

N:\ Cedarburg et al

ENVIRONMENTAL ANALYSIS AND DECISION ON THE NEED FOR AN ENVIRONMENTAL IMPACT STATEMENT (EIS)

Department of Natural Resources (DNR)

Form 1600-8 Rev. 6-90

District or Bureau WT/2
Type List Designation

NOTE TO REVIEWERS: This document is a DNR environmental analysis that evaluates probable environmental effects and decides on the need for an EIS. The attached analysis includes a description of the proposal and the affected environment. The DNR has reviewed the attachments and, upon certification, accepts responsibility for their scope and content to fulfill requirements in s. NR 150.22, Wis. Adm. Code. Your comments should address completeness, accuracy or the EIS decision. For your comments to be considered, they must be received by the contact person before 4:30 p.m., _____ (date)

Contact Person Roger Shores and Lisa Kosmond
Title Water Resources Planner
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P. O. Box 7921
Madison, WI 53707 Telephone (608) 266-5237 Roger Number 266-7768 Lisa

Applicant: Southeastern Wisconsin Regional Planning Commission

Address: 916 N. East Avenue, P. O. Box 1607, Waukesha, WI 53187-1607

Title of Proposal: Sanitary Sewer Service Area for the City of Cedarburg and Village of Grafton

Location: County Ozaukee City/Town/Village City and Town of Cedarburg, Village and Town of Grafton, and City of Mequon

Township 9 & 10 North, Range 21 & 22 East, Sections (T. 9, R. 21) 1, 2, 3, 4
(T. 10, R. 21) 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 32, 33, 34, 35, 36
(T. 10, R. 22) 7, 17, 18, 19, 20, 29, 30

PROJECT SUMMARY - DNR Review Information Based on:

List documents, plans, studies or memos referred to and provide a brief overview

This environmental analysis (EA) of the 1996 City of Cedarburg and Village Grafton sanitary sewer service area update for the year 2010 is a portion of the Southeastern Wisconsin Regional Water Quality Management Plan. The sewer service area (SSA) update and related documents are found in the Southeastern Wisconsin Regional Planning Commission (SEWRPC) Community Assistance Planning Report No. 91 (2nd Edition), Sanitary Sewer Service Areas for the City of Cedarburg and Village of Grafton, Ozaukee County, Wisconsin (Exhibit A). In addition to updating the 20-year sewer service area boundary for sewered development, the plan includes the boundaries and preservation recommendations for environmentally sensitive lands within the sewer service area - - lands where sewered development should not occur.

Under Wisconsin Administrative Code NR 121, the delineation of a sewer service boundary includes the identification of areas appropriate for current and future sewered development. Communities may also develop without sanitary sewer by utilizing onsite sewage systems. However, in many cases onsite systems do not provide an equivalent cost-effective and environmentally sustainable result. This environmental analysis focuses on the potential impacts of providing sanitary sewer service within the expansion area of this sewer service plan update.

The proposed sewer service areas plan update for the City of Cedarburg and Village of Grafton encompasses a total of about 16.7 square miles including 2.4 square miles of environmentally sensitive lands (see Exhibit A, Map _). The revised Cedarburg sewer service area encompasses about 8.3 square miles including about 1.1 square miles of environmentally sensitive lands. The revised Grafton sewer service area encompasses about 8.4 square miles including about 1.3 square miles of

environmentally sensitive lands. The proposed boundary adds about 2.5 square miles of residential, industrial, commercial, and environmentally sensitive land to the "current" 14.2 square mile sewer service area.

The "current" sewer service areas boundary for the City of Cedarburg and Village of Grafton was completed nine years ago (SEWRPC Community Assistance Planning Report No. 91 (First Edition - 1987). The proposed combined service area update represents a 18% increase in acreage over the "current" sewer service areas and includes a revised population projection for the year 2010. This is the first population projection revision since production of the initial report in 1987.

Wastewater treatment for land within the two proposed service areas will be provided by the City of Cedarburg and Village of Grafton sewage treatment plants for their respective sewer service areas.

Population/Growth Projection

Southeastern Wisconsin Regional Planning Commission uses a population/development forecasting method called "alternative futures" that involves the evaluation of, and preparation for, various socio-economic conditions that could reasonably be expected to occur over the plan design period. The "alternative future" adopted in the current sewer service areas plan for the combined communities would accommodate a combined community design year-2000 population level of about 35,100 people to be served with sanitary sewer service. The proposed year-2010 sewer service area plan update is designed to accommodate 19,600 people tributary to the Cedarburg sewage treatment facility, and 23,500 people tributary to the Grafton sewage treatment facility, for a combined sewer service areas plan that could accommodate a population level of about 43,100 people. This population level represents a 23% increase compared to the year-2000 sewer service area plan completed in 1987. The SEWRPC report gives a 1990 population estimate for the study area of 28,271.

The year-2010 plan includes changes in the residential development density from the year-2000 sewer service plan: Cedarburg's number of dwelling units per acre will lower from 3.7 to 3.0, Grafton's residential development density would increase from 3.4 to 3.6 dwelling units per acre.

City of Cedarburg Development

The City of Cedarburg anticipates the future development of specific amendment areas to reflect the proposed sewer service expansion area described in the SEWRPC report. A detailed land use plan will be developed for the new growth areas subsequent to the approval of the updated sewer service area plan. The amendment areas will include lands proposed for landfill, industrial, commercial, office and residential uses. As peripheral lands require sanitary sewer for development they are annexed to the city.

Village of Grafton Development

The Village of Grafton has a land use plan which includes the sewer service area plan amendment areas (see Exhibit B). The areas proposed for inclusion in the year-2010 plan include industrial, commercial, office and residential lands. As peripheral lands request or require sanitary sewer they are annexed to the village.

Documents presented and discussed in this analysis include the following:

- Exhibit A* • Southeastern Wisconsin Regional Planning Commission (SEWRPC) Community Assistance Planning Report No. 91 (2nd Edition), Sanitary Sewer Service Areas for the City of Cedarburg and Village of Grafton, Ozaukee County, Wisconsin (includes "Map 3" showing designated environmentally sensitive lands).
- Exhibit B* • Village of Grafton Land Use Plan

- Exhibit C* • WDNR Bureau of Endangered Resources documentation of endangered/threatened resources in proposed boundary area.
- Exhibit D* • Environmentally Sensitive Areas Inventory by Southeast District Water Resources Program, WDNR.
- Exhibit E* • Ozaukee County prime agricultural land table provided by SEWRPC.
- Exhibit F* • National Register of Historic Sites for Washington County, Wisconsin provided by SEWRPC.

DNR EVALUATION OF PROJECT SIGNIFICANCE (complete each item)

1. Environmental Effects and Their Significance

Discuss the short-term and long-term environmental effects of the proposed project, including secondary effects, particularly to geographically scarce resources such as historic or cultural resources, scenic and recreational resources, prime agricultural lands, threatened or endangered species or ecologically sensitive areas, and the significance of these effects. (The reversibility of an action affects the extent or degree of impact.)

This sewer service plan update proposes a change in the boundary of a currently approved service area; therefore, this environmental analysis focuses on potential impacts associated with the change from the current boundary to the expanded boundary area requested, and the designation of environmentally sensitive areas within the greater SSA plan boundary. The current plan and boundary now in effect will remain in effect under a "no action" scenario.

Short-Term Impacts of the Proposed Project:

Construction Impacts:

Sewer service area plan amendment approval will allow the development of projects that are now proposed, or waiting on the availability of sanitary sewer lines. Short-term impacts on the following resource areas include impacts from sewer line and associated industrial, commercial, and residential construction:

- Noise, dust, congestion (traffic), and habitat disturbance;
- Stormwater flow and load increases from increases in impervious surfaces and coinciding construction projects.
- Changes in water quality, which may include increased nutrient, solids, bacteria, metals and polycyclic aromatic hydrocarbons (and other organics) loads to surface waters.
- Possible dredge and fill of wetlands during land disturbance activities and development on hydric soils, which may displace the local hydrologic flow and affect regional hydraulics.

Ecologically sensitive areas:

The proposed expanded sewer service area contains 2.4 square miles of designated environmentally sensitive areas based on the guidelines for designating these areas developed by SEWRPC. However, the WDNR believes there are environmentally sensitive areas that are not designated primary or secondary environmental corridors or isolated natural resource areas in this plan, that should have been considered as such based on language in NR 121. Other areas have been under-designated, meaning, for example, they are designated secondary environmental corridor by the plan update when

they probably should have been designated primary environmental corridor. These areas will be affected by both short and long-term impacts.

"Areas to be considered for exclusion from the SSA because of the potential for adverse impacts on the quality of the waters of the state from both point and nonpoint sources of pollution include but are not limited to wetlands, shorelands, floodways and floodplains, steep slopes, highly erodible soils and other limiting soil types, groundwater recharge areas and other such physical constraints."

NR 121.05(1)(g)2.c.

SEWRPC designates primary and secondary corridors and isolated natural resource areas based, in part, on the size (length, width and acreage), of the area, which may or may not have a direct positive correlation with a resource's ecological value or significance. Thus, there can be environmentally significant lands in the planning area in which an ecologically valuable resource does not conform to the size standards prescribed by SEWRPC. The following are SEWRPC's size standards for environmental corridors and isolated natural resource areas (Exhibit A, page _).

- | | |
|---------------------------------|---|
| Primary Corridor | At least 400 acres in size, at least two miles long, and a minimum width of 200 feet. |
| Secondary Corridor | A minimum of 100 acres and a minimum length of one mile. |
| Isolated Natural Resource Areas | At least 5 acres in size. |

Listed below are areas the WDNR believes should be included as environmentally sensitive areas in the SSA Plan Update based on ecological value, but which are not listed as sensitive areas due to size requirements or other reasons not explained in the SSA plan update.

Map 6-3

Section _

etc.

Marsha Jones is working on an environmentally sensitive areas inventory that will be inserted here.

Significance of Short-Term Impacts:

Increases in impervious surfaces are relatively permanent; however, some urban stormwater "best management practices" can be used during development of roads, driveways, parking lots, etc. to abate the immediate degradation of natural resources associated with an increase in impervious surfaces.

The City of Cedarburg has a construction site erosion control ordinance and is presently working with the department district Water Resources Bureau in the development of a citywide stormwater management plan.

The Village of Grafton has adopted the state "model" stormwater management plan ordinance and construction site erosion control ordinance.

Recommended Additional Steps to Reduce the Significance of Short-Term Impacts:

- To reduce the significance of wetland alterations, wetlands should not be used for stormwater treatment but primarily for environmental corridor/natural areas and habitat values.
- Secondary corridors and small headwater streams should not be used for "economical drainageways" (see Exhibit A, page _), but should be protected to conserve natural hydrologic flows and groundwater recharge.
- Designation of secondary environmental corridor areas, which allows development under SEWRPC land use policies, should be reconsidered in favor of primary environmental corridors that offer greater protection from adverse water quality impacts.

Department approval of this sewer service area plan update will allow sewered development of the proposed growth areas. Sewerline installation is one component of the land development and construction process that includes streets, other utilities, building construction, parking area construction, etc. Most sewerlines are located under the streets (which of necessity require great amounts of earthmoving work themselves). Sanitary sewerline installation probably has less environmental impact than other coinciding earthmoving work that occurs on those sites. Subsequent industrial, commercial, and residential development that follows completion of the infrastructure stage will cause stormwater runoff from roads, roof tops and parking areas, and a reduction in the amount of groundwater recharge area.

Long-Term Impacts of the Proposed Project

There are many potential long-term water quality, water quantity, economic, social, ecological, and wildlife impacts from hydrologic modification of surface water, including enhanced flashiness of flow regimes and increased pollutant loads from roof drains, street and parking lot runoff, deicers, spills, and oil and grease. Also, enhanced delivery of total suspended solids, bacteria, metals and organics (polychlorinated aromatic hydrocarbons) to surface waters, with potential change to the quality and character of nearby waterbodies is likely to occur.

Increases in air and noise pollution, traffic congestion, waste generation, and spills are considered relatively irreversible and permanent as long as the industrial, commercial and residential development is implemented as planned.

Operational, maintenance and upgrade costs for WWTP and infrastructure development should be anticipated.

* The following environmental impacts are considered an irreversible and permanent effect of development:

Wetlands Loss:

Loss of wetland quantity and/or quality due to close proximity of residential, commercial or industrial development and associated alterations of the hydrologic regime.

Air Quality Impacts:

Air pollution from a large increase in vehicular traffic associated with a shopping center, etc. would be addressed through the state indirect (air emissions) source permit process. Direct sources of significant air emissions, such as a factory, are subject to the state construction/operation permitting process. Since sewered development is generally contiguous to an existing urban area, its development should cause less vehicle-related air pollution than the same type of development in more distant rural areas.

Historic/Cultural Areas:

The loss of the existing rural character from the City of Cedarburg's and Village of Grafton's extraterritorial areas is permanent. The October, 1995, National Register of Historic Sites shows nine historic sites or districts within the existing sewer service area boundary. There are none within the proposed amendment area. See Exhibit F.

Agricultural Land:

In 1963 Ozaukee County had 81,564 acres of prime agricultural land, which had decreased by 10.1% in 1985, when 73,335 acres remained. The majority of the 8,229 acre reduction took place outside of county sewer service areas, 7,282 acres, versus a 947 acre reduction from within sewer service areas. It appears that the reduction of prime agricultural lands in the county may be due to rural exurban development more than growth of the urban areas (see Exhibit _).

Endangered/Threatened Species:

There are no known threatened or endangered resources in the proposed Hartford SSA boundary expansion area (see Exhibit _).

Scenic and Recreational Resources:

The Cedarburg/Grafton SSA includes a substantial amount of scenic and recreational resources areas, including Cedar Creek, Ulao Creek, and the Milwaukee River and associated wetlands. Possible short-term impacts (which include impacts from sewer line and industrial, commercial, and residential construction) associated with the boundary expansion include:

- Wetland impacts (total suspended solids, nutrient loading and siltation) associated with sewer line construction.
- Water quality/habitat impacts associated with sewer line construction.

Suburban Sprawl

Long-term primary impacts include effects from continued growth but that growth may not be characterized as suburban sprawl. The plans year-2010 population level design for the areas tributary to the Cedarburg, and Grafton sewage treatment facilities will accommodate a 23% population increase over the year-2000 plan. By comparison, the increase in sewer service area acreage as proposed is 18% - - a net increase in density, but not sprawl.

Other

Operational, maintenance and upgrade costs for WWTP and infrastructure development should be anticipated.

Significance of Long-Term Impacts:

Water quantity and quality impacts from increased industrial discharges and stormwater flows can be substantially abated through:

- Implementing the community comprehensive stormwater management plans for the Cedarburg/Grafton areas, including the design and construction of stormwater retention facilities

and use of BMPs to abate pollutant loads to surface waters during and after construction activities take place.

- Implementation of construction site erosion control ordinances for construction activities on sites smaller than that regulated under state building code requirements.
- Updating floodplain maps for the City of Cedarburg and Village of Grafton areas as substantial growth brings a substantial increase in the amount of impervious surfaces and runoff.
- Development and implementation of local land use plan recommendations that address water quality goals.

2. Significance of Cumulative Effects.

Discuss the significance of reasonably anticipated cumulative effects on the environment (and energy usage, if applicable). Consider cumulative effects from repeated projects of the same type. Would the cumulative effects be more severe or substantially change the quality of the environment? Include other activities planned or proposed in the area that would compound effects on the environment.

Cedarburg and Grafton are seeking approval of the proposed sewer development plan boundary, to meet anticipated land requirements to the year 2010 and beyond. Cumulative growth impacts will include: increased traffic, air pollution and stormwater runoff with accompanying water pollution and sedimentation. The cumulative impacts also include loss of primary and secondary agricultural land, groundwater recharge areas, woodlands, wildlife intolerant to urbanization, and rural community character. The transitional edge between urban and rural land use is pushed out farther from the urban center as the area continues to grow.

The City of Cedarburg and Village of Grafton land use plans and sewer service areas plans have provided an opportunity for public participation concerning the areas future development. All plans, however, should be reviewed from time to time to ensure that they represent the most current ideas and knowledge available. Wisconsin Administrative Code, NR 121, requires periodic sewer service area plan review (every five years).

With proper administration, the communities construction site erosion control and stormwater management ordinances will likely reduce short-term and long-term cumulative effects. The significance of the cumulative impacts can also be reduced by reviewing and updating floodplain maps, as the environmental impacts from the proposed growth are likely to have a substantial cumulative effect on the local surface water and groundwater hydrology.

3. Significance of Risk

a. Explain the significance of any unknowns which create substantial uncertainty in predicting effects on the quality of the environment. What additional studies or analysis would eliminate or reduce these unknowns?

The current sewer extension provisions of Chapters NR 110 and ILHR 82, Wis. Adm. Code, provide implementation authority for the plan. Also, the city and village have additional authorities to support the plan by making extending sewer service contingent on annexation, the extraterritorial land use review procedure, and conservancy zoning ordinances (together with state and federal authorized environmentally sensitive lands protection), to protect the environmental corridor areas.

While SEWRPC's sewer service area plan report does not protect environmentally sensitive lands within secondary environmental corridors and isolated natural resource areas, the chance for development to occur in ignorance of water quality protection rules is diminished as the plan and planning process

provides notice that there are natural resource protection regulations for wetlands, floodplains, shorelands, stormwater runoff, and erosion control through local, state and federal law.

There may be a significant positive impact on environmentally sensitive area protection provided for in the SSA plan update due to the requirement for water quality protection within primary environmental corridors and public notice of the water quality protection requirement within the other environmental corridors (as provided by the federal and state laws previously mentioned). However, WDNR believes that many sensitive areas were not included in the sensitive area delineation presented in Exhibit A, map _.

Sensitive Area Protection

Major areas unsuitable for the installation of waste treatment systems because of physical or environmental constraints including wetlands, shorelands, floodplains, and recharge areas represent the major features of the designated environmentally sensitive areas and should be significantly protected through one or more of the following:

- Implementation of the plan and adherence to its designations by local government;
- The Clean Water Act §404 permit requirements;
- Wisconsin water quality standards for wetlands (Wis. Adm. Code, NR 103).
- Local implementation of NR 116, (Wis. Admin. Code), Wisconsin's Floodplain Management Program, which provides regulations to establish floodplain zoning for the protection of human life and property.
- Local implementation of NR 117 (Wis. Admin. Code), the City and Village Shoreland/Wetland Protection Program, which provides regulations to protect shoreland and wetland from development.

Areas WDNR believes to be environmentally sensitive (see *Ecologically Sensitive Areas*, page _), but which are not presently designated as environmental corridors or isolated natural resource areas in the proposed SSA plan update should receive the same protection as the designated areas under state or federal authority; however, designation of those areas would provide greater protection locally, especially during day-to-day planning and development and would trigger further evaluation of the applicability of the state and federal codes and laws.

In addition, SEWRPC policy only assures protection of environmentally sensitive areas that lie within primary environmental corridors. The sewer service areas update states that development of environmentally sensitive areas that lie within secondary corridors and isolated natural resource areas is allowed at the discretion of the local municipality. Continuing that line of reasoning then; development of sensitive areas that do not meet SEWRPC's size requirements is also quite possible. However, any development proposal that may have a significant adverse water quality impact would require a permit or review under one or more of the following regulations:

- The Clean Water Act §404
- Wisconsin Statute - Chapter 30
- The WDNR Water Regulation and Zoning Section administers NR 103 (Wis. Admin. Code) which specifies qualitative water quality standards for wetlands. Analysis of whether the proposed project will meet NR 103 standards is required through the water quality certification process, which is applicable to any permit request that may affect a wetland, regardless of the size of that wetland.

- County area annexed by a city or village are required to maintain at least the minimum shoreland building setback from lakes and streams as that specified in NR 115, Wisconsin Shoreland Management Program (Wis. Adm. Code).
- The City of Cedarburg and the Village of Grafton are the designated management agencies for the collection and treatment of wastewater within the sewer service areas. Public sewer extensions are regulated by NR 110 (Wis. Adm.Code), which requires the area to be within the sewer service area plan to receive sanitary sewer.
- Stormwater management plan development is required for any construction site activity disturbing five or more acres of land, pursuant to Chapter NR 216 (Wis. Adm.Code). Construction site erosion control for sites smaller than five acres is required by this code.

If insufficient lands are included in the sewer service area, development could occur outside the sewer service area boundary with onsite sewage disposal systems. The relatively high densities of urban area development generally precludes the environmental concerns of numerous onsite sewage systems and supports the need for sanitary sewer, particularly as onsite systems become old. The delineation and protection of environmentally sensitive areas through the sewer service area planning process is a positive secondary impact. The WDNR's treatment facility compliance maintenance program oversees the maintenance of wastewater treatment standards and capacity.

- Explain the environmental significance of reasonably anticipated operating problems such as malfunctions, spills, fires or other hazards (particularly those relating to health or safety). Consider reasonable detection and emergency response, and discuss the potential for these hazards.

None.

4. Significance of Precedent

Would a decision on this proposal influence future decisions or foreclose options that may additionally affect the quality of the environment? Describe any conflicts the proposal has with plans or policy of local, state or federal agencies. Explain the significance of each.

The approval of this plan provides significant direction for the community's future growth and does not foreclose other future options which could have positive effects on the environment. Sewer service area plans provide amendment procedures to respond to new information and demands relative to providing water quality protection in a development setting. NR 121 requires periodic SSA plan updates.

5. Significance of Controversy Over Environmental Effects

Discuss the effects on the quality of the environment, including socio-economic effects, that are (or are likely to be) highly controversial, and summarize the controversy.

Although the proposed amendment to the Cedarburg/Grafton sewer service area is substantial; a 18% increase to the current plan, there is no known controversy regarding the environmental effects of this sewer service area plan. Without a sewer service area plan, many primary environmental corridor lands would be developed and have a significant adverse water quality impact. Or these lands could develop with onsite sewage systems and once again, the adverse water quality impacts could be significant. While SSA planning may not prevent air or endangered resource impacts from urban or suburban growth, the net environmental concern and benefit this planning generates may be considered broadly beneficial since a key feature of environmental awareness is an understanding of the relationships of various natural resource elements and the importance of sustaining good environmental health actions.

ALTERNATIVES

Briefly describe the impacts of no action and of alternatives that would decrease or eliminate adverse environmental effects. (Refer to any appropriate alternatives from the applicant or anyone else.)

Alternatives exist to the proposed action, including the 1) No action scenario, and 2) the proposed action with implementation of a series of recommendations designed to reduce the significance of short and long term water quality impacts.

No Action

The no action plan would require the continued reliance for development and sewer extension upon the currently adopted service area plan. The plan currently in effect does not include the same environmentally sensitive area delineations and protection measures as that enumerated in the proposed SSA plan update. Thus, there is potential for local development to occur utilizing onsite sewage disposal systems, whose use is not excluded, even in environmentally sensitive areas. The WDNR believes that this alternative is not preferred due to the potential for development to occur without water quality assessment and protection measures.

Proposed Action - - With Recommendations to Reduce Adverse Water Quality Impacts

The sewer service area plan recommended for the City of Cedarburg and Village of Grafton by SEWRPC will provide for the city's anticipated growth to the year-2010 and it satisfies the cost-effectiveness and environmentally sound wastewater treatment system criterion of NR 121 (Wis. Adm. code). At a public hearing held before the  on May __, 1996, to consider the plan,

the plan. The department believes there are many potential long-term water quality and quantity, economic, ecological and wildlife impacts from hydrologic modification of surface waters that should also be addressed.

To reduce the significance of impacts we recommend that implementation of the combined Cedarburg/Grafton sewer service area plan incorporate the following:

- Wetlands should not be used for stormwater treatment but primarily for environmental corridors, natural areas, and habitat areas to reduce the significance of wetland alterations.
- Secondary corridors and small headwater streams should not be used for "economical drainageways" (see Exhibit A, page __), but should be protected to conserve natural hydrologic flows and groundwater recharge.
- Designation of secondary environmental corridor areas, which allows development under SEWRPC land use policies, should be reconsidered in favor of primary environmental corridors that offer greater protection from adverse water quality impacts. (See Exhibit _ and Short Term Impacts).

Water quantity and quality impacts from increased industrial discharges and stormwater flows can be substantially abated through:

- Implementing the community comprehensive stormwater management plans for the Cedarburg/Grafton areas, including the design and construction of stormwater retention facilities and use of BMPs to abate pollutant loads to surface waters during and after construction activities take place.

- Implementation of construction site erosion control ordinances for construction activities on sites smaller than that regulated under state building code requirements.
- Updating floodplain maps for the City of Cedarburg and Village of Grafton areas.
- Development and implementation of local land use plan recommendations that address water quality goals.

SUMMARY OF ISSUE IDENTIFICATION ACTIVITIES

List agencies, citizen groups and individuals contacted regarding the project (include DNR personnel and title) and summarize public contacts, completed or proposed.

<u>Date</u>	<u>Contact</u>	<u>Comment Summary</u>
6/10/96	Clint Gridley - City of Cedarburg	Discussed proposed land uses and stormwater ordinances
6/11/96	Robert Biebel - SEWRPC	Requested register of historic sites map
6/11/96	John Pohlman - WDNR - ER	Information on endangered resources in planning area
6/11/96	Darrell Hafend - Village of Grafton	He's sending L.U. plan. They've adopted stormwater ordinances
6/11/96	Marsha Jones - DNR SED	She's leading an environmentally sensitive lands analysis.
6/12/96	Andy Holschbach - Ozaukee Cty Land Ofc	Will be submitting comments from Ulao Creek Partnership

On-site inspection or past experience with site by evaluator.

Project Name: SSAA for Cedarburg and Grafton County: Ozaukee

PRELIMINARY DECISION

In accordance with s. 1.11, Wis. Stats., and Ch. NR 150, Wis. Adm. Code, the Department is authorized and required to determine whether it has complied with s. 1.11, Wis. Stats., and ch. NR 150, Wis. Adm. Code.

The Department has made a preliminary determination that the Environmental Impact Statement process will not be required for this action/project. This recommendation does not represent approval from other DNR sections which may also require a review of the action/project.

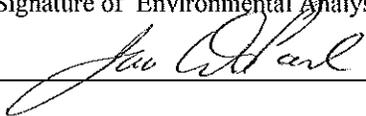
Signature of Evaluator 	Date Signed 1/7/13
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FINAL DECISION

The public review process has been completed. The Department received and fully considered 7 responses to the news release or other notice.

Pursuant to s. NR 150.22(2)a., Wis. Adm. Code, the attached analysis of the expected impacts of this proposal is of sufficient scope and detail to conclude that this is not a major action, and therefore the environmental impact statement process is not required prior to final action by the Department.

The Department has determined that it has complied with s. 1.11, Wis. Stats., and ch. NR 150, Wis. Adm. Code. This decision does not represent approval from other DNR sections which may also require a review of the action/project.

Signature of Environmental Analysis Program Staff 	Date Signed 1/7/13
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NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to section 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with section NR 2.05(5), Wis. Adm. Code, and served on the Secretary in accordance with section NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing does not extend the 30 day period for filing a petition for judicial review.

CORRESPONDENCE/MEMORANDUM

State of Wisconsin
Department of Natural Resources

DATE: February 6, 1997

FILE REF: Cedarburg/Grafton

TO: Jim Pardee, SS/6

FROM: Marsha Jones - SEK
Ron Martin - WT/2

SUBJECT: Public Comments and Recommended Actions for the Cedarburg/Grafton
Environmental Assessment

Below is a summary of the public comments received on the Environmental Assessment (EA) for the proposed sewer service area described in the Southeastern Wisconsin Regional Planning Commission (SEWRPC) Community Assistance Planning Report No. 91(second edition) entitled *Sanitary Sewer Service Areas for the City of Cedarburg and the Village of Grafton, Ozaukee County, Wisconsin*.

We understand that this comment summary will be added as an addendum to the EA, and that the EA will be subsequently certified. Please note that the Bureau of Watershed Management will not approve the Sewer Service Area for the Cedarburg and Grafton areas until after the recommended actions outlined below have been completed. If you have any questions, please call Marsha Jones at (414) 263-8708 or Ron Martin at (608) 266-9270.

Written comments were provided by:

Tim Kaul, Great Lakes Taxidermy
David Schwengel, Chairman of the Ulao Creek Partnership
Andy Holschbach, Director of the Ozaukee County Land Conservation Department
Steven Narveson, Director of the Ozaukee Department of Environmental Health
Fred Rompelman, Concerned citizen and landowner
Armin Schwengel, Concerned citizen and wetland restoration specialist

Oral comments were provided by Karen Manley, Concerned citizen and landowner.

All comments WDNR received about the EA were directed to the Ulao Creek Watershed, and focused on the following areas of concern:

Comment:

Much concern was expressed about potential development along the creek, and how this will add to the flooding problems already existing in the area.

Recommended Action:

WDNR's Floodplain Engineer is currently completing a flood study of the area. The engineer will address the flooding concerns outlined in the EA comments. Stormwater management issues regarding Ulao Creek will also be addressed.

Comment:

The center portion of Ulao Creek was designated as secondary environmental corridor in the SSA plan, while the northernmost and southernmost portions of the creek corridor were designated as primary environmental corridor. The secondary corridor area should be reclassified to primary because it meets the criteria needed for primary corridor classification.

Recommended Action:

WDNR will request that the Southeastern Wisconsin Regional Planning Commission evaluate the section of the river currently designated as secondary corridor, to determine whether it should be reclassified as primary environmental corridor. This evaluation should include all information gathered subsequent to the initial corridor delineation. WDNR staff will offer to assist SEWRPC in this effort.

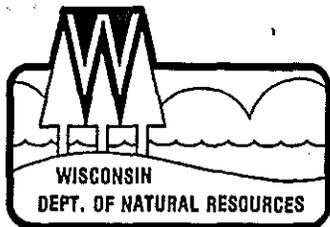
Comment:

There may be some wetlands in the area that are not encompassed within the environmental corridor areas. Also, overall wetland loss leading to more flooding and loss of wildlife habitat are of concern.

Recommended Action:

WDNR will request that a WDNR Water Management Specialist and the SEWRPC Wetland Specialist work together to identify other potential wetland areas.

c: Chuck Ledin, WT/2
Ron Kazmierczak, WDNR/SER
Sharon Gayan, WDNR/SER
Karen Manley
Tim Kaul
David Schwengel
Andy Holschbach
Steven Narveson
Fred Rompelman
Armin Schwengel



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary
Gloria L. McCutcheon, Regional Director

Southeast Regional Headquarters
2300 N. Dr. ML King, Jr. Drive, Box 12436
Milwaukee, WI 53212-0436
TELEPHONE 414-263-8500
FAX 414-263-8483
TDD 414-263-8713

February 5, 1997

Phil Evenson, Executive Director
Southeastern Wisconsin Regional Planning Commission
P.O. Box 1607
Waukesha, WI 53187-1607

Dear Mr. Evenson:

Enclosed are comments received during the public comment period for the Cedarburg/Grafton Sewer Service Area (SSA) Environmental Assessment (EA). As part of the EA process we must summarize and address the comments in the attached memo to our Madison EA Coordinator which will be added as an addendum to the EA. This letter will also be sent to all persons providing comment on the EA. After the summary, the next step in the process is to certify the EA. This is a simple step that will be completed shortly after the comment summary is added to the EA document.

Please note that we will be unable to approve the Cedarburg/Grafton SSA plan until after the actions outlined in the summary letter are completed. If you would like to schedule a meeting to discuss the comments and actions, please call Marsha Jones at (414) 263-8708.

Thank you in advance for your cooperation. If you have any questions, please call me at (414) 263-8707.

Sincerely,


Sharon Gayan

c: Ron Kazmierczak, SER
Chuck Ledin, WT/2

c:\planning\cedgraf.ea

File Note – November 2012
From: Fran Keally

1987 – Original Sewer Service Area Plan for Cedarburg and Grafton

October 29, 1996 – SEWRPC submits amendment to DNR. CAPR No. 91, 2nd Addition, Sanitary Sewer Service Area for the City of Cedarburg and the Village of Grafton, dated June 1996.

February 6, 1997 – Memo to Jim Pardee from Marsha Jones and Ron Martin – Public Comments and Recommended Actions for the Cedarburg/Grafton Environmental Assessment.

Recommended Actions made regarding flooding concerns along Ulao Creek, change of designation from secondary to primary environmental corridor along Ulao Creek, and review of wetland identification in amendment area.

October 12, 1999 – Letter from Grafton to SEWRPC which states floodplain study of Ulao was completed and accepted by WDNR. Wetland identification was completed as far as Grafton knew, but reclassification by SEWRPC was still outstanding.

June 6, 2001 – Letter from SEWRPC to WDNR (Gayan) and Grafton. Confirmed details of floodplain study and wetland identification. Submitted 3 revised maps to original report which reflect changes in environmental corridor designation.

August 21, 2001 – File note from Bob Biebel at SEWRPC indicates telephone conversations with Sharon Gayan of DNR and Mark Gottlieb of Grafton that all are in agreement and amendment can be processed and sent in final form to Village for approval.

November 5, 2001 – Memo from SEWRPC to many people, including WDNR (Gayan and McCutcheon). (I see no one at CO listed). Memo states that all work has been done, includes replacement pages and requests that WDNR complete its review of amendment.

September 22, 2006 – Email from SEWRPC (Tim McCauley) inquiry on status of amendment.

September 25, 2006- Email from T. Gilbert to Gayan and Pardee wondering what happened.

September 28, 2006 – Email from Sharon Gayan – saying she is checking, but has no answer.

October 3, 2006 – Email from Judy Gottlieb – Has no memory of this, confirms that they did what WDNR requested. States that *“I don’t think there were any sewer extensions in the area where we had concerns. If we approved a sewer extension in an added area*

where we were in concurrence with the draft SSA Amendment, although it would not be in strict accordance with our standard procedures, I don't think it's a major problem, since we weren't objecting to that segment of the plan. I don't think we should spend a lot of time on this, except to process a formal approval, with appreciation for the cooperation of the communities and SEWRPC in doing the delineations and reclassifying the creek area."

October 5, 2006 – Email from Jim Pardee stating he found the EA, but it was never certified.

October 13, 2006 – Email from Jim Pardee stating that he never received follow up info and it wasn't certified. He requested updated info on population, acreage, and a historical narrative.

Everything seems to end here regarding that amendment.

November 16, 2012 – Fran Keally spoke with Jim Pardee. He will certify the EA, once we confirm with SEWRPC that there have been no changes to the land use.

November 20, 2012 – Fran Keally spoke with Bill Stauber at SEWRPC. He will review Ulae Creek (area of concern after public hearings) with regard to any new floodplain mapping.

Final Steps – goal of December 31, 2012.

Bill will send in the final 2001 maps in color. – *received 1/2/2013*

Fran will ask Jim Pardee to certify the EA.

Fran will approve the amendment.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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MEMORANDUM

TO: Fran Keally, WDNR

FROM: William Stauber, SEWRPC

DATE: January 3, 2013

SUBJECT: Transmittal of Copies of Replacement Maps for Cedarburg-Grafton Sewer Service Area Plan Report.

Enclosed are two copies each of the maps intended to serve as replacements for Maps 5, 7, and 8-9 of SEWRPC Community Assistance Planning Report No. 91 (2nd Edition), *Sanitary Sewer Service Areas for the City of Cedarburg and the Village of Grafton, Ozaukee County, Wisconsin*, dated June 1996. These are copies of the "replacement" maps previously transmitted to the WDNR staff on November 5, 2001. Also enclosed is a copy of the cover memorandum from the November 5, 2001, SEWRPC transmittal to the WDNR.

Should you need anything else from SEWRPC as the Department considers approval of CAPR 91 (2nd Edition), please feel free to contact me.

* * *

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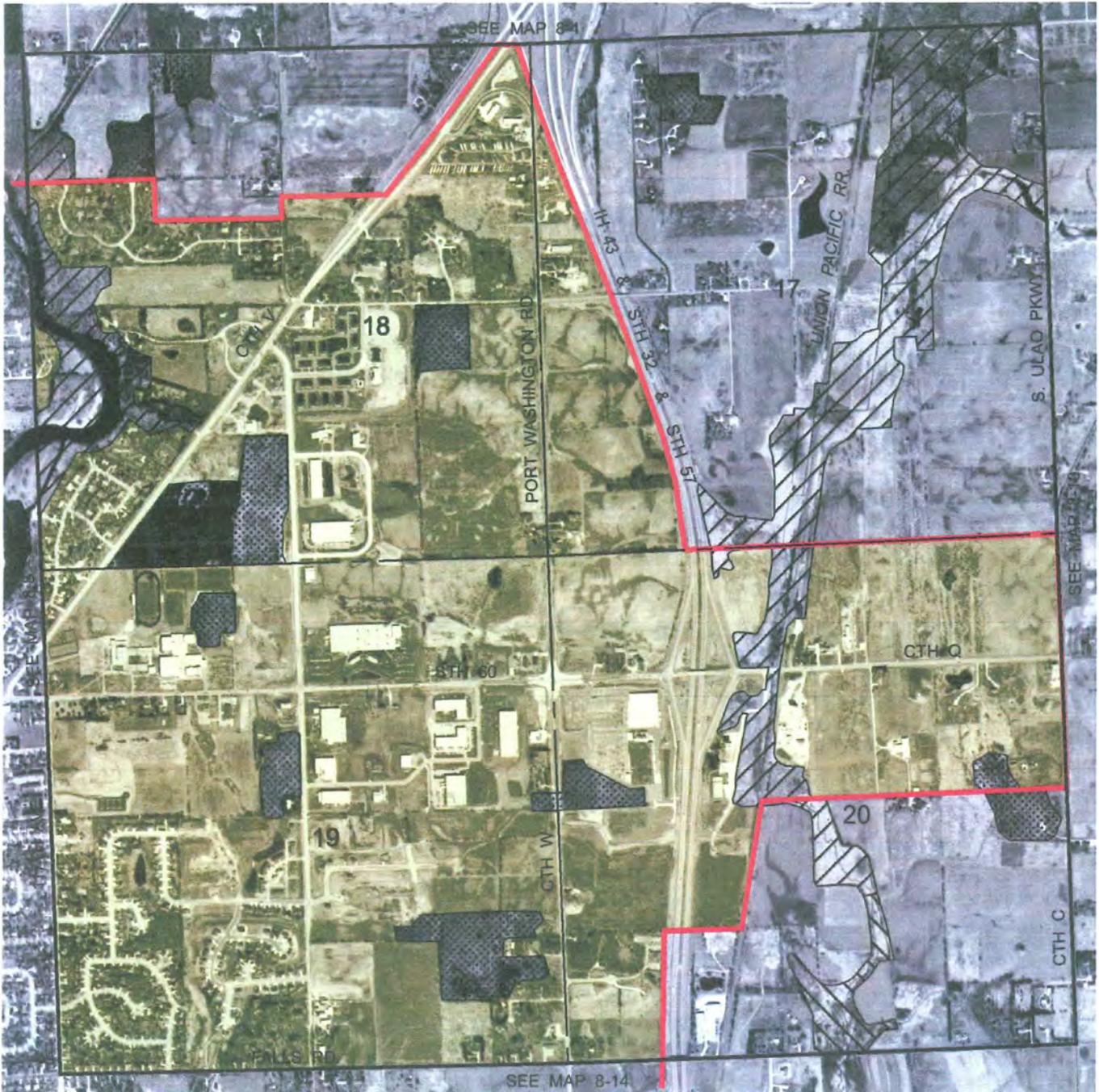
RECEIVED

JAN - 7

WT/3 - WY/

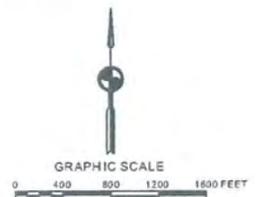
ENVIRONMENTALLY SIGNIFICANT LANDS AND
PLANNED SANITARY SEWER SERVICE AREA FOR THE
CITY OF CEDARBURG AND VILLAGE OF GRAFTON AREAS
(Revised October 2001)

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



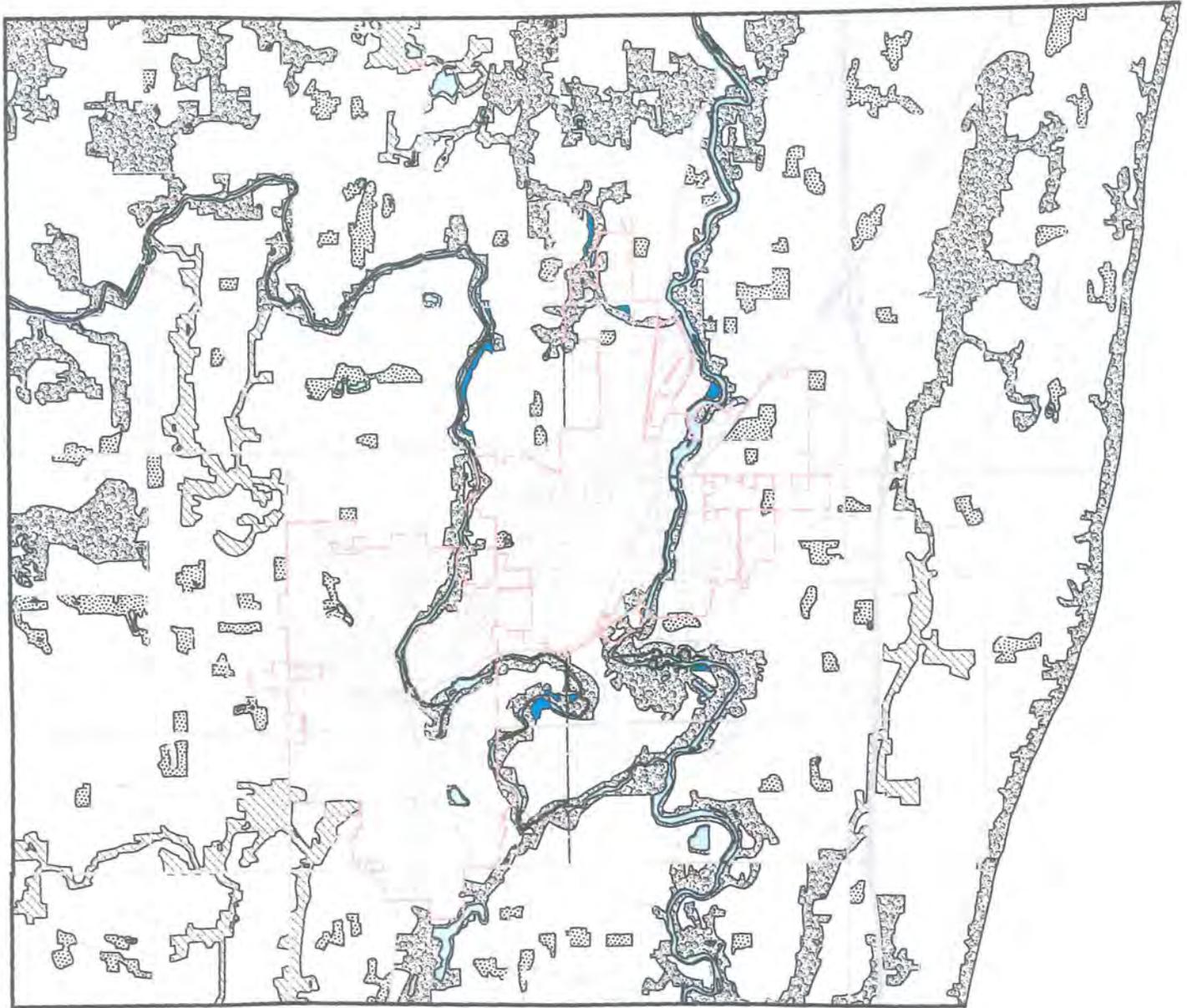
Photography Date: 2000

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

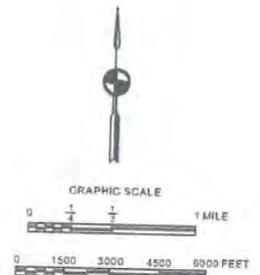


Source: SEWRPC.

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

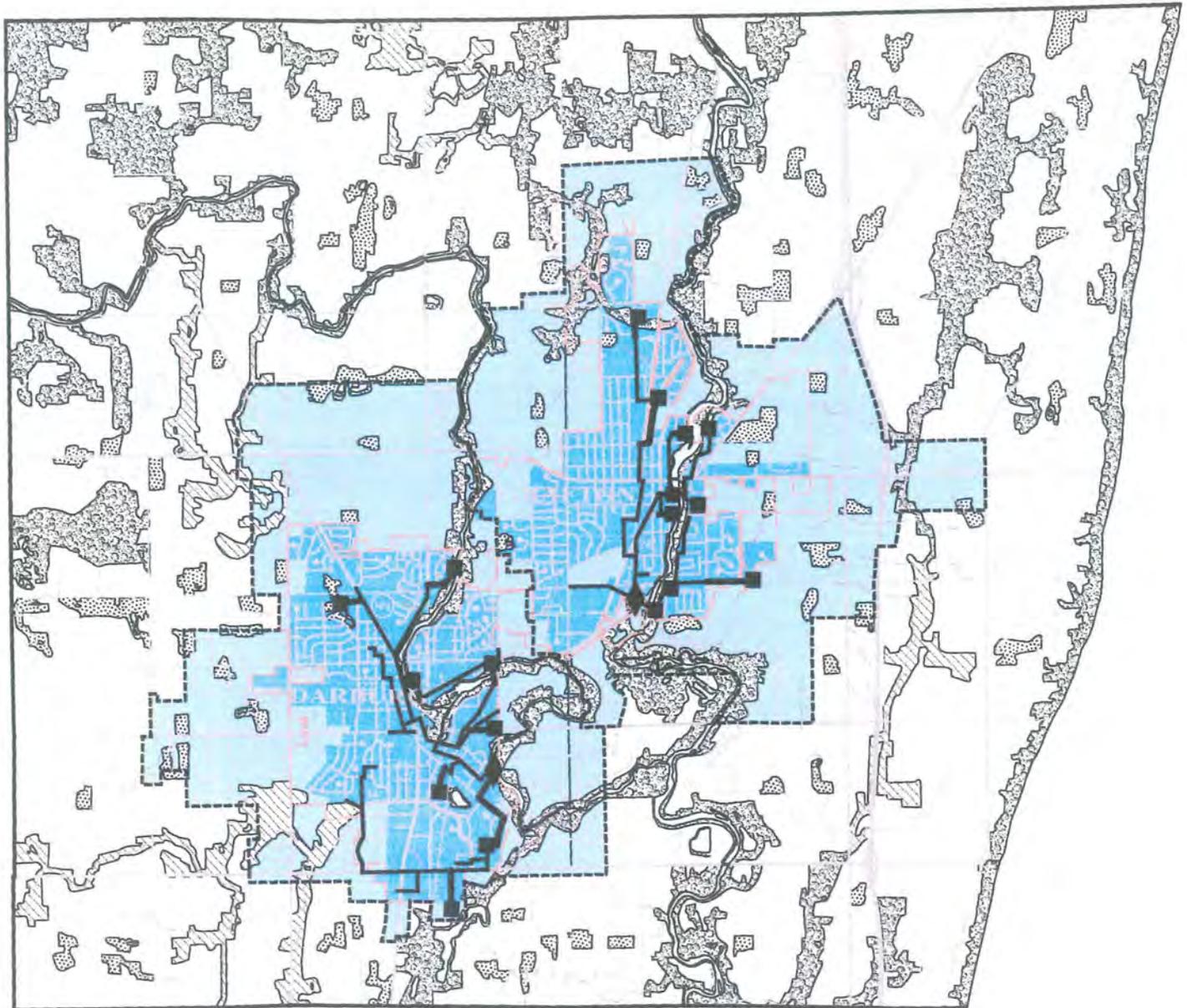


-  PRIMARY ENVIRONMENTAL CORRIDOR
-  SECONDARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL RESOURCE AREA
-  FLOODLANDS PROPOSED TO REMAIN UNDEVELOPED AND ADDED TO THE PRIMARY ENVIRONMENTAL CORRIDOR

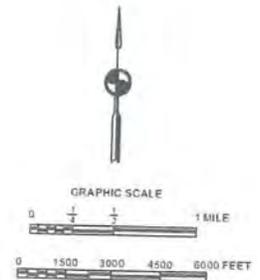


Source: SEWRPC.

CEDARBURG AND GRAFTON PLANNED SANITARY SEWER SERVICE AREAS: 2010 (Revised October 2001)



-  PRIMARY ENVIRONMENTAL CORRIDOR
-  SECONDARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL RESOURCE AREA
-  NET SANITARY SEWER SERVICE AREA (EXISTING)
-  NET SANITARY SEWER SERVICE AREA (2010)
-  GROSS SANITARY SEWER SERVICE AREA BOUNDARY
-  EXISTING PUBLIC SEWAGE TREATMENT FACILITY
-  EXISTING PUMPING STATION
-  EXISTING GRAVITY SEWER
-  EXISTING FORCE MAIN



Source: SEWRPC.

COPY

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MEMORANDUM

TO: Ms. Jacquelyn Dekker, Clerk, City of Cedarburg
Mr. Clinton Gridley, Administrator, City of Cedarburg
Ms. Teri Dylak, Clerk, Village of Grafton
Mr. Darrell Hofland, Administrator, Village of Grafton
Ms. Karen Behrens, Clerk, Town of Cedarburg
Mr. Darrel Mazzari, Clerk, Town of Grafton
Mr. Harold Dobberpuhl, Clerk, Ozaukee County
Mr. Steven Narveson, Environmental Health Director, Ozaukee County
Ms. Gloria McCutcheon, Regional Director, Southeast Region, WDNR
Ms. Sharon Gayan, Milwaukee Team Leader, Water Program, WDNR
Mr. Harlan Hirt, Wisconsin State Project Officer, EPA

FROM: Philip C. Evenson, Executive Director

DATE: November 5, 2001

**SUBJECT: CEDARBURG/GRAFTON SANITARY SEWER
SERVICE AREA PLAN REPLACEMENT PAGES**

Please find enclosed three replacement pages for insertion into the copy of SEWRPC Community Assistance Planning Report No. 91 (2nd Edition), *Sanitary Sewer Service Areas for the City of Cedarburg and the Village of Grafton, Ozaukee County, Wisconsin*, dated June 1996, which was transmitted to you by the Commission staff on October 29, 1996. This includes replacements for Maps 5, 7, and 8-9 of that report. The replacement maps reflect corrected environmental corridor delineations along Ulaos Creek in U.S. Public Land Survey Township 10 North, Range 22 East, Sections 17 and 20. The corrected environmental corridor delineations are based upon floodplain determinations and wetland field survey work for that area conducted since 1996. The correction of these maps resolves the single outstanding item needed to complete the sewer service area planning for the Cedarburg/Grafton area.

We now request that the Wisconsin Department of Natural Resources complete its review of the Cedarburg-Grafton sewer service area plan as documented in SEWRPC Community Assistance Planning Report No. 91 (2nd Edition), including the accompanying maps; endorse the plan as an amendment to the regional water quality management plan; and certify the plan amendment through the Governor to the U. S. Environmental Protection Agency for endorsement.

Should there be any questions concerning this matter, please do not hesitate to contact the Commission offices.

* * *

EXHIBIT A

KWB/PCE/RPB/BPR/JED/jd
5/8/96
a:ced-graf.cov

(Preliminary Draft)

COMMUNITY ASSISTANCE PLANNING REPORT NO. 91
(2nd Edition)

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

May 1996

Inside Region	\$2.50
Outside Region	\$5.00

KWB/PCE/BPR/JED/jd
5/8/96
a:ced-graf.ch1

Chapter I

INTRODUCTION

BACKGROUND

On July 12, 1979, the Southeastern Wisconsin Regional Planning Commission formally adopted an areawide water quality management plan for Southeastern Wisconsin. The plan is aimed at achieving clean and wholesome surface waters within the seven-county Region, surface waters that are "fishable and swimmable."¹

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

¹The adopted areawide water quality management plan is documented in SEWRPC Planning Report No. 30, A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings; Volume Two, Alternative Plans; and Volume Three, Recommended Plan.

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,

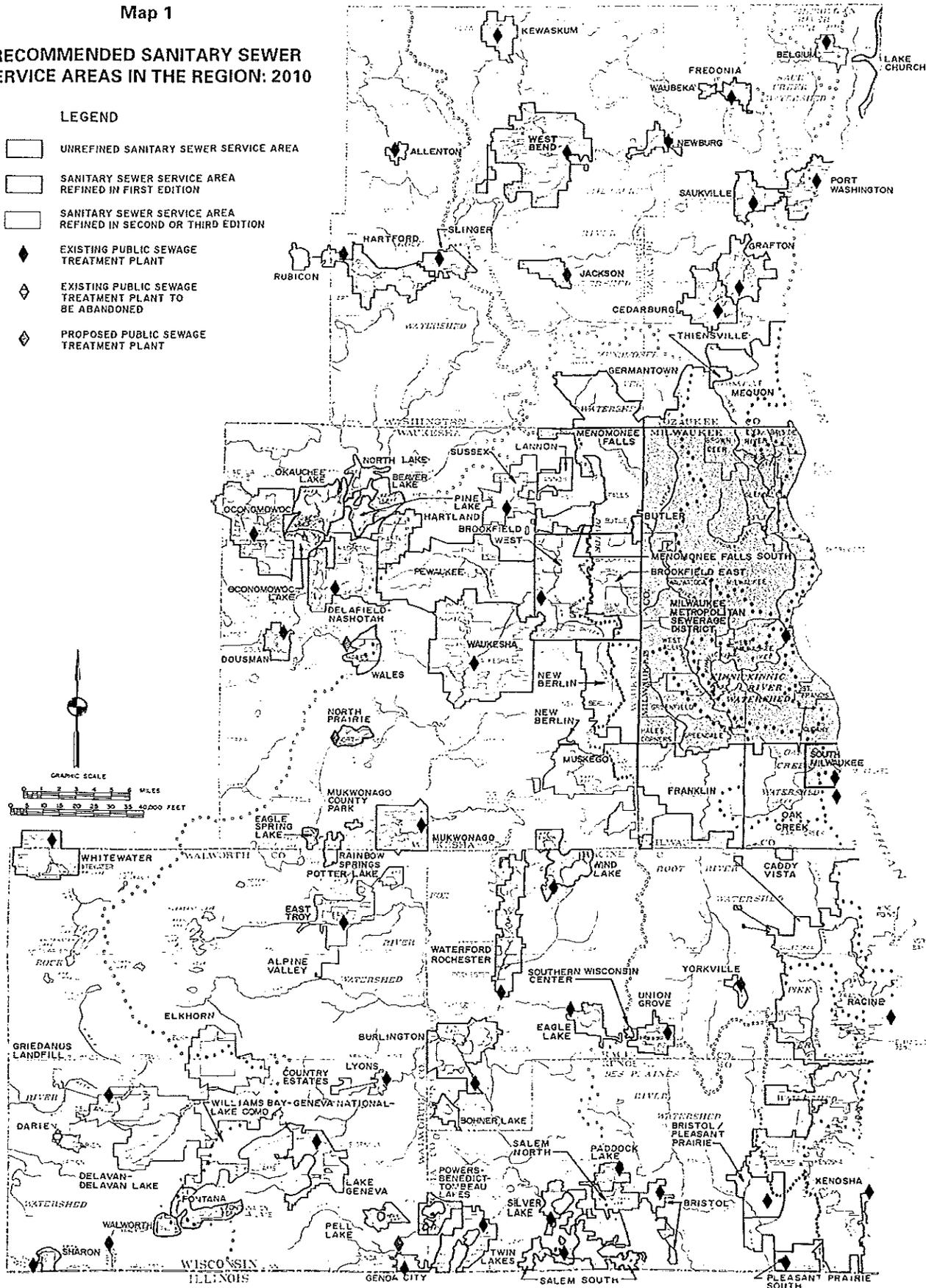
²See SEWRPC Planning Report No. 25, A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings; and Volume Two, Alternative and Recommended Plans.

Map 1

RECOMMENDED SANITARY SEWER SERVICE AREAS IN THE REGION: 2010

LEGEND

- UNREFINED SANITARY SEWER SERVICE AREA
- SANITARY SEWER SERVICE AREA REFINED IN FIRST EDITION
- SANITARY SEWER SERVICE AREA REFINED IN SECOND OR THIRD EDITION
- EXISTING PUBLIC SEWAGE TREATMENT PLANT
- EXISTING PUBLIC SEWAGE TREATMENT PLANT TO BE ABANDONED
- PROPOSED PUBLIC SEWAGE TREATMENT PLANT



Source: SEWRPC.

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 as set forth in the adopted regional water quality management plan.³
3. The conduct of intergovernmental meetings involving the local or area-wide unit or units of government operating the sewage treatment facility or facilities concerned and the other local units of government that are to be provided sanitary sewer service by the sewage treatment facility or facilities concerned. At these meetings, the initial sanitary sewer service area delineation is to be presented and discussed and the positions of each of the units of government concerned solicited.
4. The preparation of modifications to the initially proposed sanitary sewer service area to reflect the agreements reached at the intergovernmental meetings, meeting to the fullest extent practicable the objectives expressed both in the adopted areawide water quality

³The sewer service areas for the City of Cedarburg and the Village of Grafton, as initially identified in the water quality management plan, have subsequently been amended as set forth 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.

management and regional land use plans and in any adopted local land use and sanitary sewerage system plans.

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

THE 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 upon Commission 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

Chapter II

STUDY AREA DESCRIPTION

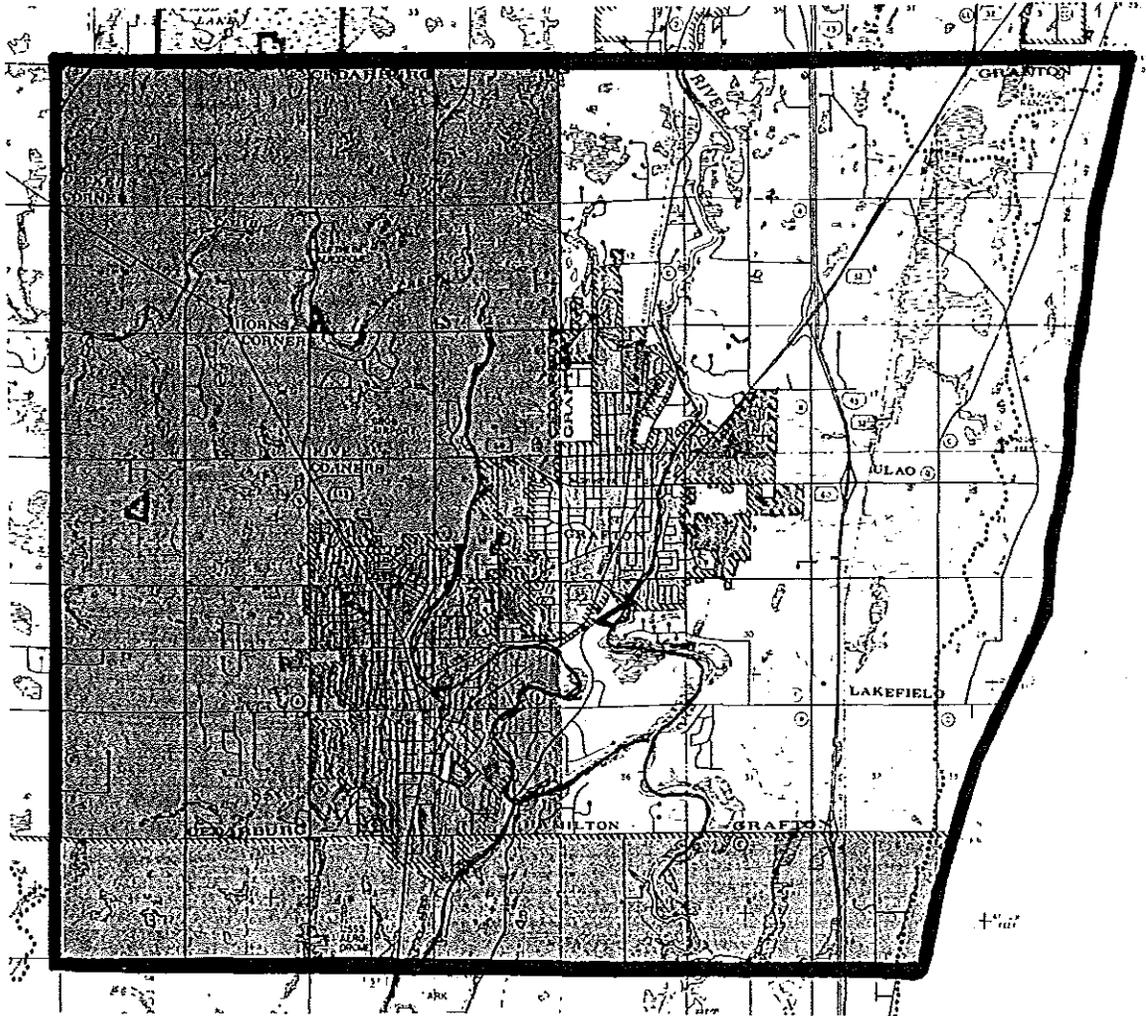
LOCATION

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

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

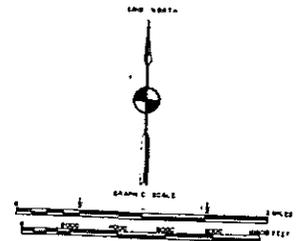


Table 1

STUDY AREA INFORMATION BY CIVIL DIVISION

Civil Division	Area		1990 Population		Population Served by Public Sanitary Sewer	
	Square Miles	Percent of Total	Number	Percent of Total	Number	Percent of Total
City of Cedarburg	3.7	6.7	10,086	35.7	10,064	51.9
City of Mequon	6.7	12.2	700 ^a	2.5	--	--
Village of Grafton	3.5	6.4	9,340	33.0	9,340	48.1
Town of Cedarburg	20.3	37.0	4,400 ^a	15.6	--	--
Town of Grafton	20.7	37.7	3,745	13.2	--	--
Study Area	54.9	100.0	28,271	100.0	19,404	100.0

^a Estimated.

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

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

The intermediate-growth centralized land use plan--the Commission's adopted land use plan--would accommodate a year 2010 resident population level of about 30,700 persons in the Cedarburg-Grafton study area. Under the alternative futures approach utilized by the Commission for its work, however, the population level within the study area by the year 2010 could be as high as 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.

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

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

Lands encompassed within the primary environmental corridors of the Cedarburg-Grafton study area in 1995 totaled 8.1 square miles, or about 15 percent of the

Table 2

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

Resource Base or Related Element	Point Value
Natural Resource Base	
Lake	
Major (50 acres or more)	20
Minor (5-49 acres)	20
Rivers or Streams (perennial)	10
Shoreland	
Lake or Perennial River or Stream	10
Intermittent Stream	5
Floodland (100-year recurrence interval)	3
Wetland	10
Wet, Poorly Drained, or Organic Soil	5
Woodland	10
Wildlife Habitat	
High-Value	10
Medium-Value	7
Low-Value	5
Steep Slope	
20 Percent or More	7
13-19 Percent	5
Prairie	10
Natural Resource Base-Related	
Existing Park or Open Space Site	
Rural Open Space Site	5
Other Park and Open Space 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.

Map 3

ENVIRONMENTALLY SIGNIFICANT LANDS IN THE
CEDARBURG-GRAFTON STUDY AREA

(Map to be displayed at meeting.)

Source: SEWRPC.

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.

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Chapter III

PROPOSED SANITARY SEWER SERVICE AREAS

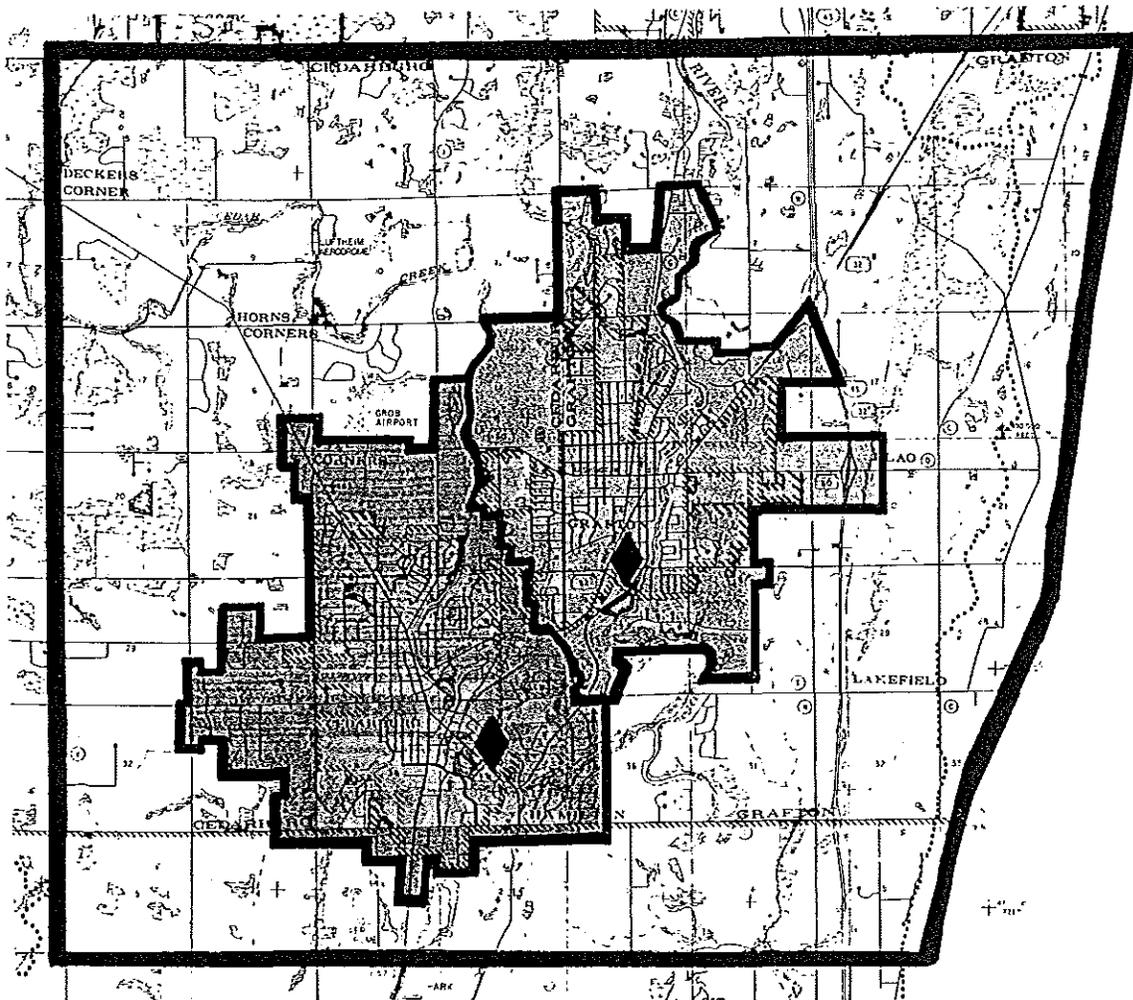
SIGNIFICANCE OF SANITARY SEWER SERVICE AREA DELINEATION

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.

CEDARBURG AND GRAFTON SANITARY SEWER SERVICE AREAS AS DEFINED IN SEWRPC COMMUNITY ASSISTANCE PLANNING REPORT NO. 141 (FIRST EDITION)



LEGEND



CEDARBURG SANITARY SEWER SERVICE AREA



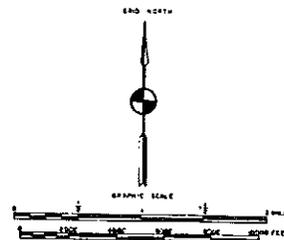
GRAFTON SANITARY SEWER SERVICE AREA



EXISTING CITY OF CEDARBURG PUBLIC SEWAGE TREATMENT PLANT



EXISTING VILLAGE OF GRAFTON PUBLIC SEWAGE TREATMENT PLANT



The combined design year 2000 Cedarburg and Grafton sanitary sewer service areas total about 14.2 square miles, or about 26 percent of the total study area of 54.9 square miles. These 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 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 area, 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 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.

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 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 as shown on Map 4; the design year 2010 regional land use plan adopted by the Regional Planning Commission on September 23, 1992, as documented in SEWRPC Planning Report No. 40, A Regional Land Use Plan for Southeastern Wisconsin: 2010, dated January 1992; the City of Cedarburg development plan prepared by the Regional Planning Commission as set forth in SEWRPC Community Assistance Planning Report No. 144, A Development Plan for the City of Cedarburg: 2010, dated February 1991; and the suggestions set forth by representatives of the City of Cedarburg.

Factors taken into account in the delineation of the revised Grafton sanitary sewer service area included the currently adopted sanitary sewer service area as shown on Map 4; the design year 2010 regional land use plan adopted by the Regional Planning Commission on September 23, 1992, as documented in SEWRPC Planning Report No. 40, A Regional Land Use Plan for Southeastern Wisconsin: 2010, dated January 1992; the Village of Grafton land use plan currently under preparation by the Village; and the suggestions set forth by representatives of the Village of Grafton.

The Cedarburg and Grafton sanitary sewer service areas refinement effort also 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 major sewerage system pumping stations and to sewage treatment facilities; the location and capacity of existing and planned trunk sewers; the location of existing property ownership boundaries; and certain pertinent aspects of the natural resource base, including the location and extent of soils suitable for urban development, the location and extent of primary and secondary environmental corridors, and the location and extent of prime agricultural lands.

As previously noted, the Commission, as part of its regional planning program, including the delineation of sanitary sewer service areas and the subsequent refinements thereof, utilizes the "alternative futures" concept to deal with the uncertainties regarding factors affecting future growth and development within the Region. The sewer service area refinement effort for the Cedarburg and

Grafton areas thus incorporates a range of population levels, with the most reasonable lower end of the population range based upon the Commission's intermediate-growth centralized land use plan and most reasonable upper end of the population range based upon the Commission's high-growth decentralized land use plan.

Local sanitary sewer service area and sewerage facility planning work should consider a range of population levels in the evaluation of alternative facility plans in order to identify alternatives which perform well under a reasonable range of possible future conditions. Construction of certain 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 such as hydraulic conduits and tanks. With respect to the size of the service area, the high-growth population forecast may be the most logical to use since the Commission forecasting methodology analyses indicate that such a level is indeed potentially achievable within the Southeastern Wisconsin Region. A sanitary sewer service area size based upon that level may also be desirable in order to provide flexibility to communities in determining the spatial distribution of anticipated new urban development and to facilitate the operation of the urban land market. With respect to the design of certain components of the sewerage system, the use of the high-growth population forecast may also be desirable where the physical life of the facilities is substantially greater than 20 years. Thus, facility construction based upon the high-growth forecast and loading levels may be warranted where the physical life of the facilities extends beyond the 20-year planning period.

Under the foregoing conditions, the population levels of the revised year 2010 combined Cedarburg and Grafton sanitary sewer service areas would 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 are highlighted on Map 6. The combined gross 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.

The environmentally significant lands located within the Cedarburg portion of the combined sewer service areas indicated on Map 5 total approximately 15 acres more than the environmentally significant lands indicated on Map 3. As indicated on Map 7, within the revised year 2010 Cedarburg sanitary sewer service area, these 15 acres are located in five areas within the 100-year recurrence interval flood

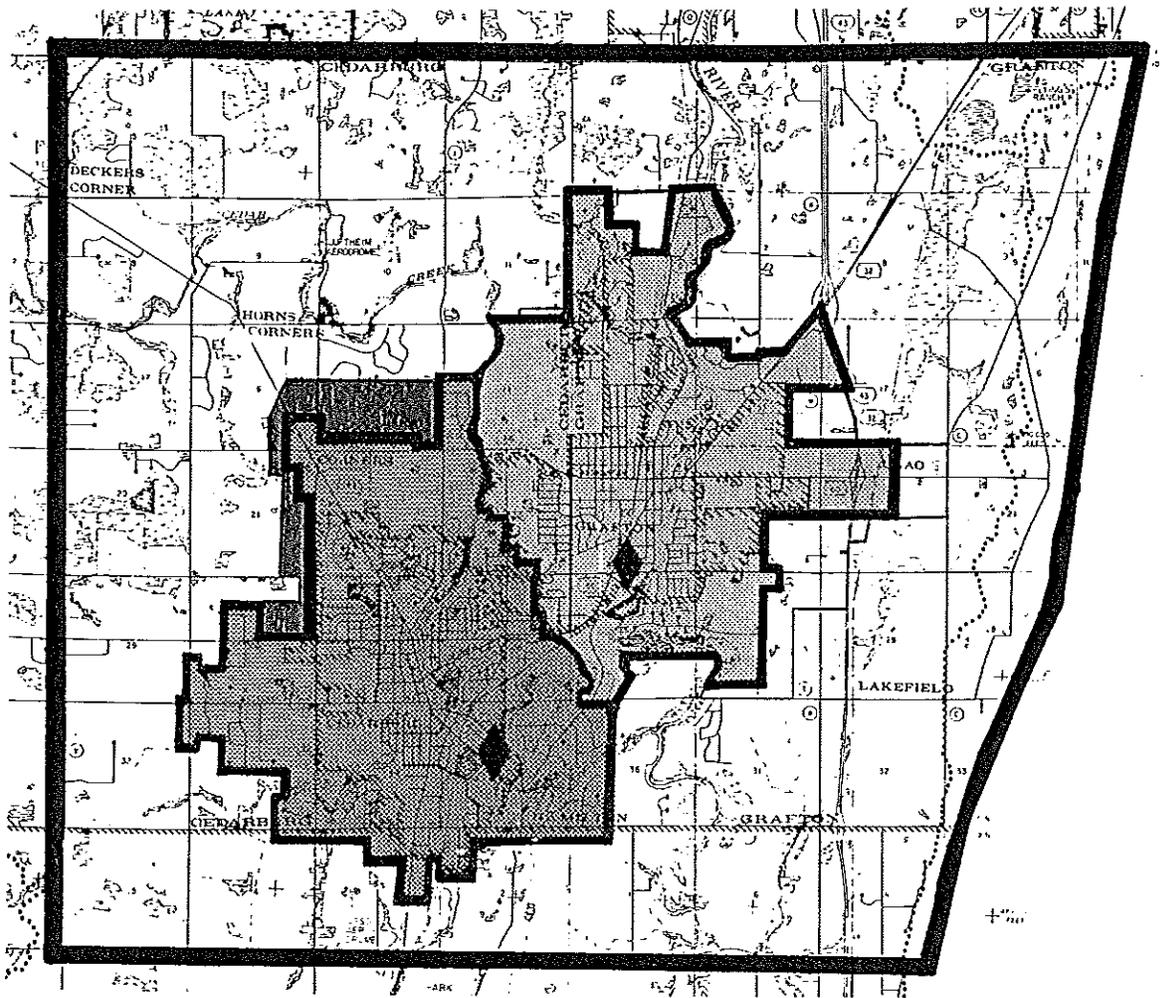
Map 5

PRELIMINARILY REVISED
CEDARBURG AND GRAFTON SANITARY SEWER SERVICE AREAS

(Map to be displayed at meeting.)

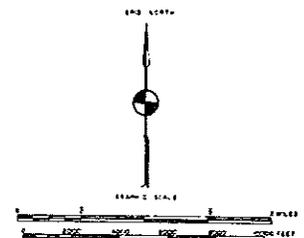
Source: SEWRPC.

PROPOSED REVISIONS TO THE CEDARBURG AND GRAFTON SANITARY SEWER SERVICE AREAS



LEGEND

-  EXISTING PUBLIC SEWAGE TREATMENT PLANT
-  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
-  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



Map 7

ANTICIPATED CHANGES TO THE ENVIRONMENTALLY SIGNIFICANT LANDS
IN THE CEDARBURG AND GRAFTON SEWER SERVICE AREAS: 1995-2010

(Map to be displayed at meeting.)

Source: SEWRPC.

hazard area adjacent to Cedar Creek, which are proposed to remain undeveloped and are envisioned to be converted to primary environmental corridor over the plan design period. 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 the adjacent primary environmental corridor.

The plan year 2010 population level of the area tributary to the City of Cedarburg sewage treatment facility would range 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 3.0 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 2010.¹

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

¹ Net 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.

of primary and secondary environmental corridor and isolated natural resource area lands.

The environmentally significant lands 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 indicated 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, which are proposed to remain undeveloped and are envisioned to be converted to primary environmental corridor over the plan design period. 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 the adjacent primary environmental corridor.

The plan year 2010 population level of the area tributary to the Village of Grafton sewage treatment facility would range 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 afore-referenced 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 2010.²

² Net 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.

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. 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 before any proposed disturbance of wetlands, floodplains, or other regulated lands.³

In addition, provision of public sewer service to that portion of the revised sanitary sewer service areas currently developed, but not yet served by public sewers, will reduce the pollutant loadings from the existing onsite sewage disposal systems to both surface water and ground water.

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.

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. 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 1990 average annual flow rate was about 1.60 mgd. The increase in sewer 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, may be expected 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, also receive significantly greater industrial and commercial wastewater loadings. Specificall-

ly, 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. 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, additional capacity. The timing of this facility planning effort will be largely dependent upon the rate and type of growth, and the timing of the provision of services to, the 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 1990 average annual flow rate 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, may be expected 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 therefore, 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 rate and type of growth, and the timing of the provision of services to, the development which occurs within the planned Grafton sanitary sewer service area, but probably will have to be initiated by 1998.

PUBLIC REACTION TO THE REVISED SANITARY SEWER SERVICE AREA

(To be completed subsequent to the public hearing.)

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 and 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 of the 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 7. In particular, steps should be taken to ensure that those lands identified as being environmentally significant in this report are properly zoned to reflect a policy of retaining such lands, insofar as possible, in essentially natural, open uses.
4. Review by the 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 was subjected to review at a public hearing. It is envisioned that the delineated sewer service areas will accommodate all new urban development anticipated in the 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.

EXHIBIT B

Chapter V.

LAND USE

INTRODUCTION

The Land Use component is the fifth in a series of seven studies which make up the Comprehensive Plan.

Land Use Planning Stages

The land use plan is developed in four stages:

1. Inventory and Analysis
2. Preliminary Plan
3. Final Plan
4. Target Area and Neighborhood Plans

Inventory and Analysis

Through the use of air photos, 1/4 section cadastral maps, subdivision plats, site plans, assessor's files and building permit records, as well as field checking all the land uses within the Planning Area. Land uses are inventoried by number of establishments and area occupied by each category. The various land use categories are then mapped.

Preliminary Plan

The Preliminary Plan has the following characteristics:

1. It includes the entire Planning Area.
2. It includes detailed analysis and statistics.
3. It is preliminary in nature.
4. It is made available to the general public for review and comment, and
5. Based upon such comments it is refined into the Final Comprehensive Plan.

Final Land Use Plan

The Final Land Use Plan includes the following:

1. The entire Planning Area.
2. Detailed inventories and analyses of existing land uses.
3. Computation of land devoted to existing land uses.
4. Based upon future needs, proposed areas to be set aside for the various land uses are computed for the next 20 years.

LEGAL FOUNDATION

In accordance with s. 62.23 of the Wisconsin State Statutes, the Land Use Plan has the *"general purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the Planning Area which will in accordance with existing and future needs, best promote health, safety, morals, order, convenience, prosperity or the general welfare, as well as efficiency and economy in the process of development."*

Pursuant to this statutory authorization, this plan is, first, an expression of what the residents of the Planning Area want it to evolve in to, in that it is a statement of goals, objectives, and proposals for the future. Second, the Plan is meant to serve as a guide for public and private decisions that will shape the Planning Area's future land use pattern. Third, the Land Use Plan is the basis for all other plans that are a part of the Comprehensive Plan. Fourth, in accordance with State Statutes, the Plan serves as the legal basis for all public improvements

and land use regulations; and fourth, legal means used to implement the Comprehensive Plan may include amending the Village Zoning and Subdivision Ordinances, creating special zoning districts, and the use of extraterritorial zoning powers, as described in Section 62.23 (7a) of the Wisconsin Statutes.

LOCAL SETTING

The Planning Area encompasses 16.8 square miles of land. It is composed of the Village of Grafton as well as portions of the Town of Grafton and the Town of Cedarburg. Given the relative difference in the character of their land use patterns, they deal with significantly different land use problems. The Towns' land use patterns are typical examples of urban sprawl. The Towns are primarily rural in nature with prime farmland being interspersed with large lot residential. Commercial and industrial development is found near I-43 Interchanges. Scattered development often causes farm/non-farm land use conflicts. Moreover, this type of development is diminishing precious farmland and leading to excessive public service costs.

This sprawl pattern is too expensive to provide with public sanitary sewer and water systems and therefore relies on individual on-site systems. Maps identifying the characteristics of the soils underlying the area indicate that at least 80 percent of the area is underlain by soils that are unsuitable for on-site sewerage disposal systems.

Because unsuitable soils often cause on-site sewage disposal systems to fail resulting in untreated effluent draining into and polluting ground water and streams. This situation is especially critical because of the extensive sand and gravel aquifer recharge areas that allow effluent to flush down into underlying aquifers that provide potable water. Consequently a large percentage of the septic systems have been replaced with mound systems or holding tanks while most of the new systems must be either of the latter two.

Since public school, police and fire facilities are also too expensive to be provided by the Town residents are served by those of the surrounding villages and cities. This situation requires extensive vehicular commuting and therefore contributes to the excessive use of fossil fuels and air pollution. It also requires school children to be bussed long distances to and from school.

The area is served by a well-developed highway transportation system. Important arterial streets and highways serving the Village include I-43, Wisconsin Avenue (formerly STH 57), STH 60 and STH 32, as well as a network of county and local trunk highways. In addition, the Wisconsin Central Railroad, Ltd. and the Chicago, Northwestern Railroad tracks traverse the Planning Area from north to south.

GENERAL DEVELOPMENT TRENDS

Figure 7A, on page 30, depicts trends in urban development within the Planning Area from prior to 1950 to the present. In 1950, urban land uses were largely concentrated in the central portion of the Village of Grafton, however, a two and one-half mile strip of summer cottages had developed along Edgewater Drive and the Milwaukee River. By 1950 urban development occupied a total of 239 acres.

Since 1950 massive urban development occurred within the Village and the Planning Area. By 1963 an additional 599 acres of land representing a 250 percent increase over the 1950 urban area for a total of 838 acres. Prior to 1963 development occurred primarily contiguous to existing urban uses. However, scattered subdivisions, have since developed outside the Village along the Milwaukee River and Cedar creek. By 1970, an additional 702 acres of land (an 84 percent increase over the 1963 area for a total of 1,540 acres) had been developed. The majority of industrial development occurred between 1950 and 1970 along the Milwaukee Central railroad tracks, while the majority of duplex and multi-family

development occurred between 1970 and 1980 adjacent to the industrial corridor.

By 1980 an additional 775 acres were developed for a total of 2,315 acres. This represented a 50 percent increase over 1970. Between 1980 and 1985 an additional 158 acres were developed, for a 7.3 percent increase and for a total of 2,473 acres. This development occurred mostly outside the Village. Presently, 2,819 acres of land (excluding lots in excess of two acres, major roads and railroads) are devoted to urban uses. This amounts to an additional 346 acres for a 14 percent increase over 1985.

The Village is presently oriented in a north/south direction with a central spine of mixed commercial, industrial and multi-family development. This spine is flanked by tiers of multi-family, duplex, small lot (7,200 to 8,000 square feet) and larger lot (10,000 to 20,000 square feet) single-family residential neighborhoods.

The general character of development within the Village has changed significantly since the 1960's. Single-family residential lots are becoming progressively larger and more expensive. In 1960 the average lot size was 7,200 to 8,000 square feet, whereas, new lots are averaging 13,500 square feet.

Town development continues to sprawl although Town fathers have recently adopted more stringent development control ordinances requiring even larger lots as well as the preservation of open space and critical environmental areas.

The Grafton Planning Area has a well balanced economic base. Although its commercial and industrial sectors continue to expand most of its tax revenue is derived from residential development. Economic Development For Grafton Enhancement (EDGE), a private corporation, is working with both the Village and Town of Grafton to create a well balanced economic base and revitalize the existing Central Business District (CBD).

The future land use pattern of the Planning Area will be influenced by the existing critical

environmental areas, historical local and regional land use patterns, zoning, anticipated population growth, Federal and State laws, and court decisions. The influences of the latter three will be discussed later.

Most of the Planning Area could reasonably be served with public utilities and facilities within the next 20 years.

AREA TREND ANALYSES

Figure 13 divides the Planning Area into 18 study areas that could eventually be discerned as neighborhoods. These areas are numbered according to the chronological sequence they have experienced urban development and the extent of their urbanization.

Area 1. Boundaries: Fifth Avenue east along North Street to the Milwaukee River, south to Falls Street, west to the Chicago, Milwaukee and St. Paul Railroad (C. M. & St. P. R. R.) tracks, north to Highway 60, west to Fifth Street

This area developed prior to 1950. The focal points of development were the Milwaukee River, Highway 57, Highway 60 and the Milwaukee Central Railroad tracks. South of Highway 60 development occurred along the west side of the Milwaukee River, on both sides of Highway 57 (Wisconsin Avenue) and the east side of the Milwaukee Central Railroad tracks south to Falls Street. Development in this area is compact, mixed use, small scale, and pedestrian oriented.

This area can be divided into three subareas - stretching from Highway 60 south to Cedar Street and east from Eleventh Street to the River, and from Cedar Street south along Highway 57 to the Wisconsin Electric Power Company (W.E.P.C.O.) right-of-way. This area is referred to as the Village's central business district (CBD). It is characterized by an intermix of older retail/service, and duplex and single-family residential buildings.

The businesses within this area are primarily small service establishments engaged in financial, insurance, real estate, legal, and personal services with a smattering of small specialty retail shops, automobile service establishments, taverns, one hotel and a bowling alley. The area is void of convenience retail shops such as grocery, prescription drug, hardware, and junior department stores which provide essential goods needed on a daily basis. Therefore, residents of surrounding neighborhoods are forced to drive their cars to the south side of town in order to purchase these goods.

The area is presently experiencing a turn over in businesses. The Reibe Olds auto dealership building was vacant for approximately one year but now has a new tenant. The Village Hall has been moved to 1971 Washington Avenue near the Police Station. The Town of Grafton is utilizing the old Village Hall as its Town Hall. Several buildings within the area are in need of repair and maintenance and the entire area is gradually being revitalized.

In 1991 the Village retained the University of Wisconsin- Milwaukee (UWM), Planning and Design Institute (PDI) to compile a rehabilitation plan for the CBD. The plan recommended the rehabilitation of existing store fronts, decorative pavement treatment and uniform signage. A low interest loan program was established through a revolving loan program sponsored by local banks and a sign grant program. Since then, a number of businesses have painted or rehabilitated their buildings.

Immediately north and south of the CBD, are predominantly small lot (7,200 to 8,000 square feet) single-family residential neighborhoods. Although the predominant land use in the north area is single-family residential, it is interspersed with several duplex, multi-family, industrial and commercial service establishments.

The area south of the CBD between the Milwaukee Central Railroad tracks encompasses the Library, Kennedy Elementary

School, small lot single-family and duplex residences with industrial and commercial development along Tenth Avenue and large lot single-family residences along the Milwaukee River.

Area 2. Boundaries: Washington Street, the west Village limits, Hickory Street, Ninth Avenue, Cedar Creek Road, the Milwaukee Central Railroad tracks, Hickory Street, the W.E.P.CO. right-of-way, North Street, Fifth Street

This area developed primarily during the 1950's and 1960's. It can be divided into two distinct subareas. The industrial corridor straddling the railroad tracks on the east, and a traditional, predominantly small lot, single-family residential neighborhood in the west. The latter area is composed of smaller, well maintained homes along gridiron, tree lined streets. There are few conflicts between the residential and industrial areas. Vacant land lies along Cedar Creek Road and the Milwaukee River. Most recently development is occurring in the form of duplexes along Cedar Creek Road.

Area 3. Boundaries: Cedar Creek Road, Milwaukee River, North Street, Milwaukee Central R.R. tracks.

This area developed within the 1960's and 1970's. It is drained by Mole Creek and the Milwaukee River and their respective floodplains. It encompasses diversified development including large lot single-family homes along the River, within the floodplain, and between the W.E.P.CO. right-of-way and Green Bay Road, moderate density single-family, duplex, and multi-family residences, Meadowbrook Park commercial and industrial. There is extensive vacant land within this area. A large portion of it lies outside the Village limits.

Area 4. Boundaries: W.E.P.CO. right-of-way, Milwaukee Central R.R., Washington Street, First Avenue

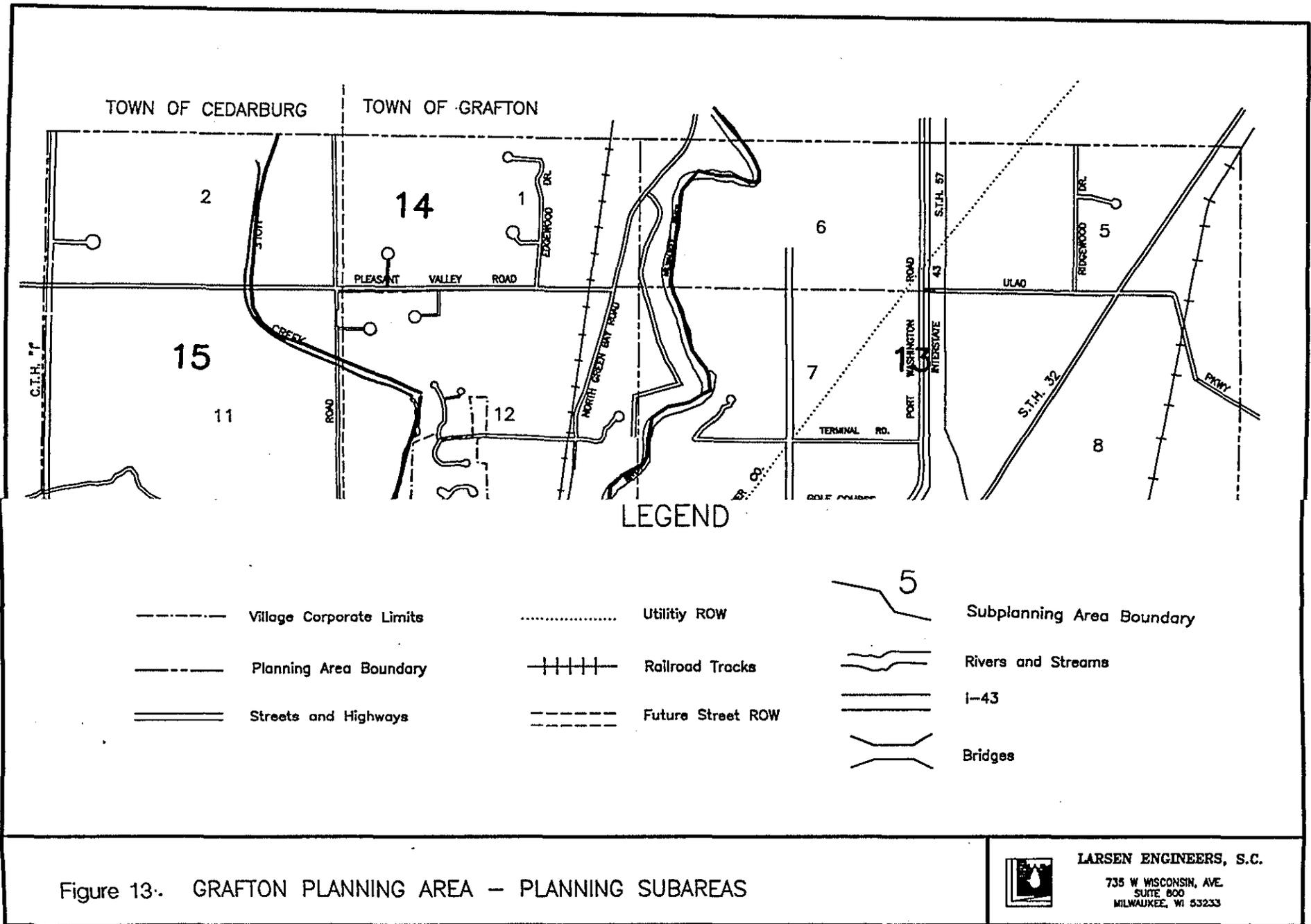


Figure 13. GRAFTON PLANNING AREA – PLANNING SUBAREAS

LARSEN ENGINEERS, S.C.
 735 W WISCONSIN, AVE.
 SUITE 800
 MILWAUKEE, WI 53233

Source: Larsen Engineers, S.C.

This area is fully developed. It experienced development between 1950 and 1980. The eastern half of this area is the most densely developed area in the Village containing duplex and multi-family residential, commercial and industrial development. The western one-half is predominantly small lot (7,200-9,000 square feet) in the north and medium sized lot (12,000 square feet) single-family residential in the south. The area is scattered with churches and associated schools. Residential development has occurred in three tiers: multi-family along Seventh Avenue as a buffer between industrial to the east and duplex to the west, and duplexes as a buffer between the multi-family to the east and single-family to the west. Examples of development are the Fellowship Bible Church, the Est Corporation, the 67 unit Manchester Heights elderly apartment complex and the multipurpose Senior Center.

Area 5. Boundaries: Washington Street, First Avenue, W.E.P.CO. right-of-way, Bobolink Avenue

This area is also fully developed encompassing predominantly medium sized lot single-family residential subdivisions. Most development occurred between 1970 and 1980 with the most recent development occurring along Washington Street and in the south west corner. The Milwaukee Medical Clinic is located on Washington Street.

Area 6. Boundaries: Bobolink Avenue, Falls Road extended to Cedar Creek, Washington Street

This area is partially within the Town of Cedarburg and the Village of Grafton. Aside from large lot single-family development along Washington Street and along the southern boundary, this area has experienced development only since 1985. Keup Road acts as the dividing line between urban and rural residential development. Lots east of Keup Road average between one-quarter and one third of an acre, whereas lots west of Keup Road average well over an acre in size. This is one of the most rapidly developing areas in the

Village, with approximately 104 additional single-family housing units being proposed.

Area 7. Boundaries: Keup Road, Columbia Road (Hwy 57) First Avenue, W.E.P.CO. right-of-way, Falls Road

This area is partially within the City of Cedarburg, the Town of Cedarburg, and the Village of Grafton. Approximately one-half of the area is within the Village. It encompasses primarily multi-family development situated along First Avenue, Oak Street, Chateau Court and Falls Road. Approximately one-third of the area within the Village is vacant including several single-family lots. The large vacant parcels are slated for multi-family and commercial development. One-half of the area outside the Village is devoted to large lot single-family development, while the other half is vacant. An additional 156 multi-family housing units are proposed for this area.

Area 8. Boundaries: First Avenue, Milwaukee Central R.R., W.E.P.CO. right-of-way

This is the principal commercial center of the Village and Planning Area. It encompasses three strip malls and several fast food and automobile oriented business, a large apartment complex, as well as industrial and office complexes. Unlike the CBD, due to its large parking lots and wide roadways, this area discourages pedestrian travel. Since it is presently the only area in the Village that has supermarkets, department stores and drug stores, everyone in the Planning Area must come here to shop. Also, because it is not conducive to walking, most shoppers travel by automobile causing traffic congestion and air pollution.

Area 9. Boundaries: Washington Avenue, Milwaukee River, Village southern limits, Cheyenne Avenue

This area first experienced development prior to 1950 along Washington Street. During the 1950's and 1960's development occurred along the Milwaukee River, Seventeenth Avenue and

Falls Road. Most of the vacant land has recently been platted for single-family, duplex and multi-family development. The Village's Police Station is presently located on Washington Street. The new Village Hall has been located here at 1971 Washington Street and new fire station is proposed for the east side of the Police Station. To the rear of these facilities is a large Village park. Plans were recently approved for three new residential developments consisting of 86 single-family, 76 duplex and 56 multi-family, for a total of 218 housing units.

This area drains south through a major drainageway into the Milwaukee River. It is interlaced with hedge rows and encompasses several small woods and wetlands.

Area 10. Boundaries: Washington Avenue, Cheyenne Avenue, Falls Road, I-43

This area is primarily within the Town of Grafton. The majority of it is classified by the Town as prime agricultural land. The area between Port Washington Road and I-43 is zoned for business. It is divided into the Milwaukee River and Ulao Creek watersheds and therefore has a gently undulating landscape. It drains to the south and east.

Development consists of the Grafton Corporate Park, a subdivision on the corner of Falls Road and Port Washington Road, two homes along Port Washington Road and business on the southwest corner of Port Washington Road and Washington Street.

Area 11. Boundaries: STH 57, Washington Street, I-43, Arrowhead Road

The majority of this area is within the Village of Grafton and is classified as industrial, and single family and multi-family residential, however a large portion is within the Town of Grafton and is presently agricultural. The Town has zoned it as business and single-family one acre lot residential. It is bisected by two intermittent streams that flow east into Ulao

Creek, and the divide between the Milwaukee River and Ulao Creek watersheds. It encompasses extensive woodland north of the high school and a small wood lot on Arrowhead Road.

Development consists of the Grafton Elementary and High Schools, Leeson Electric Corporation, and homes at the intersection of Washington Street and STH 57. Proposed development includes single and multi-family residential, commercial and industrial land uses as depicted in the land use plan map.

Area 12. Boundaries: Cedar Creek Road (extended), Milwaukee River, Washington Avenue, STH 57, River Road

The southern portion of this area lies within the Village of Grafton, whereas, the northern portion is in the Town of Grafton. The area within the Village has developed to small and medium sized lot subdivisions, while large lot subdivisions are developing in the Town. The majority of the development occurred during the 1960's, however several homes have been constructed since 1985. Approximately one half of the area is developed, while one-third is prime agricultural land or floodplain.

Area 13. Boundaries: Milwaukee River, northern Planning Area boundary, CTH "C", Arrowhead Road

The northeastern section of the Planning Area is divided into the Milwaukee River and Ulao Creek watersheds. It is bisected by five intermittent streams and further divided into nine subwatersheds and therefore has a rolling topography. Both the river and the creek are flanked by extensive floodplains and wetland.

The area also is bisected by several major roads including I-43, State Trunk Highways 57 and 32, and County Trunk Highways C (Ulao Road), and CTH W (Port Washington Road). The Chicago and Northwestern Railroad (C. & N.W. R.R.) also bisect the area from north to south.

This area is predominantly agricultural in nature with prime agricultural land located primarily along the Milwaukee River. However, since 1970 urban development has occurred in the form of scattered subdivisions, individual homes, a mobile home park and business establishments clustered around the I-43/STH 57 interchange and along the major roads. W.E.P.CO. has established a 284 acre fly ash dump site between STH 32, the C. & N.W.R.R. and Ulao Parkway. The new 204 acre Wellington Country Club of Wisconsin is located within this area west of I-43.

Area 14. Boundaries: Cedar Creek Road, Mole Creek, the north Planning Area boundary, Milwaukee River

The Milwaukee Central R.R., Green Bay Road and Maple Road bisect the area from south to north, while Pleasant Valley Road bisects it from east to west.

This area is drained by Mole Creek, the Milwaukee River, and their extensive wetlands and floodplains. It is divided into five subwatersheds and therefore is extremely undulating with the wetlands nestled among steep slopes. It also is underlain by extensive sand and gravel deposits. Consequently, since 1950 several subdivisions have been developed along Maple Road, Cedar Creek Road, Shady Lane, the Milwaukee River/Edgewater Drive and Pleasant Valley Road. Also, the 99 acre Edgewood Golf Course is located on Cedar Creek Road adjacent to the Milwaukee Central R.R.

Since these developments utilize septic or mound systems for sewage disposal, the underlying aquifers and adjacent wetland and floodplain are susceptible to pollution.

Heritage Settlement composed of 91 single-family homes and nine duplexes is the largest development in the area. This development is within the Village of Grafton and is served with public sewer and water systems.

Area 15. Boundaries: Cedar Creek, CTH I, northern Planning Area boundary, Mole Creek, Cedar Creek Road

This area is in the Town of Cedarburg. It is interlaced with environmentally sensitive areas such as floodplain, wetland, woodland and aquifer recharge areas. The area is bounded by Mole Creek and Cedar Creek and bisected by three tributary streams that flow from northwest to southeast. It consequently has an extremely undulating topography. The Cedar Creek floodplain and associated wetlands lie in the southwestern corner, while the extensive Mole Creek floodplain/wetland system lies along the east boundary. Consequently, the area is divided into four major and minor watersheds. The most significant drainage divide separates the area into the Cedar Creek and Milwaukee River watersheds.

Extensive sand and gravel deposits (aquifer recharge areas) underlie the area. Since these deposits are suitable for road building, the area is pockmarked with several scattered quarries. These deposits are also suitable for on-site sewage disposal systems. Since 1985, this area has experienced the development of several scattered single-family subdivisions and individual homes, utilizing septic and mound sewage disposal systems, along its roads.

Hundreds of acres of woodland are aligned along Mole Creek, Cedar Creek and associated tributary streams, while hedge rows crisscross the area.

Area 16. Boundaries: Cedar Creek, Cedar Creek Road, Fifth Avenue; Rose Street, First Avenue, Washington Street

This area lies entirely within the Town of Cedarburg. Wetlands occur within the northeast and along Cedar Creek. The area is relatively flat and is drained by both Cedar Creek and Mole Creek. A tributary of Mole Creek flows from south to north through this area.

Two large lot subdivisions exist within the area. One developed during the 1960's, while the other is presently under development. Two new subdivisions are presently being proposed on land adjacent to the Village.

Area 17. Boundaries: Cedarburg, Cedar Creek, Green Bay Road, Village limits, Falls Road, I-43, Lakefield Road

This area lies entirely within the Town of Grafton. Most of it is classified as prime agricultural land, wetland or floodplain. It is divided into the Milwaukee River and Ulao Creek watersheds and is traversed by the Milwaukee River, Cedar Creek and five intermittent streams which flow south. Underlying soils are unsuitable for on-site sewage disposal systems.

Development has occurred as homes on large lots scattered along Port Washington Road, River Bend Road and Falls Road, and clustered on Manchester Drive and Green Bay Road. It has also occurred as miniwarehouses and a service station near the northeast corner of Port Washington and Pioneer Roads. No development has occurred here since 1980.

Moreover, this type of development is diminishing precious farmland and leading to excessive public service costs.

Area 18. Boundaries: I-43, Lakefield Road, CTH "C", CTH "Q"

This area is bisected by Ulao Creek and eight tributaries and associated valleys and wetland. A one-quarter mile wide deposit of sand and gravel (aquifer recharger area) that straddles the Creek underlies the area.

Development has occurred as homes along CTH "C" and Falls Road, and commercial and industrial development clustered near the I-43 interchanges.

LAND USE INVENTORY AND ANALYSIS

In 1989, using 1985 data, the Southeastern Wisconsin Regional Planning Commission (SEWRPC) compiled a Park and Open Space Plan for The Village of Grafton. Table 25 presents the land use data contained in that plan. According to the Plan, the Village encompassed 1,793 acres, or 15 percent of the Planning Area. Four hundred fifty-six acres (25 percent) of the Village were devoted to agricultural or natural areas. The remaining 1,337 acres (75 percent) were in urban uses. Residential uses encompassed 666 acres (37 percent). Commercial, industrial, transportation, and other urban uses together encompassed 671 acres (38 percent). The SEWRPC Planning Area encompassed 11,577 acres including the southeastern portion of the City of Cedarburg. The Planning Area encompassed 3,340 acres (28.9 percent) of urban uses, and 8,237 acres (71.1 percent) of agricultural and natural areas.

Table 29 lists the number of residential, commercial and industrial buildings constructed within the Village by land use category for the years 1988 through 1994. Single-family housing starts have been rather erratic since 1988 ranging from a high of 57 in 1988 to a low of 22 in 1992, however they have more than doubled since 1992. Duplex starts have also been erratic ranging from a low of two from 1989 through 1991 to a high of 14 in 1992. During 1994 and 1995 over 400 multi-family and 66 duplex units were either under construction or completed.

Figure 14, located in the pocket on the inside back cover, depicts Village and Planning Area land uses as of 1993. Table 30 lists the amount of land occupied by each land use category. The Village encompassed 2,237 acres of land and comprised 21 percent of the Planning Area. Almost one-half of the Village is residential. Other urban uses encompass 792 acres or 38.8 percent. The Planning Area encompasses 10,753 acres. Residential development occupies 2,426 or 23 percent of the Planning Area. Other urban uses comprise 2,181 acres or 20.3

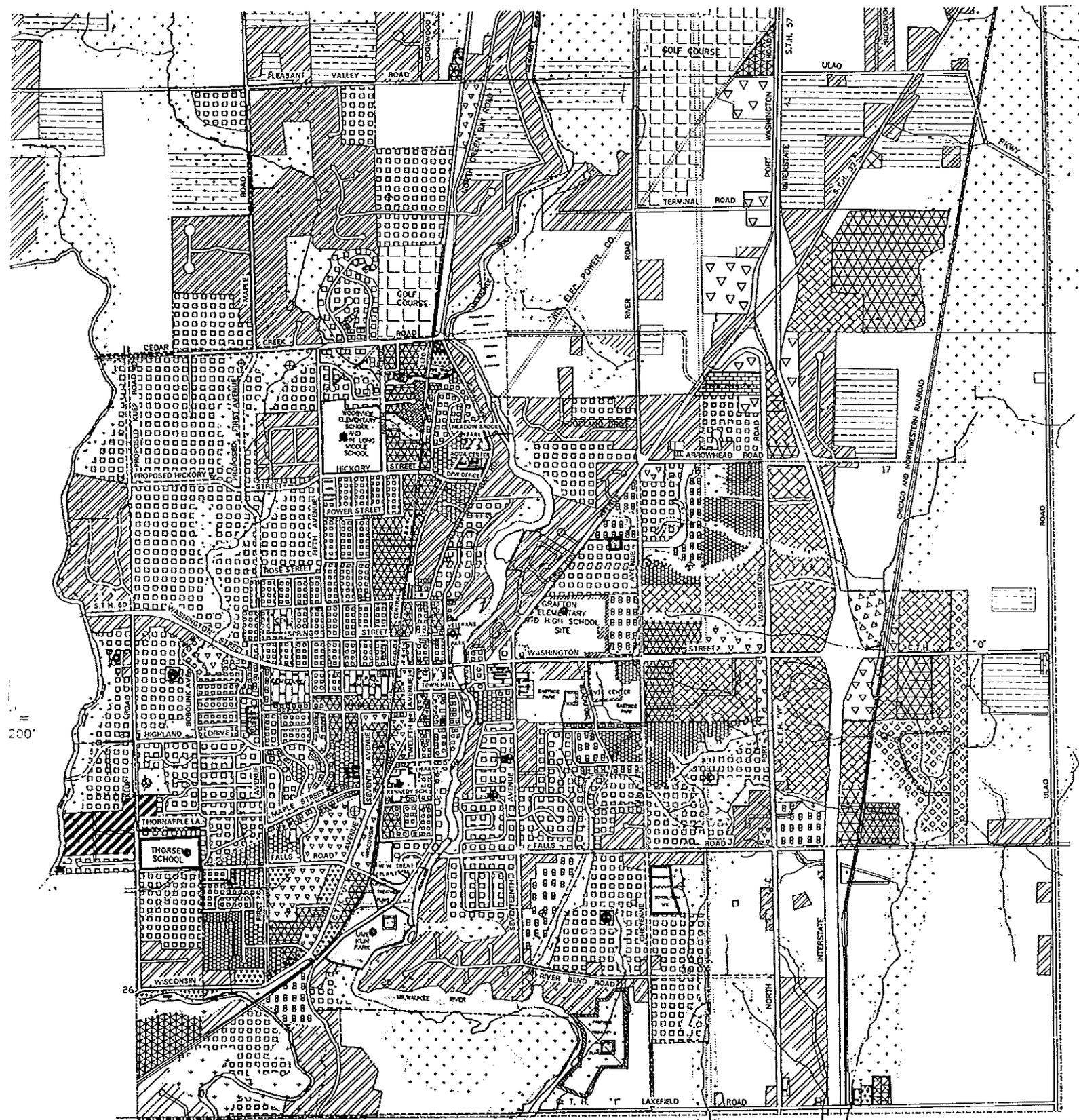
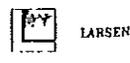


Figure 15. GRAFTON PLANNING AREA – PROPOSED 2010 LAND USE



<ul style="list-style-type: none"> ----- Planning Area Boundary ----- Village Limits ----- 2010 Urban Limits Line ----- Village Owned Property ----- Communication/Utilities 1-43 ----- Streets and Highways 	<p>RESIDENTIAL</p> <ul style="list-style-type: none"> Single-Family Rural Estates Low Density (20 to 40 d.u./acre) Medium Density (2 to 4.2 d.u./acre) High Density (4.2 to 6.2 d.u./acre) Duplex/Townhouse (6.3 to 8.7 d.u./acre) 	<p>COMMERCIAL</p> <ul style="list-style-type: none"> Convenience Retail/Service General Merchandise Office <p>BUSINESS/INDUSTRIAL</p> <ul style="list-style-type: none"> Business Park Industrial 	<p>AGRICULTURAL LAND</p> <ul style="list-style-type: none"> Agricultural Land (< 35 acres) Prime Agricultural Land (> 35 acres) <p>PARKS</p> <ul style="list-style-type: none"> Community Parks Neighborhood Parks
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EXHIBIT C

E.R. Documentation

forth coming

EXHIBIT D

Environmentally Sensitive
Areas Inventory

by SE DISTRICT

forthcoming

EXHIBIT E

AG LAND

PLANNING REPORT NUMBER 40

A REGIONAL LAND USE PLAN
FOR SOUTHEASTERN WISCONSIN—2010

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

January 1992

Inside Region \$15.00
Outside Region \$30.00

Table 90

PRIME AGRICULTURAL LAND IN THE REGION BY COUNTY: 1963 AND 1985

County	Prime Agricultural Land							
	1963		1985		Change: 1963-1985			
	Acres	Percent of Region	Acres	Percent of Region	Total		Inside Urban Service Area (acres)	Outside Urban Service Area (acres)
					Acres	Percent		
Kenosha	84,864	11.0	76,471	11.4	-8,393	-9.9	-1,163	-7,230
Milwaukee	11,983	1.5	1,351	0.2	-10,632	-88.7	-4,610	-6,022
Ozaukee	81,564	10.6	73,335	10.9	-8,229	-10.1	-947	-7,282
Racine	108,601	14.0	98,626	14.7	-9,975	-9.2	-1,846	-8,129
Walworth	220,114	28.5	208,941	31.2	-11,173	-5.1	-939	-10,234
Washington	125,632	16.3	108,256	16.2	-17,376	-13.8	-1,208	-16,168
Waukesha	139,975	18.1	103,078	15.4	-36,897	-26.4	-6,486	-30,411
Region	772,733	100.0	670,058	100.0	-102,675	-13.3	-17,199	-85,476

Source: SEWRPC.

farmland would necessarily be converted to urban use to accommodate future urban growth and development. The plan recommended that the conversion of prime agricultural land to urban use be limited to those lands which were already committed to urban development because of the proximity to existing and expanding concentrations of urban uses and the prior commitment of capital in utility extensions. Of the prime agricultural lands lost between 1963 and 1985, 17,200 acres, or 17 percent, were located in or adjacent to expanding urban areas; the conversion of these areas to urban use was generally consistent with the regional land use plan. The balance, about 85,500 acres, or 83 percent of the total loss, was located in outlying rural areas generally recommended to remain in agricultural and related use under the plan.

It should be noted that, while the conversion of prime agricultural land to urban use has exceeded the amounts envisioned under the adopted regional land use plan, many local units of government in the Region, cognizant of the resource value of such lands, have enacted zoning to preserve such lands in agricultural use, most such zoning having been enacted after 1980. By 1985, exclusive agricultural zoning

prohibiting the division of farmland into parcels less than 35 acres had been applied to almost 375,000 acres, or 56 percent of the remaining prime agricultural lands in the Region. Exclusive agricultural zoning prohibits incompatible urban use, especially intensive residential development, and thereby assists in minimizing the expensive and inefficient urban sprawl development patterns which are so detrimental to the Region's natural resource base. A detailed description of exclusive agricultural zoning in the Region is presented in Chapter VII of this report.

Woodlands: This land use category includes upland areas of one acre or more which are covered with trees or heavy brush, including tree farms.⁷ Woodland areas have very obvious and important direct values as wildlife habitat; as aesthetic settings for urban development; and as areas for nature study, scientific pursuits, and outdoor recreational activities. They also have

⁷Lowland wooded areas, such as tamarack swamps, are classified as wetlands in the regional land use inventory.

Exhibit F

National Register of Historic Sites: October 1995

Map No.	County	Site Name	Address	Minor Civil Division	Site Type	Location**	Date of Entry
1-001	Kenosha	Boys and Girls Library	5810 8th Ave.	City of Kenosha	S	022331	10-24-80
1-002	Kenosha	Kemper Hall	6501 3rd Ave.	City of Kenosha	S	012305	06-07-76
1-003	Kenosha	Kenosha County Courthouse	912-56th St.	City of Kenosha	S	022331	03-09-82
1-004	Kenosha	John McCaffery House	5732 13th Ct.	City of Kenosha	S	022331	01-31-78
1-005	Kenosha	The Manor House	6536 3rd Ave.	City of Kenosha	S	012305	10-29-80
1-006	Kenosha	St. Matthew's Episcopal Church	5900 7th Ave.	City of Kenosha	S	022331	06-06-79
1-007	Kenosha	Gilbert M. Simmons Memorial Library	711 59th Pl.	City of Kenosha	S	022331	12-17-74
1-008	Kenosha	Justin Weed House	3509 Washington Rd.	City of Kenosha	S	022225	12-03-74
1-009	Kenosha	Barnes Creek Site	Confidential	Town of Pleasant Prairie	S	012319	07-20-77
1-010	Kenosha	Chesrow Site	Confidential	Town of Pleasant Prairie	S	012319	11-30-78
1-011	Kenosha	Wehmhoff Mound	Confidential	Town of Wheatland	S	021926	11-21-85
1-012	Kenosha	Third Avenue Historical District		City of Kenosha	D	012306	11-01-88
1-013	Kenosha	Library Park Historical District		City of Kenosha	D	012306	11-29-88
1-014	Kenosha	Civic Center Historical District		City of Kenosha	D	022331	07-26-89
1-015	Kenosha	Kenosha Light Station	5117 Fourth Ave.	City of Kenosha	S	022331	06-28-90
1-016	Kenosha	Lucas Site (47 KN-226)		Town of Pleasant Prairie	S	012319	02-24-95
2-001	Ozaukee	Covered Bridge ✓		Town of Cedarburg	S	102110	03-14-73
2-002	Ozaukee	Concordia Mill	252 Green Bay Rd.	Town of Cedarburg	S	102135	04-26-74
2-003	Ozaukee	Cedarburg Mill	215 E. Columbia Ave.	City of Cedarburg	S	102127	05-08-74
2-004	Ozaukee	Edward Dodge House	126 E. Grand Ave.	City of Port Washington	S	112228	07-24-75
2-005	Ozaukee	Hamilton Historic District		Town of Cedarburg	D	102135	07-01-76
2-006	Ozaukee	Stony Hill School		Town of Fredonia	S	122128	10-08-76
2-007	Ozaukee	Old Ozaukee County Courthouse	109 W. Main St.	City of Port Washington	S	112228	12-12-76
2-008	Ozaukee	St. Mary's Roman Catholic Church	430 N. Johnson St.	City of Port Washington	S	112228	12-12-77
2-009	Ozaukee	Hilgen and Wittenberg Woolen Mill	N70 W6340 Bridge Rd.	City of Cedarburg	S	102127	12-22-78
2-010	Ozaukee	Jonathan Clark House	13615 N. Cedarburg Rd.	City of Mequon	S	092103	06-17-82
2-011	Ozaukee	John Reichert Farmhouse	14053 W. Wauwatosa Rd.	City of Mequon	S	092104	07-01-82
2-012	Ozaukee	Harry W. Bolens House	824 W. Grand Ave.	City of Port Washington	S	112229	08-25-83
2-013	Ozaukee	Grafton Flour Mill	1300 14th Ave.	Village of Grafton	S	102124	06-30-83
2-014	Ozaukee	Cedarburg Woolen Company Worsted Mill	1350 14th Ave.	Village of Grafton	S	102124	06-30-83
2-015	Ozaukee	Hoffman House Hotel	200 W. Grand Ave.	City of Port Washington	S	112228	03-01-84
2-016	Ozaukee	Wayside House	W61 N439 Washington Ave.	City of Cedarburg	S	102134	03-02-86
2-017	Ozaukee	Washington Avenue Historic District		City of Cedarburg	D	102127	01-17-86
2-018	Ozaukee	Payne Hotel	301 E. Green Bay Ave.	Village of Saukville	S	112125	03-14-91
2-019	Ozaukee	Columbia Historic District		City of Cedarburg	D	102126	01-22-92
3-001	Racine	First Presbyterian Church	716 College Ave.	City of Racine	S	032316	03-20-73
3-002	Racine	Ell R. Cooley House	1135 S. Main St.	City of Racine	S	032316	04-11-73
3-003	Racine	McClurg Building	245 Main St.	City of Racine	S	032309	07-13-77
3-004	Racine	John Collins House		Town of Caledonia	S	042215	11-20-74
3-005	Racine	Thomas P. Hardy House	1319 S. Main St.	City of Racine	S	032316	12-03-74

EXHIBIT F

