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Special acknowledgement is due SEWRPC Senior Planner Timothy J. McCauley and SEWRPC Planner James P. Siegler for their contributions to this report.

#### SOUTHEASTERN WISCONSIN REGIONAL **PLANNING**

916 N. EAST AVENUE • P.O. BOX 1607 • WAUKESHA, WISCONSIN 53187-1607

Serving the Counties of:

SUBJECT:

Certification of Amendment to the Adopted Regional Water Quality

Management Plan (Oconomowoc Sanitary Sewer Service Area)

TO:

The Legislative Bodies of Concerned Local Units of Government within and outside of the Southeastern Wisconsin Region, namely: the Counties of Jefferson and Waukesha; the City of Oconomowoc; the Villages of Lac La Belle and Oconomowoc Lake; the Towns of Ixonia Merton, Oconomowoc, and Summit; the Delafield-Hartland Water Pollution Control Commission; the Blackhawk Area Sanitary District; the Mary Lane Area Sanitary District; and the Town of

Ixonia Sanitary District No. 2

This is to certify that at the meeting of the Southeastern Wisconsin Regional Planning Commission, held at the Walworth County Courthouse, Elkhorn, Wisconsin, on the 15th day of September 1999, the Commission did by unanimous vote of all Commissioners present, being 17 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. Said amendment to the regional water quality management plan pertains to the revised Oconomowoc sanitary sewer service area and consists of the documents 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 16th day of September 1999.

> Thomas H. Buestrin, Chairman Southeastern Wisconsin

Regional Planning Commission

ATTEST:

Philip C. Evenson, Deputy Secretary

Philip C- Evenson

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#### **RESOLUTION NO. 99-15**

RESOLUTION OF THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION AMENDING THE ADOPTED REGIONAL WATER QUALITY MANAGEMENT PLAN, THAT PLAN BEING A PART OF THE MASTER PLAN FOR THE PHYSICAL DEVELOPMENT OF THE REGION CONSISTING OF THE COUNTIES OF KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH WASHINGTON, AND WAUKESHA IN THE STATE OF WISCONSIN (OCONOMOWOC SANITARY SEWER SERVICE AREA)

WHEREAS, pursuant to Section 66.945(10) of the <u>Wisconsin Statutes</u>, 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, <u>A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000</u>; and

WHEREAS, at a meeting held on the 6th day of March 1989, the Commission duly adopted an amendment to the regional water quality management plan refining and detailing the Oconomowoc sanitary sewer service area as documented in SEWRPC Community Assistance Planning Report No. 172, <u>Sanitary Sewer Service Area for the City of Oconomowoc and Environs</u>, Waukesha County, Wisconsin, February 1989, as amended; and

WHEREAS, by letter dated September 21, 1998, the City of Oconomowoc requested that the Commission further amend the Oconomowoc sanitary sewer service area; and

WHEREAS, the Commission, working with the City of Oconomowoc, has completed revisions to the Oconomowoc sanitary sewer service area plan, such revised plan being set forth in SEWRPC Community Assistance Planning Report No. 172 (2nd Edition), Sanitary Sewer Service Area for the City of Oconomowoc and Environs, Waukesha County, Wisconsin, dated September 1999; and

WHEREAS, the newly revised Oconomowoc sanitary sewer service area, as documented in SEWRPC Community Assistance Planning Report No. 172 (2nd Edition), was the subject of a public hearing held jointly by the City of Oconomowoc and the Regional Planning Commission on September 8, 1999; and

WHEREAS, Section 66.945(9) of the <u>Wisconsin Statutes</u> 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, and which was amended on the 6th day of March 1989, as set forth in SEWRPC Community Assistance Planning Report No. 172, be and the same hereby is amended to include the newly revised sanitary sewer service area plan for the City of Oconomowoc and environs, as set forth in SEWRPC Community Assistance Planning Report No. 172 (2nd Edition).

SECOND: That the said SEWRPC Community Assistance Planning Report No. 172 (2nd Edition), 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 presently 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.

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. 172 (2nd Edition), 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 15th day of September 1999, the vote being: Ayes 17; Nays 0.

Thomas H. Buestrin, Chairman

ATTEST:

Philip C- Even son

Philip C. Evenson, Deputy Secretary

### COMMUNITY ASSISTANCE PLANNING REPORT NUMBER 172 (2nd Edition)

# SANITARY SEWER SERVICE AREA FOR THE CITY OF OCONOMOWOC AND ENVIRONS, 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.

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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 including abatement element. 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 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 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

<sup>1</sup>The 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.

because under State law and administrative rules, certain actions by the Wisconsin Department of Natural Resources (WDNR) must be found to be in accordance with the adopted and endorsed plan. These actions include, among others, WDNR approval of waste discharge permits, WDNR approval of State and Federal grants for the construction of wastewater treatment and conveyance facilities, and WDNR approval of locally proposed sanitary sewer extensions.

### NEED FOR REFINEMENT AND DETAILING OF LOCAL SANITARY SEWER SERVICE AREAS

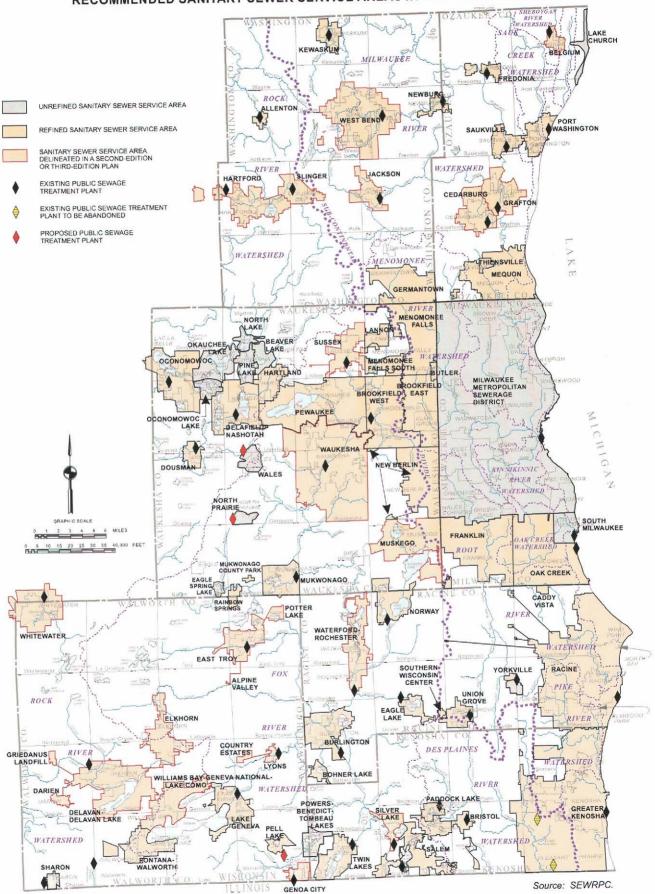
The adopted regional water quality management plan includes recommended sanitary sewer service areas attendant to each recommended sewage treatment facility (see Map 1). There were in the plan, as initially adopted, a total of 85 such identified sanitary sewer service areas. The initially recommended 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.<sup>2</sup> 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 Comm 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 Commerce, 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

<sup>&</sup>lt;sup>2</sup>See SEWRPC Planning Report No. 25, A Regional Land Use Plan and a Regional Transportation System 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: JUNE 1999



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. 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 a sanitary sewer service area consistent with the objectives set forth in the adopted regional water quality management plan.<sup>3</sup>
- The conduct of intergovernmental meetings involving the local or areawide unit or units of government 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 concerns expressed at the intergovernmental meetings. These modifications would meet, 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 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 concerned. 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 OCONOMOWOC SANITARY SEWER SERVICE AREA REFINEMENT PROCESS

The process of refining and detailing the sanitary sewer service areas in Southeastern Wisconsin was initiated after the Commission's adoption of the regional water quality management plan in July 1979. By letter dated October 12, 1986, the City of Oconomowoc requested that the Regional Planning Commission undertake the refinement and detailing of the proposed year 2000 sanitary sewer service area tributary to the City of Oconomowoc sewage treatment facility. Subsequent to the completion of the draft report, a public hearing on this matter was held on August 24, 1988. The City of Oconomowoc sanitary sewer service area plan, as documented in SEWRPC Community Assistance Planning Report No. 172, Sanitary Sewer Service Area for the City of Oconomowoc and Environs, Waukesha County, Wisconsin, dated February 1989, was adopted by the Common Council on February 7, 1989, and by the Regional Planning Commission on March 6, 1989; and was endorsed by the Wisconsin Department of Natural Resources on October 17, 1989. The City of Oconomowoc and the Regional Planning Commission

<sup>&</sup>lt;sup>3</sup>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 design year 2000 land use plan. The Commission has since completed and adopted a design year 2020 land use plan, which plan served as the point of departure in the delineation of the sewer service area set forth in this report.

subsequently adopted an amendment to the sanitary sewer service area in June 1999.

The Regional Planning Commission recognizes that, like other long-range plans, sanitary sewer service area plans should be reviewed periodically to assure that they continue to properly reflect regional and local urban development objectives, especially as such objectives may relate to the amount and spatial distribution of new urban development requiring sewer service. By letter dated September 21, 1998, the City of Oconomowoc requested the Regional Planning Commission to refine further the currently adopted Oconomowoc sanitary sewer service area tributary to the City of Oconomowoc sewage treatment facility. Copies of the draft report setting forth a preliminary revised sanitary sewer service area plan were provided

to the City of Oconomowoc; the Villages of Lac La Belle and Oconomowoc Lake: the Towns of Ixonia. Merton, Oconomowoc, and Summit; the Blackhawk Area Sanitary district; the Mary Lane Area Sanitary District: the Town of Ixonia Sanitary District No. 2; the **Pollution** Delafield-Hartland Water Control Commission; the Jefferson County Zoning and Planning Committee; the Waukesha County Park and Planning Commission; and the Wisconsin Department of Natural Resources for review and comment prior to the public hearing held on September 8, 1999. The public reaction to the proposed sanitary sewer service area plan, documented in the minutes contained in Appendix A, is summarized later in this report. The final revised sanitary sewer service area attendant to the City of Oconomowoc sewage treatment facility is described in Chapter III of this report.

#### Chapter II

#### STUDY AREA DESCRIPTION

#### **LOCATION**

The study area considered for determining the refined Oconomowoc sanitary sewer service area is shown on Map 2. The area consists of all the lands encompassed within the corporate limits of the City of Oconomowoc and the the Villages of Lac La Belle and Oconomowoc Lake; the southern two-thirds of the Town of Oconomowoc; the northern two-thirds of the Town of Summit; and portions of the City of Delafield, the Village of Nashotah, and the Town of Merton in Waukesha County. The study area also includes portions of the Towns of Concord and Ixonia in Jefferson County. The total study area is 64.1 square miles in extent, of which 20.9 square miles, or 32 percent, lie within the Town of Oconomowoc; 17.2 square miles, or 27 percent, lie within the Town of Summit; 6.4 square miles, or 10 percent, lie within the City of Oconomowoc; 4.2 square miles, or 7 percent, lie within the Town of Concord; 4.0 square miles, or 6 percent, lie within the Town of Ixonia; 3.8 square miles, or 6 percent, lie within the Town of Merton; 3.2 square miles, or 5 percent, lie within the City of Delafield; 3.1 square miles, or 5 percent, lie within the Village of Oconomowoc Lake: 0.9 square mile, or 1 percent, lie within the Village of Nashotah; and 0.4 square mile, or less than one percent, lie within the Village of Lac La Belle. These areas are based upon 1998 civil division boundaries.

#### **POPULATION**

The resident population of the study area in 1995 was estimated at 26,300 persons, not including about 800 seasonal residents. Of this total, it is estimated that about 13,000 year-round residents and 300 seasonal residents, were served by public sanitary sewers tributary to the City of Oconomowoc sewage treatment facility, and about 800 residents were served by public sanitary sewers tributary to the Delafield-Hartland Water Pollution Control Commission sewage treatment facility. The remaining 12,500 year-round residents and 500 seasonal residents in the study area were served by onsite sewage disposal systems.

The forecast of probable future resident population levels for small geographic areas such as the Oconomowoc study area is a difficult task, accompanied by uncertainties and subject to periodic revision as new information becomes available. To accommodate unforeseen changes in social and economic conditions, an "alternative futures" approach is utilized by the Regional Planning Commission to project a range of population growth which may be expected to occur over the period 1990 to 2020. The preparation of the Commission's year 2020 regional land use plan incorporated a consideration of two alternative scenarios for regional growth and change, involving different assumptions regarding population lifestyles economic conditions. The high-growth scenario is intended to represent the upper extreme of possible future regional growth and change, while the intermediate future is considered to be the most likely scenario.

The Commission's year 2020 land use plan also considered alternative development patterns accommodating the incremental population and employment levels envisioned under the aforementioned growth scenarios. Two development patterns were considered in the preparation of the alternative land use plans. The first, a centralized development pattern, accommodates 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, similar to previously adopted regional land use plans. The decentralized development accommodates the continued diffusion of population and employment levels historically evident in the Region, but in a manner consistent with the protection of the natural resource base of the Region.

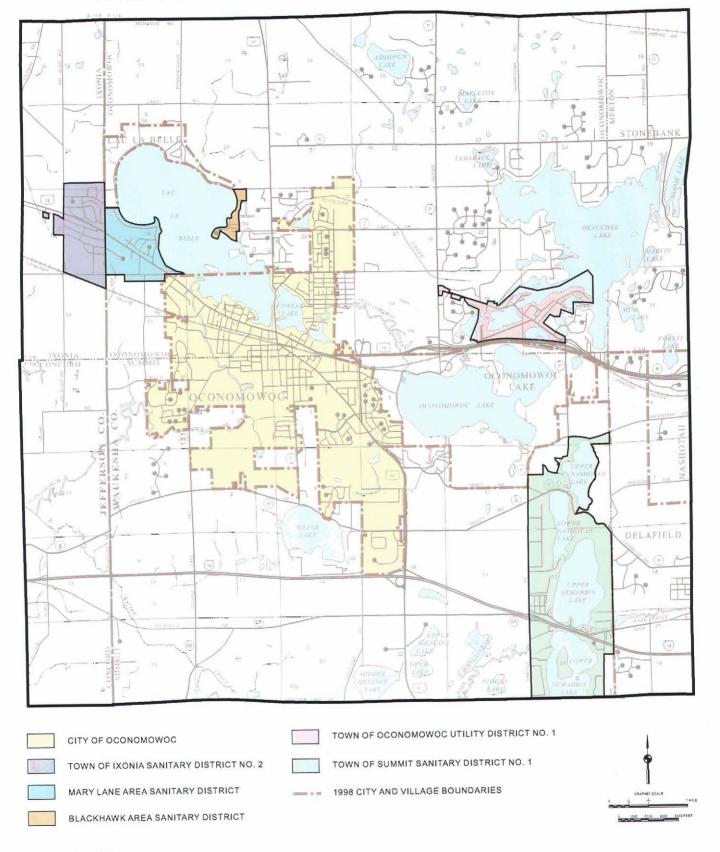
The intermediate-growth centralized land use plan, also the adopted regional land use plan, would accommodate a year 2020 resident population level of about 32,400 persons in the Oconomowoc study area. Under a high-growth decentralized alternative, the population level within the study area could be as high as 50,500 persons by the year 2020.

# ENVIRONMENTALLY SIGNIFICANT LANDS

Environmental corridors are defined as linear areas in the landscape containing concentrations of natural

Map 2

STUDY AREA IDENTIFIED FOR PURPOSES OF REFINING AND DETAILING
THE CITY OF OCONOMOWOC AND ENVIRONS SANITARY SEWER SERVICE AREA



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 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 recognized in the plan, however, 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 within the corridors, including park and outdoor recreation facilities and certain institutional uses. In cases. extremely low density some residential development at a density not to exceed one housing unit per five acres of upland corridor, 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 Oconomowoc sanitary sewer service area 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 floodlands: and 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 offering scenic vistas or viewpoints, and areas of scientific value.

Table 1

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

<del></del>	
	Point
Resource Base or Related Element	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 Site	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.

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, 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 SoutheasternWisconsin." The primary environmental corridors, along with secondary environmental corridors and isolated natural resource areas, as delineated in the Oconomowoc study area, are shown on Map 3. The secondary environmental corridors 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.

Isolated natural resource areas generally consist of those natural resource base elements that have value, such as wetlands, woodlands, wildlife habitat areas, and surface water areas, but 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.

In addition, wetlands less than five acres in size, located outside of primary environmental corridors, secondary environmental corridors and isolated natural resource areas, are shown on Map 3. Under Section 23.32 of the Wisconsin Statutes, a wetland is defined as, "an area where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and which has soils indicative of wet conditions." It should be noted the information presented on Map 3 does not represent an exhaustive inventory of wetlands in the study area. The identified wetlands are based upon the 1987 Wisconsin Wetlands Inventory and interpretation of 1995 aerial photographs.

Lands and surface water encompassed within the primary environmental corridors of the Oconomowoc study area in 1995 totaled 19.5 square miles, or about 30 percent of the total study area. Lands and surface water encompassed within the secondary environmental corridors totaled about 0.3 square mile, or less than one percent of the study area. Lands and surface water encompassed within isolated natural resource areas totaled about 1.3 square miles, or about 2 percent of the study area. About 165 acres, or less than one percent of the study area, was encompassed within wetlands and surface water areas less than five acres in size. Thus, all environmentally significant lands in the Oconomowoc study area encompassed about 21.4 square miles, or about 33 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 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 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.

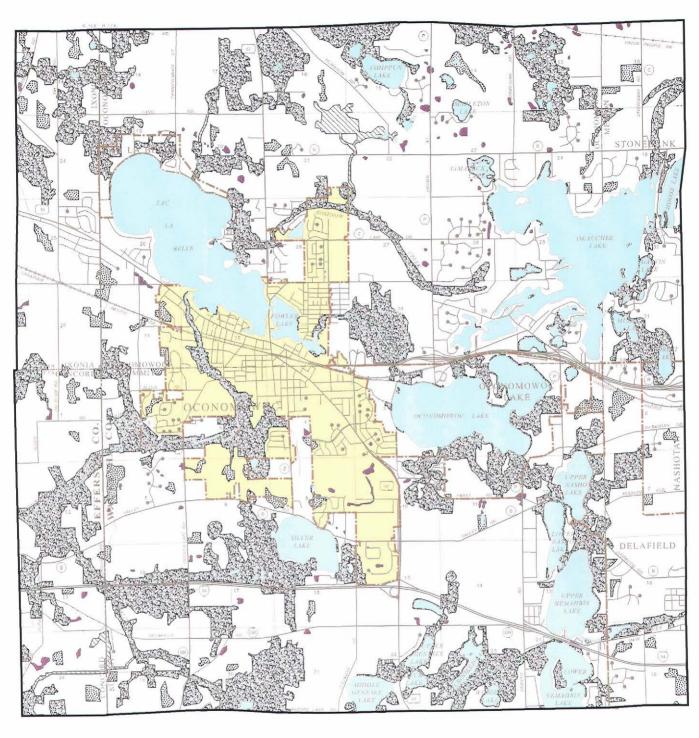
While portions of the delineated floodlands in the Oconomowoc study area are contained within the environmental corridors, there are areas of the floodlands utilized for agricultural or other open space uses located outside such corridors. The Regional Planning Commission recognizes that such floodlands 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 should be preserved in essentially natural, open space uses, and over time become part of the adjacent environmental corridors.

In addition, the adopted regional water quality management plan recognizes that certain secondary environmental corridors, isolated natural resource areas, and wetlands less than five acres in size may be converted to urban uses over the plan design period.

<sup>&</sup>lt;sup>1</sup>Precise delineation of such small wetlands as well as other environmentally significant lands, including primary and secondary environmental corridors and isolated natural resource areas, can only be determined through field investigation.

Map 3

ENVIRONMENTALLY SIGNIFICANT LANDS IN THE CITY OF OCONOMOWOC AND ENVIRONS STUDY AREA





However, current Federal, State, and local regulations may effectively preclude development of such areas. Of particular importance in this regard are natural resource protection regulations dealing with wetlands, floodplains, shorelands, stormwater runoff, and erosion

control. Therefore, it is important that the developer or local unit of government concerned determine if it is necessary to obtain any applicable Federal, State, or local permits prior to any proposed disturbance of wetlands, floodplains, or other regulated lands.

#### **Chapter III**

### PROPOSED SANITARY SEWER SERVICE AREA

# SIGNIFICANCE OF SANITARY SEWER SERVICE AREA DELINEATION

As noted earlier in this report, changes in the Wisconsin Department of Natural Resources (WDNR) and Wisconsin Department of Commerce 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. Prior to the rule changes, review and approval of locally proposed sanitary sewer extensions by the WDNR and the Department of Commerce was confined primarily to engineering considerations and was intended to ensure that the sewers were properly sized and constructed. The 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.

## CURRENTLY APPROVED OCONOMOWOC SANITARY SEWER SERVICE AREA

The currently identified design year 2000 Oconomowoc sanitary sewer service area, tributary to the City of Oconomowoc sewage treatment facility, is set forth in SEWRPC Community Assistance Planning Report No. 172, Sanitary Sewer Service Area for the City of Oconomowoc and Environs, Waukesha County, Wisconsin, dated February 1989, as amended. As shown in the gray-shaded area on Map 4, this service area totals 16.6 square miles, or 26 percent of the total study area of 64.1 square miles. The area encompasses about 4.6 square miles of primary

environmental corridor<sup>1</sup>, 8 acres, or less than 0.1 square mile, of secondary environmental corridor, and 0.3 square mile of isolated natural resource areas.

The Oconomowoc sewer service area was initially identified in a generalized manner, along with sewer service areas for the nearby Beaver, North, Oconomowoc, Okauchee, and Pine Lake areas, under the regional water quality management plan adopted in 1979. The latter sewer service areas were anticipated be added to the refined Oconomowoc sewer service area as sewer service became available. As part of the current sewer service area refinement, certain lands in the vicinity of Oconomowoc Lake and Okauchee Lake were added to the Oconomowoc sewer service area. As public sanitary sewer service becomes available to the remaining areas, it will be necessary to further amend the Oconomowoc sanitary sewer service area plan.

### REFINED OCONOMOWOC SANITARY SEWER SERVICE AREA

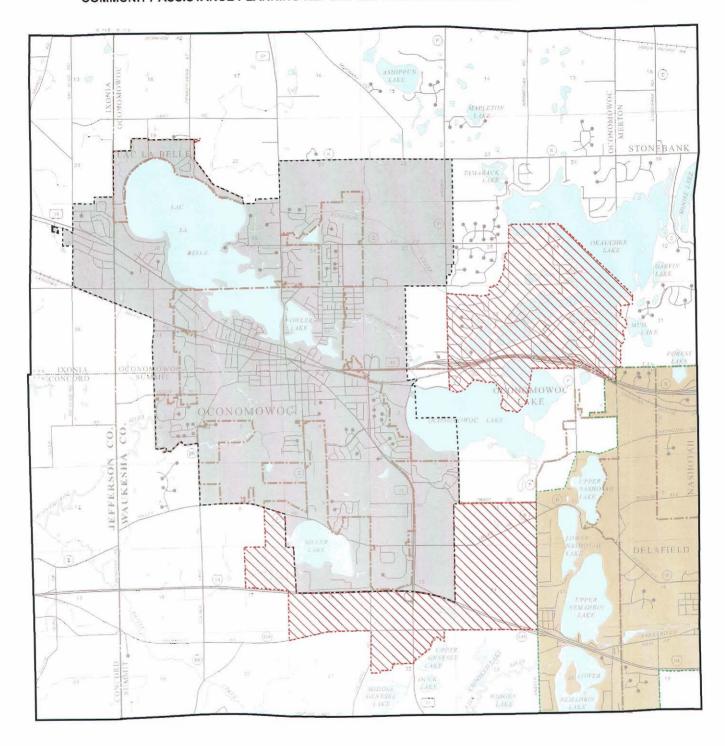
A comprehensive review of the Oconomowoc sanitary sewer service area was last undertaken during the preparation of the first edition of SEWRPC Community Assistance Planning Report No. 172 in 1989. The purpose of the current refinement effort is to review once again the sewer service needs of lands envisioned to be tributary to the City of Oconomowoc sewage treatment facility and to adjust and extend, as necessary, the sewer service area boundaries to accommodate the design year 2020 population levels envisioned for this service area.

Factors taken into account in the delineation of the refined Oconomowoc sanitary sewer service area included the currently identified sanitary sewer service area plan set forth in the first edition of SEWRPC Community Assistance Planning Report No. 172, Sanitary Sewer Service Area for the City of Oconomowoc and Environs, Waukesha County, Wisconsin, dated February 1989, as amended, and shown on Map 4; the sanitary sewerage system plan for northwestern Waukesha County under

<sup>&</sup>lt;sup>1</sup> Includes 2.7 square miles of surface water within Lac La Belle, Fowler Lake, Oconomowoc Lake, Silver Lake, and the Oconomowoc River.

Map 4

# CITY OF OCONOMOWOC AND ENVIRONS SANITARY SEWER SERVICE AREA AS DEFINED IN SEWRPC COMMUNITY ASSISTANCE PLANNING REPORT NO. 172 AS AMENDED, WITH PROPOSED CHANGES



CITY OF OCONOMOWOC SANITARY SEWER SERVICE AREA AS DEFINED IN SEWRPC COMMUNITY ASSISTANCE PLANNING REPORT NO. 172, AS AMENDED

AREAS TO BE ADDED TO THE CITY OF OCONOMOWOC SANITARY SEWER SERVICE AREA

OTHER SANITARY SEWER SERVICE AREAS - TRIBUTARY TO THE DELAFIELD-HARTLAND WATER POLLUTION CONTROL COMMISSION SEWAGE TREATMENT PLANT

1998 CITY AND VILLAGE BOUNDARIES



preparation in 1999; the design year 2020 regional land use plan documented in SEWRPC Planning Report No. 45, <u>A</u>
Regional Land Use Plan for Southeastern Wisconsin: 2020, dated December 1997 and adopted by the Regional Planning Commission in 1997; the Waukesha County development plan as set forth in SEWRPC Community Assistance Planning Report No. 209, <u>A Development Plan for Waukesha County</u>, Wisconsin, dated August 1996 and adopted by the Waukesha County Board of Supervisors in 1996, as amended through July 1999; the City's land use plan as set forth in <u>Comprehensive Master Plan: City of Oconomowoc</u>, <u>Wisconsin</u>, adopted by the Plan Commission in November 1994, as amended through July 1999; and wastewater conveyance facilities planning for the Town of Oconomowoc.

The refinement effort considered the location, type, and extent of existing urban 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 planned sewage treatment facilities; the location and capacity of 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 Oconomowoc area thus incorporates a range of resident population levels, with the most reasonable lower end of the population range based upon the Commission's intermediate-growth centralized land use plan and with the most reasonable upper end of the population range based upon the Commission's high-growth decentralized plan.

Local sanitary sewer service area and sewerage facility planning work should also consider a range of possible future 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 certain facilities and mechanical and electrical components of sewage treatment facilities such 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 investments in such facilities are often limited to those relatively certain to be needed over a 15 to 20-year design period. The use of the intermediate population forecast may thus be most appropriate for use in the design of such facilities.

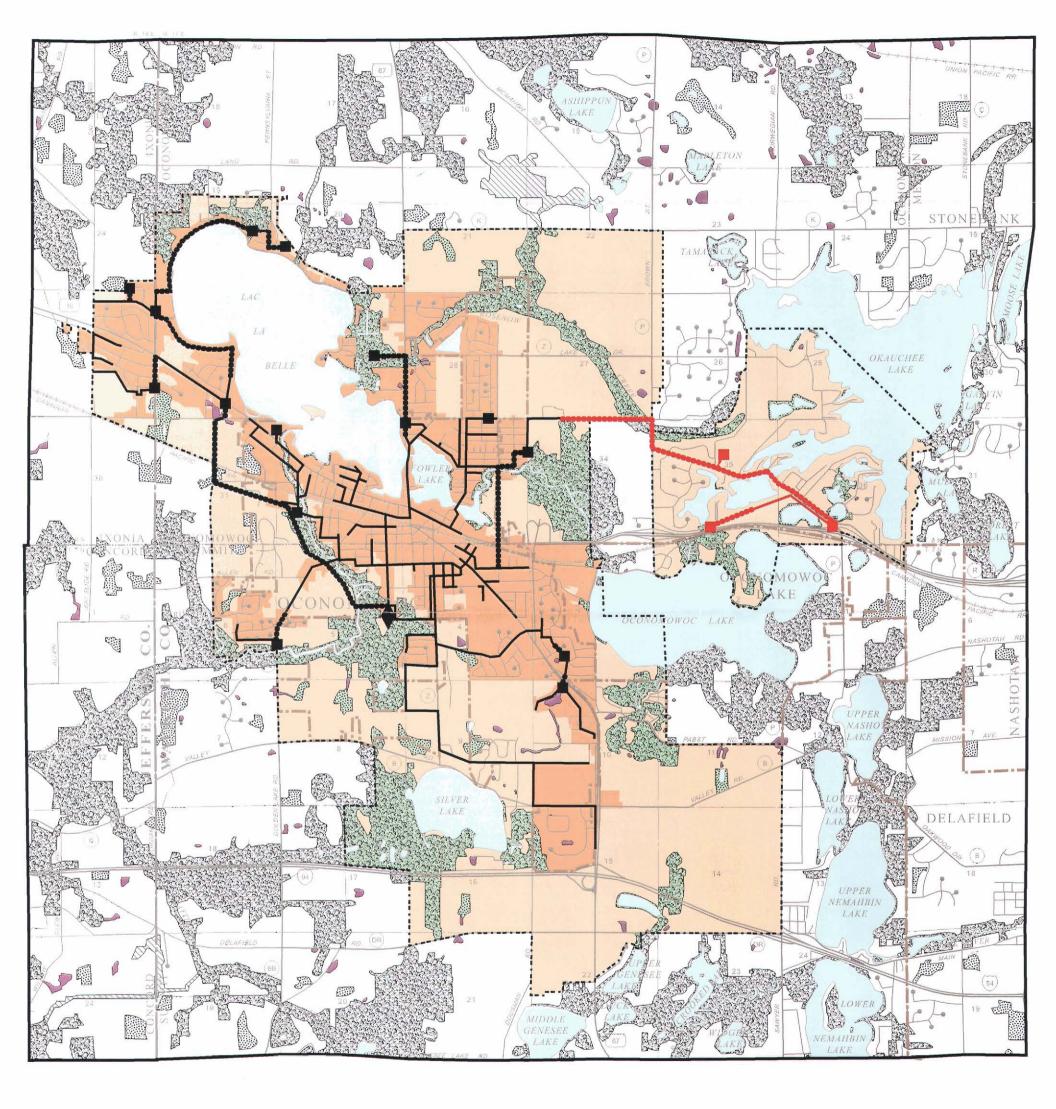
Consideration of a high-growth population forecast, however, may be appropriate in delineating a service area and in the design of certain components of the sewerage system that have a longer life, including gravity-flow conveyance facilities and such treatment plant components as hydraulic conduits 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.

Under the foregoing conditions, the resident population levels of the area anticipated to be tributary to the City of Oconomowoc sewage treatment facility would, by the design year 2020, range from about 23,100 persons under the Commission's intermediate-growth centralized plan, or the Commission's adopted regional land use plan, to about 37,500 persons under the Commission's high-growth decentralized plan.

The refined year 2020 Oconomowoc sanitary sewer service area anticipated to be tributary to the City of Oconomowoc sewage treatment facility is shown on Maps 4 and 5. Map 4 shows, with red hatch pattern, areas proposed to be added to the Oconomowoc sanitary sewer service area in the refinement effort. The areas proposed to be added to the sewer service area encompass 6.2 square miles. Map 5 depicts the refined Oconomowoc sanitary sewer service area, together with environmentally significant areas and trunk sewers, as submitted to public hearing.

Map 5

CITY OF OCONOMOWOC AND ENVIRONS PLANNED SANITARY SEWER SERVICE AREA: 2020





The gross refined Oconomowoc sanitary sewer service area encompasses 22.8 square miles, or 36 percent of the total study area of 64.1 square miles. This gross sewer service area includes about 6.5 square miles of primary environmental corridor<sup>2</sup>, no secondary environmental corridor, 0.4 square mile of isolated natural resource areas, and 60 acres of wetlands and surface water areas less than five acres in size. Therefore, a total of about 7 square miles, or about 31 percent of the sewer service area, would encompass environmentally significant areas, consisting of primary environmental corridors, secondary environmental corridors, isolated natural resource areas, and wetlands and surface water areas less than five acres in size.

Also shown on Map 5 are lands within the planned sanitary sewer service area that are ineligible for sewer service. These areas include all primary environmental corridor, as well as wetlands, floodplains, shorelands, and steeply sloped areas within isolated natural resource areas.

It should be noted that the environmentally significant lands indicated on Map 5 total 80 acres more than the environmentally significant lands indicated on Map 3. As shown on Map 6, 80 acres of land located within the 100-year recurrence interval flood hazard area associated with Rosenow Creek and the Oconomowoc River, and lying within the Oconomowoc sewer service area, are currently undeveloped and lie adjacent to primary environmental corridor lands. It is anticipated that over time, these lands will be withdrawn from agricultural use and re-vegetated to possess the characteristics of, and added to, the adjacent primary environmental corridor.

Shown in gold on Map 6 are 160 additional acres of land located within 100-year recurrence interval flood hazard areas lying outside of the proposed Oconomowoc sewer service area, and not located within any other planned sanitary sewer service areas. These floodplain areas would be added to adjacent environmental corridors should any sewer service area be expanded into those areas.

The refined Oconomowoc sanitary sewer service area tributary to the City of Oconomowoc sewage treatment facility would accommodate a resident population of about 36,500 persons, not including about 600 seasonal residents, assuming full development of vacant lands within the sewer service area as envisioned under the City of Oconomowoc land use plan and the Waukesha County

land use plan. This population level lies within the range of population levels envisioned for the sewer service area under Commission alternative regional land use plans for the year 2020. The population and housing unit levels envisioned in the Oconomowoc sewer service area would be accommodated at an overall density of about 2.9 dwelling units per net residential acre. This density lies within the recommended density range for the Oconomowoc area as identified in the Commission-adopted regional land use plan for the year 2020<sup>3</sup>.

### WATER QUALITY IMPACTS

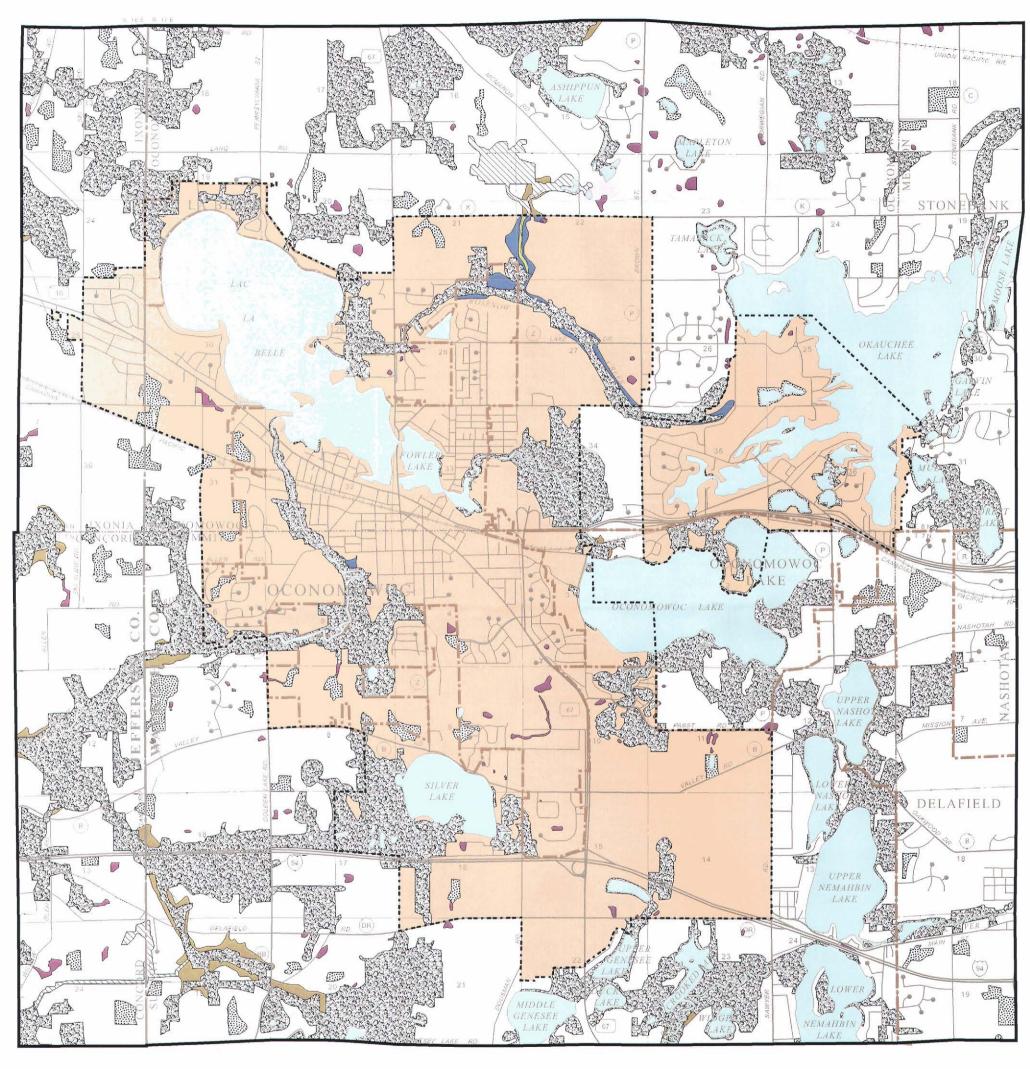
Under the adopted regional water quality management plan and the refined sanitary sewer service area plan herein set forth, it is envisioned that all urban lands within the planned urban service area would receive sanitary sewer service. It is also envisioned that all lands identified as primary environmental 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 primary environmental corridors, including park and outdoor recreation facilities, certain institutional uses, and in some cases, extremely low density residential development at a density not to exceed one housing unit per five acres of upland corridor land, compatible with the preservation of the corridors in essentially natural, open uses. These plans also recognize that certain secondary environmental corridors and isolated natural resource areas may be converted to urban uses over the plan design period. However, current Federal, State, and local regulations may effectively preclude development of many such areas. Of particular importance in this regard are natural resource protection regulations dealing with wetlands, floodplains, shorelands, stormwater runoff, and erosion control. Therefore, it is important that the developer or local unit of government concerned determine if it is necessary to obtain any applicable Federal, State, or local permits before any proposed disturbance of wetlands, floodplains, or other regulated

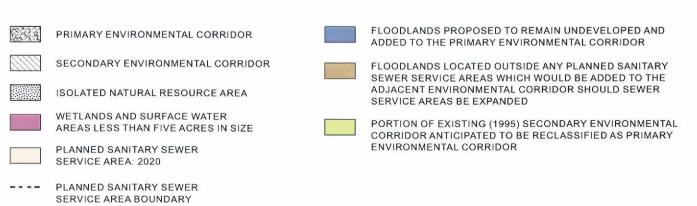
<sup>&</sup>lt;sup>2</sup> Includes 3.7 square miles of surface water within Lac La Belle, Fowler Lake, Oconomowoc Lake, Okauchee Lake, Silver Lake, and the Oconomowoc River

Net residential density in the refined Oconomowoc sanitary sewer service area is determined by dividing the total number of dwelling units anticipated in the sewer service area in the design year by the net residential land area anticipated within that area. The total number of dwelling units anticipated in the Oconomowoc sewer service area in the design year (14,500 units) divided by the net residential land within the sewer service area (4,970 acres) results in an overall net residential density of 2.9 dwelling units per acre.

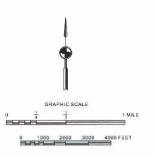
Map 6

ANTICIPATED CHANGES IN THE ENVIRONMENTALLY SIGNIFICANT LANDS IN THE CITY OF OCONOMOWOC AND ENVIRONS STUDY AREA





1998 CITY AND VILLAGE BOUNDARIES



lands.<sup>4</sup> In addition, the provision of public sanitary sewer service to those lands within the planned sanitary sewer service area which are currently developed and served by onsite sewage disposal systems may be expected to reduce the pollutant loadings from the existing onsite sewage disposal systems to both surface and ground waters.

Accordingly, assuming that any applicable Federal, State, and local permits are obtained and that proper site development and construction practices are employed, there should be no significant adverse water quality impacts attributable to the development of the planned sanitary sewer service area.

## COST-EFFECTIVENESS ANALYSIS OF SEWAGE CONVEYANCE AND TREATMENT ALTERNATIVES

The planned Oconomowoc sanitary sewer service area set forth in this report is 6.2 square miles or 37 percent larger than the currently adopted sewer service area set forth in the first edition of SEWRPC Community Assistance Planning Report No. 172, as amended. All of the proposed additions to the Oconomowoc sewer service area lie adjacent to the current sewer service area. Detailed analyses set forth in the recommended sanitary sewerage system plan for northwestern Waukesha County, to be completed in 1999, have concluded that the proposed sanitary sewer service area set forth on Map 5 would be most cost effectively served by the City of Oconomowoc sewerage system.

# SEWAGE TREATMENT PLANT CAPACITY IMPACT ANALYSIS

The City of Oconomowoc sewage treatment facility, which was upgraded and expanded in 1976, has a design hydraulic loading capacity of 4.0 million gallons per day (mgd) on an average annual flow basis, with a corresponding peak daily flow of 9.0 mgd. The average

annual flow rate in 1995 was about 2.3 mgd. The increase in sewered population from about 13,300 persons in 1995, including about 300 seasonal residents, to about 37,100 persons, including about 600 seasonal residents, assuming full development of vacant lands within the sewer service area as envisioned under the City's land use plan and the Waukesha County land use plan, is estimated to result in a flow rate between 5.0 and 6.0 mgd on an average annual basis, with the total flows being dependent upon the sewage flows generated by new commercial and industrial land uses. The sanitary sewerage system plan currently being prepared for the northwestern Waukesha County area recommends that the City of Oconomowoc sewage treatment plant eventually serve a much larger area, including the Beaver, Keesus, North, Pine, and Okauchee Lakes areas and the Village of Merton. A more detailed analysis conducted under that sanitary sewerage system planning program has demonstrated a need for modest sewage treatment plant modifications by the year 2010, and major modifications following the year 2010. Thus, depending upon the level and density of growth that will actually occur upon full development of the revised sewer service area, as well as additional areas which may eventually be served, it will be necessary to conduct facilities planning to expand the existing sewage treatment plant at some point during the planning period.

# PUBLIC REACTION TO THE REFINED SANITARY SEWER SERVICE AREA

A public hearing was held on September 8, 1999, at the Oconomowoc City Hall to receive public comment on and reaction to the proposed refinement of the City of Oconomowoc and environs sanitary sewer service area. The hearing was sponsored by the City of Oconomowoc and the Regional Planning Commission. Summary minutes of the public hearing are presented in Appendix A

A summary of the findings and recommendations of the sanitary sewer service area update and refinement effort was presented prior to receiving public comment. Topics specifically addressed in the summary presentation included the rationale for refining the City of Oconomowoc and environs sewer service area, the importance of the delineation of the outer boundaries of the sewer service area, the importance of the delineation of the environmentally significant lands within the service area, and the significance of these lands insofar as the future extension of sewer service is concerned. The probable impact of planned development within the revised sanitary sewer service area on the capacity of the City of Oconomowoc sewage treatment plant was also

It should be noted that the sanitary sewer service area map set forth herein, particularly the environmental corridors and isolated natural resource areas shown thereon, are a representation of conditions at the time of map preparation and that such physical features may change over time from natural or human causes. Therefore, the presence and location of wetlands, navigable water, floodplains, and similar site features should be verified by developers, and applicable permits obtained prior to any land disturbing activity.

summarized. Comments on the refined plan were then solicited.

A review of the public hearing record indicates that no substantive concerns were raised regarding the delineation of the external boundaries of the revised Oconomowoc and environs sanitary sewer service area, or the delineation of the environmentally significant lands within that area. Accordingly, no changes were made to the sanitary sewer service area plan as presented at the public hearing and as reflected on Map 5. On September 21, 1999, the Common Council of the City of Oconomowoc acted to approve the sanitary sewer service area plan as shown on Map 5.

Detailed delineations of the revised Oconomowoc and environs sanitary sewer service area, and of the environmentally significant lands within that area, are shown on a series of aerial photographs reproduced as Map 7, beginning on page 19 and continuing through page 39 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 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 Common Council of the City of Oconomowoc as the operator of the sewage treatment facility; by the Village Boards of the Villages of Lac La Belle and Oconomowoc Lake; by the Town Boards of the Towns of Merton, Oconomowoc, and Summit; by the Blackhawk Area Sanitary District No. 2, the Mary Lane Sanitary District, and the Town of Ixonia Sanitary District No. 2, as having lands affected by the sewer service area. In addition, endorsement of the plan by the Jefferson County Zoning and Planning Committee and the Waukesha County Park and Planning Commission, as the county planning agencies having joint responsibility with the Towns in planning and zoning and otherwise regulating the development of lands in the unincorporated portion of the study area, would be desirable.
- 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.

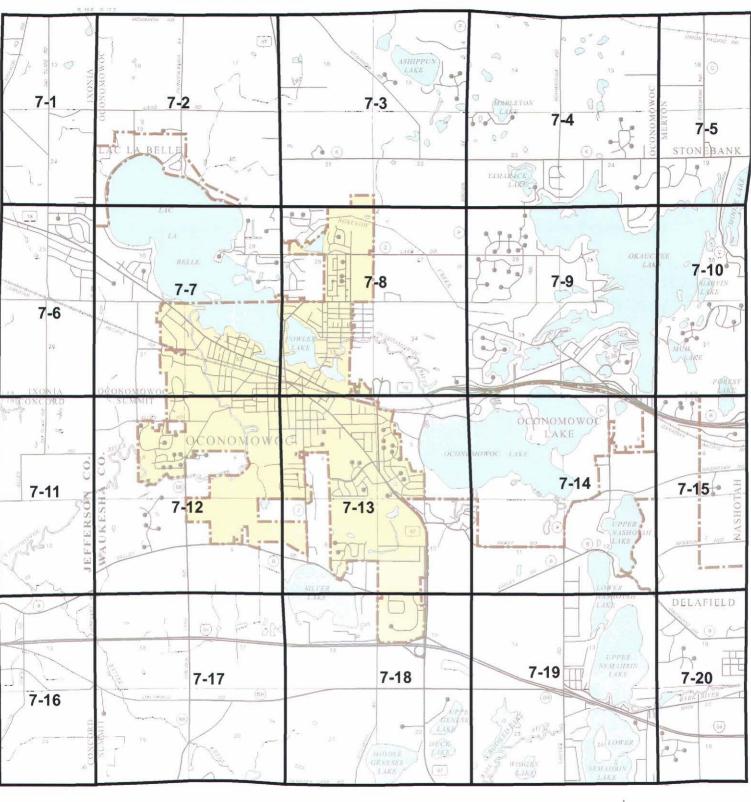
- 3. Review by all of the local units of government concerned of their zoning, land subdivision control, and related ordinances to ensure that the policies expressed in such ordinances reflect the urban development recommendations inherent in the final delineated Oconomowoc sanitary sewer service area as shown on Map 5. 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 City of Oconomowoc 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 OCONOMOWOC SEWER SERVICE AREA

This report presents the revised Oconomowoc sewer service area tributary to the City of Oconomowoc sewage treatment facility. The refined sewer service area was subjected to review at a public hearing. It is envisioned that the delineated sewer service area will accommodate all new urban development anticipated in the Oconomowoc area to the year 2020. Like other long-range plans, however, this sewer service area plan should be periodically reviewed, at about five year intervals, 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 City of Oconomowoc, as the operator of the sewage treatment facility involved, or by the communities involved, that amendments to the sewer service area plan as presented herein are necessary, the particular unit of government should ask the Southeastern Wisconsin 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.

Map 7

INDEX OF MAPS SHOWING ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF OCONOMOWOC AND ENVIRONS





# ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF OCONOMOWOC AND ENVIRONS

U. S. Public Land Survey Sections 13, and 24 Township 8 North, Range 16 East



PRIMARY ENVIRONMENTAL CORRIDOR

ISOLATED NATURAL RESOURCE AREA

WETLANDS AND SURFACE WATER AREAS LESS THAN FIVE ACRES IN SIZE

SURFACE WATER WITHIN ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS

PLANNED SANITARY SEWER SERVICE AREA

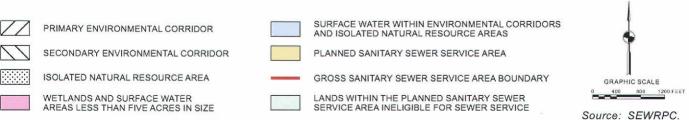
GROSS SANITARY SEWER SERVICE AREA BOUNDARY



## ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF OCONOMOWOC AND ENVIRONS

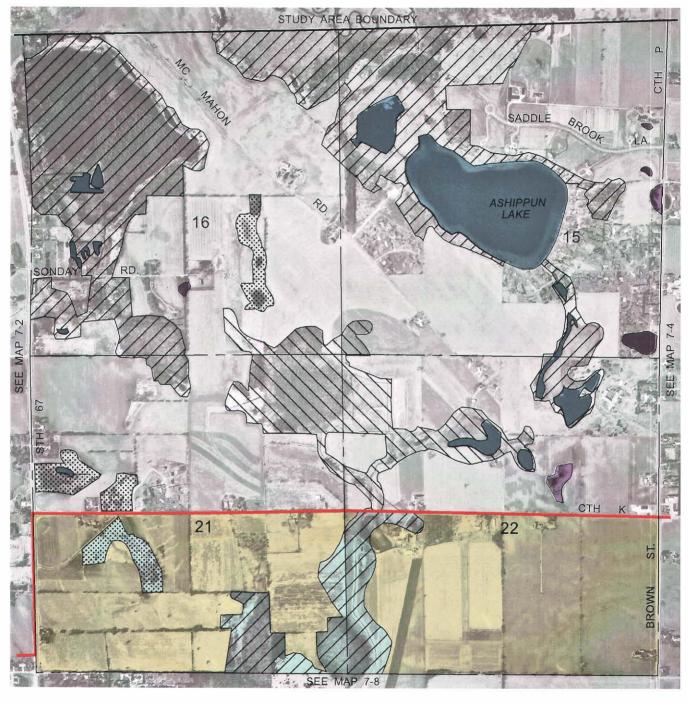
#### U. S. Public Land Survey Sections 17, 18, 19, and 20 Township 8 North, Range 17 East

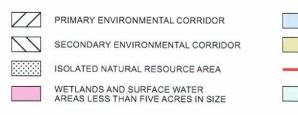


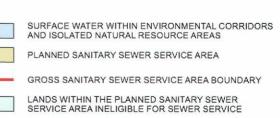


# ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF OCONOMOWOC AND ENVIRONS

U. S. Public Land Survey Sections 15, 16, 21, and 22 Township 8 North, Range 17 East



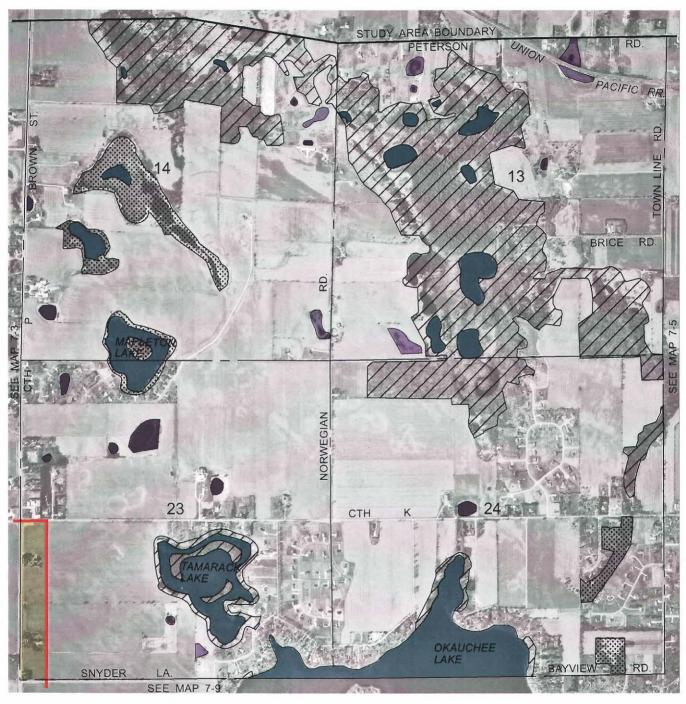






# ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF OCONOMOWOC AND ENVIRONS

U. S. Public Land Survey Sections 13, 14, 23, and 24 Township 8 North, Range 17 East



PRIMARY ENVIRONMENTAL CORRIDOR

PLANNED SANITARY SEWER SERVICE AREA

GROSS SANITARY SEWER SERVICE AREA BOUNDARY

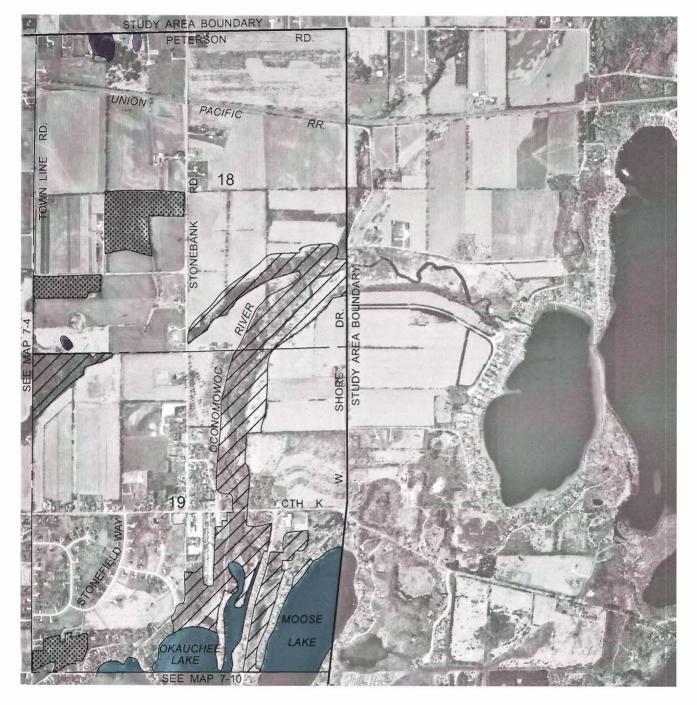
WETLANDS AND SURFACE WATER
AREAS LESS THAN FIVE ACRES IN SIZE

SURFACE WATER WITHIN ENVIRONMENTAL CORRIDORS
AND ISOLATED NATURAL RESOURCE AREAS

GRAPHIC SCALE 0 400 800 1200 FEET

## ENVIRONMENTALLY SIGNIFICANT LANDS FOR THE CITY OF OCONOMOWOC AND ENVIRONS

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





PRIMARY ENVIRONMENTAL CORRIDOR



ISOLATED NATURAL RESOURCE AREA



WETLANDS AND SURFACE WATER AREAS LESS THAN FIVE ACRES IN SIZE



SURFACE WATER WITHIN ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS



#### U. S. Public Land Survey Sections 25 and 36 Township 8 North, Range 16 East



PRIMARY ENVIRONMENTAL CORRIDOR

ISOLATED NATURAL RESOURCE AREA

報学

WETLANDS AND SURFACE WATER AREAS LESS THAN FIVE ACRES IN SIZE

SURFACE WATER WITHIN ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS



PLANNED SANITARY SEWER SERVICE AREA



GROSS SANITARY SEWER SERVICE AREA BOUNDARY



LANDS WITHIN THE PLANNED SANITARY SEWER SERVICE AREA INELIGIBLE FOR SEWER SERVICE



U. S. Public Land Survey Sections 29, 30, 31, and 32 Township 8 North, Range 17 East





PRIMARY ENVIRONMENTAL CORRIDOR

:::::::

ISOLATED NATURAL RESOURCE AREA



WETLANDS AND SURFACE WATER AREAS LESS THAN FIVE ACRES IN SIZE



SURFACE WATER WITHIN ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS



PLANNED SANITARY SEWER SERVICE AREA



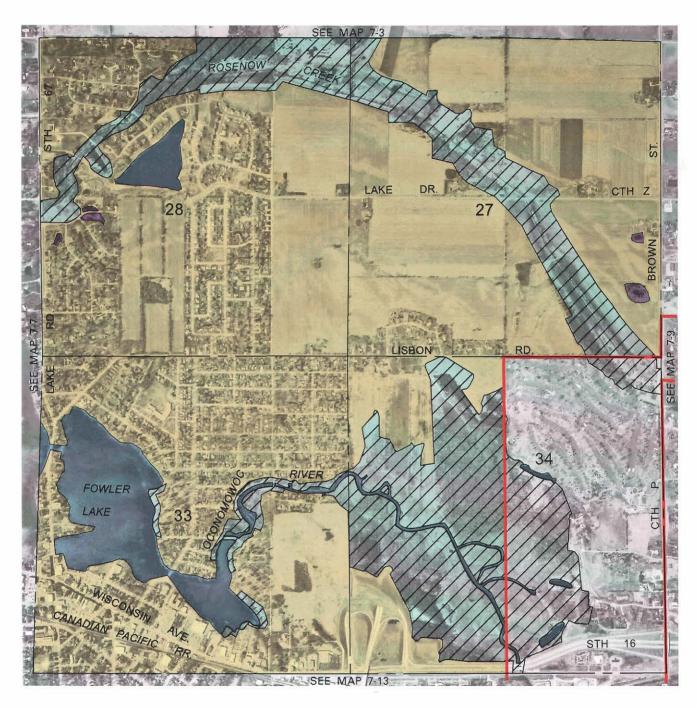
GROSS SANITARY SEWER SERVICE AREA BOUNDARY

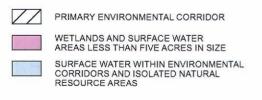


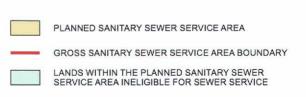
LANDS WITHIN THE PLANNED SANITARY SEWER SERVICE AREA INELIGIBLE FOR SEWER SERVICE



U. S. Public Land Survey Sections 27, 28, 33, and 34 Township 8 North, Range 17 East



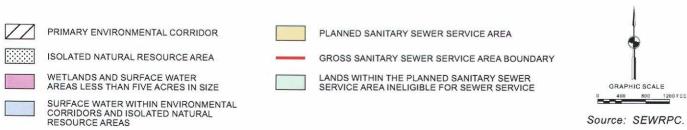




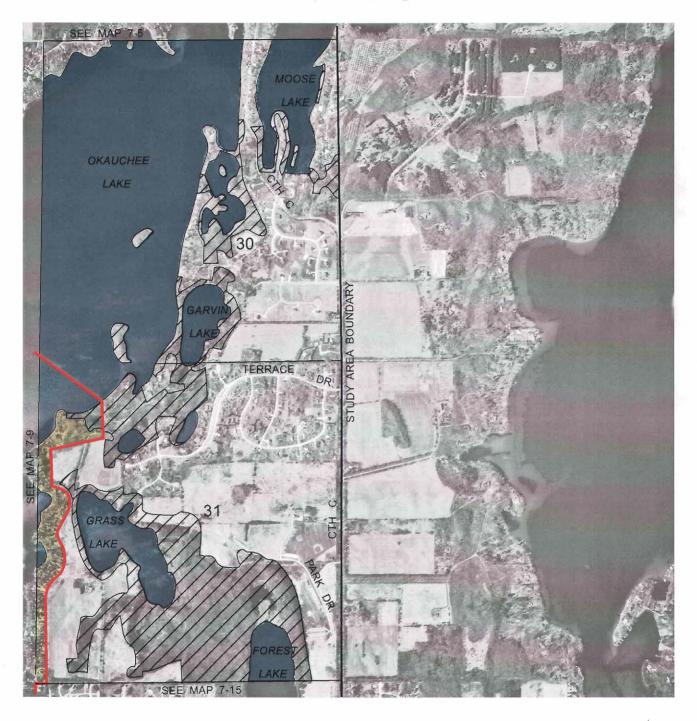
GRAPHIC SCALE
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U. S. Public Land Survey Sections 25, 26, 35, and 36 Township 8 North, Range 17 East





#### U. S. Public Land Survey Sections 30 and 31 Township 8 North, Range 18 East





PRIMARY ENVIRONMENTAL CORRIDOR



SURFACE WATER WITHIN ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS



PLANNED SANITARY SEWER SERVICE AREA



GROSS SANITARY SEWER SERVICE AREA BOUNDARY

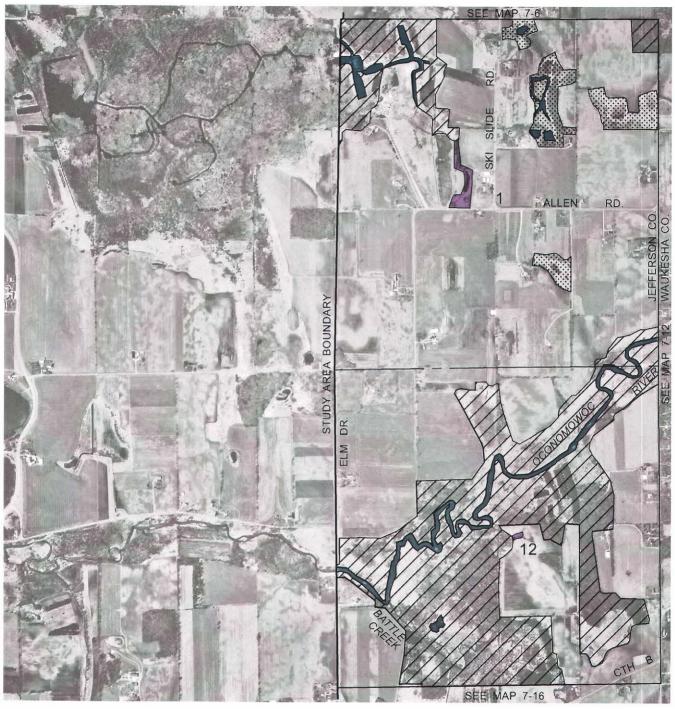


LANDS WITHIN THE PLANNED SANITARY SEWER SERVICE AREA INELIGIBLE FOR SEWER SERVICE



### ENVIRONMENTALLY SIGNIFICANT LANDS FOR THE CITY OF OCONOMOWOC AND ENVIRONS

U. S. Public Land Survey Sections 1 and 12 Township 7 North, Range 16 East



PRIMARY ENVIRONMENTAL CORRIDOR



ISOLATED NATURAL RESOURCE AREA



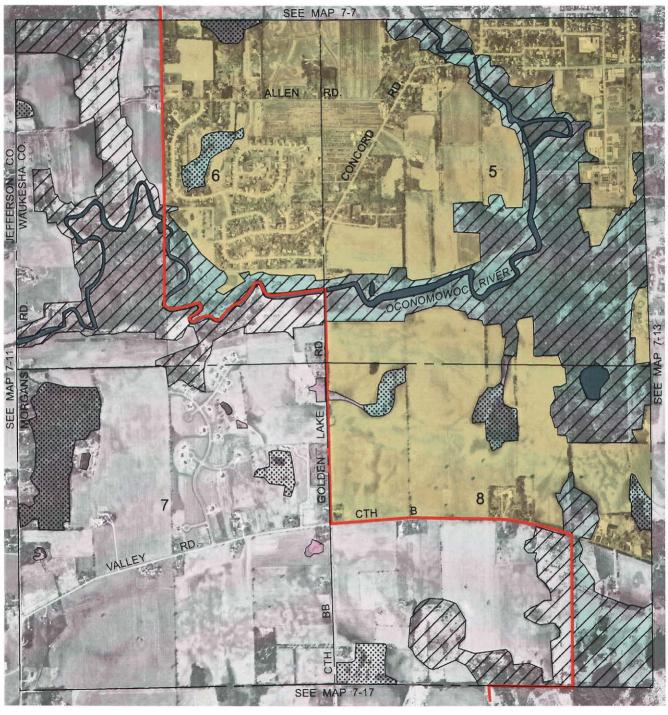
WETLANDS AND SURFACE WATER AREAS LESS THAN FIVE ACRES IN SIZE



SURFACE WATER WITHIN ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS



U. S. Public Land Survey Sections 5, 6, 7, and 8 Township 7 North, Range 17 East





PRIMARY ENVIRONMENTAL CORRIDOR

ISOLATED NATURAL RESOURCE AREA

WETLANDS AND SURFACE WATER AREAS LESS THAN FIVE ACRES IN SIZE

SURFACE WATER WITHIN ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS

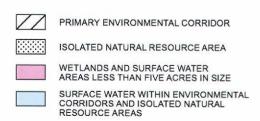
PLANNED SANITARY SEWER SERVICE AREA

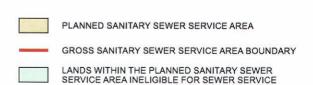
GROSS SANITARY SEWER SERVICE AREA BOUNDARY

LANDS WITHIN THE PLANNED SANITARY SEWER SERVICE AREA INELIGIBLE FOR SEWER SERVICE

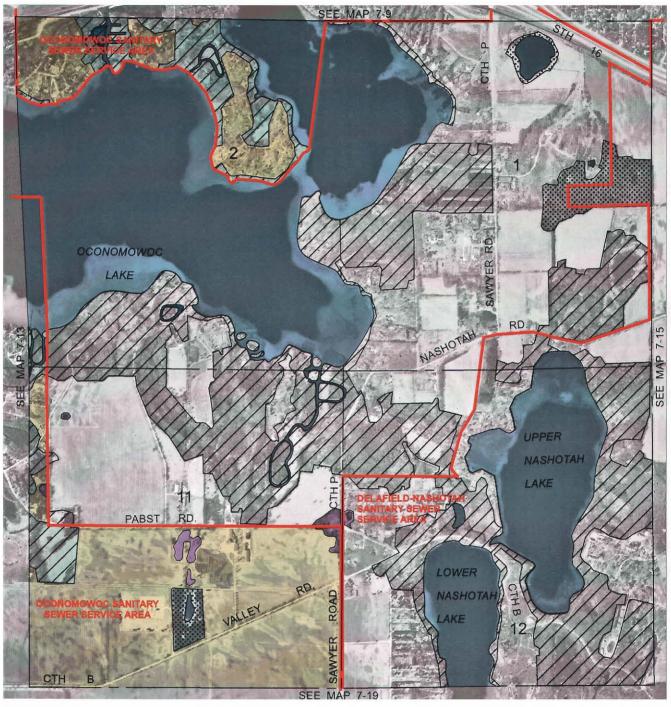
U. S. Public Land Survey Sections 3, 4, 9, and 10 Township 7 North, Range 17 East







U. S. Public Land Survey Sections 1, 2, 11, and 12 Township 7 North, Range 17 East





U. S. Public Land Survey Sections 6 and 7 Township 7 North, Range 18 East



PRIMARY ENVIRONMENTAL CORRIDOR

ISOLATED NATURAL RESOURCE AREA



WETLANDS AND SURFACE WATER AREAS LESS THAN FIVE ACRES IN SIZE



SURFACE WATER WITHIN ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS

GROSS SANITARY SEWER SERVICE AREA BOUNDARY



### ENVIRONMENTALLY SIGNIFICANT LANDS FOR THE CITY OF OCONOMOWOC AND ENVIRONS

U. S. Public Land Survey Sections 13 and 24 Township 7 North, Range 16 East



PRIMARY ENVIRONMENTAL CORRIDOR



SECONDARY ENVIRONMENTAL CORRIDOR



ISOLATED NATURAL RESOURCE AREA



WETLANDS AND SURFACE WATER AREAS LESS THAN FIVE ACRES IN SIZE



SURFACE WATER WITHIN ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS



U. S. Public Land Survey Sections 17, 18, 19, and 20 Township 7 North, Range 17 East





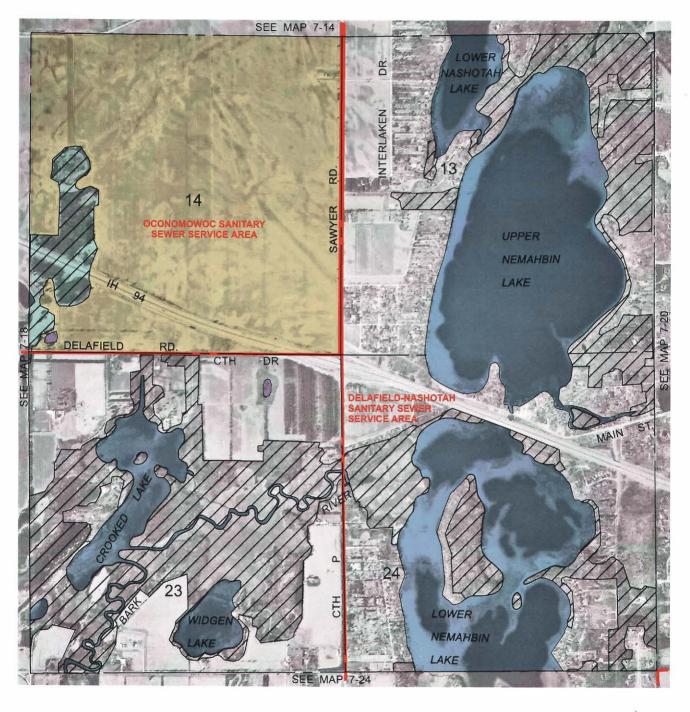
GRAPHIC SCALE 400 800 1200 FEET

#### U. S. Public Land Survey Sections 15, 16, 21, and 22 Township 7 North, Range 17 East





U. S. Public Land Survey Sections 13, 14, 23, and 24 Township 7 North, Range 17 East





PRIMARY ENVIRONMENTAL CORRIDOR

WETLANDS AND SURFACE WATER AREAS LESS THAN FIVE ACRES IN SIZE

SURFACE WATER WITHIN ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS



PLANNED SANITARY SEWER SERVICE AREA



GROSS SANITARY SEWER SERVICE AREA BOUNDARY



LANDS WITHIN THE PLANNED SANITARY SEWER SERVICE AREA INELIGIBLE FOR SEWER SERVICE



# ENVIRONMENTALLY SIGNIFICANT LANDS FOR THE CITY OF OCONOMOWOC AND ENVIRONS

#### U. S. Public Land Survey Sections 18 and 19 Township 7 North, Range 18 East





PRIMARY ENVIRONMENTAL CORRIDOR



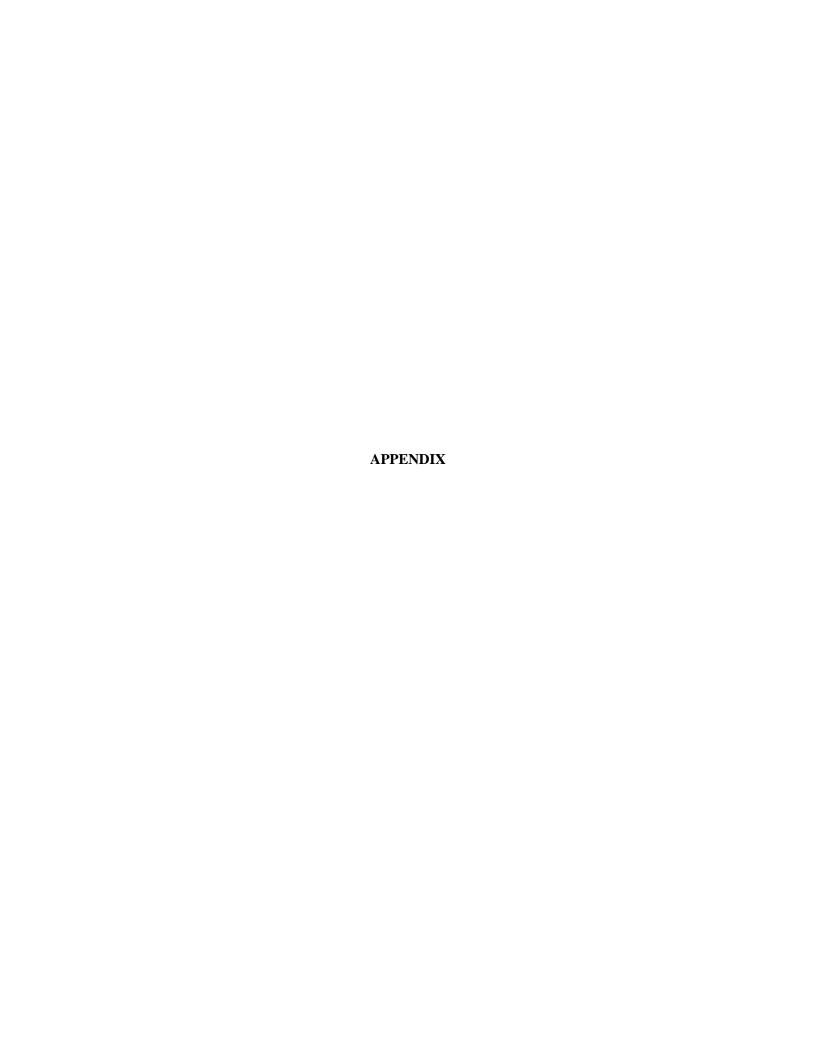
ISOLATED NATURAL RESOURCE AREA



SURFACE WATER WITHIN ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS



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# Appendix A MINUTES OF THE PUBLIC HEARING

City of Oconomowoc Plan Commission Meeting September 8, 1999

7:00 p.m. - Public Hearing - to receive public comment on, and reaction to, a proposed refinement to the sewer service area for the City of Oconomowoc and environs. The public hearing is being sponsored by the City of Oconomowoc and the Southeastern Wisconsin Regional Planning Commission (SEWRPC). A draft planning report describing the proposed year 2020 sanitary sewer service area refinement, including a map of the area, is on file at the offices of the City and SEWRPC. The sewer service area will also be described at the public hearing.

Bill Stauber and Tim McCauley were present to give an explanation of the sewer service refinement area. This plan is part of the regional water quality plan. This update or refinement will delineate the environmentally significant areas, which the City requested last September. The Town of Summit also asked for an update, due to the border agreement discussions. This update will be valid through the year 2020. Mr. McCauley explained the process involved in updating this sewer service area; after ruling out the wetlands and environmental corridors and ruling out the lands excluded from development, all the remaining lands are assumed to be developable. Environmentally significant lands are divided into three categories - primary, secondary and isolated natural resource areas. Less than 1/3 of the new sanitary sewer area has environmental corridors, while there are 80 acres of undevelopable flood lands outside the sewer service area (land will be farmed), which will be added to the environmental corridors.

Mr. McCauley pointed out areas on Map 5 (on file in the City Clerk's office) showing environmental corridors, 100 year flood plains and steep slopes. If development is pursued in these areas, sewer service is typically denied. The population estimate of 37,100 for the sewer service area is consistent with the 2020 land use plan.

The treatment plant is operating within its design capacity. Under full development of the sewer service area, however, the flow would exceed the plant's capacity. The refinement plan should not have any negative impacts on the water quality.

Comm. Gross asked about the denial of service in the environmental areas. SEWRPC reviews the plans and provides recommendation to the DNR. City Attorney Bill Chapman asked about the size of the environmental area delineated in green to the east of Highway 67 and north of Valley Road, on the Pabst Farm. Atty. Chapman stated that this area appears to be larger than originally discussed. Mr. McCauley stated that this will probably have to be kept as open land, undeveloped, and most likely sewers would be denied in that area. Typically sewers can go through environmental corridors, but cannot serve development in an environmental corridor.

There being no further question or comment, motion to close the public hearing was made by Comm. Trapp, seconded by Comm. Gross and carried. Hearing closed at approximately 7:20.

The sewer service refinement area report was discussed per the public hearing. Mr. Tonn recommended that the Plan Commission recommend approval of this report and adoption of the resolution to the City Council for consideration at their September 21<sup>st</sup> (not September 14<sup>th</sup>) meeting. Motion was made by Comm. Sugden to recommend the resolution to adopt the amendment to the sewer service area. Motion was seconded by Comm. Potratz and a roll call vote carried unanimously.