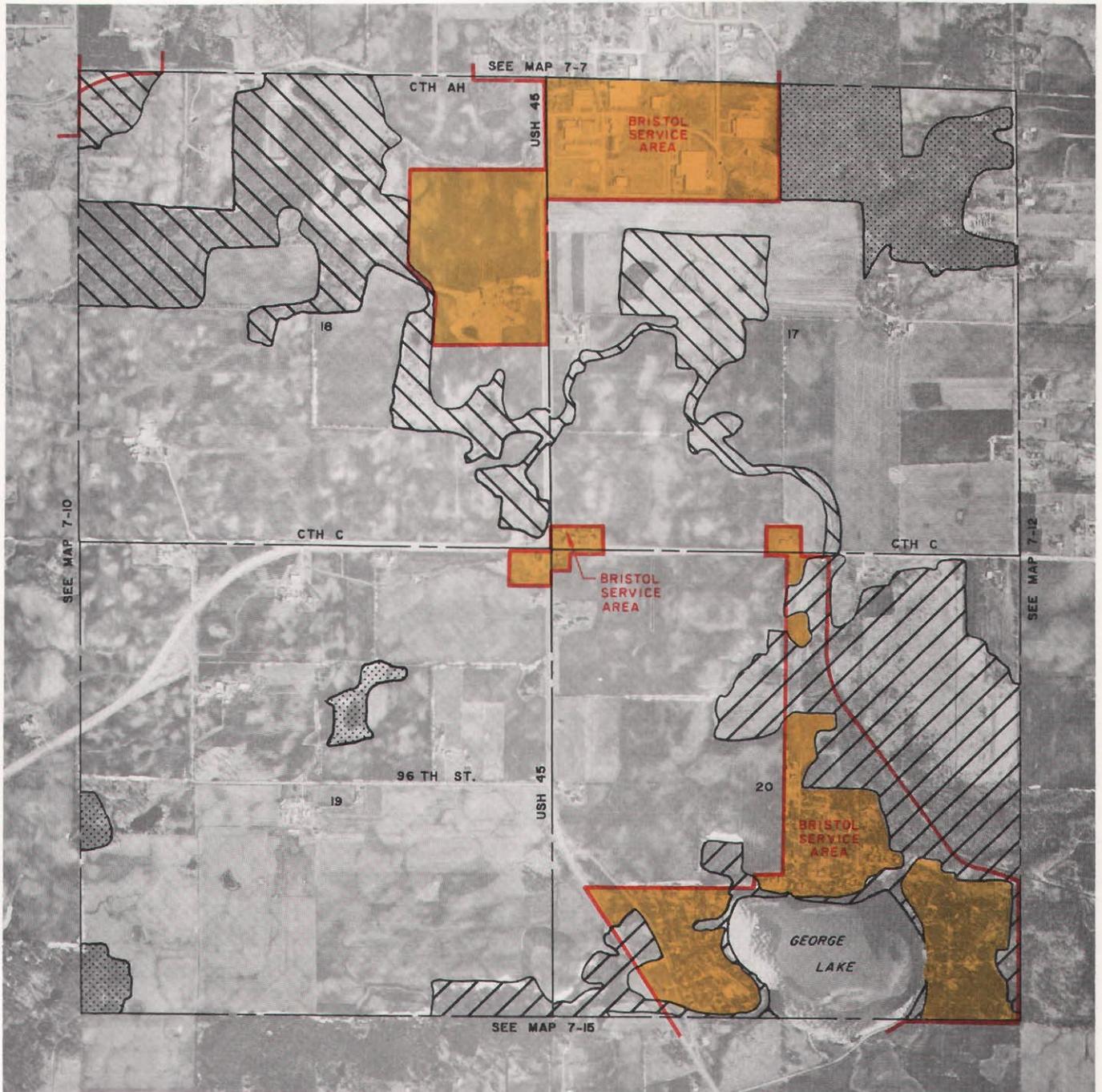


Source: SEWRPC.

Map 7-11

ENVIRONMENTALLY SIGNIFICANT LANDS AND
PLANNED SANITARY SEWER SERVICE AREA FOR
THE SALEM/PADDOCK LAKE/BRISTOL AREA

U. S. Public Land Survey Sections 17, 18, 19, and 20
Township 1 North, Range 21 East



LEGEND

-  PRIMARY ENVIRONMENTAL CORRIDOR
-  SECONDARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL AREA
-  PLANNED SANITARY SEWER SERVICE AREA
-  GROSS SANITARY SEWER SERVICE AREA BOUNDARY

Source: SEWRPC.



Map 7-12

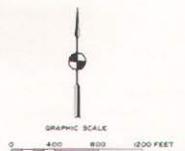
ENVIRONMENTALLY SIGNIFICANT LANDS FOR
THE SALEM/PADDOCK LAKE/BRISTOL AREA

U. S. Public Land Survey Sections 16 and 21
Township 1 North, Range 21 East



LEGEND

-  PRIMARY ENVIRONMENTAL CORRIDOR
-  SECONDARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL AREA
-  GROSS SANITARY SEWER SERVICE AREA BOUNDARY



Source: SEWRPC.

Map 7-13

ENVIRONMENTALLY SIGNIFICANT LANDS FOR
THE SALEM/PADDOCK LAKE/BRISTOL AREA

U. S. Public Land Survey Sections 27, 28, 33, and 34
Township 1 North, Range 20 East



LEGEND

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

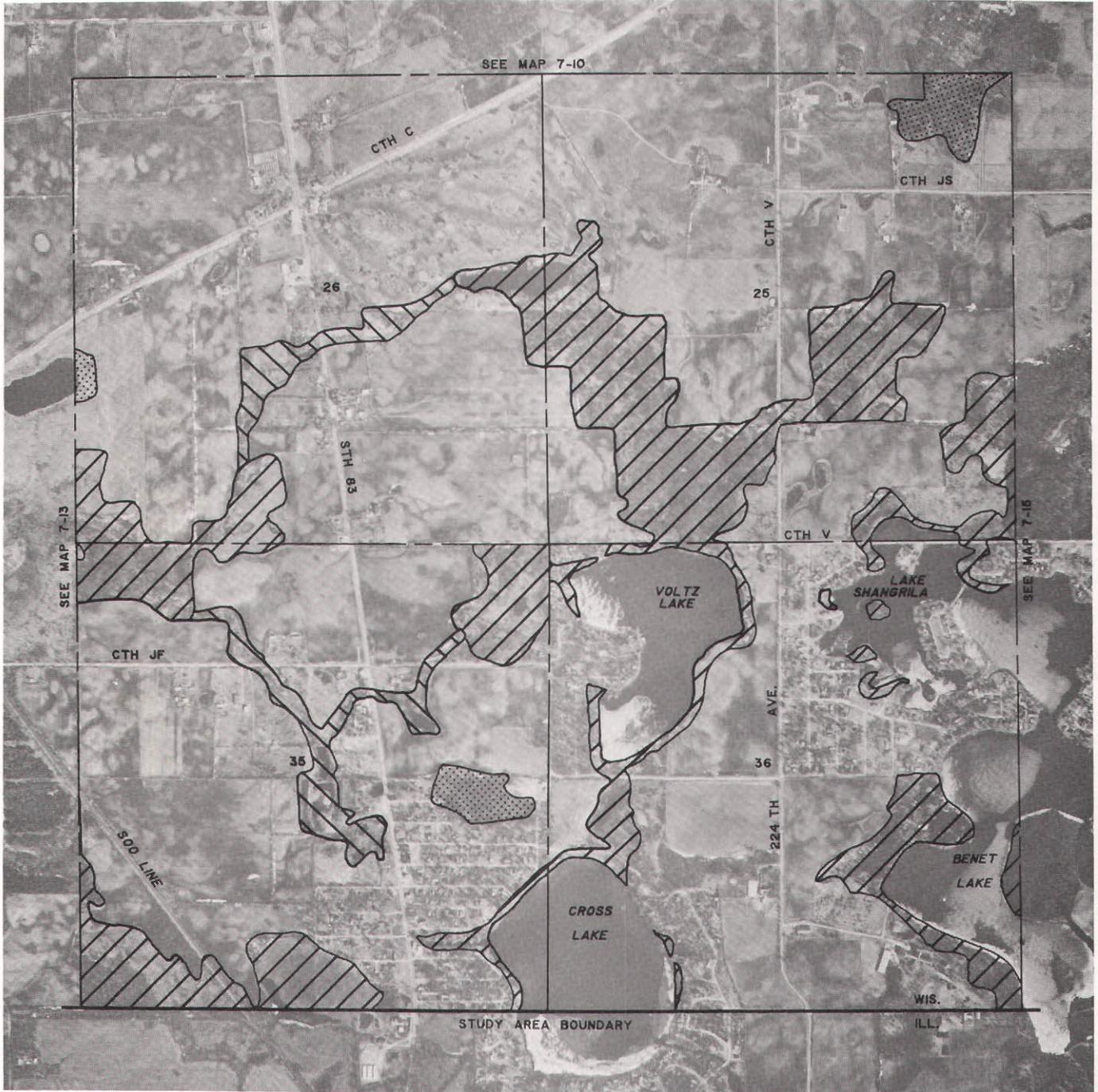


Source: SEWRPC.

Map 7-14

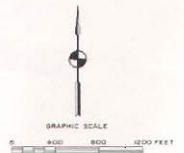
ENVIRONMENTALLY SIGNIFICANT LANDS FOR
THE SALEM/PADDOCK LAKE/BRISTOL AREA

U. S. Public Land Survey Sections 25, 26, 35, and 36
Township 1 North, Range 20 East



LEGEND

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



Source: SEWRPC.

Map 7-15

ENVIRONMENTALLY SIGNIFICANT LANDS AND
PLANNED SANITARY SEWER SERVICE AREA FOR
THE SALEM/PADDOCK LAKE/BRISTOL AREA

U. S. Public Land Survey Sections 29, 30, 31, and 32
Township 1 North, Range 21 East



LEGEND

-  PRIMARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL AREA
-  PLANNED SANITARY SEWER SERVICE AREA
-  GROSS SANITARY SEWER SERVICE AREA BOUNDARY



Source: SEWRPC.

Map 7-16

ENVIRONMENTALLY SIGNIFICANT LANDS AND
PLANNED SANITARY SEWER SERVICE AREA FOR
THE SALEM/PADDOCK LAKE/BRISTOL AREA

U. S. Public Land Survey Sections 28 and 33
Township 1 North, Range 21 East



LEGEND

-  PRIMARY ENVIRONMENTAL CORRIDOR
-  SECONDARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL AREA
-  PLANNED SANITARY SEWER SERVICE AREA
-  GROSS SANITARY SEWER SERVICE AREA BOUNDARY



Source: SEWRPC.

(This page intentionally left blank)

APPENDICES

(This page intentionally left blank)

Appendix A
PUBLIC HEARING MINUTES

Appendix A-1

**TOWN OF BRISTOL UTILITY DISTRICT NOS. 1 AND 1B
SANITARY SEWER SERVICE AREA AND
SEWERAGE SYSTEM FACILITIES PLAN
April 17, 1986
Bristol Town Hall**

HEARING FORMAT

The Town of Bristol held a joint public hearing for the Town of Bristol Utility District Nos. 1 and 1B facility and sanitary sewer service area plans on April 17, 1986 at 7:30 p.m. in the Bristol Town Hall, 198th Avenue and 83rd Street, Bristol. Twenty-four persons registered formally.

Public notices, preliminary refined sanitary sewer service area maps and facility plan summaries were provided as people signed the attendance sheets.

Noel Elfering, Town Chairman, chaired the meeting. Others present were Town Supervisors Donald Wienke and Russell Horton; Mr. Rothrock, Town Attorney; Robert Biebel, Chief Environmental Engineer, representing Southeastern Wisconsin Regional Planning Commission (SEWRPC); Joe Cantwell, P.E., Project Manager from Graef, Anhalt, Schloemer & Associates, Inc. (G.A.S.), Consulting Engineers.

Mr. Elfering gave the purpose of the meeting and introduced Joe Cantwell. Mr. Cantwell stated that Mr. Biebel should explain the changes that were made to the service area first so that the presentation related to the new service area. Mr. Biebel explained the additions to the new service area and why they were included. He explained that areas not included now would not be included in the future.

PUBLIC COMMENTS

Mr. Elfering opened the meeting for comments and questions.

Mr. Ken Swenson - What would the feelings of the Board be to future expansion in the Town of Bristol based on the new capacity? Would it be an additional 500 people we're talking about?

Mr. Elfering - The Board is pushing for industrial growth rather than residential because your tax bill will show a lower rate.

Mr. Quandt - What do you figure it's going to cost above what we're paying right now?

Mr. Elfering - The Board's goal is to hold it lower than Pleasant Prairie or Salem. Salem is about \$28 and Pleasant Prairie is at about \$35. We will hopefully keep ours under \$25 as Joe has shown.

Mrs. Magwitz - What is the area west of 45 and directly south of AH been developed for? Why was that area excluded?

Mr. Biebel - These areas can be looked at and amended at a later time and that is something the Board should consider.

Mr. Czubin - The area that is included south of AH and west of 45 has nothing on it now. Why not delete that from the study area?

Mr. Elfering - That area would be prime industrial land.

Mr. Larson - The boundaries on the service area map--is there any relationship between that and the size of the facility you want to build?

Mr. Cantwell - Yes.

Mr. Larson - You're saying that when that area is full or not until that area is full you won't be required to go to a larger facility?

Mr. Elfering - Not necessarily; if you get one heavy user in the industrial park, that plant could be put out in a year or two. Joe Cantwell is working on the sewer use ordinance so that if a heavy user moves into the industrial park, and we have to expand the plant two or three years down the line, they would pick up a big part of the bill.

The Public Hearing was adjourned by Chairman Elfering.

Appendix A-2

TOWN OF SALEM UTILITY DISTRICT NO. 1 AND VILLAGE OF PADDOCK LAKE SANITARY SEWER SERVICE AREA AND SEWERAGE SYSTEM FACILITIES PLAN May 6, 1986 Salem Town Hall

Present from Salem Town Board: Chairman Stetson, Supervisor Tremonte, also Administrator Gehrke, and Don Zenz, engineer from Donohue. Present from Paddock Lake Village Board: Chairman Hoffman and six trustees, and its attorney. Including the above, there were 20 persons in attendance.

Chairman Stetson called meeting to order, then turned over to Bruce Rubin, SEWRPC. Mr. Rubin reviewed the development of the areawide water quality management plan, indicating the first plan adopted for this area was in 1979 and it was that report that is being refined. He indicated that these plans are not final and should be reviewed at least every five years, and that they can be amended through the same process that was taking place now.

Mr. Rubin said that the estimated population growth that was used in the study was for a 20-year period, and that was why "they" felt that a five-year review was a good practice as population growth projection could change.

Mr. Rubin briefly recapped the intergovernmental meetings that were held between the Towns of Salem and Bristol and the Village of Paddock Lake. He indicated that they were to determine the cost-effectiveness of reconstructing three wastewater treatment facilities or going to a regional plant. These analyses were done as Bristol and Paddock Lake are currently in the facilities planning procedure and this was one of the criteria that needed to be examined before the planning could be completed.

Questions and comments from the floor:

Mr. Elmer Michals questioned whether the boundaries had indeed been set. Mr. Rubin answered that the map exhibited showed the proposed boundaries and were the reason for the meeting.

Mr. Geoffrey Wheeler asked if Hartnell Chevrolet was in the Paddock Lake or Salem area; he was told it is in the Salem area. There was considerable discussion at this point by Chairman Stetson; President Hoffman; Jeff Davison, Attorney for Paddock Lake; Rick Jones of Crispell Snyder, Engineer for Paddock Lake; and Joe Riesselmann, Paddock Lake Trustee. The discussion was regarding the properties that are immediately adjacent to Hwy. 50 at County Trunk F on the west side of "F." Both communities indicated that they felt they could service these properties. They agreed that the houses to the west on County Hwy. 50 that the County Sanitarian has requested be put in one or the other service area due to failing septic systems would cost the same for either community to service, and would require a pumping station in either case. The

engineer representing Paddock Lake indicated that Paddock Lake would have a problem sewerage anything south of the five houses on the north end of "F." It was stated by Chairman Stetson that Salem's position was that whoever serviced the area should sewer the entire area of "F," and also those houses on Hwy. 50 as requested by the County.

As no conclusion or agreement could be drawn, it was decided and directed that the engineers would cost out the area in question and try to determine which entity could best serve the needs of all the residents on "F" and along "50."

The representatives from SEWRPC said that the communities should resolve this issue amongst themselves and transmit the results for SEWRPC to include in their final report. It was determined that the engineers would have one month's time, and that the municipalities involved should try to come to an agreement. It was pointed out that in the event no solution could be agreed upon, SEWRPC would have its engineers evaluate the area and decide which community could best serve the areas in question.

Hearing adjourned at 7:50 p.m. Submitted by Shirley Boening, Clerk.