SANITARY SEWER SERVICE AREAS FOR THE CITY OF CEDARBURG AND THE VILLAGE OF GRAFTON

OZAUKEE COUNTY WISCONSIN
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Special acknowledgement is due SEWRPC Planner Joel E. Dietl for his contribution to this report.
COMMUNITY ASSISTANCE PLANNING REPORT
NUMBER 91 (2nd Edition)

SANITARY SEWER SERVICE AREAS FOR THE
CITY OF CEDARBURG AND THE VILLAGE OF GRAFTON
OZAUKEE COUNTY, WISCONSIN

Prepared by the
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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; the entire sewerage system and related land use development process can proceed in a smooth and efficient manner.

Acting in response to the recommendations made in the adopted regional water quality management plan, the Village of Grafton, on November 16, 1982, requested that the Regional Planning Commission assist the Village in refining and detailing the recommended sanitary sewer service area tributary to the Village of Grafton sewage treatment plant. Following further discussion on this matter, it was determined that the City of Cedarburg be requested, and the City subsequently agreed, to participate in the preparation of a joint sewer service area plan for the City of Cedarburg and the Village of Grafton. The Cedarburg and Grafton sanitary sewer service areas report, as documented in SEWRPC Community Assistance Planning Report No. 91, Sanitary Sewer Service Area for the City of Cedarburg and the Village of Grafton, Ozaukee County, Wisconsin, dated May 1987, the first edition of this report, was adopted by the Village Board of the Village of Grafton on June 1, 1987; by the Common Council of the City of Cedarburg on June 8, 1987; by the Regional Planning Commission on June 15, 1987; and was endorsed by the Wisconsin Department of Natural Resources on December 23, 1987.

By letters dated December 4, 1995, and December 8, 1995, the Village of Grafton and the City of Cedarburg, respectively, requested the Regional Planning Commission to revise and update the currently adopted sanitary sewer service areas attendant to the Village's and City's sewage treatment facilities as identified in SEWRPC Community Assistance Planning Report No. 91. This report documents the results of the update and amendment process.

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

A public hearing was held on May 23, 1996, 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 and the U.S. Environmental Protection Agency as an amendment to the adopted, areawide water quality management plan.

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

Respectfully submitted,

Kurt W. Bauer
Executive Director
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TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter I—INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Background</td>
<td>1</td>
</tr>
<tr>
<td>Need for Refinement and Detailing of Local Sanitary Sewer Service Areas</td>
<td>1</td>
</tr>
<tr>
<td>The Cedarburg Sanitary Sewer Service Area and Grafton Sanitary Sewer Service Area Refinement Process</td>
<td>3</td>
</tr>
<tr>
<td>Chapter II—STUDY AREA DESCRIPTION</td>
<td>5</td>
</tr>
<tr>
<td>Location</td>
<td>5</td>
</tr>
<tr>
<td>Population</td>
<td>5</td>
</tr>
<tr>
<td>Environmentally Significant Lands</td>
<td>7</td>
</tr>
<tr>
<td>Chapter III—PROPOSED SANITARY SEWER SERVICE AREAS</td>
<td>11</td>
</tr>
<tr>
<td>Significance of Sanitary Sewer Service Area Delineation</td>
<td>11</td>
</tr>
<tr>
<td>Currently Approved Cedarburg and Grafton Sanitary Sewer Service Areas</td>
<td>11</td>
</tr>
<tr>
<td>Cedarburg Sanitary Sewer Service Area</td>
<td>11</td>
</tr>
<tr>
<td>Grafton Sanitary Sewer Service Area</td>
<td>13</td>
</tr>
<tr>
<td>Revised Cedarburg and Grafton Sanitary Sewer Service Area</td>
<td>13</td>
</tr>
<tr>
<td>Revised Cedarburg Sanitary Sewer Service Area</td>
<td>14</td>
</tr>
<tr>
<td>Revised Grafton Sanitary Sewer Service Area</td>
<td>16</td>
</tr>
<tr>
<td>Water Quality Impacts</td>
<td>18</td>
</tr>
<tr>
<td>Cost-Effectiveness Analysis of Sewage Conveyance and Treatment Alternatives</td>
<td>18</td>
</tr>
<tr>
<td>Sewage Treatment Plant Capacity Impact Analysis</td>
<td>18</td>
</tr>
<tr>
<td>City of Cedarburg Sanitary Sewerage System</td>
<td>18</td>
</tr>
<tr>
<td>Village of Grafton Sanitary Sewerage System</td>
<td>18</td>
</tr>
<tr>
<td>Public Reaction to the Revised Sanitary Sewer Service Area</td>
<td>20</td>
</tr>
<tr>
<td>Implementing Recommendations</td>
<td>22</td>
</tr>
<tr>
<td>Subsequent Refinements to the Cedarburg and Grafton Sanitary Sewer Service Areas</td>
<td>22</td>
</tr>
</tbody>
</table>

LIST OF APPENDICES

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>47</td>
</tr>
<tr>
<td>Minutes of Public Hearing</td>
<td>47</td>
</tr>
</tbody>
</table>

LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Study Area Information by Civil Division</td>
</tr>
<tr>
<td>2</td>
<td>Values Assigned to Natural Resource Base and Resource Base-Related Elements in the Process of Delineating Primary and Secondary Environmental Corridors</td>
</tr>
</tbody>
</table>
# LIST OF MAPS

<table>
<thead>
<tr>
<th>Map</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chapter I</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Recommended Sanitary Sewer Service Areas in the Region: 2010</td>
</tr>
<tr>
<td><strong>Chapter II</strong></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Study Area Identified for Purposes of Revising the Cedarburg and Grafton Sanitary Sewer Service Areas</td>
</tr>
<tr>
<td>3</td>
<td>Environmentally Significant Lands in the Cedarburg-Grafton Study Area</td>
</tr>
<tr>
<td><strong>Chapter III</strong></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Cedarburg and Grafton Sanitary Sewer Service Areas as Defined in SEWRPC Community Assistance Planning Report No. 91 (First Edition)</td>
</tr>
<tr>
<td>5</td>
<td>Revised Cedarburg and Grafton Sanitary Sewer Service Areas</td>
</tr>
<tr>
<td>6</td>
<td>Proposed Revisions to the Cedarburg and Grafton Sanitary Sewer Service Areas</td>
</tr>
<tr>
<td>7</td>
<td>Anticipated Changes to the Environmentally Significant Lands in the Cedarburg and Grafton Sanitary Sewer Service Areas: 1995-2010</td>
</tr>
<tr>
<td>8</td>
<td>Index of Maps Showing Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the Cedarburg and Grafton Sanitary Sewer Service Areas</td>
</tr>
<tr>
<td>8-1</td>
<td>Environmentally Significant Lands in the City of Cedarburg and Village of Grafton Areas, U. S. Public Land Survey Sections 5 and 8, Township 10 North, Range 21 East</td>
</tr>
<tr>
<td>8-2</td>
<td>Environmentally Significant Lands in the City of Cedarburg and Village of Grafton Areas, U. S. Public Land Survey Sections 3, 4, 9, and 10, Township 10 North, Range 21 East</td>
</tr>
<tr>
<td>8-3</td>
<td>Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the City of Cedarburg and Village of Grafton Areas, U. S. Public Land Survey Sections 1, 2, 11, and 12, Township 10 North, Range 21 East</td>
</tr>
<tr>
<td>8-4</td>
<td>Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the City of Cedarburg and Village of Grafton Areas, U. S. Public Land Survey Sections 5, 6, 7, and 8, Township 10 North, Range 22 East</td>
</tr>
<tr>
<td>8-5</td>
<td>Environmentally Significant Lands in the City of Cedarburg and Village of Grafton Areas, U. S. Public Land Survey Sections 3, 4, 9, and 10, Township 10 North, Range 22 East</td>
</tr>
<tr>
<td>8-6</td>
<td>Environmentally Significant Lands in the City of Cedarburg and Village of Grafton Areas, U. S. Public Land Survey Sections 17 and 20, Township 10 North, Range 21 East</td>
</tr>
<tr>
<td>8-7</td>
<td>Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the City of Cedarburg and Village of Grafton Areas, U. S. Public Land Survey Sections 15, 16, 21, and 22, Township 10 North, Range 21 East</td>
</tr>
<tr>
<td>8-8</td>
<td>Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the City of Cedarburg and Village of Grafton Areas, U. S. Public Land Survey Sections 13, 14, 23, and 24, Township 10 North, Range 21 East</td>
</tr>
<tr>
<td>8-9</td>
<td>Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the City of Cedarburg and Village of Grafton Areas, U. S. Public Land Survey Sections 17, 18, 19, and 20, Township 10 North, Range 22 East</td>
</tr>
</tbody>
</table>
Map

8-10 Environmentally Significant Lands in the
City of Cedarburg and Village of Grafton Areas,
U. S. Public Land Survey Sections 15, 16, 21, and 22, Township 10 North, Range 22 East . . . 34

8-11 Environmentally Significant Lands and Planned Sanitary Sewer
Service Area for the City of Cedarburg and Village of Grafton Areas,
U. S. Public Land Survey Sections 29 and 32, Township 10 North, Range 21 East ............ 35

8-12 Environmentally Significant Lands and Planned Sanitary Sewer
Service Area for the City of Cedarburg and Village of Grafton Areas,
U. S. Public Land Survey Sections 27, 28, 33, and 34, Township 10 North, Range 21 East . . 36

8-13 Environmentally Significant Lands and Planned Sanitary Sewer
Service Area for the City of Cedarburg and Village of Grafton Areas,
U. S. Public Land Survey Sections 29, 30, 31, and 32, Township 10 North, Range 22 East . . 37

8-14 Environmentally Significant Lands and Planned Sanitary Sewer
Service Area for the City of Cedarburg and Village of Grafton Areas,
U. S. Public Land Survey Sections 29, 30, 31, and 32, Township 10 North, Range 22 East . . 38

8-15 Environmentally Significant Lands in the
City of Cedarburg and Village of Grafton Areas,
U. S. Public Land Survey Sections 28 and 33, Township 10 North, Range 22 East ............ 39

8-16 Environmentally Significant Lands in the
City of Cedarburg and Village of Grafton Areas,
U. S. Public Land Survey Section 5, Township 9 North, Range 21 East .......................... 40

8-17 Environmentally Significant Lands and Planned Sanitary Sewer
Service Area for the City of Cedarburg and Village of Grafton Areas,
U. S. Public Land Survey Sections 3 and 4, Township 9 North, Range 21 East .................. 41

8-18 Environmentally Significant Lands and Planned Sanitary Sewer
Service Area for the City of Cedarburg and Village of Grafton Areas,
U. S. Public Land Survey Sections 1 and 2, Township 9 North, Range 21 East .................. 42

8-19 Environmentally Significant Lands in the
City of Cedarburg and Village of Grafton Areas,
U. S. Public Land Survey Sections 4, 5, and 6, Township 9 North, Range 22 East ............ 43
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

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 2000.² As such, the delineation of the areas was necessarily general, and may not have reflected detailed local planning considerations.

Section NR 110.08(4) and Section ILHR 82.20(4) of the Wisconsin Administrative Code require that the Wisconsin Department of Natural Resources, with respect to public sanitary sewers, and the Wisconsin Department of Industry, Labor and Human Relations, with respect to private sanitary sewers, make a finding that all proposed sanitary sewer extensions be in conformance with adopted areawide water quality management plans and the sanitary sewer service areas identified in such plans. These Departments, in carrying out their responsibilities in this respect, require that the Southeastern Wisconsin Regional Planning Commission, as the designated areawide water quality management planning agency for the Southeastern Wisconsin Region, review and comment on each proposed sewer extension as to its relationship to the approved plan and sewer service areas. In order to properly reflect local, as well as areawide, planning

concerns in the execution of this review responsibility, the Regional Planning Commission, in adopting the areawide water quality management plan, recommended that steps be taken to refine and detail each of the 85 sanitary sewer service areas delineated in the plan in cooperation with the local units of government concerned. The refinement and detailing process consists of the following seven steps:

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

2. The delineation on that base map of a sanitary sewer service area consistent with the objectives set forth in the adopted regional water quality management 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 in both the adopted areawide water quality management plan and the regional land use plans and in any adopted local land use and sanitary sewerage system plans.

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

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

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

THE CEDARBURG SANITARY SEWER SERVICE AREA AND GRAFTON SANITARY SEWER SERVICE AREA REFINEMENT PROCESS

The process of refining and detailing the sanitary sewer service areas in Southeastern Wisconsin was initiated after the Regional Planning Commission's adoption of the regional water quality management plan in July 1979. At an intergovernmental meeting held on November 16, 1982, between representatives of the Village of Grafton and the Regional Planning Commission, the Village of Grafton requested that the Regional Planning Commission undertake the refinement and detailing of the proposed year 2000 sanitary sewer service area tributary to the Village of Grafton sewage treatment facility. Because of the need to determine a common boundary between the City of Cedarburg and Village of Grafton sanitary sewer service areas, a joint sanitary sewer service area plan for the City of Cedarburg and the Village of Grafton was prepared. A public hearing was held on the initial joint Cedarburg-Grafton plan on May 28, 1987. That plan, as documented in SEWRPC Community Assistance Planning Report No. 91, Sanitary Sewer Service Area for the City of Cedarburg and the Village of Grafton, Ozaukee County, Wisconsin, May 1987.
Grafton, Ozaukee County, Wisconsin, dated May 1987, the first edition of this report, was adopted by the Village Board of the Village of Grafton on June 1, 1987; by the Common Council of the City of Cedarburg on June 8, 1987; and by the Regional Planning Commission on June 15, 1987; and was endorsed by the Wisconsin Department of Natural Resources on December 23, 1987.

Like other long-range plans, sanitary sewer service area plans should be periodically reviewed to assure that they continue to properly reflect regional and local 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. By letter dated December 4, 1995, the Village of Grafton requested the Regional Planning Commission to refine further the currently adopted Grafton sanitary sewer service area tributary to the Village's sewage treatment facility. In addition, by letter dated December 8, 1995, the City of Cedarburg agreed to a joint effort to refine and update the City of Cedarburg and Village of Grafton sanitary sewer service areas.

Copies of the draft of this report setting forth a preliminarily revised sanitary sewer service area plan were provided to the Cities of Cedarburg and Mequon, the Village of Grafton, the Towns of Cedarburg and Grafton, Ozaukee County, and the Wisconsin Department of Natural Resources for review and comment prior to the public hearing held on the plan proposal. A public hearing was held on May 23, 1996. The public reaction to the proposed sanitary sewer service area plan, as documented in the minutes contained in Appendix A, is summarized later in this report. The final, agreed-upon, revised sanitary sewer service areas attendant to the City of Cedarburg and Village of Grafton sewage treatment facilities is described in Chapter III of this report.
Chapter II

STUDY AREA DESCRIPTION

LOCATION

The study area considered for determining the revised Cedarburg and Grafton sanitary sewer service areas is shown on Map 2. The area consists of all the lands encompassed within the corporate limits of the City of Cedarburg, the Village of Grafton, and the Town of Grafton, together with portions of the City of Mequon and the Town of Cedarburg. As indicated in Table 1, the total study area is about 54.9 square miles in extent, of which 20.7 square miles, or about 38 percent, lie within the Town of Grafton; about 20.3 square miles, or about 37 percent, lie within the Town of Cedarburg; about 6.7 square miles, or about 12 percent, lie within the City of Mequon; about 3.7 square miles, or about 7 percent, lie within the City of Cedarburg; and about 3.5 square miles, or about 6 percent, lie within the Village of Grafton. These areas are based on 1995 civil division boundaries.

POPULATION

The estimated resident population of the study area in 1990 was about 28,271 persons (see Table 1). Of this total, 10,086 persons, or about 36 percent, resided in the City of Cedarburg; 9,340 persons, or about 33 percent, resided in the Village of Grafton; about 4,400 persons, or about 16 percent, resided in the Town of Cedarburg; 3,745 persons, or about 13 percent, resided in the Town of Grafton; and about 700 persons, or about 2 percent, resided in the City of Mequon. Of these totals, 10,064 persons, virtually the entire population of the City of Cedarburg, were served by sanitary sewers extended from the City of Cedarburg sewage treatment plant. In addition, 9,340 persons, the entire population of the Village of Grafton, were served by sanitary sewers extended from the Village of Grafton sewage treatment plant. The remaining 8,867 persons in the study area were served by onsite soil-absorption sewage-disposal systems or by onsite holding tanks.

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

Recognizing the increasing uncertainty inherent in estimating future population levels under the rapidly changing socio-economic conditions existing in the United States, the Regional Planning Commission began to incorporate the alternative futures approach into its planning program in the late 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 which may be expected to directly or indirectly affect development conditions in the Region, together with the likely range of prospects for these factors. Thus, the preparation of the Commission's new year 2010 regional land use plan incorporated a consideration of three alternative scenarios for regional growth and change, involving different assumptions regarding three major external factors: the cost and availability of energy, population lifestyles, and economic conditions. Two of these scenarios, the high-growth and low-growth scenarios, are intended to represent the upper and lower extremes of possible future regional growth and change, while the third is intended to represent an intermediate future between the two extremes. A
Map 2

STUDY AREA IDENTIFIED FOR PURPOSES OF REVISING THE CEDARBURG AND GRAFTON SANITARY SEWER SERVICE AREAS

LEGEND

- City of Cedarburg
- City of Mequon
- Village of Grafton
- Town of Grafton
- Town of Cedarburg

Source: SEWRPC.
Table 1

STUDY AREA INFORMATION BY CIVIL DIVISION

<table>
<thead>
<tr>
<th>Civil Division</th>
<th>Area</th>
<th>1990 Population</th>
<th>Population Served by Public Sanitary Sewer</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Square Miles</td>
<td>Population</td>
<td>Percent of Total</td>
</tr>
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<td>3.7</td>
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<td>City of Mequon</td>
<td>6.7</td>
<td>700^a</td>
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<td>Village of Grafton</td>
<td>3.5</td>
<td>9,340</td>
<td>6.4</td>
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<td>20.3</td>
<td>4,400^a</td>
<td>37.0</td>
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<td>3,745</td>
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<tr>
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<td>28,271</td>
<td>100.0</td>
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</table>

^aEstimated.

Source: U. S. Bureau of the Census; Wisconsin Department of Administration; and SEWRPC.

set of population and employment projections was then developed for each of the three scenarios.

The Commission's year 2010 land use plan also considered alternative development patterns for 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: a centralized development pattern, which, like the first- and second-generation adopted regional land use plans, accommodated increases in population and economic activity by promoting a more compact regional settlement pattern, moderating to the extent practicable the current trend toward diffusion of population, employment, and attendant urban development, and a decentralized development pattern, which accommodated the continued diffusion of population and employment levels but in a manner consistent with the protection of the natural resource base of the Region.

Under the alternative futures approach utilized by the Commission for its work, the resident population level within the Cedarburg-Grafton study area could, by the design year 2010, range from about 30,700 persons under the intermediate-growth centralized land use plan, the Commission's adopted land use plan, to a high of about 60,900 persons under the high-growth, decentralized future scenario.

ENVIRONMENTALLY SIGNIFICANT LANDS

Environmental corridors are defined as linear areas in the landscape containing concentrations of natural resource and resource-related amenities. These corridors generally lie along the major stream valleys, around major lakes, and in the Kettle Moraine area of southeastern Wisconsin. Almost all 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 in the corridors, including park and outdoor recreation facilities and certain institutional uses. In some cases, extremely low density 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 revising the Cedarburg and Grafton sanitary sewer service areas was to map in detail the environmentally significant lands in the study area. Accordingly, Commission inventories were reviewed and updated as necessary with respect to the following elements of the natural resource base: lakes, streams, and associated shorelands and floodlands; wetlands; woodlands; wildlife habitat areas; areas of rugged terrain and high-relief topography; wet, poorly drained, and organic soils; and remnant prairies. In addition, inventories were reviewed and updated as necessary with respect to such natural resource-related features as existing parks, potential park sites, sites of historic and archaeological value, areas offering scenic vistas or viewpoints, and areas of scientific value.

Each of these natural resource and resource-related elements was mapped on one inch equals 400 feet scale, ratioed and rectified aerial photographs. A point system for value rating the various elements of the resource base was established (see Table 2). 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 Cedarburg-Grafton study area are shown on Map 3.

### Table 2

<table>
<thead>
<tr>
<th>Resource Base or Related Element</th>
<th>Point Value</th>
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<tbody>
<tr>
<td><strong>Natural Resource Base</strong></td>
<td></td>
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<tr>
<td>Lake</td>
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</tr>
<tr>
<td>Major (50 acres or more)</td>
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<tr>
<td>Minor (5 to 49 acres)</td>
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</tr>
<tr>
<td>River or Stream (perennial)</td>
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<tr>
<td>Shoreland</td>
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<tr>
<td>Lake or Perennial River or Stream</td>
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<tr>
<td>Intermittent Stream</td>
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<tr>
<td>Floodland (100-year recurrence interval)</td>
<td>3</td>
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<tr>
<td>Wetland</td>
<td>10</td>
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<tr>
<td>Wet, Poorly Drained, or Organic Soil</td>
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</tr>
<tr>
<td>Woodland</td>
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<tr>
<td>Wildlife Habitat</td>
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<tr>
<td>Medium-Value</td>
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</tr>
<tr>
<td>Low-Value</td>
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<td>Steep Slope</td>
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</tr>
<tr>
<td>20 Percent or More</td>
<td>7</td>
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<td>13-19 Percent</td>
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</tr>
<tr>
<td>Prairie</td>
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<td><strong>Natural Resource Base-Related</strong></td>
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<td>County Significance</td>
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<tr>
<td>Local Significance</td>
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Source: SEWRPC.

In addition, Map 3 identifies secondary environmental corridors. The secondary environmental corridors, while not as significant as the primary environmental corridors in terms of overall resource values, should be considered for preservation as the process of urban development proceeds, because such corridors often provide economical drainageways, as well as needed "green" space, through developing residential neighborhoods. To qualify for inclusion in a secondary...
Map 3
ENVIRONMENTALLY SIGNIFICANT LANDS
IN THE CEDARBURG-GRAFTON STUDY AREA (Revised October 2001)

Source: SEWRPC.
environmental corridor, an area must exhibit a point value of 10 or more, and have a minimum area of 100 acres and a minimum length of one mile.

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

Lands encompassed within the primary environmental corridors of the Cedarburg-Grafton study area in 1995 totaled 8.1 square miles, or about 15 percent of the total study area. Lands encompassed within the secondary environmental corridors totaled about 1.7 square miles, or about 3 percent of the study area. Lands encompassed within isolated natural resource areas totaled about 1.7 square miles, or about 3 percent of the study area. Thus, all environmentally significant lands in the Cedarburg-Grafton study area comprised about 11.5 square miles, or about 21 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 almost all the delineated floodlands in the Cedarburg-Grafton study area are contained within the environmental corridors, there are small areas of the floodlands utilized for agricultural or other open space uses located outside such corridors. The Regional Planning Commission recognizes that such floodlands are generally unsuitable for intensive urban development owing to poor soil conditions and periodic flood inundation. The Commission thus recommends that, as development of lands located within urban areas and adjacent to these floodland areas occurs, such floodland areas be preserved in essentially natural, open space uses, and become, over time, part of the adjacent environmental corridor.

In addition, the adopted regional water quality management plan recognizes that certain secondary environmental corridors and isolated natural resource areas may, at the discretion of local units of government, be converted to urban uses over the plan design period. Current Federal, State, and local regulations may, however, 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 AREAS

SIGNIFICANCE OF SANITARY SEWER SERVICE AREA DELINEATION

As noted earlier in this report, changes in the Wisconsin Department of Natural Resources (DNR) and Wisconsin Department of Industry, Labor and Human Relations (DILHR) rules governing the extension of sanitary sewers have made the delineation of local sanitary sewer service areas an important process for local units of government and private land developers. Prior to the 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 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 CEDARBURG AND GRAFTON SANITARY SEWER SERVICE AREAS

The design year 2000 Cedarburg sanitary sewer service area tributary to the City of Cedarburg sewage treatment facility, and the design year 2000 Grafton sanitary sewer service area tributary to the Village of Grafton sewage treatment facility, as set forth in the currently adopted sanitary sewer service area plan documented in the first edition of this report, are shown on Map 4.

The Cedarburg and Grafton sanitary sewer service areas combined total about 14.2 square miles, or about 26 percent of the total study area of 54.9 square miles. These service areas encompass about 1.4 square miles of primary environmental corridor lands, about 0.2 square mile of secondary environmental corridor lands, and about 0.3 square mile of isolated natural resource area lands. Thus, a total of 1.9 square miles, or about 13 percent of the currently adopted combined Cedarburg and Grafton sewer service areas, are within identified environmentally sensitive lands, consisting of primary and secondary environmental corridors and isolated natural resource areas.

The Cedarburg and Grafton sanitary sewer service areas had, in 1990, a combined resident population of about 23,100 persons. As previously noted, in 1990, about 19,400 persons, or about 84 percent of the 23,100 persons residing within the currently approved sewer service areas, were provided sanitary sewer service by the City of Cedarburg and the Village of Grafton sewage treatment plants.

The currently adopted Cedarburg and Grafton sanitary sewer service areas plan would accommodate a combined design year 2000 resident population level of about 35,100 persons.

Cedarburg Sanitary Sewer Service Area

The design year 2000 Cedarburg sanitary sewer service area totals about 7.4 square miles, or about 14 percent of the total study area of 54.9 square miles, and encompasses about 0.6 square mile of primary environmental corridor lands, about 0.2 square mile of secondary environmental corridor lands, and about 0.1 square mile of isolated natural resource area lands. Thus, a total of 0.9 square mile, or about 12 percent of the currently adopted Cedarburg sewer service area, is within identified environmentally sensitive lands, consisting of primary and secondary environmental corridors and isolated natural resource areas.

The Cedarburg sanitary sewer service area had, in 1990, a resident population of about 12,200 persons. As previously noted, in 1990, 10,064 persons, or about 82 percent of the 12,200 persons within the currently approved sewer service area, were provided sanitary sewer service by the City of Cedarburg sewage treatment plant.
Map 4

CEDARBURG AND GRAFTON SANITARY SEWER SERVICE AREAS AS DEFINED IN SEWRPC COMMUNITY ASSISTANCE PLANNING REPORT NO. 91 (FIRST EDITION)

LEGEND

CEDARBURG SANITARY SEWER SERVICE AREA

GRAFTON SANITARY SEWER SERVICE AREA

EXISTING SEWAGE TREATMENT PLANT

Source: SEWRPC.
The currently adopted Cedarburg sanitary sewer service area plan would accommodate a design year 2000 resident population level of about 18,300 persons at an average overall density of about 3.7 dwelling units per net residential acre.

Grafton Sanitary Sewer Service Area
The design year 2000 Grafton sanitary sewer service area totals about 6.8 square miles, or about 12 percent of the total study area of 54.9 square miles, and encompasses about 0.8 square mile of primary environmental corridor lands, less than 0.1 square mile of secondary environmental corridor lands, and about 0.2 square mile of isolated natural resource area lands. Thus, a total of 1.0 square mile, or about 15 percent of the currently adopted Grafton sewer service area, is within identified environmentally sensitive lands consisting of primary and secondary environmental corridors and isolated natural resource areas.

The Grafton sanitary sewer service area had, in 1990, a resident population of about 10,900 persons. As previously noted, in 1990, 9,340 persons, or about 86 percent of the 10,900 persons within the currently approved sewer service area, were provided sanitary sewer service by the Village of Grafton sewage treatment plant.

The currently adopted Grafton sanitary sewer service area plan would accommodate a design year 2000 resident population level of about 16,800 persons at an average overall density of about 3.4 dwelling units per net residential acre.

REVISED CEDARBURG AND GRAFTON SANITARY SEWER SERVICE AREAS

A comprehensive review of the Cedarburg and Grafton sanitary sewer service areas was last undertaken during the preparation of SEWRPC Community Assistance Planning Report No. 91 in May 1987. The purpose of this refinement effort is to review once again, comprehensively, the sewer service needs of lands envisioned to be tributary to the City of Cedarburg and the Village of Grafton sewage treatment facilities and to adjust and extend, as necessary, the sewer service area boundaries to accommodate the design year 2010 population levels envisioned for these service areas.

Factors taken into account in the delineation of the revised Cedarburg sanitary sewer service area included the currently adopted sanitary sewer service area plan as shown on Map 4; the design year 2010 regional land use plan adopted by 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 Cedarburg and Grafton areas 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 the most reasonable upper end of the population...
range based upon the Commission's high-growth decentralized future scenario.

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 such facilities and mechanical and electrical components as pumps, compressors, and chemical-feed equipment of sewage treatment facilities 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, thus, may be most appropriate for use in the design of such facilities.

Consideration of a high-growth population forecast, however, may be appropriate in delineating a service area and in the design of certain components of the sewerage system that have a longer life, including gravity-flow conveyance facilities and 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 Cedarburg and the Village of Grafton sewage treatment facilities would, by the design year 2010, range from about 25,800 persons under the Commission's recommended land use plan, to about 46,500 persons under the Commission's high-growth decentralized future scenario.

The revised year 2010 Cedarburg and Grafton sanitary sewer service areas anticipated to be tributary to the City of Cedarburg and Village of Grafton sewage treatment facilities, together with existing trunk sewers, as submitted to public hearing, are shown on Map 5. The proposed changes to the currently adopted Cedarburg and Grafton sewer service areas herein set forth are highlighted on Map 6. The combined gross revised Cedarburg and Grafton sanitary sewer service areas encompass about 16.7 square miles, or about 30 percent, of the total study area of 54.9 square miles. The combined gross sewer service areas include about 1.6 square miles of primary environmental corridors, about 0.3 square mile of secondary environmental corridors, and about 0.5 square mile of isolated natural resource areas. Therefore, a total of about 2.4 square miles, or about 14 percent, of the combined sewer service areas, would be encompassed in environmentally sensitive areas, consisting of primary and secondary environmental corridor and isolated natural resource area lands.

Revised Cedarburg Sanitary Sewer Service Area

The gross revised Cedarburg sanitary sewer service area encompasses about 8.3 square miles, or about 15 percent, of the total study area of 54.9 square miles. The gross sewer service area includes about 0.6 square mile of primary environmental corridors, about 0.3 square mile of secondary environmental corridors, and about 0.2 square mile of isolated natural resource areas. Therefore, a total of about 1.1 square miles, or about 13 percent, of the sewer service area, would be encompassed in environmentally sensitive areas, consisting of primary and secondary environmental corridor and isolated natural resource area lands.

Under the foregoing conditions, the resident population levels of the area anticipated to be tributary to the City of Cedarburg and the Village of Grafton sewage treatment facilities would, by the design year 2010, range from about 25,800 persons
Map 5
CEDARBURG AND GRAFTON PLANNED SANITARY SEWER SERVICE AREAS: 2010 (Revised October 2001)

Source: SEWRPC.
The revised Cedarburg sanitary sewer service area tributary to the City of Cedarburg sewage treatment facility would accommodate a design year 2010 resident population ranging from about 13,600 persons under the Commission’s recommended land use plan, to about 22,800 persons under the Commission’s high-growth decentralized future scenario. It should be noted that the revised Cedarburg sanitary sewer service area would, based in part upon the aforereferenced City of Cedarburg development plan, accommodate a year 2010 resident population of about 19,600 persons. This population level lies within the range of population levels noted above. The incremental population and housing unit levels envisioned in the Cedarburg sewer service area would be accommodated at a density of about 3.6 dwelling units per net residential acre. This density lies within the recommended density range for the City of Cedarburg area of the Region as identified in the Commission-adopted regional land use plan for the year 2010.

Revised Grafton Sanitary Sewer Service Area
The gross revised Grafton sanitary sewer service area encompasses about 8.4 square miles, or about 15 percent, of the total study area of 54.9 square miles. The gross sewer service area includes about 1.0 square mile of primary environmental corridors, less that 0.1 square mile of secondary environmental corridors, and about 0.3 square mile of isolated natural resource areas. Therefore, a total of about 1.3 square miles, or about 15 percent, of the sewer service area, would be encompassed in environmentally sensitive areas, consisting of primary and secondary environmental corridor and isolated natural resource area lands.

It should be noted that the environmentally significant lands located within the Grafton portion of the combined sewer service areas indicated on Map 5 total approximately 22 acres more than the environmentally significant lands indicated on Map 3. As shown on Map 7, within the revised year 2010 Grafton sanitary sewer service area, these 22 acres are located in seven areas within the 100-year recurrence interval flood hazard area adjacent to Cedar Creek, the Milwaukee River, and an unnamed tributary to the Milwaukee River, are currently undeveloped, and lie adjacent to primary environmental corridor lands. It is anticipated that over time, these lands will be withdrawn from agricultural and other open space uses and revegetated to possess the characteristics of, and added to, the adjacent primary environmental corridor.

The revised Grafton sanitary sewer service area tributary to the Village of Grafton sewage treatment facility would accommodate a design year 2010 resident population ranging from about 12,200 persons, under the Commission’s recommended land use plan, to about 23,700 persons, under the Commission’s high-growth decentralized future scenario. It should be noted that the revised Grafton sanitary sewer service area would, based upon the aforereferenced Village of Grafton land use plan presently under preparation, accommodate a year 2010 resident population of about 23,500 persons. This population level lies within the range of population levels noted above. The incremental population and housing unit levels envisioned in the Grafton sewer service area would be accommodated at a density of about 3.6 dwelling units per net residential acre. This density lies within the recommended density range for the Village of Grafton area of the Region as identified in the Commission-adopted regional land use plan for the year 2010.

1Net incremental residential density in the revised Cedarburg sanitary sewer service area is determined by dividing the total number of incremental dwelling units anticipated in the sewer service area in the design year by the net incremental residential land area anticipated within that area. The total number of incremental dwelling units anticipated in the Cedarburg sewer service area in the design year, 2,852 units, divided by the incremental net residential land within the sewer service area, 940 acres, results in an incremental net residential density of 3.0 dwelling units per acre.

2Net incremental residential density in the revised Grafton sanitary sewer service area is determined by dividing the total number of incremental dwelling units anticipated in the sewer service area in the design year by the net incremental residential land area anticipated within that area. The total number of incremental dwelling units anticipated in the Grafton sewer service area in the design year, 4,274 units, divided by the incremental net residential land within the sewer service area, 1,184 acres, results in an incremental net residential density of 3.6 dwelling units per acre.
PROPOSED REVISIONS TO THE CEDARBURG AND GRAFTON SANITARY SEWER SERVICE AREAS

LEGEND

- CURRENTLY ADOPTED CEDARBURG SANITARY SEWER SERVICE AREA as defined in SEWRPC Community Assistance Planning Report No. 91
- CURRENTLY ADOPTED GRAFTON SANITARY SEWER SERVICE AREA as defined in SEWRPC Community Assistance Planning Report No. 91
- EXISTING SEWAGE TREATMENT PLANT
- LANDS PROPOSED TO BE ADDED TO THE CURRENTLY ADOPTED CEDARBURG SANITARY SEWER SERVICE AREA
- LANDS PROPOSED TO BE ADDED TO THE CURRENTLY ADOPTED GRAFTON SANITARY SEWER SERVICE AREA

Source: SEWRPC.
WATER QUALITY IMPACTS

Under the adopted regional water quality management plan and the revised sanitary sewer service area plan herein set forth, it is envisioned that all urban lands within the planned urban service areas would receive sanitary sewer service. It is also envisioned that all lands identified as primary environmental corridor would not be developed for intensive urban use. It is recognized, however, that certain land uses requiring sanitary sewer service could be properly located in the 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, at the discretion of the local unit of government, be converted to urban uses over the plan design period. Current Federal, State, and local regulations may, however, 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 before any proposed disturbance of wetlands, floodplains, or other regulated lands.3

In addition, the provision of public sanitary sewer service to those lands within the revised sanitary sewer service areas 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 Cedarburg and Grafton sanitary sewer service areas set forth in this report are about 0.9 square mile, and about 1.6 square miles larger, respectively, than the currently approved Cedarburg and Grafton sewer service areas as set forth in SEWRPC Community Assistance Planning Report No. 91, first edition. All of the planned Cedarburg and Grafton sewer service area lie adjacent to the current sewer service areas. The City of Cedarburg and Village of Grafton sanitary sewer systems are located immediately adjacent to one another, while the nearest other public sanitary sewer system, the Village of Saukville system, is located about one and one-half mile north of the Village of Grafton system. In this regard, it should be noted that a common sewer service area boundary has been agreed upon between the City of Cedarburg and the Village of Grafton, with only one minor modification as set forth in this plan, as documented in SEWRPC Community Assistance Planning Report No. 91, the first edition of this report. Clearly, the most cost-effective means of providing public sewer service to the two service areas is through their respective sewerage systems.

SEWAGE TREATMENT PLANT CAPACITY IMPACT ANALYSIS

City of Cedarburg Sanitary Sewerage System
The existing City of Cedarburg sewage treatment plant has a design hydraulic loading capacity of 2.75 million gallons per day (mgd) on an average annual flow basis. The average annual flow rate in 1990 was about 1.60 mgd. The increase in sewerage population from about 10,000 persons in 1990, to about 19,600 persons by the design year 2010, envisioned in the revised sewer service area plan, is estimated to result in a flow rate of about 2.80 mgd on an average annual basis.

In addition to increased domestic sewage loadings, the City of Cedarburg sewage treatment plant would, under the revised sewer service area plan set forth herein, also receive significantly greater

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3It 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.
Map 7

ANTICIPATED CHANGES TO THE ENVIRONMENTALLY SIGNIFICANT LANDS IN THE CEDARBURG AND GRAFTON SANITARY SEWER SERVICE AREAS (Revised October 2001)

Source: SEWRPC.
industrial and commercial wastewater loadings. Specifically, the plan envisions an increase of about 400 acres in land devoted to industrial and commercial uses, with such uses generating additional sewage flows ranging from about 0.40 to 0.80 mgd on an average annual basis upon full development. Thus, the potential total future loading to the City of Cedarburg sewage treatment plant, assuming complete development of all lands envisioned for residential, industrial, and commercial uses within the planned sanitary sewer service area as set forth herein, would thus range from 3.2 to 3.6 mgd on an average annual flow basis.

Consequently, full development of the revised Cedarburg sanitary sewer service area will require that the sewage treatment plant capacity be increased from 25 to 50 percent over the current capacity. It should be noted that the existing sewage treatment plant site is configured so that it can accommodate such an expansion. Facility planning will be needed to determine the best means, and the cost of providing, that additional capacity. The timing of this facility planning effort will be largely dependent upon the timing and type of commercial and industrial development which occurs within the planned Cedarburg sanitary sewer service area, but probably will have to be initiated by the year 2000.

Village of Grafton Sanitary Sewerage System
The existing Village of Grafton sewage treatment plant has a design hydraulic loading capacity of 2.20 million gallons per day (mgd) on an average annual flow basis. The average annual flow rate in 1990 was about 1.40 mgd. The increase in sewer population from about 9,300 persons in 1990, to about 23,500 persons by the design year 2010, envisioned in the revised sewer service area plan, is estimated to result in a flow rate of about 3.10 mgd on an average annual basis.

In addition to increased domestic sewage loadings, the Village of Grafton sewage treatment plant would, under the revised sewer service area plan set forth herein, also receive significantly greater industrial and commercial wastewater loadings. Specifically, the plan envisions an increase of about 500 acres in land devoted to industrial and commercial uses, with such uses generating additional sewage flows ranging from about 0.5 to 1.0 mgd on an average annual basis upon full development. Thus, the potential total future loading to the Village of Grafton sewage treatment plant, assuming complete development of all lands envisioned for residential, industrial, and commercial uses within the planned sanitary sewer service area as set forth herein, may be expected to range from 3.6 to 4.1 mgd on an average annual flow basis.

Consequently, full development of the revised Grafton sanitary sewer service area will require that the sewage treatment plant capacity be increased from 50 to 100 percent over the current capacity. It should be noted that the existing sewage treatment plant site is configured so that it can accommodate such an expansion. Facility planning will be needed to determine the best means, and the cost of providing, that additional capacity. The timing of this facility planning effort will be largely dependent upon the timing and type of commercial and industrial development which occurs within the planned Grafton sanitary sewer service area, but probably will have to be initiated by the year 1998.

PUBLIC REACTION TO THE REVISED SANITARY SEWER SERVICE AREA
A public hearing was held on May 23, 1996, for the purpose of receiving comment on the preliminarily revised Cedarburg and Grafton sanitary sewer service areas plan as shown on Map 5. This hearing was sponsored jointly by the City of Cedarburg, the Village of Grafton, 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 revised Cedarburg and Grafton sanitary sewer service areas plan was presented prior to receiving public comment. Topics specifically addressed in the summary presentation included the rationale for revising the Cedarburg and Grafton sewer service areas, the importance of the delineation of the outer boundaries of the sewer service areas, and the importance of the delineation of the environmentally sensitive lands within the service areas and the significance of these lands insofar as the future extension of sewer service is concerned. Comments on the revised plan were then solicited.

Review of the hearing record indicates that no substantive concerns were raised regarding the delineation of the external boundaries of the preliminarily revised Cedarburg and Grafton sanitary sewer service areas, or the delineation of the environmentally sensitive lands within those areas. However, in response to a question regarding when developed residential subdivisions within the Town of Cedarburg portion of the Cedarburg sewer service area would be provided with centralized public sanitary sewer service, the representative of the Regional Planning Commission present at the public hearing was able to provide an estimated time frame.
hearing noted that such service would likely be provided when a majority of the residents within the subdivisions requested, and the City of Cedarburg agreed, to provide centralized public sanitary sewer service. It was further noted that the provision of centralized public sanitary sewer service to such lands would also likely be contingent upon the creation of a Town sanitary district or upon the annexation of those lands to the City of Cedarburg.

In addition, a property owner with lands located south of the Wisconsin Electric Power Company right-of-way and west of Bobolink Avenue in the Northeast one-quarter section of U. S. Public Land Survey Section 26, Township 10 North, Range 21 East, noted that such lands were within the corporate limits of the City of Cedarburg but were included within the currently approved Grafton sanitary sewer service area and suggested that the property receive sanitary sewer service from the Village of Grafton sewerage system. The representative of the Regional Planning Commission present at the public hearing noted that the Commission had previously addressed this matter by letter dated April 5, 1993, to the City of Cedarburg. The letter stated that the City of Cedarburg and the Village of Grafton should either initiate proceedings to detach the subject lands from the City of Cedarburg and attach these lands to the Village of Grafton, so as to enable the provision of sewer service to this area by the Village of Grafton, or, should it be determined that the subject lands remain within the City of Cedarburg, an intermunicipal agreement should be arranged which could enable sewer service to be provided to the subject area on a contract basis by the Village of Grafton.

Finally, by letter dated May 20, 1996, the Ozaukee County Department of Environmental Health provided its comments on the preliminarily revised Cedarburg and Grafton sanitary sewer service areas plan to the Regional Planning Commission. The letter, which was referred to at the public hearing, raised three concerns with respect to the Cedarburg and Grafton sewer service areas. These concerns related to: 1) the cost of providing centralized public sanitary sewer service to the portion of the Grafton sanitary sewer service area lying east of IH 43, 2) the subsurface conditions which would be encountered by, and the associated cost of providing centralized public sanitary sewer service to, the "Hamilton area," a residential area located in the southeastern portion of the Cedarburg sanitary sewer service area, and 3) the fact that new development was being accommodated with holding tanks on lands in the City of Mequon portion of the Cedarburg sanitary sewer service area.

In order to address these concerns, an intergovernmental meeting including representatives of the City of Cedarburg, the Village of Grafton, the Ozaukee County Department of Environmental Health, and the Regional Planning Commission, was held on May 28, 1996, at the Grafton Village Hall.

With regard to the first concern expressed by the Ozaukee County Department of Environmental Health in their letter of May 20, 1996, representatives of the Village of Grafton attending the intergovernmental meeting presented utility system plans showing that centralized public sanitary sewer service to that portion of the Grafton sanitary sewer service area lying east of IH 43 could be provided in an environmentally sound and cost-effective manner. Upon conclusion of discussion on this matter, it was agreed among the concerned parties present that the subject lands located east of IH 43 would remain within the revised Grafton sanitary sewer service area.

With regard to the second concern, it was generally agreed upon by the parties present at the intergovernmental meeting that high bedrock conditions existed in portions of the Hamilton area. However, representatives of the City of Cedarburg noted that while such bedrock conditions were a factor to be considered in the extension of centralized public sanitary sewer service, it did not preclude the provision of such service. It was further noted that as land values in the area increased and problems begin to arise with regard to the existing onsite sewage-disposal systems within the Hamilton area, it may be necessary to provide the subject area with public sanitary sewer service. Thus, it was agreed among the concerned parties present that the subject area should remain within the revised Cedarburg sanitary sewer service area.

With regard to the third concern, representatives of the City of Cedarburg attending the intergovernmental meeting indicated that the City of Cedarburg would consider providing sewer service to lands in the City of Mequon portion of the Cedarburg sewer service area currently developed or proposed for development utilizing onsite holding tanks, through an intermunicipal agreement with the City of Mequon if the City of Mequon so requested. They further indicated that such agreements had been made in the past as evidenced by the provision of centralized public sanitary sewer service through the City of Cedarburg sewerage
system to the Carlson Tool Company and the Ozaukee County Ice Rink properties located south of Pioneer Road in the City of Mequon. Failing such an agreement however, sewer service could be provided by the City of Cedarburg through the detachment of a subject area from the City of Mequon and annexation of that area to the City of Cedarburg. Representatives of the City of Cedarburg also indicated that, with the exception of the two areas noted above, no requests for sewer service had been received from the City of Mequon. All concerned parties present at the intergovernmental meeting agreed that it would be desirable to limit the use of onsite sewage holding tanks within this area, but in the event that development utilizing holding tanks would occur, use of such holding tanks should be considered as an interim solution only; such holding tanks should be located in a manner which would facilitate their efficient connection to a public sanitary sewer when it becomes available. It was subsequently agreed among the attendant parties that the subject lands in the City of Mequon should remain within the revised Cedarburg sanitary sewer service area.

Detailed delineations of the revised Cedarburg and Grafton sanitary sewer service areas, and of the environmentally significant lands within these areas, are shown on a series of aerial photographs reproduced as Map 8, beginning on page 25 and continuing through page 43 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 Common Council of the City of Cedarburg, by the Village Board of the Village of Grafton, as the operators of the sewage treatment facilities; by the Common Council of the City of Mequon, and by the Town Boards of the Towns of Cedarburg and Grafton, as having lands affected by the planned sanitary sewer service area; by the Ozaukee County Department of Environmental Health 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 outside incorporated areas.

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 Cedarburg and Grafton sanitary sewer service areas as shown on Maps 5 and 8. 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 Cedarburg and the Village of Grafton and Ozaukee County of utility extension policies to ensure that such policies are consistent with the urban land development recommendations inherent in the delineation of the planned sanitary sewer service areas.

SUBSEQUENT REFINEMENTS TO THE CEDARBURG AND GRAFTON SANITARY SEWER SERVICE AREAS

This report presents the revised sanitary sewer service areas tributary to the City of Cedarburg and the Village of Grafton sewage treatment facilities. The revised sewer service areas were delineated cooperatively by the units and agencies of government concerned and subjected to review at a public hearing. It is envisioned that the delineated sewer service areas will accommodate all new urban development anticipated in the Cedarburg and Grafton areas to the year 2010. 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 reflect properly the urban development objectives of the communities involved, especially as such objectives may relate to the amount and spatial distribution of new urban development requiring sewer service. Should it be determined by the City of Cedarburg or the Village of Grafton, as the operators of the sewage treatment facilities 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. 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 governing bodies of the appropriate local units of government and by the Southeastern Wisconsin Regional Planning Commission before certification to the Wisconsin Department of Natural Resources and the U. S. Environmental Protection Agency.
Map 8-1

ENVIRONMENTALLY SIGNIFICANT LANDS IN THE
CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 5 and 8
Township 10 North, Range 21 East

Source: SEWRPC.
Map 8-2
ENVIRONMENTALLY SIGNIFICANT LANDS IN THE
CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 3, 4, 9, and 10
Township 10 North, Range 21 East

Source: SEWRPC.
Map 8-3

ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 1, 2, 11, and 12
Township 10 North, Range 21 East

Legend:
- Primary Environmental Corridor
- Secondary Environmental Corridor
- Isolated Natural Resource Area
- Planned Sanitary Sewer Service Area
- Cross Sanitary Sewer Service Area Boundary

Source: SEWRPC.
ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 5, 6, 7, and 8
Township 10 North, Range 22 East

LEGEND

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

Source: SEWRPC.
Map 8-5

ENVIRONMENTALLY SIGNIFICANT LANDS IN THE CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 3, 4, 9, and 10
Township 10 North, Range 22 East

LEGEND

PRIMARY ENVIRONMENTAL CORRIDOR
ISOLATED NATURAL RESOURCE AREA

Source: SEWRPC.
Map 8-6

ENVIRONMENTALLY SIGNIFICANT LANDS IN THE CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 17 and 20
Township 10 North, Range 21 East

Legend:
- Primary Environmental Corridor
- Isolated Natural Resource Area

Source: SEWRPC.
Map 8-7

ENVIRONMENTALLY SIGNIFICANT LANDS AND
PLANNED SANITARY SEWER SERVICE AREA FOR THE
CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 15, 16, 21, and 22
Township 10 North, Range 21 East

Source: SEWRPC.
ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 13, 14, 23, and 24
Township 10 North, Range 21 East

Source: SEWRPC.
Map 8-9

ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS (Revised October 2001)

U. S. Public Land Survey Sections 17, 18, 19, and 20 Township 10 North, Range 22 East

Source: SEWRPC.
Map 8-10

ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 15, 16, and 21
Township 10 North, Range 22 East

Photography Date: 2000

Source: SEWRPC.
ENVIROMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 29 and 32 Township 10 North, Range 21 East

Source: SEWRPC.
Map 8-12

ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 27, 28, 33, and 34
Township 10 North, Range 21 East

Source: SEWRPC.
ENVIROMENTALL SIGNIFICANT LANDS AND
PLANNED SANITARY SEWER SERVICE AREA FOR THE
CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 25, 26, 35, and 36
Township 10 North, Range 21 East

Source: SEWRPC.
ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 29, 30, 31, and 32 Township 10 North, Range 22 East

LEGEND

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

Source: SEWRPC.
Map 8-15

ENVIRONMENTALLY SIGNIFICANT LANDS IN THE
CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 28 and 33
Township 10 North, Range 22 East

Source: SEWRPC.
Map 8-16
ENVIRONMENTALLY SIGNIFICANT LANDS IN THE
CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Section 5
Township 9 North, Range 21 East

Source: SEWRPC.

40
Map 8-17

ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 3 and 4
Township 9 North, Range 21 East

Source: SEWRPC.
Map 8-18

ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS

U. S. Public Land Survey Sections 1 and 2
Township 9 North, Range 21 East

Legend:
-Primary Environmental Corridor
-Isolated Natural Resource Area
-Planned Sanitary Sewer Service Area
-Gross Sanitary Sewer Service Area Boundary

Source: SEWRPC.
APPENDIX
Appendix A

MINUTES OF PUBLIC HEARING

Cedarburg and Grafton Sanitary Sewer Service Areas

May 23, 1996

Sewerage Commission Chairman Gene Szudrowitz declared the public hearing open at 6:30 p.m. on the proposed expansions of the sanitary sewer service areas for the City of Cedarburg and the Village of Grafton. Administrative Secretary Darla Bowen confirmed that proper legal notice of the meeting had been given.

Community officials present from the City of Cedarburg included: Mayor John Kuerschner; Council Member Joyce Williams; Sewerage Commission members Chairman Gene Szudrowitz, Thomas Wolf, Robert Dries, Council Member Ellen Haynes and Debra Brycki; Wastewater Treatment Plant Superintendent Terry Ingraham; City Planner Marty Marchek; Administrative Secretary Darla Bowen.

Officials present from the Village of Grafton were as follows: Administrator Darrell Hofland; President Rodney Schroeder; Trustee Alfred Schlecht; Water and Wastewater Commission Member Frank Haupt.

The Town of Cedarburg was represented by Chairman Jerold Voigt; Administrator Jennifer Geyer;
Southeastern Wisconsin Regional Planning Commission (SEWRPC) representatives included: Joel Dietl and Bruce Rubin.

The public hearing was turned over to Mr. Rubin from SEWRPC. He explained that the purpose of the public hearing was to obtain public review and comment on the preliminary plan proposal and was being jointly sponsored by the Southeastern Regional Planning Commission, the City of Cedarburg and the Village of Grafton.

Mr. Rubin explained that a Sanitary Sewer Service Area Plan was initially developed in 1979 for both the City of Cedarburg and the Village of Grafton because of the proximity and common boundaries between the communities. The Plan was amended in 1987 to reflect changes in the areas' development. SEWRPC was contacted by the Village of Grafton in late 1995 to update the Plan to the year 2010, and the City of Cedarburg agreed to participate jointly in the process.

Additions to the Sanitary Sewer Service Area have been proposed by both communities to reflect anticipated development patterns. SEWRPC approval of the sanitary sewer service area would allow sanitary sewer extensions to be approved in those areas without further time delays for study and public hearings.
The proposed additions to the Sanitary Sewer Service Area total approximately 2.5 square miles; .9 square mile for the City of Cedarburg and 1.6 square miles for the Village of Grafton. The map presented by Mr. Rubin also identified primary environmental corridors that would not be provided with sanitary sewer service. Secondary environmental corridors and isolated natural resource areas would be provided with sanitary sewer service at the discretion of the local governments. Lowland portion of such areas may, however, be regulated by Federal or State agencies. Another map depicted floodlands that do not have natural characteristics, such as farmland, that would be protected under local government ordinances and not developed. These approximate 37 acres were envisioned to eventually become primary environmental corridors.

Mr. Rubin advised that the population estimates for the study were 23,500 for the Village of Grafton and 22,000 for the City of Cedarburg if the sewer service area is fully developed by the year 2010.

The procedure for the expansion of the sanitary sewer area was to take testimony at the public hearing; provide a report from SEWRPC; and obtain approval from the DNR. An environmental assessment by the DNR will probably be required due to the size of the expansion. Completion of the process is expected to take an additional two months.

Mayor Kuerschner stated that the expansion requested was logical, minimal and practical as a tool to manage development and prepare for future development. He commended the Sewerage Commission for their forethought and the Village of Grafton for initiating the action.

Mayor Kuerschner noted that this action would afford an opportunity to facilitate development; not hold up development because the areas would already be included in the sewer service area.

Cedarburg City Planner Marchek emphasized that the existing rural subdivisions already developed in the outlying portions of the sewer service area would only receive sanitary sewer service if requested by the property owners, and that provision should be so noted on the map.

William Grunwald of 656 River Bend Road in the Town of Grafton questioned the use of roadways as a boundary. Mr. Rubin advised that the other side of the street would be added if practical. In addition, single hardship cases could be added without an amendment to the sewer service area.

Village of Grafton Trustee Alfred Schlecht asked about the jurisdiction over the environmentally sensitive areas outside of the sewer service areas. Mr. Rubin answered that SEWRPC and the DNR do not always review all subdivisions outside of
the sanitary sewer service areas and those areas would be primarily controlled by the Town and County governments.

Town of Cedarburg Administrator Jennifer Geyer asked how the City of Cedarburg's sewer boundary lines were drawn in Section 21 of the Town. City of Cedarburg Planner Marchek reviewed the logic of the chosen boundaries which included drainage ways, property lines, and quarter section lines to allow for parcels large enough for development. Mr. Rubin added that the population projections were developed on growth factors and were considered reasonable for the year 2010.

Donald Bezella, representing Pine Company, received confirmation from Mr. Rubin that it would be appropriate for the parcels on the west side of Bobolink Avenue to be served by the Village of Grafton.

An unidentified individual was advised the boundary revisions would include a portion of the landfill site south of Hwy. 60; and that sewer service may be required for the remediation process.

Mr. Rubin advised that the proposed plan would be presented to the SEWRPC Commission for adoption on June 19, 1996. The DNR might be officially completed with its approval process by the end of July. Both communities would receive copies of the completed report.

Village of Grafton President Rodney Schroeder asked how SEWRPC evaluates the comments generated by the public hearing. Mr. Rubin noted that it was the communities' plan and the report will reflect the public comments.

There being no other citizens present wishing to speak on the matter, a motion was made by Mr. Dries, seconded by Ms. Brycki, to close the public hearing and adjourn the meeting at 7:05 p.m.

Darla Bowen, Administrative Secretary City of Cedarburg