2035 EDEN

SEWER SERVICE AREA PLAN

WDNR CERTIFICATION DATE: September 21, 2015

Prepared by the
East Central Wisconsin Regional Planning Commission
in cooperation with the
State of Wisconsin Department of Natural Resources

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ABSTRACT

TITLE: 2035 Eden Sewer Service Area Plan

CONTACT: Joe Huffman – Sewer Service Area Planner

AUTHORS: Joe Huffman – Sewer Service Area Planner

SUBJECT: Sanitary sewer service area delineation for future community growth.

DATE: WDNR Certification Date: September 21, 2015

PLANNING AGENCY: East Central Wisconsin Regional Planning Commission

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This plan updates and supersedes the 2000 Eden Sewer Service Area Plan which is an element of the State of the Upper Fox River Basin Plan, (2001). This plan was prepared by the East Central Wisconsin Regional Planning Commission and was certified by the Wisconsin Department of Natural Resources on September 21, 2015 as part of the State of Wisconsin Water Quality Management Plan. It provides population and land use projections and delineates future growth areas for the Eden Sewer Service Area. Also identified are environmentally sensitive areas which should not be developed. This plan contains policy recommendations encouraging cost-effective and environmentally sound development patterns.
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CHAPTER 1
INTRODUCTION
CHAPTER 1: INTRODUCTION

This report represents the second update of the Eden Sewer Service Area Plan, a formal element of the State of Wisconsin’s Water Quality Management Plan, which for this area includes the State of the Upper Fox River Basin Plan, (2001). In the thirty years sewer service areas have been in effect, they have had significant impacts on urban development. Both communities and land developers are now more aware of sewer service areas and are using the plans and policies in planning future growth.

REPORT FORMAT

This plan describes and delineates the 2035 Eden Sewer Service Area. The plan was developed in accordance with state and federal guidelines and involved public input and review. These measures include:

- one public hearing/informational meeting; and
- working sessions with local officials.

This plan discusses the sewer service area, (SSA), characteristics, projected growth levels and the service area plan map, (Exhibit #8). The beginning and end portions of this document discuss traits common to all SSA plans, such as:

- service area goals, objectives and policies;
- service area delineation and planning process; and
- service area amendment and update process.

PURPOSE

This Eden Sewer Service Area plan update amends the 2000 Eden Sewer Service Area Plan. The update is part of a regularly scheduled re-evaluation of sewer service area plans. Water quality plan elements, including sewer service areas, are to be updated every five years as provided by Wisconsin Administrative Code NR-121.07(2)(a)1. However, this schedule is dependent upon available funds and priorities established within the WDNR.

Sewer service area plans serve as a basis for Wisconsin Department of Natural Resources (WDNR) approval of state and federal grants for the planning and construction of wastewater collection and treatment facilities. They also serve as a basis for WDNR approval of locally proposed sanitary sewer extensions and the Wisconsin Department of Safety and Professional Services approval of private sewer laterals. In addition, environmentally sensitive areas (ESAs) identified in the service area plans serve as a guide for environmental permit decisions by federal and state and local agencies.

Sewer service area plans are intended to be an important planning and development guide for local communities. The updated plans:

- Identify wastewater treatment and collection needs for sewer service areas through the year 2035.
• Forecast the amount and location of future urban development areas.

• Identify environmentally sensitive areas where development should be limited to protect water quality.

• Contain land use development forecasts and recommendations for implementing wastewater treatment and collection plans for individual sewer service areas.

• Establish "holding tank" service areas for isolated and rural special uses where appropriate.

BACKGROUND

The passage of the Federal Water Pollution Control Act Amendment (P.L. 92-500) in 1972 marked the beginning of a new approach to the planning, design and construction of municipal wastewater collection and treatment facilities. This law established areawide water quality management planning under Section 208 and also the Facility Planning Grant Program under Section 201. The preparation of sewer service area plans for major urban areas was a significant part of this planning process, (see Exhibit 1 for ‘designated’ and ‘non-designated’ areas).

In recent years, the State of Wisconsin has embodied many of the federal areawide and facility planning requirements in the Wisconsin Administrative Code. These administrative rules set forth clear procedures and standards regarding the preparation of these plans and their implementation. Specific sections of the code directly pertaining to these activities are NR-121, concerning areawide waste treatment management planning; and NR-110, concerning facility planning and sanitary sewer extensions.

In June 1977, East Central completed initial sewer service area plans for 23 communities within the Fox Valley area under contract with the Fox Valley Water Quality Planning Agency (FVWQPA). These plans delineated sewer service areas through the year 2000. The service area plans were adopted as part of the point source element of the Fox Valley Water Quality Management Plan in January, 1979. In 1985, the East Central Wisconsin Regional Planning Commission entered into a memorandum of understanding with the Wisconsin Department of Natural resources to initiate sewer service area planning for the non-designated portions of the East Central ten county region. This memorandum sets out the responsibilities and relationships among the parties relative to the planning, management and implementation of sewer service area plans.

The contractual agreement provides that East Central will periodically review, revise and update the service area plans, and review proposed sewer extensions and sanitary laterals for conformance with the approved areawide water quality plan. As provided by Wisconsin Administrative Code NR-121, the WDNR's role is to review and approve every sewer service area plan and plan amendment taking into account water quality impacts and cost effectiveness. The WDNR and East Central Planning also reviews and approves plans for wastewater treatment facilities and sewer extensions and laterals based upon conformance with the areawide plan. The contract agreement outlines rather broadly the responsibilities of each of the agencies involved in managing sewer service areas.
In order to address specific development proposals which impact sewer service area plans on a day-to-day basis, East Central has adopted an Amendment Policy and Procedure for Sewer Service Areas. The amendment policies and procedures, initially adopted in 1978, were revised in 1984, 1990, with additional amendments regarding the urban areas (Fox-Cities/Oshkosh/Fond Du Lac) in late 1996 and early 1997. These policies and procedures established standards and criteria for amending sewer service area boundaries and also describes the procedure for amending sewer service area plans. The amendment policies, (page 75), provide a mechanism whereby communities can alter service area boundaries in response to changes in both the rate and direction of development.

The amendment process provides the flexibility for communities to adjust to short-term changes in development trends and thus provides a means of accommodating changing development trends between the five-year updates.

The 2035 Eden Sewer Service Area Plan was adopted by the Village of Eden on April 21, 2015 and by the Town of Eden on July 13, 2015. East Central’s Sustainable and Efficient Community Services and Facilities Committee adopted the plan via Resolution 14-15, (June 10, 2015) and by its full Commission on July 31, 2015. The plan update was certified by the Wisconsin Department of Natural Resources and became effective on September 21, 2015 (Appendix A).

GOALS, OBJECTIVES AND POLICIES

In the ten-county region of the East Central Wisconsin Regional Planning Commission, sewer service area plans are prepared within the context of the regional comprehensive land use plan, New Directions for Growth and Development (ECWRPC, 1978). The process used for the 1978 land use plan established goals, objectives and policies formulated in response to citizens’ desires and needs brought forth in East Central’s public participation program. Appropriate goals, objectives and policies were referenced as the groundwork for the establishment of 104 urban service area plans and boundaries.

A major review and update of the goals, objectives and policies was completed in 1995 and 1996 and have been incorporated within the Community Facilities Chapter of the Commission’s approved 2030 Regional Comprehensive Plan (visit http://www.ecwrpc.org/ for a .pdf copy.) As part of the updating process in 1995 and 1996, the earlier set of goals, objectives and policies have been refined to provide more specific guidance for service area planning. The refinements are a result of additional community and technical advisory committee participation in the service area update planning process. The refinements also reflect various state and federal laws and regulations which impact sewer service area growth and development activities.

Four overall goals have been identified. These goals and related objectives and policies pertain to growth management, urban service delivery, environmental resources and open space. Objectives and policies related to the goals point out the significant interrelationship between urban growth and land use, sanitary sewerage planning and the environment. Together, they provide a sound basis for determining a community’s future development.

The intent of the 2035 Eden Sewer Service Area Plan is to encourage efficient, orderly and planned land use development patterns which allow for logical, cost-effective sewered development that incorporates sound environmental management practices. The land use element provides direction and integrates four sub-area functional plans which have direct
impacts on future land use. These functional areas are Growth Management, Urban Service Delivery, Environmental Resources and Open Space.

GROWTH MANAGEMENT

Goal: Encourage an orderly and planned pattern of community growth and development.

Objective: Allocated Growth. Promote balanced allocation of land areas to accommodate current and future urban development needs.

Policies:

1. The supply of land allocated for urban development should approximate the current and future needs as determined from population, employment and land use projections which have been developed in conjunction with adopted comprehensive or urban service area plans.

2. New urban development patterns should incorporate planned areas of mixed use and density neighborhoods that are clustered and compatible with adjacent uses.

3. Work places, shopping centers, recreational facilities, and community facilities should be located to provide a mix of land uses for improved accessibility for residents.

4. Urban designs with higher density land use alternatives should be promoted.

Objective: Planned Urban Communities. Promote planned urban communities which contain centralized, compact, contiguous and compatible urban development patterns.

Policies:

1. Vacant developable lands within existing urban areas should first be in-filled, then development staged outward from the existing development limits.

2. New subdivision development should be encouraged within existing urbanized areas or as an expansion of existing urban areas concurrent with the provision of necessary facilities and services.

3. The expansion of major commercial and industrial land use activities should be adjacent to existing areas or in areas designated for such development in adopted comprehensive plans.

4. Natural and man-made features, such as ridge lines, streams and major highways, should be considered in the expansion and staging of urban development.

5. Urban development should only take place in designated urban service areas.

6. Community development plans should be coordinated in multi-jurisdictional urban areas.
7. Urban sprawl in the form of unplanned development which is non-contiguous, low density, scattered and inefficiently served should be discouraged.

**Objective: Environmentally Sound Development.** Promote urban development which protects environmentally sensitive areas and is compatible with the natural resource base.

**Policies:**

1. Urban development should be directed to suitable land and discouraged on unsuitable land, such as floodplains, wetlands, prime agricultural soils, areas of high bedrock and groundwater, steep slopes, prime wildlife habitat, unique scientific areas and areas of historical or archeological significance.

2. The development of environmentally sensitive areas should be discouraged.

3. Adverse development impacts to surface water and groundwater should be mitigated.

4. Designs and plans for new development should preserve open spaces for public use, complement the existing landscape, and conserve energy and natural resources.

5. Land reclamation should be required following extractive operations or other uses which significantly alter the land surface.

6. Urban redevelopment activities should weigh environmental, health and safety factors against associated costs and benefits.

**Objective: Efficient Development.** Promote efficient and cost-effective development in urban growth areas.

**Policies:**

1. Urban development should be encouraged at densities adequate to sustain reasonable urban service costs.

2. Urban development should occur in areas served by adequate public facilities and services.

3. A variety of types, prices and locations of housing should be provided to promote convenience, choice and affordability.

4. Development patterns and site designs that support multimodal transportation should be encouraged.

5. Major commercial and industrial areas should be provided with readily accessible major transportation systems.

6. Community comprehensive plans should be adopted prior to the extension of urban services.
Objective: Rural Land Development. Preserve rural land uses by requiring planning which considers water and sanitary sewer adequacy.

Policies:

1. Agricultural and open space characteristics of rural areas should be preserved.

2. Rural development should be limited to land with suitable physical characteristics and soils supporting conventional on-site sewage treatment systems.

3. Rural residential housing should be limited to dependent single lot use in agriculture and open space areas.

4. Rural subdivision development should be limited to areas which do not negatively impact agricultural or open space uses and the provision of public services.

5. Rural subdivision development should be restricted in urban planning areas until long-term urban services are provided.

Objective: Compatibility with the Transportation Network. Encourage development in areas that are served by existing transportation infrastructure.

Policies:

1. Infill development and redevelopment projects should be promoted in order to avoid the need for extension of transportation infrastructure and service.

2. Design standards for infill should be given different consideration for transportation/traffic requirements compared to "greenfield" development.

URBAN SERVICE DELIVERY

Goal: Promote urban services in an efficient, environmentally sound, and socially responsible manner.

Objective: Economical Public Facilities. Provide efficient, economical, and equitable public facilities and services to urban development.

Policies:

1. The use of existing public facilities and services should be maximized in the allocation of future urban growth.

2. Designing of new and upgraded transportation and utility facilities with capacities sufficient to respond to existing demand levels and to the additional demand generated by planned development should be encouraged.

3. A full range of essential urban services and facilities should be provided to urban development areas.
4. The costs of providing urban services should be minimized through higher density development.

5. Major infrastructure extensions should be staged to coincide with community growth rates.

6. Utilities serving individual developments should be extended consistent with community water and wastewater system plans.

7. Provision of public facilities and services should be coordinated with the location and timing of new development.

Objective: To promote sanitary sewerage systems which are environmentally sound.

Policies:

1. Disturbances of natural resources should be minimized when constructing sanitary sewerage systems.

2. Constructing sanitary sewers through environmentally sensitive areas should be avoided whenever possible.

3. The design and construction of sanitary sewerage facilities should not promote development in environmentally sensitive areas.

4. Sanitary sewerage systems should meet water quality standards.

5. When feasible, sanitary sewer systems and stormwater drainage systems should be designed and constructed concurrently to achieve pollution abatement, gain drainage benefits and minimize disruption of natural resources.

6. Erosion and sediment control practices should be utilized in constructing sanitary sewer systems where the potential for erosion is high.

Objective: To promote sanitary sewerage systems which will effectively and economically serve urban development.

Policies:

1. The number of waste treatment plants should be minimized to avoid duplication of facilities, institute economies of scale and lessen environmental degradation.

2. Urban development should be provided with sanitary sewer service which is reasonably sized.

3. Existing capacity in sanitary sewerage systems should be used before making substantial expansion or extensions of service.

4. Sanitary sewerage system construction and sizing should be staged to encourage lower capital investment and greater flexibility.
5. Sanitary sewerage systems should be provided for existing development whenever they are the most cost-effective alternative for addressing failing on-site disposal systems.

6. Gravity flow sewer and interceptor systems should be utilized whenever it is cost-effective.

**Objective:** Cooperative Provision of Services. Provide services where efficiency, equity, and economies of scale can be obtained through cooperation and coordination.

**Policies:**

1. Overlapping urban service areas, facility and system capacities and service capabilities should be discouraged.

2. The proliferation of major public infrastructure facilities should be discouraged.

3. Inter-municipal agreements should be promoted for the provision of joint services.

4. More uniform facility design and service standards should be encouraged for multiple jurisdiction development areas.

**ENVIRONMENTAL RESOURCES**

**Goal:** Protect the environment and manage natural resources in an ecologically sound manner.

**Objective:** Water Quality Protection. Improve and protect surface and groundwater quality.

**Policies:**

1. The quality and supply of groundwater should be protected as the principal source of water supply and encourage water conservation programs.

2. The use of natural drainage patterns and measures should be promoted to enhance water quality.

3. Wetlands should be preserved as an essential component of the hydrologic system.

4. The risk of groundwater contamination should be reduced in aquifer recharge areas.

5. Lakeshore and streambank erosion should be minimized.

6. Construction site erosion should be controlled and urban stormwater runoff reduced.

7. Non-point source pollution abatement programs should be supported.

8. The adverse water quality impacts of agricultural runoff should be minimized.
Objective: Air Quality Maintenance. Improve or maintain high air quality throughout east central Wisconsin.

Policies:

1. Air pollution abatement programs and air quality regulations should be supported.
2. Geographically coordinated abatement strategies should be encouraged.
3. The public should be provided with information on air quality programs and specific air quality problems.
4. The increased use of transportation modes that are more efficient and environmentally sound than the private automobile should be encouraged.
5. Noise pollution should be reduced and noise sources isolated.

Objective: Environmentally Sensitive Area Protection. Preserve and protect environmentally sensitive areas and promote the linkage of these areas into environmental corridors.

Policies:

1. The natural environment should be recognized as an integrated system of interacting and finite land, water and air resources to protect the health and stability of this system.
2. Shoreland, floodplain and wetland areas should be protected as essential components of the hydrologic system and their scenic and recreational value preserved.
3. The disturbance of environmentally sensitive areas by utilities and transportation facilities construction should be minimized.
4. Critical natural areas should be preserved and protected from development and other adverse impacts.
5. Adjacent land uses which adversely impact sensitive areas should be restricted or mitigated.
6. The interrelationship of adjacent landscape types should be recognized to avoid dividing the natural units or breaking important linkages.

Objective: Wildlife Habitat Management. Manage wildlife and wildlife habitat in a manner that maintains ecological stability and diversity, and considers social and economic impacts.

Policies:

1. The diversity and population of plant and wildlife species should be maintained and increased.
2. Critical habitat areas for endangered and rare species should be preserved and enhanced.
3. Wildlife habitat such as fencerows, woodlots and natural areas should be protected and expanded.

4. Adequate public access to hunting and fishing areas should be provided.

5. Responsible public use of private land should be encouraged.

6. Wildlife and plant populations should be managed in ways that do not impose undue financial loss to individual property owners.

7. Plant and animal preserves used specifically for educational and observational purposes should be maintained and expanded.

**Objective:** Food and Fiber Production. Preserve land suitable for the production of food and fiber to meet present and future needs.

**Policies:**

1. Land best suited for agriculture or forestry should be preserved for these uses or in other uses which enable the land to be readily converted to agricultural or forestry production.

2. Ecologically sound and economically feasible farm and forestry management practices which preserve soil productivity and minimize soil loss should be encouraged.

3. Soil should be recognized as one of the basic and most important resources and programs to preserve and improve productivity and wise use consistent with soil capability should be developed and promoted.

**Objective:** Solid Waste Management. Employ a comprehensive management approach for solid and organic wastes.

1. Unique areas should be protected by minimizing the impact of individual development proposals.

2. Significant natural areas should be preserved as public open space.

3. Public access and use within environmental corridors and drainage ways should be promoted.

**OPEN SPACE**

**Objective:** Urban Recreation Needs. Plan for the future open space and recreational needs of the urban area.

**Policies:**

1. All municipalities should be encouraged to participate in the development of a comprehensive park and open space plans.
2. Opportunities should be identified for developing a network of recreational trails along highly attractive environmental corridors, natural waterways, and transportation rights-of-way to link major recreational facilities and residential areas.

3. Coordination between neighboring jurisdictions should be facilitated for development of parks and recreation facilities and linkages.

4. Future parks and open space areas should be preserved so that suitable and adequate land will be available to provide active and passive recreational opportunities as growth occurs.

**Objective: Cost-Effective Recreation. Provide recreational opportunities in a cost-effective manner.**

**Policies:**

1. Facilities should be developed which can provide multi-seasonal recreational opportunities.

2. The use of existing recreational facilities should be optimized.

3. Duplicative recreational facilities and programs should be avoided.

4. Grants and funding assistance should be maximized in the acquisition and development of recreational facilities.

5. Municipalities and school districts should be encouraged to cooperate in the development of community recreational and playground facilities.

6. The development of the county park system should be encouraged to complement recreational opportunities available in local parks.

7. Municipalities should be encouraged to establish capital funding and other parkland dedication methods to provide for future recreational needs.

**Objective: Attractive Communities. Make individual communities, and the region as a whole, a more attractive place to live, work, and play.**

**Policies:**

1. Scenic areas should be preserved and landscaping and other site development requirements strengthened to promote community beautification.

2. Additional billboard proliferation should be prevented, their placement controlled and a phase-out program promoted.

3. Community tree planting programs on street terraces and public areas should be promoted.

4. Waterfront areas should be preserved and redeveloped to promote greater public recreational use.

5. Scenic easements to protect important viewsheds should be considered.
WATER QUALITY MANAGEMENT AREAS

The Statewide Water Quality Management Plan identifies three designated, (complex), water quality management planning areas within the State of Wisconsin with the remainder of the state identified as a "non-designated" area. Within the East Central region, the Fox Valley Designated Water Quality Management Area comprises major portions of the four urban counties surrounding Lake Winnebago, (Calumet, Outagamie, Fond du Lac and Winnebago). The 1,580 square mile area has been specifically designated for water quality planning because of the concentration of industries and urbanization along the Fox River and Lake Winnebago. Within this overall area there are 17 different sewer service areas that have been delineated and individual plans prepared, (Exhibit 1).

The remainder of the region is identified as a non-designated water quality management area. To date, within the East Central region, there are seven sewer service area plans in effect within the non-designated 208 area. The "non-designated" portion of the East Central region, as well as the remainder of the state, are further divided into major river basins. For each river basin the WDNR has prepared a water quality plan. The Eden Sewer Service Area is located within a "designated" area and lies within the Lake Winnebago East watershed, Upper Fox River Basin.
CHAPTER 2

EDEN SEWER SERVICE AREA
PLAN OVERVIEW
CHAPTER 2: EDEN SEWER SERVICE AREA PLAN OVERVIEW

PLAN ASSUMPTIONS AND READER NOTES

The beginning year for this update was 2014, and hence; data was finalized mid-2014 to coincide with this starting timeframe. The plan itself looks out 20 years into the future (2035). The reader should further note that all references to SSA boundaries and acreages are associated with the ‘updated’ (2014) land use conditions, not with the ‘current’ (2000) plan features. Basically, the plan is written as if it has already obtained WDNR approval.

2035 SSA POPULATION, DEVELOPMENT AND ACREAGE PROJECTIONS

In order to ease the reading of this document, all of the detailed demographic and development projection data for each Designated Management Areas (DMA) are contained in a separate appendix (Appendix B). Figures for the aggregate SSA are referenced in the text for descriptive purposes. An attempt was made to have all data reflect conditions as of mid-year, 2014. The planning horizon also encompasses a slightly longer time span, rather than the traditional 20 year span. This will allow staff to provide (in 5-year increments) a 20-year population and development projection when reviewing sewer projects and sizing through the Water Quality Management (WQM or 208) review process.

FUTURE LAND USE DESIGNATIONS

The SSA plan has tables and maps which illustrate 2035 SSA’s vacant acreage by proposed land use type. Each community's land use classification scheme was assessed and simplified so that common land use categories could be compared.
CHAPTER 3

EDEN SEWER SERVICE AREA
CHAPTER 3: EDEN SEWER SERVICE AREA

PLANNING AREA DESCRIPTION

The planning area is defined partially by what is felt to be an approximation of the "ultimate service" area of the treatment plant based on capacity, the extent of service areas for individual lift stations or interceptor sewers, as well as delineating and including nearby clusters of development currently utilizing on-site systems which may have long-term needs for sanitary sewer (usually more than 20 years). To this end, East Central is aware the Village of Eden sewer service area has investigated the possibility of a regionalization scenario that would allow Eden’s wastewater to be treated at the Fond du Lac wastewater treatment facility. This alternative has been deemed premature and infeasible at this time. This circumstance is addressed through this plan’s ‘Goals, Objectives and Policies’ section of this report, (page 8). It should also be noted East Central administers a sewer service area plan for the Village of Eden with these same goals, objectives and policies. Future updates to this plan will continue to explore the concept of regionalization where and if practical.

The Eden planning area and sewer service area are located in the southeastern part of Fond du Lac County bisected by USH 45. The entire planning area is located within the Town of Eden and Village of Eden, (Map 2). The total planning area encompasses approximately 7,476.2 acres or 11.7 square miles. The planning area includes all of Sections 5, 7, 8, 9, 16 and 17 and portions of Sections 3, 4, 6, 10, 15, 18, 19, 20, 21 and 22, T.14N-R.18E.

Planning Area Additions/Expansions

There were no portions deleted or added from the previous planning area. This planning area boundary is based on the extraterritorial review limits for the Village of Eden (Map 2). The planning area boundary utilizes a 1.5 mile buffer from the existing corporate limit of the village. This right-to-review concept allows the village to review development plans, official mapping, land use planning/zoning and proposed subdivision plats within the planning area. By using its authority, the village has the potential to prevent the occurrence of unsewered development thus protecting sewer infrastructure investments within the village.

LAND USE AND DEVELOPMENT

Map 3 illustrates the 2014 existing land use for the Eden SSA along with the updated planning area and sewer service area boundaries for reference purposes. This information is based on the Commission’s detailed land use inventory with corrections made by the community during the update process. This data corresponds with a timeframe (or ‘snapshot’) of mid-year 2014.

In this update, the 2035 SSA contains 538.2, an increase of nearly 5% over the last plan period or 24.1 acres. Within the 2035 SSA 271.9 acres (50.5%) are considered to be developed. The developed lands can be described as follows (Appendix B, Table B-11): 120.0 acres of single family and multi-family residential land use (21.9% of total SSA); 29.0 acres of commercial land use (5.4% of total SSA); 9.04 acres of industrial land use (1.7% of total SSA); 75.9 acres of transportation/road use (14.1% of total SSA); 36.4 acres of public/institutional use (6.8% of total SSA) and 1.7 acres of utility use, (0.3% of total). A total of 58 acres are considered to be undevelopable land areas or 3.4%. This update also contains 48.5 acres of environmentally
sensitive areas which can be broken down by the following categories; 25.5 acres of wetland, 18.3 acres of stream and wetland buffers and 4.7 acres of open water.

Residential Development

Residential development within the 2035 Eden Sewer Service Area is the dominate land use category. There are considered to be 2.4 acres of multi-family residential, exclusively confined to the village’s central downtown district. The balance of residential development, 117.6 acres includes approximately 28.6 acres of an established mobile home park located on the village’s western corporate limits, (bounded by CTH F to the east and CTH B to the south). The balance of single family residential development can be found concentrated in a neighborhood north USH 45 east of N. Elizabeth Street and west of Elm Street. Additional clusters of more recent residential development can be found east of CTH F stretching from USH 45 to the north and Shady lane to the south. It is anticipated that this area will continue to develop as single family residential development for the Village of Eden.

Commercial Development

Existing commercial development can be found scattered within the downtown district of Eden which represents only 17% of all development. The bulk of commercial development lies west of the railroad main line and southeast of the established mobile home park and represents 65% of all commercial development. It is anticipated future commercial development will occur in these areas as in-fill development. Jennifer Lane, (southeast of CTH B), offers buildable lots for commercial and industrial development.

Industrial Development

Aside from the quarry activity northwest of the village limits, (Western Lime/Eden Stone), the Eden Sewer Service Area has a small industrial base. The Town/Village of Eden Joint Comprehensive Land Use Plan implements a ¼ mile quarry buffer zone limiting quarry activity and its impact on the village. The quarry operation is not being served with sewer at this time and there are no plans to provide service despite this plan update. The 2035 Eden Sewer Service Area Plan identifies a total of 9.04 acres as being industrial. The Village of Eden represents 5.22 acres or 57.7% of this total and the Town of Eden having 4.82 acres. According to the Town/Village of Eden Joint Comprehensive Land Use Plan industrial expansion has been designated in an area west of Winter Road and south of Sunny Road. Development within this area, however, will be limited due to existing wetlands found in the area. Commercial and industrial projections for this update were minimal and less than 10 acres were allocated for industrial development.

Public/Institutional Uses

The Village and Town of Eden, as related to this plan update, have no identified or designated State Natural Areas within its planning area boundary. The Village of Eden provides public and administrative services with respect to open space and recreational facilities, fire protection and police services, (contracted through Fond du Lac County), educational opportunities, (Campbellsport School District), and sewer service. The Village of Eden provides park facilities that can be describe as such; Village Park is a three acre park located northeast of the former railroad right of way in the northwestern quadrant of the village; Fireman’s Park is nearly 8 acres in size located in the northern portion of the village along USH 45 and; Eden Community Park which spans two parcels totaling 27 acres and are distinguished as Eden Community Park West and
Eden Community Park East. Eden Community Park East, approximately 13 acres in size, has been deemed as a nature-based recreation site. In addition, the Eden area has access to the Eisenbahn Recreational Trail. This 2035 Eden Sewer Service Area Plan update did not warrant additional public or institutional acreage allocations as part of this plan update.
LIMITING ENVIRONMENTAL CONDITIONS

Limiting environmental conditions for development are found throughout the Eden planning area as indicated on Map 4. Areas of steep slope are prevalent east of CTH V consuming nearly half of the planning area while smaller areas can be found west of CTH V in the south-central portion of the planning area. High bedrock appears to be limited to modest areas located west of the corporate area of the Village of Eden. Ground water within two feet of the surface is prevalent throughout the Town and Village of Eden. These conditions will pose minor limitations for development and the use of individual septic systems within the planning area.

Watersheds and Water Features

The Eden planning area is for all intents and purposes located within the Lake Michigan Drainage Basin and in turn contains the Upper Fox River Basin and the Milwaukee River Basin. More specifically within the 2050 Eden planning area there are three distinct watersheds that include; East Shore of Lake Winnebago, (HUC 0403020303), located in the northern and west-central portion of the 2050 planning area, Sheboygan River-Frontal Lake Michigan, (HUC 0403010111), situated in the extreme northeast quadrant and the East and West Branches Milwaukee River-Milwaukee River, (HUC 0404000302), found in the eastern and southern portion of the 2050 planning area. The acreage breakdown consists of 3,880 acres within the East Shore of Lake Winnebago Watershed, 3,282 acres within the East and West Branches of the Milwaukee River-Milwaukee River Watershed and 313 acre contained within the Sheboygan River-Frontal Lake Michigan Watershed.

The updated Eden Sewer Service Area is nearly entirely contained within the East Shore of Lake Winnebago Watershed with approximately 7 acres lying within the East and West Branches Milwaukee River Watershed. The Eden area serves as the headwaters for the DeNeveu Creek, the main surface water feature within the sewer service area, and is the discharge point for the village’s wastewater treatment plant. DeNeveu Creek flows northward through the Town of Empire and the City of Fond du Lac prior to discharging into Lake Winnebago.

Additional information on basins and watersheds in this region can be found in a 2001 Wisconsin Department of Natural Resources publication, State of the Upper Fox River Basin Report, the, State of the Milwaukee River Basin Report and the Sheboygan River Basin Report. These plans identify priority issues regarding water quality of the watersheds that include, however, not limited to; nutrient and sediment loadings into surface waters, groundwater contamination threats, fertilizer and pesticide uses, protection of riparian areas, public land acquisitions and smart growth and sound land use practices.

As mentioned earlier the Eden wastewater treatment plant discharges to a tributary to the DeNeveu Creek water system. This unnamed tributary flows north to a point at which it meets DeNeveu Creek travelling approximately three miles. The only other major surface water within the planning area is Twin Lakes. Twin Lakes is a thirteen acre lake situated east of the Village of Eden and south of USH 45. This body of water is also surrounded by a wetland complex and unnamed streamlets enter into and out of this lake system.
Wetlands

Wetlands, (Map 4), are essential environmental features for providing wildlife habitat, scenic open spaces, floodwater retention and groundwater discharge areas. Wetlands act as a natural filtering system for nutrients such as phosphorus and nitrates. They provide a buffer zone protecting shorelines and stream banks. Two major wetland complexes exist in the southern portion of the planning area and a somewhat smaller, albeit somewhat broken, can be found north and west of the corporate limit area. Smaller complexes are located along the periphery of the planning area with surface areas than ten acres or less.

The southern wetland features are considered to be forested wetlands totaling approximately 850 acres. In the northern portion of the planning area some 112 acres of designated wetlands a confluence of streamlets and drainageways break up this wetland complex. These waterways eventually contribute to the DeNeveu Creek that flows northward to Lake Winnebago. In the northeastern limits of the village a 25 acre wetland system can be found adjacent to single family residential development. As stated in the Town/Village of Eden Joint Comprehensive Land Use Plan wetlands are considered to have development limitations and development within these areas is discouraged. Stabilization of lake and stream levels, pollutant stormwater runoff, identification of groundwater recharge areas and wildlife habitat protection are among the recommendations dealing with wetland resources

Wisconsin Administrative Code NR 115 and NR 117 mandate that wetlands be protected in both the rural and urban areas of the state. In the unincorporated areas, NR 115 protects wetlands or portions of wetlands within the shoreland zone that are designated on Wisconsin Wetland Inventory maps prepared by the Wisconsin Department of Natural Resources. To protect wetlands in incorporated areas, NR 117 was enacted in 1983 and requires that all wetlands or portion of 5 acres or more in size located in the shoreland zone be protected and outlines minimum shoreland zoning standards for Wisconsin cities and villages. In addition to NR 115 and NR 117, NR 103 outlines water quality standards for wetlands and requires that all practicable alternatives be considered to avoid and minimize wetland disturbance and to ensure preservation, protection, restoration and management of wetlands. Any alterations that are to be made to any wetland, regardless of size, need to be reviewed and approved by the U.S. Corps of Engineers and the WDNR before any action can be taken.

Floodplains

Mapped FEMA Floodplains exist within various portions of the defined planning area. Areas susceptible to flooding are considered unsuitable for any type of development due to the potential health risks and property damage. As revised in 1984, the Flood Insurance Rate Map (FIRM) for the unincorporated portions of Fond du Lac County and the incorporated place of Eden identify areas within the Town of Eden and Village of Eden which are subject to flooding within the 100-year floodplain. Map 4 illustrates the floodprone areas within the Eden planning area. The majority of floodprone areas are relegated to the southern-most portion of the planning area and a smaller area north of the village, (generally following the wetland complexes within these areas). Floodprone areas within the Village of Eden are confined in the northern limits of the village near the wastewater treatment facility. Floodplain areas within the Village of Eden are currently undeveloped at this time and minimal restrictions for overall development have been devised.
Soils

Soils support the physical base for development within the planning area. Knowledge of the limitations and potential difficulties of soil types is important in evaluating land use proposals such as residential development, utility installation and other various projects. Some soils exhibit characteristics such as slumping, compaction, erosion, and high water tables which place limits on development. Severe soil limitations do not necessarily indicate areas cannot be developed, but rather indicate more extensive construction measures must be taken to prevent environmental and property damage. These construction techniques generally increase the costs of development and the utilities needed to service that development.

According to the Soil Survey of Fond du Lac County, prepared by the USDA in 1980, four major soil associations are present within the Eden planning area:

- **Theresa-Pella-Lamartine Association:** This soils association comprises about half of the Town of Eden’s area and nearly 75% of the village’s area and is present in the northern and western portions of these communities. This association is mainly on a ground moraine consisting of calcareous loam glacial till. These soils can be well or poorly drained and are moderately to steeply sloped. These soils are easily farmed, however, erosion and wetness are main limitations.

- **Fox-Casco Association:** The Fox-Casco Association encompasses approximately a third of the town’s area and makes up approximately 25% of the village’s soil composition. These soils are found primarily in the east central portion of the Eden planning area. This association occupies outwash plains and terraces that are nearly level to gently sloping. Glacial meltwaters have deposited stratified layers of sand and gravel in these areas. These soils are well-drained, loamy and moderately permeable. These soils are mainly used in agriculture with drought and erosion being its most prominent limitation.

- **Beecher-Elliott Association:** This soil association is comprises only 10% of the Town of Eden’s total area and is located in the northwest reaches of the planning area just below the Niagara Escarpment. This association is situated on a ground moraine of calcareous clay loam to silty clay glacial till that has high shale content. The landscape is one of nearly level to moderately steep uplands, nearly level depressions, waterways and broad lowlands. This association has no well-defined drainage pattern. Somewhat poorly drained, these soils are of a silty/clayey composition and is moderately to slowly permeable. Most of this area is used for crops, permanent pastures and woodlots.

- **Houghton-Palms Association:** This soil association is located in two areas of the Town of Eden and constitutes approximately 10% of the soil make-up. The first area is located in the west-central portion of the Town of Eden between CTH B and CTH F, west of CTH V, with other areas located in the south and southwest portion of the Town of Eden. This soil occupies large, nearly level depressions and wetland areas and is formed from fibrous plant remains. These soils are generally poorly drained and subject to ponding. If drainage is improved, this association can be used for crops with wetness being the main limitation. Undrained areas are in permanent pasture or swamp forest. Residential development is not suitable in these areas.
Additionally, based on this soils information, steep slopes, (6% and greater), are identified in several areas of the planning area, (Map 4), primarily associated with either the Niagara Escarpment, located north and northwest of the existing Village of Eden corporate limits and along drumlin features to the south and northeast.

**Groundwater**

The groundwater resources within the Eden planning area are considered plentiful and of good quality. Groundwater resources within the Eden planning area are linked directly to the surficial glacial deposits and underlying bedrock structure previously described. The Niagara Escarpment generally splits the 2050 Eden planning area delineating four aquifers in the southeast quadrant and the smaller northwest quadrant containing three other aquifers. These aquifers are generally described below.

- **The Water Table Aquifer** - Present in all areas of the planning area and consists of glacial sediments deposited by several glacial advances that covered portions of all of Fond du Lac County. The thickness of this aquifer is variable, being greatest in pre-glacial bedrock valleys and least over topographic highs in the bedrock surface. Sand and gravel seams, present throughout the aquifer, typically can transmit adequate amounts of water for private well systems.

- **The Niagara Aquifer** - Specific to the area underlying the Niagara Cuesta, this aquifer forms an important regional aquifer along the western side of Lake Michigan. The Niagara Aquifer is underlain by Mequoketa Shale which does not transmit water easily and, therefore, acts as a confining layer between the Niagara Aquifer and the much more expansive Sandstone Aquifer of Wisconsin. The Niagara Aquifer consists of water stored in cracks and fractures located randomly throughout the rock. Fractured rock aquifers are particularly susceptible to pollution. In such areas, human activities and land uses take place in close proximity to features that provide relatively direct point source input routes for aquifer recharge. Dissolved and suspended contaminants can be moved rapidly across the land and into the subsurface with little or nothing to inhibit them. Examples of affected water supply wells, springs, and surface water bodies are common in such geologic settings. The potential for groundwater contamination is classified as high throughout most of this area.

- **The Platteville-Galena Aquifer** - Located below the Water Table Aquifer and below the layer of Mequoketa Shale, this aquifer is comprised primarily of dolomite and acts as a leaky confining layer over the sandstone aquifer. It does not transmit water as readily as the underlying sandstone, but it is capable of supplying adequate amounts of water to private water systems due to secondary fractures.

- **The Cambrian (St. Peter's) Sandstone Aquifer** - The area's thickest and most important aquifer, it is the most widely used for sustained high capacity wells for municipal and industrial uses.

The Town and Village of Eden rely on private water wells for their water supply. Wells in the Town and Village of Eden utilize groundwater from the sandstone aquifer that underlies the Silurian dolomite and Mequoketa Shale formations. Soils within the Eden planning area have either relatively rapid permeability and ground wetness, (east central portion), or thin layers of soil over fractured bedrock, (northeast portion), as well as many areas of high
groundwater draws a concern over the potential for groundwater contamination, ailing on-site waste disposal systems, abandoned and active landfills, agricultural practices, quarries and other land uses have the potential to be a direct source of contamination of groundwater if not managed appropriately. Since all the residents of the Town and Village of Eden rely on individual wells and groundwater may be of serious concern. Additional concerns have been noted regarding potential groundwater drawdown impacts on private wells due to new wells being sited in the area by development around the City of Fond du Lac.
DESIGNATED MANAGEMENT AREAS

Map 5 illustrates the existing Designated Management Areas (DMAs) within the 2035 Eden Sewer Service Area. DMAs are the legal entities (communities, sanitary districts, or utility districts), responsible for the collection and/or treatment of wastewater. Within the Eden planning area there are three governmental entities that exist, one of which is the Designated Management Agency.

- Village of Eden*
- Town of Eden
- Fond du Lac County

Short descriptions of each DMA, including basic information on their involvement in land use planning and intergovernmental cooperation activities is contained below:

**Village of Eden**

The Village of Eden covers an area of approximately .61 square miles, or 391.5 acres. In the 2010 Census count the village had a population of 875 persons with 2.56 persons per household.

The village employs the use of a Village Plan Commission with the Village Board acting on significant issues and planning efforts. The Village and Town of Eden worked cooperatively to produce the *Town/Village Joint Comprehensive Plan 2009-2030*, adopting the plan in 2009. Fire protection is achieved via a Volunteer Fire Protection organization headquartered at the Eden Community Center. No village police department exists and police protection is contracted with the Fond du Lac County Sheriff’s Department. The Village of Eden has no public works department, however, does contract for a wastewater treatment plant operator granted with the discretion to maintain and monitor quality effluent from the plant. The Village of Eden is the sole collector and treatment of wastewater for the 2035 Eden Sewer Service Area.

**Town of Eden**

Roughly 35% or 189 acres that make up the 2035 Eden Sewer Service Area are considered to be within the jurisdiction of the Town of Eden. There is very little existing development, primarily scattered residential, within the 2035 Eden Sewer Service Area, (there are a total of 39 acres of development identified in this plan update). The vast majority or, 63% of vacant developable land, remains in agriculture and other vacant developable property. The residents within the Town of Eden rely on individual on-site wastewater treatment systems (conventional, mound, and holding tank). Fond du Lac County currently allows holding tanks for replacement systems only. A Town Plan Commission and Town Board Committee determine the planning activity within the township. As with the village, the Town of Eden relies on contracting services for police protection, solid waste removal and certain public works projects. A ban on holding tank installations for new development, however; they may be used as replacement systems.

* Indicates DMA designation
SEWERAGE COLLECTION AND TREATMENT SYSTEM

A majority of residents within the Town of Eden rely on individual on-site wastewater treatment systems (conventional, mound, and holding tank). Fond du Lac County currently allows holding tank installations as replacement systems only.

The Village of Eden’s wastewater treatment facility (WWTF) is located at 112 Grahl Avenue in the northwestern portion of the community. The activated sludge treatment facility did a reconstruction upgrade in 1982 and in 1996 modifications were made to increase their sludge storage capacity. Requirements to store sludge for a 180 day period was the impetus for this upgrade. The upgrade to the sludge storage capacity allowed for a slight increase in the treatment capacity.

The Village of Eden provides public sewers for the majority of the incorporated area. The sewer collection system is virtually comprised entirely of eight inch gravity sewers. The lone exception is a ten inch sewer main from the treatment plant to a point on Main Street between Martin and Margaret Avenues. This ten inch sewer main has a length of approximately 1,700 linear feet and is scheduled for a reconstruction project to coincide with planned upgrades to main Street, (USH 45).

Treated effluent is discharged to an unnamed tributary to DeNeveu Creek. DeNeveu Creek ultimately drains to Lake Winnebago through the East Shore of Lake Winnebago Watershed. The treatment plant has a design capacity of 150,000 gallons per day, (.15 mgd.), and as previously stated this design flow is somewhat increased due to the expansion of sludge storage capabilities. Sludge storage for the treatment plant is approximately 400,000 gallons. Additionally, the loss of a major wastewater flow contributor, (Friday Canning Corporation), increases the plant’s capacity by 80,000 gallons.

The facility had an average 2013 monthly flow of .158 mgd., (Table 1), with peak flows reaching an average of .2079 mgd. for the months April through June, 2013. The plant’s designed loadings for biological oxygen demand, (BOD) are 312 lbs./day with an average 2013 monthly loading of 180 lbs./day. Suspended solids loadings are designed for 392 lbs./day with a permit limit of 20 mg/l. Biological oxygen demand has a permit limit of 15 mg/l. Wet weather events contribute a significant volume of clear water as inflow/infiltration to the system. Plans to upgrade the ten inch sewer interceptor will help to alleviate this problem to a degree.

There are no plans for treatment plant improvements at this time. This plan update adds less than twenty-five acres to the overall sewer service area. The added areas are scheduled to develop as single family residential. It is anticipated this future flow can be accommodated and successfully treated at the current wastewater treatment facility. The expansion of the sanitary sewer system is limited to the northeastern portion of the village in the area of Center and Elm Streets. The shallow depth of the existing sewers in this area would require a lift station in order to provide expanded sewer service. The Village of Eden prefers to minimize the need for additional infrastructure such as lift stations. There are no plans to upgrade the treatment facility at this time, however, when the need arises the village should explore the idea of regionalization with the City of Fond du Lac.
In summary, the permit and design information for the Village of Eden treatment plant is as follows:

- **WPDES Permit Number:** WI-0030716*
- **Receiving Water:** DeNeveu Creek via unnamed tributary
- **Design Flow:** .150 mgd.
- **Average Flow (Jan.- Dec., 2013):** .135 mgd.
- **Design BOD (lb./day):** 312
- **Average BOD Influent (lb./day, Jan.-Dec., 2013):** 180
- **Average BOD Effluent (lb./day, Jan.-Dec., 2013):** 6.0
- **Treatment Type:** Activated Sludge
- **Sludge Treatment:** Aerobic Digestion
- **Sludge Disposal:** On-site storage and land spreading

* This permit has an expiration date of 2009; was a new expiration date issued?

### Table 1: Eden 2013 WWTF Performance Report

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<th>Month</th>
<th>Avg. Monthly Flow (mgd.)</th>
<th>Average Mo. (C)BOD Concentration (mg/l)</th>
<th>Avg. Monthly (C)BOD Loading (lbs./day)</th>
<th>Avg. Monthly (C)BOD (mg/l)</th>
<th>Avg. Monthly TSS (mg/l)</th>
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FORECAST GROWTH AND DEVELOPMENT

The 2035 Eden Sewer Service Area is expected to have slower rates of growth as compared to previous years, (Table 2). The total sewer service area is projected to increase by 343 people, thus bringing the population of 1,903 in 2010 to 2,215 persons in the year 2030, (the town population increase of 63 persons are included as part of the sewer service area growth as new development). East Central’s population projections from 2010 to 2035 have yet to be developed therefore the use of Department of Administration population projections are stated in this plan update. Broken down by municipality the Village of Eden represents approximately .9% of Fond du Lac County population of 101,633 persons and the Town of Eden being 1.9% of the total. The sewer service area is projected to increase by 121 bringing the estimated figure of 725 to 846 by the year 2035. The Town of Eden’s share of this total is 23 households by the year 2035 and it is anticipated that some portion, if not all, will develop as sewered development. This plan update uses 3.3 units/acre for single family residential densities equating a need for 36 acres for future residential acreage needs. Multi-family residential needs are projected to be negligible at 1 acre. Combined, this plan identifies 107.6 vacant acres for future single family and multi-family development.

Projections for industrial and commercial development within the service area show a need of an additional nine acres for future development. This update identifies 35.8 acres available for future commercial and industrial development and therefore no additional allocations were warranted.

The year 2035 Eden Sewer Service Area Plan, as revised and updated, (Map 8), now has a total of 538.2 acres of land, an increase of only 24.1 acres from the 2000 plan as amended. This plan update removed nearly 40 acres of service area from the 2000 plan only to be used as allocation areas for the 2035 plan update.
Table 2: Eden SSA Population/Housing Projections

<table>
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<td></td>
<td>2010*</td>
<td>2013**</td>
<td>2015***</td>
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<td>V. Eden</td>
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<td>875</td>
<td>882</td>
<td>905</td>
</tr>
<tr>
<td>T. Eden</td>
<td>1,028</td>
<td>1,031</td>
<td>1,035</td>
</tr>
<tr>
<td>Total</td>
<td>1,903</td>
<td>1,913</td>
<td>1,940</td>
</tr>
</tbody>
</table>

Source: 2010 US Census Bureau, Dept. of Administration Pop. Projections 2015-2040, ECWRPC

GROWTH ALLOCATION AREAS AND 2030 SSA

The policy basis for allocating acreage for future development is outlined in the Sewer Service Area Delineation and Planning Process on page 60. These policies take into account a broad range of land use and environmental concerns directed toward encouraging orderly, cost-effective and environmentally sound development. Working within the broad policy base, the sewer service area plan also considers sewer system capacities, land development market trends, development plans and preferences of the individual communities. New vacant lands available for development within the updated SSA boundary total 217.8 acres.

Priority Development Area Mapping

During the SSA plan update an assessment regarding the phasing, or ‘priority’ areas of development was determined by the Village of Eden. During the working meetings with the village and email exchanges, a map was developed which indicated their general thoughts of development timing based on their local comprehensive plan, landowner knowledge and planned capital improvements. Three levels of ‘priority’ were assigned to overall areas requested for addition to the current plan update and can be simply described as follows:
- Priority #1 – generally felt to develop in the next 5 to 10 years;
- Priority #2 – generally felt to develop in 10 to 20 years, and;
- Priority #3 – generally thought to develop in 20 or more years, primarily based on the need for and timing of major sewer infrastructure. Allocations for this plan update were minor in nature thereby altering the priority designations slightly. For the entire SSA, the ‘priority area requests’, were as follows:
  - Priority #1 areas – 50.8 acres;
  - Priority #2, (Admin.), areas – 12.45 acres; and
  - Priority #3, (Removal), areas – 39.2 acres.

Map 7 illustrates the ‘priority areas’ and their location based on the village’s request. While East Central will not formally hold each community to these development priorities, they will serve to remind the Commission, community, and public of the basic thoughts of...
development timing determined in 2014. It should be noted that East Central may, and in some cases has, recommended conditions be attached to WDNR sewer extension approvals where needed to deal with conflicts related to development timing issues or to preserve designated environmentally sensitive areas that lie within the growth allocation areas.

The 50.8 acres listed as a Priority #1 is a logical extension of developable lands south of Shady Lane and more or less bounded by CTH V to the west. As established in the Town/Village Joint Comprehensive Plan 2009-2030 this area has been classified as rural preservation as a future land use category. Lying just south and adjacent to an emerging single family residential development, this area allows for institutional, utility and conservation subdivision uses. During the last plan period, (2009), this area was explored as an alternative fuel manufacturing site which would have been an appropriate use based on the future land use designation. While this development never materialized, the village has included this allocation in the event another proposal for development surfaces. East Central would recommend amendments to the Town/Village Joint Comprehensive Plan 2009-2030 in the event development pressures shift in a new direction. This process would also ensure consistency with zoning codes enforced by the Town and Village of Eden.

The Priority #2, (administrative allocation), is an area totaling approximately 12.45 acres located directly north of the established mobile home park on CTH B. The entire parcel is within the village corporate limit area. An effort was made to include as much of the corporate limit area, (previously not included in past updates), into this plan update as possible. The goal for this was to achieve consistency between the 2035 sewer service area boundary and the village’s corporate limits. Based on the Town/Village Joint Comprehensive Plan 2009-2030 this allocation is planned to develop as single family residential. Small amounts of highway commercial development exists to the east of this area leaving open the possibility for mixed use developments.

The Priority #3 area, (removal area), contains approximately 39.2 acres and broken into three separate areas. All of the removal areas are currently within the Town of Eden. The largest area in this priority is a 23.2 acre parcel situated directly north of the existing wastewater treatment facility. The second area for removal involves a 14 acre land area that straddles USH 45 in the extreme northern limits of the village. The last and smallest area to be removed totals approximately 2 acres between USH 45 and North Elizabeth Street. All of these removals are not expected to require sewer service in the near term. The 39 acres removed from the current sewer service area has, in essence, been re-allocated to the area south of Shady Lane.
Table 3: Summary of 2020 and Proposed 2030 SSA Conditions

<table>
<thead>
<tr>
<th>SSA Characteristic</th>
<th>2020 SSA</th>
<th>2035 SSA</th>
<th>2020-2035 Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed Land Uses</td>
<td>275.10</td>
<td>271.90</td>
<td>-3.20</td>
</tr>
<tr>
<td>Vacant Lands (see below for breakdown by proposed land use)</td>
<td>190.34</td>
<td>217.84</td>
<td>27.50</td>
</tr>
<tr>
<td>Vacant/Undevelopable Lands</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Environmentally Sensitive Areas*</td>
<td>44.04</td>
<td>43.80</td>
<td>-0.24</td>
</tr>
<tr>
<td>Water Areas</td>
<td>4.59</td>
<td>4.65</td>
<td>0.06</td>
</tr>
<tr>
<td>Total SSA</td>
<td>514.07</td>
<td>538.19</td>
<td>24.12</td>
</tr>
</tbody>
</table>

Vacant Land By Proposed Land Use Type

<table>
<thead>
<tr>
<th>Proposed Land Use Type</th>
<th>2020 SSA</th>
<th>2035 SSA</th>
<th>2020-2035 Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family Residential (incl. duplex)</td>
<td>89.87</td>
<td>102.32</td>
<td>12.45</td>
</tr>
<tr>
<td>Multi-Family Residential</td>
<td>5.24</td>
<td>5.24</td>
<td>0.00</td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>39.71</td>
<td>35.82</td>
<td>-3.89</td>
</tr>
<tr>
<td>Public Institutional**</td>
<td>6.65</td>
<td>6.65</td>
<td>0.00</td>
</tr>
<tr>
<td>Agriculture/Woodlands/Undevelopable/Unplanned</td>
<td>48.87</td>
<td>67.68</td>
<td>18.81</td>
</tr>
<tr>
<td>Total Vacant Acreage</td>
<td>190.34</td>
<td>217.71</td>
<td>27.37</td>
</tr>
</tbody>
</table>

Source: ECWRPC, 2012 Land Use
* Includes wetland, stream & wetland buffers
** Includes Open Space, Utilities, Roadways, Other Public uses

Year 2035 Sewer Service Area

The year 2035 sewer service area for the Eden WWTF is illustrated in Map 8 and contains a total of 538.2 acres. Of this total, 48.45 acres, including open water areas, have been designated as environmentally sensitive areas (ESAs) and 217.8 acres are considered to be vacant/developable areas. No public or institutional uses based on community requests have been allocated in this plan update thus leaving 143.4 acres to accommodate traditional residential, commercial, and industrial development, (non-designated land uses such as resource protection areas, quarry buffer areas, conservation areas and rural preservation areas totaling approximately 74.3 acres have been omitted). Table B-11, Appendix B details the 2030 existing land use figures for this update. A short description of the acreage allocations and growth areas are provided below:

- **Village of Eden** – Actual acreage allocation areas, based on the communities’ priority designations, are depicted in Map 8. The Village of Eden identified two areas as a priority for development. These areas total 63.3 acres and are proposed to develop as single family residential and/or mixed residential uses. These allocations, while small in size, recalibrate the sewer service area for a more cost-effective approach to service.
- **Town of Eden** – All allocated acreage awarded to the 2035 Eden Sewer Service Area lies within the Town of Eden with the exception of the 12.45 acre allocation north of CTH.
B. The total allocation of sewer service area totals approximately 50.8 acres. When the removal areas are calculated a net total of 11.7 acres are new to the sewer service area. Among the existing land uses within the town allocation includes 2.4 acres of single family residential, 2 acres of existing roadway and 44.5 acres of vacant developable areas. Environmentally sensitive areas included in this allocation are minimal which includes .85 acres of stream or wetland buffers, 1.02 acres of designated wetlands and less than 1 acres of open water. These town allocated lands may require annexation to the village to realize sewer service as there is no recognized sanitary district within the Town of Eden.

East Central has long maintained that extensive development between the current sewer service area and planning area boundaries be discouraged. By limiting planned subdivisions in these areas will greatly reduce the cost of retro-fitting utilities as the community expands outward. These recommendations and policies may be found on page 80 referencing Addendum Policy 1.4. This policy targets primarily urbanized developments, however, the Village and Town of Eden could well benefit from its stated purpose.

**Holding Tank Service Areas**

According to the 2013 Compliance Maintenance Annual Report the Village of Eden received approximately 2.1 million gallons of holding tank waste. This waste is then discharged to the plant’s digester and ultimately transferred to a storage tank for further processing. This is in spite of no holding tank or alternative septic systems inventory being available. There have been no specific concerns or adverse impacts regarding the treatment of this waste.
WATER QUALITY ASSESSMENT AND DEVELOPMENT IMPACTS

Continued urbanization of the Eden planning area will impact surface and groundwater resources. Short term impacts include the increase in surface water runoff and pollutant loadings as well as a reduction in groundwater recharge areas. Long term, cumulative development impacts include the loss of baseflow in streams and enhanced stream flashiness (flooding). The scope of these impacts cannot be precisely determined because specific development characteristics (location, type, density) are unknown. However, it is possible to generally estimate water quality impacts by applying assumptions concerning the nature of future development.

Point Source Water Quality Impacts

Population growth and commercial / industrial development will slightly increase loadings to the wastewater treatment plant and ultimately to surface waters of DeNeveu Creek. Without a wastewater engineering assessment it is not possible to analyze specific flows for the different existing land uses and estimate future flows for comparison to treatment plant design capacity. A rough estimate comparing existing average daily flows of current development can be made, (see Table 4). Based upon this analysis, the average flows are expected to increase by .0121 mgd. or 12,100 gallons which is within the design capacity of the current treatment facility.

Non-Point Source Water Quality Impacts

The Eden Sewer Service Area lies East Shore of Lake Winnebago, Sheboygan River-Frontal Lake Michigan and the East and West Branches Milwaukee River-Milwaukee River watersheds within the Lake Michigan Drainage Basin, Upper Fox River Basin and the Milwaukee River Basin. The diversity of land uses within these watersheds may contribute significant amounts of sediment loads, nutrients and other pollutants into the watershed. These loadings are carried via existing ditches, stream corridors and wetland areas found throughout the 2035 Eden Sewer Service Area. Directly or indirectly, these loadings are ultimately deposited in Lake Winnebago and Lake Michigan.

It is anticipated that surface runoff and pollutant loadings will increase with the forecast growth for the 2035 Eden SSA. The placement of roads, buildings, parking lots and other large impervious areas increase the amount of water run-off thus carrying organic and inorganic pollutants associated with these land use types. The Department of Natural Resources has general guidelines for estimating unit area loadings of pollutants by land use categories. Within the 2035 Eden SSA, four pollutants, (sediment, phosphorus, zinc and lead), have been analyzed for eight land use categories. The estimated loadings address both existing and future land uses. The estimates only relate to land uses within the service area with resultant impacts on the local rivers, streams and open water. Specific subwatershed analysis was not performed.

The estimated annual pollutant loadings for the existing development area, (based on 2014 land use), within the 2035 Eden SSA are listed in Table 5. The land uses within this area consist primarily of older development with significant infrastructure therefore stormwater mitigation is more difficult and costly in these areas.

Table 6 illustrates the future annual pollutant loadings expected based on the total amounts of development which could occur by 2035 within the Eden SSA if all the available vacant lands were developed. The pollutant loadings are estimates for the proposed land uses with no
significant stormwater mitigation measures or practices adopted. Proposed land uses are shown in Map 9, Year 2035 SSA and Proposed Land Use. Utilization of stormwater detention facilities, site development controls, preservation of green space and other measures can help mitigate urban non-point source impacts on water quality. These loadings can serve as a baseline for proposed areawide stormwater reduction efforts.

**Groundwater Impacts**

Increased development of the recharge areas could have long-term impacts on the groundwater recharge. Conversion of rural/agricultural lands to urban uses may impact both the quality and quantity of groundwater as development continues. Groundwater recharge will decrease as areas are paved over or built upon. At the same time, withdrawal of groundwater on a regional basis is likely to increase for domestic, commercial and industrial use.

**Water Quality Protection and Stormwater Management**

Cumulative impacts, including loss of base flow in streams from increased development of impervious surfaces and enhanced stream flashiness and the resulting stream bank erosion from alterations to headwaters and tributaries, will occur with full build-out of the sewer service area. Stormwater management actions other than large-scale detention ponds are available for older urban areas such as enhanced street sweeping, comprehensive stormwater management and other nonstructural best management practices.

Stormwater management within the Village of Eden is addressed through a village-wide storm sewer system. The Town of Eden relies on natural drainage patterns involving drainage ditches, wetlands and agricultural drainage practices. Absent their own stormwater ordinance the village and town rely on Fond du Lac County for ordinance administration services.

East Central recommends receipt of preliminary subdivision plats for review for a conformance check with the sewer service area and water quality plan. Recommendations would be made for final plat approval based on water quality, stormwater management, environmental and cultural resource concerns.

East Central also provides mandatory sewer extension review comments. Where sanitary sewer extensions are proposed in mapped environmentally sensitive areas or on other lands whose physical characteristics indicate susceptibility to erosion or flooding, or where development of such lands is likely to impair surface or groundwater quality or uses, East Central may identify mitigating conditions to be incorporated into the development proposal. East Central may also request the WDNR to attach such conditions to any sewer extension approval for the proposed development. Where the impacts of development pose significant water quality impacts or negatively impact environmentally sensitive areas, the Commission may recommend denial of the proposed extension.

Voluntary preliminary plat review and mandatory sewer extension review are the primary mechanism for service area plan implementation and the attainment of water quality plan objectives.
Table 4: Wastewater Flow Projections

### Table 4.1: Eden SSA - Projected 2035 Residential Wastewater Flows

<table>
<thead>
<tr>
<th>SSA</th>
<th>2010 Population</th>
<th>2035 Population</th>
<th>2010-2035 Increase</th>
<th>2010-2035 SSA Population Increase *</th>
<th>Additional Flows (80 gallons per person)</th>
<th>Peak Flows (4.0 factor)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eden</td>
<td>1,903</td>
<td>2,215</td>
<td>312</td>
<td>312</td>
<td>24,960</td>
<td>0.025</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>99,840</td>
<td>0.100</td>
</tr>
</tbody>
</table>

Source: Eden 2013 CMAR; ECWRPC

### Table 4.2: Eden SSA - Projected 2035 Commercial/Industrial Flows

<table>
<thead>
<tr>
<th>SSA</th>
<th>2010-2035 Employee Increase</th>
<th>2035 Acres Needed for C/I Uses</th>
<th>Acres + 20% Market Factor*</th>
<th>Projected Flows (1100 gal/ac/day)</th>
<th>Gallons per day (gpd)</th>
<th>Millions of Gallons per Day (mgd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eden</td>
<td>312</td>
<td>9</td>
<td>11</td>
<td>12,100</td>
<td>0.0121</td>
<td></td>
</tr>
</tbody>
</table>

Source: Eden 2013 CMAR; ECWRPC

### Table 4.3: Eden SSA - Summary of Projected Flows and WWTF Capacities

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eden</td>
<td>0.100</td>
<td>0.012</td>
<td>0.112</td>
<td>0.16</td>
<td>0.150</td>
<td>(0.120)</td>
</tr>
</tbody>
</table>

Notes:  
Source: Eden 2013 CMAR; ECWRPC

### Table 5: Existing 2014 Non-Point Source Pollutant Loading Estimates

<table>
<thead>
<tr>
<th>2014 Acres</th>
<th>Development Type</th>
<th>Sediment</th>
<th>Phosphorus</th>
<th>Zinc</th>
<th>Lead</th>
<th>Sediment</th>
<th>Phosphorus</th>
<th>Zinc</th>
<th>Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>115.5</td>
<td>Medium Dens Res. (2-6 units/ac, no alleys)</td>
<td>190.0</td>
<td>0.5</td>
<td>0.2</td>
<td>0.2</td>
<td>21,945.0</td>
<td>57.8</td>
<td>23.1</td>
<td>23.1</td>
</tr>
<tr>
<td>2.4</td>
<td>Multi-Family Res. (3+ units / 1-3 stories)</td>
<td>420.0</td>
<td>1.0</td>
<td>0.7</td>
<td>0.8</td>
<td>1,008.0</td>
<td>2.4</td>
<td>1.7</td>
<td>1.9</td>
</tr>
<tr>
<td>31.7</td>
<td>Commercial (strip/downtown)</td>
<td>1,400.0</td>
<td>1.5</td>
<td>2.1</td>
<td>2.7</td>
<td>44,380.0</td>
<td>47.6</td>
<td>66.6</td>
<td>85.6</td>
</tr>
<tr>
<td>9.0</td>
<td>Industrial</td>
<td>900.0</td>
<td>1.5</td>
<td>2.1</td>
<td>2.4</td>
<td>8,100.0</td>
<td>13.5</td>
<td>18.0</td>
<td>21.6</td>
</tr>
<tr>
<td>74.7</td>
<td>Transportation</td>
<td>600.0</td>
<td>0.9</td>
<td>1.9</td>
<td>2.5</td>
<td>44,820.0</td>
<td>67.2</td>
<td>141.9</td>
<td>186.8</td>
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<tr>
<td>190.3</td>
<td>Undeveloped / Vacant</td>
<td>25.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>4,757.5</td>
<td>0.7</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>41.9</td>
<td>Institutional / Governmental</td>
<td>700.0</td>
<td>0.5</td>
<td>0.6</td>
<td>1.1</td>
<td>29,330.0</td>
<td>21.0</td>
<td>25.1</td>
<td>46.1</td>
</tr>
<tr>
<td>465.5</td>
<td>TOTALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>154,340.5</td>
<td>210.1</td>
<td>277.3</td>
<td>365.4</td>
</tr>
</tbody>
</table>

Tons 77.17 0.11 0.14 0.18

East Central Wisconsin Regional Planning Commission 3-37
Table 6: Future 2035 Non-Point Source Pollutant Loading Estimates

<table>
<thead>
<tr>
<th>Development Type</th>
<th>Sediment</th>
<th>Phosphorus</th>
<th>Zinc</th>
<th>Lead</th>
<th>Sediment</th>
<th>Phosphorus</th>
<th>Zinc</th>
<th>Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium Dens Res. (2-6 units/ac, no alleys)</td>
<td>190.0</td>
<td>0.5</td>
<td>0.2</td>
<td>0.2</td>
<td>15,960.0</td>
<td>42.0</td>
<td>16.8</td>
<td>16.8</td>
</tr>
<tr>
<td>Multi-Family Res. (3+ units / 1-3 stories)</td>
<td>420.0</td>
<td>1.0</td>
<td>0.7</td>
<td>0.8</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Mobile Home/Trailer Park</td>
<td>190.0</td>
<td>0.5</td>
<td>0.2</td>
<td>0.2</td>
<td>1,330.0</td>
<td>3.5</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Commercial (strip/downtown)</td>
<td>1,400.0</td>
<td>1.5</td>
<td>2.1</td>
<td>2.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Industrial</td>
<td>900.0</td>
<td>1.5</td>
<td>2.1</td>
<td>2.4</td>
<td>42,300.0</td>
<td>70.5</td>
<td>98.7</td>
<td>112.8</td>
</tr>
<tr>
<td>Transportation</td>
<td>600.0</td>
<td>0.9</td>
<td>1.9</td>
<td>2.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Undeveloped / Vacant</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Institutional / Governmental</td>
<td>700.0</td>
<td>0.5</td>
<td>0.6</td>
<td>1.1</td>
<td>840.0</td>
<td>0.6</td>
<td>0.7</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>60,430.0</td>
<td>116.6</td>
<td>117.6</td>
<td>132.3</td>
</tr>
</tbody>
</table>

*Tons | 30.22 | 0.06 | 0.06 | 0.07

*Note: Total SSA acres is less than previously noted due to water features and ESA land uses not being included in these calculations.
PLAN IMPLEMENTATION AND RECOMMENDATIONS

1. Continue to implement existing plans and programs to control infiltration and inflow to the wastewater treatment plant so as to increase capacity for new developments.

2. Monitor new development and loadings to the WWTF in order to determine the appropriate time for the village to initiate facility planning efforts to address potential capacity deficiencies.

3. Close coordination for the planning of any sewer development in the transitional areas should be undertaken by the Village of Eden and the Town of Eden.

4. Efforts should be made to direct development to areas where sewers are already in place before extending new sewers into undeveloped areas. Efforts should also be made to maximize use of gravity sewers as well as capacity of existing wastewater pumping stations to avoid the capital, operating and maintenance costs associated with constructing new pumping facilities.

5. Environmental conditions in the planning area warrants concern with regard to construction site erosion, destruction of wetlands and impacts on ground and surface water quality. Development should either be directed away from wetlands and areas of steep slopes or appropriate erosion control measures should be applied to minimize the erosion hazard.

Although sewer service area planning was initiated at the state and federal levels, successful implementation of each plan rests primarily at the local level with some guidance provided by East Central Planning. In the state-approved areawide water quality management plan, certain local units of government were assigned water quality-related management functions. Entities with adequate authority to plan, construct, operate and maintain wastewater collection and treatment facilities were designated as management agencies for portions of the planning area within their jurisdictions.

The Village of Eden has been designated as a Class III Designated Management Agency (DMA) to provide wastewater collection and treatment within its planning area. As a Designated Management Agency for wastewater treatment and collection the village should do the following:

1. Adopt the 2035 Eden Sewer Service Area Plan;

2. Review and update development policies and regulations in light of the sewer service plan and recommendations;

3. Submit preliminary land subdivision plats which are proposed to be sewered to the East Central Wisconsin Regional Planning Commission for review for consistency with sewer service area plans for the area;

4. Submit sanitary sewer extension requests to the East Central Wisconsin Regional Planning Commission for review for consistency with sewer service area plans prior to being submitted to the WDNR for approval;
5. Submit wastewater facilities plan elements and amended plan elements to the East Central Wisconsin Regional Planning Commission for review for consistency with sewer service area plans prior to submittal to the WDNR for approval; and

6. Carry out their management responsibilities for treatment facilities and collection systems as specified by state and federal requirements.

Implementation of the SSA plan relies mainly on local government actions which use the plan recommendations as a guide for the extensions of new sewers to service development. However, ECWRPC plays an advisory role in these decisions in two distinct ways:

1. ECWRPC requests that communities within the region require developers to submit "preliminary" subdivision plats for staff review and comment (advisory only). Staff not only checks the proposed plat, (whether sewered or using on-site treatment), for conformance with the municipality's SSA plan, but also reviews the subdivision's overall design and, more specifically, check the following items: potential water quality impacts to environmental corridors; groundwater aquifer / private well concerns; impacts to other natural and cultural features; construction site erosion control methods; storm-water management methods and concerns; impacts to other natural and cultural features; construction site erosion control methods; storm-water management methods and concerns; internal vehicle/bicycle/pedestrian transportation system design; and other social / service provision impacts. and;

2. Sewer extension requests are required to be submitted to ECWRPC for review and comment. Hopefully, staff has reviewed the preliminary plat prior to the extension request which can reduce conflicts at this point. However, staff normally requests that a copy of the final plat be submitted with the extension request. ECWRPC then issues a "208 Water Quality" letter if the extension request is in conformance with the municipality's current SSA plan. In general, if the extension request is within the designated SSA and does not have negative impacts to defined environmental corridors, a letter will be issued. Sometimes a request falls outside of the SSA Boundary and moreover initiates an SSA Amendment Request for consideration. If negative water quality impacts will occur to designated environmental corridors, a denial of the extension will occur, or recommended mitigation measures (i.e., stormwater management / erosion control devices, etc.) will be attached to the approval.

Utilizing these two methods, a majority of the water quality concerns relating to construction and development can be effectively monitored by ECWRPC for individual projects; thereby, assisting to attain the water quality objectives outlined within the plan's goals. In addition to ECWRPC's role in implementing sewer service area plans, local units of government may exercise other authority conferred upon them by state statute to preserve and protect water quality.

Local units may use this authority to plan and manage land use and development through subdivision, zoning and other development ordinances. Criteria can be written into existing ordinances or new ordinances can be adopted which promote orderly development and address water quality concerns. Additional actions by local units of government which are recommended for water quality protection include the adoption of construction site erosion and stormwater management ordinances and the preservation of greenways along existing drainage corridors.
CHAPTER 4

SEWER SERVICE AREA DELINEATION & PLANNING PROCESS
CHAPTER 4: SEWER SERVICE AREA DELINEATION AND PLANNING PROCESS

A sewer service area is a geographic area which is currently served or anticipated to be served with sanitary sewers within a 20-year planning period. Sewer service areas, sometimes called "urban service areas," were first delineated for the East Central region in 1978 in the plan New Directions for Growth and Development. In the initial plan, a generalized methodology was used for the estimation and allocation of growth which led to the identification of service area boundaries. Various state and federal guidelines, as well as regional policies, were utilized in the planning process. Since the initial delineation of service areas, the planning and management process has become much more complex and multi-faceted, thus greater detail in the explanation of the updating process is required.

The process of updating and refining sewer service area plans consists of the following major steps:

1. Identification of planning area limits;
2. Delineation of environmentally sensitive areas;
3. Identification and quantification of existing conditions;
4. Refinement of goals, objectives and policies;
5. Forecast of urban growth and re-delineation of service area limits;
6. Public and community input; and
7. Adoption and publication of final plans.

IDENTIFICATION OF PLANNING AREA LIMITS

The first step in delineating sewer service areas is the outlining of broad planning areas which include all feasible options for where urban growth might occur within a 40 to 50 year planning period (through the year 2040). Planning area boundaries generally include all areas within existing city, village or sanitary district limits. These areas may also include clusters of development and adjacent areas where there is potential for the installation of a sanitary sewerage system in the foreseeable future. Areas which could be serviced by the existing infrastructure (lift station service areas or gravity sewers) are generally included within this boundary. Planning areas generally extend beyond the existing or potential development areas to the nearest quarter section line. Planning areas serve as the study areas for wastewater facilities planning efforts.

DELINEATION OF ENVIRONMENTALLY SENSITIVE AREAS

Environmentally sensitive areas are geographic areas consisting of all lakes and streams shown on the USGS quadrangle maps and adjacent shoreland buffer areas as defined in Map 4. All wetlands shown on the state Wisconsin Wetland Inventory Maps and floodways as delineated on the official Federal Emergency Management Administration Flood Boundary and Floodway Maps are also designated environmentally sensitive. The environmentally sensitive areas are mapped on the Commission's GIS system and are also shown on the maps contained in this plan.
The purpose of designating environmentally sensitive areas is to preserve significant environmental features from encroachment by sewer development. Environmentally sensitive areas perform a variety of important environmental functions including stormwater drainage, flood water storage, pollutant entrapment, and the provision of wildlife habitat. They can also provide desirable green space to enhance urban aesthetics.

In the 1978 sewer service area plans only major wetlands as shown on the USGS quadrangle maps were considered environmentally sensitive. Since that time, the Department of Natural Resources through Wisconsin Administrative Code NR-121.05(g)(2)(c), has developed guidelines which serve as minimum criteria for the identification and delineation of environmentally sensitive areas. Department of Natural Resource guidance states, "Environmentally sensitive areas will be used for all environmental features that should be excluded from sanitary sewer service areas."

East Central, after deliberations with technical and policy advisory committees, defined environmentally sensitive areas in a manner that complements existing local, state and federal regulations which protect various environmental amenities. While NR-121 authorizes sewer service area plans to identify a broad array of natural features as environmentally sensitive areas, only those features which were believed vital in the East Central Wisconsin Region to preserve environmental quality were so designated.

Although the delineation of environmentally sensitive areas is intended to provide adequate long term and uniform environmental protection for all sewer service areas within the East Central Wisconsin Region, the environmentally sensitive area classification may be changed in two ways in response to specific local development proposals.
Figure 1: Environmentally Sensitive Area Standards

ENVIRONMENTALLY SENSITIVE AREA STANDARDS

NAVIGABLE STREAMS & WETLANDS

- Streams
  - 75’ MIN. BUFFER EACH SIDE
  - 100-YEAR FLOODWAY IF WIDER
  - Wetlands

WETLANDS

BOUNDARY

NON-NAVIGABLE STREAMS & DRAINAGEWAYS

DRAINAGE AREA GREATER THAN APPROXIMATELY 2000 ACRES

- 30’ MIN. BUFFER EACH SIDE
- 120’ MIN. TOTAL WIDTH

DRAINAGE AREA APPROXIMATELY 300-2000 ACRES

- 20’ MIN. BUFFER EACH SIDE
- 80’ MIN. TOTAL WIDTH

DRAINAGE AREA LESS THAN APPROXIMATELY 300 ACRES

- 15’ MIN. BUFFER EACH SIDE
- 60’ MIN. TOTAL WIDTH
First, the classification can be removed provided that the conditions outlined in Section (E) of the Sewer Service Area Amendment Process are met. This re-designation is considered a major change. Major changes have the potential for significant impacts on water quality and would require the concurrence of the East Central Wisconsin Regional Planning Commission and the Department of Natural Resources before these changes would become effective for the purpose of reviewing sanitary sewer extensions. Examples include:

- Removal of any mapped wetland area for sewered development, unless resulting from an activity exempted by state administrative rules governing wetland protection [NR-117.05(2)] or state approved rezoning of wetlands;
- Reduction of a delineated floodway of any navigable stream or river, or removal of any area below the ordinary high water mark of a navigable stream, pond, or lake;
- Total removal or change in the continuity of any corridor segment including floodways, wetlands, shoreland buffer strips or steep slopes adjacent to water bodies. The water quality benefit that was associated with the portion of the corridor removed must be provided in the development proposal.

In the second instance, the environmentally sensitive areas may be modified by a minor change. Refinements and minor changes would not require prior approval of the East Central Wisconsin Regional Planning Commission or the Department of Natural Resources. However, East Central would have to be informed of the change before it would be effective for the purposes of reviewing sanitary sewer extensions. East Central would then be responsible for informing the Department of Natural Resources of the change.

Refinements and minor changes are generally of two types. The first type involves changes resulting from revised, improved or more detailed background resource information to include:

- Improved or revised WDNR certified floodway delineations resulting from revised flood studies.
- Revised wetland boundaries on the Wisconsin Wetland Inventory Maps resulting from field inspections by WDNR personnel or resulting from an approved rezoning.

The second type involves changes which would not seriously affect water quality and are the result of specific development proposals to include:

- Relocation of a non-navigable stream or drainageway as long as the environmental integrity of the stream or drainageway is preserved.
- Shortening of a non-navigable stream or drainageway based upon field determination of its point of origin.
- Adjustments to the widths of shoreland buffer strips along non-navigable streams and drainageways within the guidelines established in Map 4.
- Changes which would reduce the width of shoreland buffer strips below the minimum guidelines provided there are locally adopted stormwater drainage criteria that establish
corridor widths for drainageway preservation. Locally adopted criteria must be based upon sound engineering and environmental protection criteria.

- Changes which result from utility or roadway maintenance or construction which meet the criteria set forth in NR-115 or NR-117. It is not the intent of the environmental corridors to prevent or obstruct maintenance, expansion or construction of transportation or utility facilities intended to serve areas outside of the corridors, needed to maintain or improve continuity of those systems, or designed to serve compatible uses in the corridors, such as park shelters or facilities. Facilities intended to serve new sewered residential, commercial or industrial development in the corridors would not be permitted.

It should be noted, that as of the date of this plan, ECWRPC and WDNR staff are considering a revision of the regional definition of Environmentally Sensitive Areas which may include additional features based on water quality concerns. Communities with existing SSAs will be notified and offered an opportunity to give input during this process.

IDENTIFICATION AND QUANTIFICATION OF EXISTING CONDITIONS

The ability to inventory existing conditions both quantitatively and qualitatively is paramount to evaluating land use and development trends and impacts. Aerial photos are the basis for conducting land use inventories for the individual SSAs. Comparing aerial photos (land use inventories) at different time intervals can establish trends in types and magnitude of land uses. East Central's 1980 land use inventory has been updated utilizing more recent photos (where available) or spot field surveys for this purpose. Acreages for major land use categories have been computer digitized and aggregated by section and township-range. Totals were also calculated for each unit of government within the planning area. In conjunction with the land use mapping program, all city and village municipal boundaries, as well as sanitary district limits, were identified and transferred to the sewer service area maps.

Sanitary sewerage systems for all communities have been identified on the sewer service area file aerial photos. The location and size of all sewer collectors, mains, interceptors and forcemains are mapped in detail. In addition, the locations of all lift stations, pump stations and wastewater treatment facilities are shown. These maps are continually updated as new sewer extensions are reviewed by East Central.

Important for analyzing the planning areas, existing urban development areas were delineated as part of the original land use inventory. Urban development areas consist of all concentrations of development within the planning area, together with undeveloped lands which are either sewered or otherwise committed for development. These urban development areas are, in most instances, the minimal land areas which should be designated as sewer service areas.

The urban development areas have been further broken down into areas which are (1) both developed and sewered, (2) developed and unsewered, (3) undeveloped and sewered and (4) undeveloped and unsewered. In order to be classified as sewered, areas must be adjacent to public sewer lines, with the ability to connect either through private laterals or, in certain instances, private sewers. In general, lands within 200 feet of a public sewer are assumed to connect via a private sewer lateral.
In addition to the development information, the existing sewer service area boundaries were identified to determine the location and amount of land currently available for development outside of the urban development areas.

In addition to the designations of environmental sensitive areas (shorelands, wetlands and floodways), other areas with natural characteristics that could impact environmental quality or development potential have been identified. These areas have been termed areas with "limiting environmental conditions" and include areas with seasonal high groundwater (within one foot of the surface), floodplain areas, lands with shallow bedrock (within five feet of the surface) and areas with steep slopes (12 percent or greater). Unlike the environmentally sensitive areas, development is not excluded from land with limiting environmental conditions. The primary purpose of identifying these areas is to alert communities and potential developers of environmental conditions which should be considered prior to the development of such an area.

Complementing this information, additional data was collected on existing population, numbers of dwelling units, mixes and densities of residential development, existing employment by type and amount, and densities of industrial and commercial development.

Much of this information was available from the 1990 and later census materials; other information was gathered from state and local sources. This data is contained in East Central's information files for each sewer service area.

REFINEMENT OF GOALS, OBJECTIVES AND POLICIES

The conceptual and philosophical bases for sewer service area planning are the goals, objectives and policies. As stated earlier, the service area planning process has become much more complex since it was first initiated. In response to changing conditions, minor refinements have been made over time to the 1985 goals, objectives and policies (Appendix B). This effort was done in order to give direction to decisions involving the amount of growth in a given service area, especially the allocation and location of future growth.

FORECAST OF URBAN GROWTH

The forecasting of urban growth and development within the East Central region involves two primary analytical processes. These are 1) population projections and related dwelling unit and employment estimates, and 2) allocation of land use acreage. This process answers the question of the quantity and location of new growth. The process utilizes the sewer service area policies and various planning and development standards as a technical basis.

Population Projections

Population projections are important in forecasting urban growth. The projections used are the 2010-2040 Department of Administration (DOA) population projections by five year increments for individual counties. DOA utilizes the cohort component method of population projection. These are the official state projections, consistent with U.S. Bureau of Census State of Wisconsin projections. The DOA county projections are required to be used as control totals in accordance with Wis. Admin. Code. NR-121 for the development of sewer service area plans. A
A detailed description of the population projection process is included in the East Central report *Population Characteristics of the East Central Region*, April 1994. At the time of this writing, East Central, based on 2010 Census data and DOA’s most current forecasts, is preparing in-house population projections for 2010-2040. The official DOA projections, first received in 1992, have been updated annually using the DOA annual population estimates for the counties and individual MCD’s.

East Central has developed a process for breaking down the county population projections to the minor civil division (MCD) level. This estimating process uses the “share-of-the-county trending methodology.” This methodology was used for all communities within the East Central region, with the exception of the Fox Cities, Sherwood and Fond du Lac. In these areas, a special procedure was used which established “urban area” control totals.

For the purposes of this plan update, East Central used population projections from the Department of Administration by municipality. These population projections are in five year increments from 2010 to 2040. This report has also been approved by the Wisconsin Department of Natural Resources on September 21, 2015.

**Residential Development**

In addition to population projections, household size and housing densities are required to determine residential land needs. Household formation rates were estimated and translated into household size. The household size thus represents a typical dwelling unit which can be compared to population projections for estimating future dwelling units. The household size for the East Central region has been steadily declining and is anticipated to continue to decline. Thus, an anomaly occurs in which a community may not be increasing in population, but still is forming new households which require new housing construction.

Once household size was established, residential development densities and the mixture of single-family/multifamily uses was determined. The number of dwelling units per acre were determined from existing residential development densities for the three major urban areas. These densities were also used for larger outlying urban communities. Several smaller communities in the outlying areas were found to have less dense development and therefore a somewhat lower density was used.

The mix of residential development was determined from development and construction records from various communities as well as census materials for the urbanized area. The residential mix was found to vary greatly from community to community. Community specific mixes were used for freestanding communities; however, standardized splits for the Fox Cities, Oshkosh and Fond du Lac areas were developed and applied within the growth forecast method.

Population projections divided by household size established the number of dwelling units. The number of dwelling units by type (single or multifamily) divided by the density per acre resulted in the number of acres of residential land required. The resultant acreage was allocated as residential growth for land areas within each planning area.
Non-Residential Development

Forecasts of nonresidential development were also based upon population projections for sewer service area planning. There is, however, a significant difference between the methodology used for the three urban areas and the outlying planning areas. Within the urban areas the population projections served as a basis for estimating future employment. These employment estimates were used in conjunction with documented employment densities (number of employees per acre) for various land use types and employment categories to determine acreage needs for future nonresidential employment. Similar to the household participation rates for calculating dwelling units, labor force participation rates were used to calculate employment for various employment categories. These employment categories were broken down into two types of nonresidential development consisting of commercial and industrial land uses. After future employment was estimated for commercial and industrial uses, densities were applied (employees per acre) and total acres of the land needs were calculated. This acreage was then allocated within particular planning areas.

In the outlying areas, a much simpler process for forecasting nonresidential growth was required because of deficiencies in labor force and employment data available for small communities. Furthermore, because of the small commercial and industrial base of these communities, a refined process for estimating future employment could be subject to extreme error.

Local initiative for promoting development is a greater factor in future growth than statistical trends. A simple forecast method was used which calculated the existing amount of nonresidential development per capita within the area then multiplying this amount by the population growth for the planning period resulting in the amount of non-residential acreage required.

Growth Allocation

After the amount of growth is calculated for residential and non-residential uses within each planning area, the process of allocating this growth acreage is undertaken. The allocation process, (where growth should occur), is complex, and must integrate service area growth policies, planning standards and criteria as well as historical and market growth trends for a particular planning area. The allocation process establishes the future growth areas within each sewer service area.

A major product of the allocation process is the mapping of growth areas. Again, the Commission’s GIS system was used to designate these growth areas. The following criteria and standards were utilized in the designation of growth areas:

- All areas within a planning area which are currently served with public sanitary sewers shall be designated sewer service areas. Areas along existing and proposed (WDNR approved) sewer collector or interceptor lines (forcemains excluded) shall be designated sewer service areas. The depth of the sewer service area boundary line shall be to the average lot depth (maximum 400 feet) bordering the sewer or where average lot depths cannot be distinguished. Development within this area is generally considered to be serviceable by a private sewer lateral.
Unsewered areas of development within close proximity to existing sanitary sewer lines where the cost-effectiveness of the extension of sewers is not questionable shall be included in the service area. These areas have generally been designated as an urban development area.

Areas of existing development with approved wastewater facility plans shall be designated sewer service areas. (Note: Various areas of existing development previously designated may have been dropped because of lack of approved wastewater facilities plans.)

The acreage allocations of future development areas should approximate residential, commercial and industrial growth projections.

Environmentally sensitive areas shall be excluded from the sewer service area.

Holding tank service areas shall be designated for existing large holding tanks defined in NR-113 and for areas of existing development where no cost-effective alternative to the installation of a large holding tank is available. The cost-effective analysis is to be prepared by the owner. All large and individual holding tank wastes are to be disposed of in accordance with NR-113.

The standards and criteria for allocating future growth areas are policy based. These considerations are:

- Urban development patterns should incorporate planned areas of mixed use and density that are clustered and compatible with adjacent uses.

- The allocation of future urban development should maximize the use of existing urban facilities and services.

- Future urban development should be encouraged to infill vacant developable lands within communities and then staged outward adjacent to existing development limits.

- Future commercial and industrial development should expand upon existing areas and be readily accessible to major transportation systems.

- The boundaries of urban development should consider natural and man-made features such as ridge lines, streams and major highways.

- Residential land use patterns should maximize their accessibility to public and private supporting facilities.

- Urban development should be directed to land suitable for development and discouraged on unsuitable land, such as floodplains, areas of high bedrock, and areas of high groundwater.

- Environmentally sensitive areas shall be excluded from the sewer service area to protect water quality.
- Future urban development should pose no significant adverse impacts to surface or groundwater.

- Urban development should be located in areas which can be conveniently and economically served by public facilities.

- The waiver of acreage allocations based on density standards for large lot developments will be considered if the installation of sewers is cost-effective, the community adopts a development plan and subdivision plat for the area specifying no smaller subdivision of parcels will be allowed.

Combined with the policy-based criteria for allocating future development areas were various considerations involving the direction of growth trends and short term "market" factors. These considerations primarily involved experienced judgments by planning staff and consultations with local planning officials.

Early in the planning process, a policy decision was made that the total allocated growth acreage for individual sewer service areas delineated in the 1985 adopted plans and subsequent amendments would not be reduced in quantity. This policy was applied to all sewer service areas which have a sewerage system or which have WDNR approved wastewater facilities plans for a sewerage system. The impact of this policy is that the areas available for future growth in various sewer service areas sometimes were greater than the updated forecast growth which was to be allocated. The result of this policy is that there were fewer service areas where the existing service area boundaries needed to be expanded.

PUBLIC AND COMMUNITY PARTICIPATION

Citizen participation during the update of the service area plans has been and is encouraged throughout the planning process. In this service area planning update goals, objectives and policies were refined in conjunction with the transportation/land use plan update process. Ad hoc Technical Advisory Committees, (TAC’s), were formed and refined the 2004 and 2005 policies.

General public participation is sought from communities and counties during the plan update process through individual meetings with affected entities. Public information meetings were held for each sewer service area once draft maps were completed. The purpose of sewer service area planning, the overall planning process, existing conditions of the service area and growth forecasts are explained. As a follow-up to these meetings, (in smaller communities these meetings may be combined), additional meetings are held for communities within each service area to address specific issues. The designated service area boundaries are reviewed as part of these meetings. Public information meetings are listed in Appendix A of the service area plan. A final public hearing is noticed and held as part of the Community Facilities Committee meeting and approval.
ADPTION AND PUBLICATION OF FINAL PLANS

Each individual sewer service area is adopted by the East Central Wisconsin Regional Planning Commission as an element of the Commission's regional land use plan. After adoption, the plans are submitted to the Wisconsin Department of Natural Resources for certification as an element of the Water Quality Management Plan. After WDNR certification the plan becomes effective and copies of the final plans are distributed to the affected communities.
CHAPTER 5

SEWER SERVICE AREA AMENDMENT & UPDATE PROCESS
CHAPTER 5: SEWER SERVICE AREA AMENDMENT AND UPDATE PROCESS

POLICIES AND PROCEDURES

The East Central Wisconsin Regional Planning Commission has adopted An Amendment Policy and Procedure for Sewer Service Areas to enable sewer service area plans to be amended in response to changing conditions and community plans. This procedure provides a flexible, yet equitable and uniform basis for revising sewer service area boundaries. This chapter was updated with input from the Land Use Advisory Committee, during 1999-2000 as part of addressing policy issues related to the “Long-Range Fox Cities, Oshkosh and Fond du Lac Transportation/Land Use Plan Addendum” and certain provisions may apply to the communities illustrated in Map 10.

East Central recommends that a representative from the government entity with Designated Management Agency, (DMA), status meet with East Central staff to discuss the proposal. Most documentation and questions needed for the evaluation of the amendment can be addressed at that time.

EAST CENTRAL REVIEW AND RECOMMENDATION

East Central's Community Facilities Committee will review the proposed amendment within approximately 30 days of receipt of the request. The review will include a staff evaluation of the consistency of the proposal with East Central’s amendment policies and criteria. The review will also include an evaluation of comments and recommendations received from local units of government and agencies notified of the proposal by East Central. The applicant may be requested to appear at the Community Facilities Committee meeting if there are significant issues involved. The Community Facilities Committee shall recommend approval or disapproval of the amendment. Upon approval, the amendment request shall be submitted to the Wisconsin Department of Natural Resources to request revision of the Water Quality Management Plan.

WDNR REVIEW AND APPROVAL

The Wisconsin Department of Natural Resources will review the East Central recommendations for the service area amendment. This review is an equivalent analysis action under s. NR 150.20 (2) (a) 3, Wis. Adm. Code. Once a WDNR decision is made, and if approved, East Central can review sewer extensions and submit comments to the WDNR for sewer extension plan conformance.
The formal amendment process includes the following elements:

**Section I: Amendment Policies**

A. Sewer service area boundaries may be modified (acreage swap) provided there is no increase in the total acreage of the specific sewer service area.

B. Sewer service area boundaries may be expanded provided there is a documented need for a sanitary sewer collection system for areas of existing urban development.

C. Sewer service area boundaries may be expanded provided there is a documented need for sanitary sewers to serve a proposed unique facility or development.

D. Sewer service areas may be expanded to provide communities with the flexibility to accommodate unanticipated short-term development. The community shall certify through plan commission action that the proposed amendment area is required for reasonable community growth and is consistent with adopted development plans.

E. Sewer service area boundaries may be modified by the re-designation of previously identified environmentally sensitive areas consistent with all the following standards:
   
   1. The environmentally sensitive area is immediately adjacent to an existing sewer service area.
   
   2. Appropriate local, state and federal environmental permits are granted for the proposed development.
   
   3. Major re-designations shall pose no significant adverse water quality impacts. Major re-designations include:
      
      a. Removal of any mapped wetland area for sewered development unless resulting from an activity exempted by state administrative rules governing wetland protection [NR 117.05(2)] or state approved rezoning of wetlands.
      
      b. Any change which would reduce a delineated floodway of any navigable stream or river, or which would remove any area below the ordinary high water mark of a navigable stream, pond or lake.
      
      c. Any change resulting in the total removal or in the continuity of any corridor segment including floodways, wetlands, shoreland buffer strips or steep slopes adjacent to water bodies. The water quality benefit that was associated with the portion of the corridor removed must be provided for in the development.
   
   4. The re-designated acreage will be added to the service area total acreage.

F. Sewer service area boundaries may be modified or expanded to correct an error in the maps, data, transporting sewer designations, projections or allocations of the adopted sewer service area plan.
Section II: Amendment Criteria

Any proposed amendment shall be reviewed according to the following criteria:

A. The cost-effectiveness of the proposed amendment compared to other alternatives. East Central may require this determination from the applicant.

B. The environmental impacts of the proposed amendment shall be assessed in accordance with the criteria established in the Wisconsin Department of Natural Resources environmental assessment checklist. The Commission will evaluate the ability of the existing sewerage facilities to transport and treat the projected flows and will provide a water quality evaluation statement. East Central may also prescribe safeguards or impose additional conditions deemed necessary to protect the water quality in the area.

C. Amendments within the urbanized area sewer service areas, (see Map 10), should be consistent with East Central’s “Long-Range Transportation/Land Use Plan Addendum” goals, objectives and policies particularly for density standards as follows:

   **Policy 1.4 Conformance:**

   1. The average net residential density of the buildable plat area is more than or equal to 1 unit per acre; or

   2. The community has illustrated that development proposals meet the density requirements by being part of an overall “mixed density” concept documented in its local land use plan which meets the policy intent. (Note: Should amendments occur over time primarily low density development which does not meet the one acre requirement and no higher density development occurs, Section V, Urbanized Area Standard (1)(d) will apply at the next scheduled plan update).

   3. If an amendment takes place which includes lands planned for residential development, without being platted prior to the amendment, ECWRPC will require an assurance from the community in the form of a resolution stating that the development will meet these requirements. At the time of platting, ECWRPC will require that a copy of the preliminary plat be submitted for review.

D. Amendment areas under Section I Policy A and D shall have a common boundary with the current sewer service area and shall not create a void within the service area.

E. Policy B, (existing development), amendments must be contained within an approved SSA planning area. This boundary can be reviewed and considered for modification as a separate process, if necessary.

F. Amendment areas under Section I, Policy A and B involving the “swap” of land acreage shall, to the extent possible, utilize consistent land use areas on an acre for acre basis, based on the community’s locally adopted and Commission certified comprehensive land use plan, (for Urbanized Area communities). Should the community not have enough of a particular type of land designated in its locally adopted comprehensive land use plan to allow for a swap, the community should consider utilizing the “regional swap” policy prior to
submitting the amendment under Policy D. Any community affected by a “regional swap” shall be notified and given an opportunity to comment prior to Commission approval of the amendment.

G. Amendments submitted under Policy C, (Unique Facilities), must not only fit the definition contained in this plan, but the applicant must also submit additional information which illustrates that all impacts, including secondary land use impacts and their effects on water quality, transportation and public service provision be addressed prior to the Commission recommending approval of the amendment. Such amendment requests must also be consistent with locally adopted comprehensive land use plans. Amendments under this policy may be approved conditionally by the Commission so that other necessary approvals can occur concurrently.

Section III: Amendment Procedures

Proposed sewer service area amendments shall be reviewed according to the following procedure:

A. Requests for sewer service area amendments should be made by the governmental entity that will be expected to serve the area. Units of government seeking an amendment to the sewer service area boundary should transmit a letter requesting the amendment to East Central along with the following documentation:

1. A map of the proposed expansion area and, if required, reference area or any area to be deleted (swapped) which affects the boundary modification;

2. Estimates of existing and anticipated population, wastewater generation and means of collection from the area;

3. A description of the type of existing development and/or the type of future development expected to occur;

4. Ability of the treatment facility to treat the anticipated wastewater;

5. Methods of stormwater management and regulation for the added service area and surrounding areas which may be impacted; and

6. Documentation that all property owners in areas proposed to be deleted (swapped) was notified of this request by the unit of government seeking the amendment. Landowners potentially affected by the removal of property from the SSA shall be notified by the requesting entity at least 14 days prior to the scheduled Community facilities Committee meeting at which the amendment will be addressed. Failure to do so could result in the tabling of the amendment request until the next regularly scheduled CFC meeting, (policy amendment approved by WDNR on 08/26/04).

7. Plan Commission or Board action as required under Section I, Policy D.
8. Amendments submitted under Section I, Policy B, for Urbanized Area communities, (see Map 10), will require that additional information be submitted and criteria be met as follows:

   a. Documentation that the community’s locally adopted comprehensive land use plan illustrates the area as a future urban growth area which will provided a full range of services as spelled out in the “Long-Range Transportation/Land Use Plan Addendum” density standards;

   b. A determination of the cost-effectiveness of providing public sanitary sewer versus on-site system replacement. This determination should be consistent with NR-110 requirements;

   c. Documentation that 30% of the existing on-site systems within the proposed amendment area be considered failing, (direct need); and

   d. Documentation that approximately 30% or more of the balance of existing on-site systems within the proposed amendment area are subject to failure based on the physical condition of the on-site system itself and/or the physical characteristics of the subject site, (indirect need).

   Documentation for c) and d) above can be in the form of: copies of county or state orders for on-site system replacement; copies of existing on-site system inspection reports; letters from the county sanitarian indicating that the systems are failing or have the potential to fail; or documentation of recent private well tests which show bacterial contamination likely resulting from on-site system failure.

B. Based on this information the Community Facilities Committee, designated as the review committee by East Central's bylaws, will review the proposed amendment to determine whether it meets the standards set forth in the Sewer Service Area Amendment Process. If no significant adverse water quality impacts are involved, East Central shall recommend approval of the plan amendment and submit it to the Wisconsin Department of Natural Resources for state plan certification.

C. Requests for amendments under Section I, Policy F, pertaining to the addition of 'transporting sewers', (interceptors and forcemains which do not directly service new development), may be initiated by East Central staff upon written request of the DMA and would be submitted directly to the Wisconsin Department of Natural Resources for review and certification without the need for Community Facilities Committee approval. The WDNR would review and certify such amendments within 5 to 10 business days from receipt of East Central staff's submittal. Please note that the information needs, as noted above, as well as the conformance with existing review criteria are still required for East Central and the WDNR to process such amendments, (policy amendment approved by WDNR on 08/26/04).
Section IV: Appeal

If an applicant feels that a hardship exists in the strict interpretation and application of the amendment standards and criteria, consideration may be given to providing relief through a variance subject to the following requirements:

A. The hardship is significant and widespread owing to substantial pre-existing financial or legal commitments for sanitary sewer service.

B. The major objectives of the sewer service area plans can be met. The appeal shall be submitted to the Chairman of East Central for action at a regularly scheduled meeting of the Commission. Further appeals may be submitted to Wisconsin Department of Natural Resources.

Section V: SSA Plan Update Procedures and Standards

Even though local, regional and state levels of government engage in planning activities to direct their future, individual or multiple conditions can change over time. Some can be predicted and handled proactively, (COMM 82, demographics, etc.), while some occur rapidly and generally without much warning, (economic conditions, regional growth patterns and rates, market demands, etc.). Sewer service area plans are meant to be proactive type of plan which identifies future sewered growth areas based on cost-effectiveness service provision, water quality and regional cooperation/coordination. When conditions change these plans need to be updated to reflect those changes. This section describes the conditions under which sewer service area plans are updated and how previously developed and approved regional goals, objectives and policies, (i.e. “Long-Range Transportation/Land Use Plan Addendum”), will apply prior to, during or after the update process.

Minimum Update Procedures and Standards (for all Sewer Service Areas)

SSA plans will be updated on an approximate 5 year rotation. Funding, staff availability, urban growth demands and regional/state policy changes/proposals may alter this time interval. When updated the following items will be addressed:

1. A review and update of population, housing and employment trends and projections;

2. A review and update of land use demands based on socio-economic conditions and projections;

3. A review and update of existing physical conditions including:
   a. Existing land uses;
   b. Proposed land uses, (based on local, county, regional and state plans); and
   c. Water quality and natural resource, (ESA), characteristics, changes and issues.

4. A description of relevant events since the last plan update pertaining to sanitary sewer or having an impact on future sewer service including:
5-10  East Central Wisconsin Regional Planning Commission

5. A review and modification of mapping elements, if necessary, to accommodate future sewered growth and development including:

   a. Proposed major sewer system improvements and/or regional connections;
   b. A revised twenty year sewer service area boundary;
   c. A revised forty to fifty year planning area boundary; and
   d. Environmentally Sensitive Area, (ESA).

6. A review of local governmental actions and regulations which have implemented the sewer service area plan;

7. An update of citizen information/education and participation efforts;

8. A review of the institutional structure for plan update and amendment review/approval and for plan implementation;

9. A review/revision of goals, objectives and policies, if necessary; and

10. The development of recommendations and strategies for plan implementation.

**Urbanized Area Procedures and Standards**

The Urbanized Area Procedures and Standards will apply to the following communities: the Cities of Appleton, Kaukauna, Menasha, Fond du Lac, Neenah and Oshkosh; the Villages of Combined Locks, Harrison, Kimberly, Little Chute, Sherwood, North Fond du Lac; the Towns of Buchanan, Grand Chute, Greenville, Kaukauna, Vandenbroek, Harrison, Calumet, Empire, Fond du Lac, Friendship, Taycheedah, Algoma, Black Wolf, Menasha, Neenah, Nekimi, Oshkosh and Vinland. While this policy targets primarily urbanized developments the Town of Eden and the Village of Eden could well benefit from its stated purpose.

The Urbanized Area Standards and Procedures include the above listed “minimum” items in addition to the following reviews of local conformance with policies and requirements as spelled out in the “Long-Range Transportation/Land Use Plan Addendum” including:

1. **Addendum Policy 1.3 Conformance** – A review of local development densities within the SSA occurring between plan updates and their conformance with the minimum residential density requirement will need to be met as follows:
a. Areas within the SSA prior to the WDNR certification date of the 1997, (or subsequent), sewer service area plan update are not required to meet this policy, however; East Central staff will consider new residential developments which have occurred after this date as part of the overall density calculation, (therefore this will not penalize communities for recent development meeting the criteria and being ‘banked’ for lower densities elsewhere within the SSA);

b. Areas allocated and approved as part of the 1997, (or subsequent), plan update are required to meet policy;

c. Areas amended to the SSA after a 1997 update are required to meet policy, (see SSA Plan Amendment Policies and Procedures section for additional information); and

d. If an individual community does not meet the density requirements spelled out in the “Long-Range Transportation/Land Use Plan Addendum” it will not be eligible for additional sewer service area acreage allocations in subsequent plan updates.

2. Addendum Policy 1.4 – A review of local unsewered development patterns and locations and advisory recommendations pertaining to such information; and


Section VI: Definitions

Sewer Service Area: A geographic area currently or anticipated to be served with sanitary sewers within the planning period as specified in the sewer service area plan element of the Water Quality Management Plan. This boundary delineates areas which can be provided public sanitary sewer more cost-effectively than on-site treatment methods over a 20 year period. ECWRPC determines this boundary based on the following information, (all of which are not necessarily listed in NR-121):

A. Definition and mapping of Environmentally Sensitive Areas, (ESA’s);

B. Justified acreage allocations based on projected 20 year growth and development using ECWRPC accepted methodologies;

C. Projected available 20 year capacity of the wastewater treatment facility from publicly seweried development and established holding tank receiving areas;

D. Facilities plan listed projects and improvements;

E. Projected available 20 year capacity of interceptor sewers, force mains and lift stations;

F. Location of existing sewer lines;
G. Existing and projected 20 year development patterns, (based on local comprehensive land use planning and zoning maps);
H. Proximity to development with known failing privately owned treatment works, (POTW’s), or other on-site wastewater treatment systems;
I. Ability to provide recommended levels of urban service per the addendum matrices;
J. Intergovernmental growth/service agreements, (advisory only); and
K. The boundary itself is located, for administrative purposes, on the location of:
   1. Environmentally Sensitive Area, (ESA’s);
   2. Watershed, sub-watershed and drainage basin boundaries;
   3. One lot depth, (300 feet), buffer from existing sewer line locations;
   4. Quarter-section lines based on the Public Land Survey System, (PLSS);
   5. Municipal and Sanitary District Boundaries;
   6. Road centerlines;
   7. Lift station service areas, (topography and depth); and
   8. Gravity and interceptor sewer service areas, (topography and depth).

Sewer Service Planning Area: An area defined and approved by the Department of Natural resources under Wisconsin Administrative Code, NR-121 with the assistance and recommendation from the East Central Wisconsin Regional Planning Commission and input from involved communities. This is an area where urban growth is anticipated to occur over a longer period of time, (40 to 50 years), where short-term conflicting land use development should be discouraged. This boundary serves the purpose of delineating long-term, (40-50 year time horizon), cost-effective, urban growth areas. ECWRPC determines this boundary based on the following information, (all of which are not necessarily listed in NR-21):
A. Definition and mapping of Environmentally Sensitive Areas, (ESA’s);
B. Justified acreage allocations based on projected 50 year growth and development using ECWRPC accepted methodologies;
C. Projected available 50 year capacity of interceptor sewers, force mains and lift stations;
D. Projected available 50 year capacity of the wastewater treatment facility from publicly sewered development and establish holding tank receiving areas;
E. Existing and projected 50 year development pattern, (based on local/county comprehensive land use plans and zoning maps);
F. Location of existing development with known private septic problems or potential risk for on-site system failures;
G. Intergovernmental growth/service agreements; and
H. The boundary itself is located for, administrative purposes, on the location of:
1. Environmentally Sensitive Areas, (ESA’s);
2. Watershed, sub-watershed and drainage area boundaries;
3. Nearest quarter-section lines of the Public Land Survey System, (PLSS);
4. Municipal and Sanitary District boundaries;
5. Wastewater treatment plant service areas, (when multiple plants available);
6. Road centerlines;
7. Lift station service areas, (topography and depth);
8. Proposed and existing interceptor sewer service areas, (topography and depth); and
9. Extraterritorial review jurisdiction of involved incorporated communities, (this would be utilized only at the discretion of all affected communities).

**Existing Urban Development:** A geographic area with densities of development suitable for the efficient and economic provision of urban services such as sanitary sewer, water, transportation and storm drainage. (e.g. single family residential development greater than two units per gross acre)

**Reference Area:** A geographic area currently within the existing sewer service area which is at least 50 percent developed.

**Unique Facility or Development:** A proposed facility that, regardless of location, is considered to be “unanticipated”; and is of “regional importance”. “Unanticipated” is defined as not being illustrated in a local community’s or county’s comprehensive plan and was not anticipated or projected in the sewer service area plan during the previous update. “Regional importance” is defined as a facility which, if constructed, would provide a widespread benefit to multiple local governmental jurisdictions within the sewer service area. Examples of facilities fitting this criteria include state prisons, county landfills, regional public specialty facilities such as EAA, public museums or performing arts centers, churches, private, (commercial), specialty facilities such as the Kaukauna dog track, opportunistic park/recreation/open space acquisitions, public golf courses, other state and federal facilities as deemed appropriate. Not eligible are any type of school facility, local government administrative office or facility, residential golf course developments, local parks, private campgrounds, local airports or related facilities. These types and locations of future facilities should be addressed and, their needs quantified, in the community’s local land use plans and the sewer service area plan update process. These listings may be added to from time to time based on individual SSA plan amendment proposals. Those specific facilities not listed above would be reviewed based on their merits and conformance with the intent of this definition.

**Expansion Area:** The geographic area proposed to be added to the existing sewer service area through the amendment process.

**Cost-effectiveness:** Analysis of sanitary sewerage system alternatives. The analysis shall include monetary costs and environmental as well as other non-monetary costs.

**Environmentally Sensitive Area:** Geographic areas consisting of all lakes and streams shown on USGS quadrangle maps and their adjacent shoreland buffer areas. Also all wetlands shown on the Wisconsin Wetland Inventory Maps and floodways as delineated on the official Federal Emergency Management Administration Flood Boundary and Floodway Maps.
APPENDIX A

DOCUMENTS OF APPROVAL
## Eden Sewer Service Area Plan Update Meeting Record*

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 19, 2014</td>
<td>Kick-off meeting with the Village and Town of Eden for the 2035 Eden SSA Plan</td>
</tr>
<tr>
<td>October 6, 2014</td>
<td>Working session to prioritize development areas and future needs</td>
</tr>
<tr>
<td>October 22, 2014</td>
<td>Finalized the allocations for the Village/Town of Eden 2035 SSA</td>
</tr>
<tr>
<td>March 2, 2015</td>
<td>Developed a public hearing notice and submittal to the media</td>
</tr>
<tr>
<td>March 24, 2015</td>
<td>Held the public hearing at the Eden Community Center</td>
</tr>
<tr>
<td>April 21, 2015</td>
<td>Attended Village of Eden Council meeting approving the 2035 Eden SSA Plan</td>
</tr>
<tr>
<td>July 13, 2015</td>
<td>Town of Eden Board meeting to approve the 2035 Eden SSA Plan</td>
</tr>
</tbody>
</table>

In addition to the meetings written correspondence was also used to communicate with the Village of Eden and the Town of Eden. It should be noted there are no town sanitary districts in this plan and the majority of contact was through written documents.

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 29, 2014</td>
<td>Kick-off letter to Town and Village of Eden</td>
</tr>
<tr>
<td>June 30, 2014</td>
<td>Existing data requests from Town/Village of Eden for baseline</td>
</tr>
<tr>
<td>July 30, 2014</td>
<td>Existing data development and prelim mapping deliveries</td>
</tr>
<tr>
<td>October 22, 2014</td>
<td>Follow-up detailing the allocation/development scenarios</td>
</tr>
<tr>
<td>January 20, 2015</td>
<td>Mid-course review and potential timeline schedule for completion</td>
</tr>
<tr>
<td>March 2, 2015</td>
<td>Submittal of public hearing notice to the Fond du Lac Reporter</td>
</tr>
<tr>
<td>April 8, 2015</td>
<td>Reported the public hearing results to Town and Village of Eden</td>
</tr>
</tbody>
</table>

There were also numerous emails to the Town of Eden and the Village of Eden navigating through the update process.

* There were numerous emails in between meeting dates to collect, exchange and formulate this plan update. These correspondences are available for review as well.
DRAFT SUMMARY OF PROCEEDINGS

Community Facilities Committee
East Central Wisconsin Regional Planning Commission
ECWRPC Offices
June 10, 2015 – 10:00 A.M.

Committee Members Present:
Ernie Bellin .............................................................................................................. Winnebago County
Tom Kautza ................................................................................................................ Shawano County
Tim Hanna ................................................................................................................ Outagamie County
Paul Mayou (alternate for Brian Smith) ................................................................. Waupaca County
Brenda Schneider ................................................................................................. Fond du Lac County

Staff Present:
Kathy Thunes ............................................................................................................... ECWRPC Staff
Joe Huffman .................................................................................................................. ECWRPC Staff

Other Attendees:
Stanley C. Martenson ............................................................................................ Martenson & Eisele, Inc.

Excused:
Muriel Bzdawka ...................................................................................................... Menominee County

1. Welcome & Introductions

   Mr. Bellin called the meeting to order at 12:35 P.M. Everyone was welcomed and introductions were made.

2. Statement of Compliance/Wis. Stats. Ch. 19, Subchapter V, Sec. 19.84

   The open meeting law was recognized.

3. Pledge of Allegiance

   The Pledge of Allegiance was recited.

4. Approval of Agenda / Motion to Deviate

   Mr. Bellin called for a motion to approve the agenda or a motion to deviate. Mr. Kautza made a motion to approve the agenda with no deviations. Mr. Hanna made the second. Motion carried.

5. Action Item: Election of Chairperson and Vice-Chairperson

   Mr. Bellin called for nominations for the election of Chair and Vice-Chairperson. Mr. Hanna nominated Mr. Bellin as Chairperson with Mr. Kautza making the second. There being no other nominees Mr. Bellin moved to close the nominations. Mr. Bellin assumed the role of Chairperson. Mr. Kautza moved to nominate Mr. Hanna as Vice-Chair. Mr. Mayou made the second. Mr. Bellin moved to close the nominations with Mr. Kautza making the second. Motion carried with Mr. Hanna nominated as Vice-Chair.
6. Approval of January 30, 2015 Summary of Proceedings

Mr. Bellin called for a motion to approve the January 30, 2015 summary of proceedings. Mr. Hanna moved to approve. Mr. Kautza made the second. Motion carried.

7. Public/Guest Comment

Mr. Hanna suggested advancing the agenda to item 9, d) in order to accommodate Mr. Stanley Martenson who is here on behalf of the Waverly Sanitary District. It was decided to hear item 9d).

8. Announcements

There were no announcements to be made.

9. Action Items

a) Discussion and Approval of the 2015-2016 Community Facilities Committee Meeting Schedule

Ms. Thunes described the process for setting the committee’s meeting schedule. There was an attempt to coordinate with the full-Commission meeting schedule as this committee was typically a month off that schedule. This schedule would run from now until June/July 2016. A proposed schedule was presented to align with the Commission meetings in order to seek approval items at the Commission level, if warranted. The current schedule is Wednesdays at 10:00 am. After a brief discussion it was decided to leave the current schedule in place which is Wednesdays at 10:00 am on the designated month.

b) Proposed Resolution 14-15 – Approving the 2035 Eden Sewer Service Area

Mr. Huffman referred committee members to the mapping in their packets depicting the proposed sewer service area and planning area changes to the 2030 Eden Sewer Service Area Plan update. A brief overview of the March 24, 2015 public hearing was given whereby no opposition was stated at the time. A brief time was allowed for written comments of the plan to be submitted. Mr. Huffman explained that the Town of Eden had misrepresented this item on their agenda and could not act on the plan update. It was stated that the item would be placed on the Towns’ July, 2015 agenda for action. Mr. Huffman indicated that the Village of Eden approved the plan update via resolution on April 21, 2015.

Mr. Huffman acknowledged a minor typographical error on the treatment plant’s design flow data and noted that a correction will be in order. In terms of the actual plan update, Mr. Huffman stated this plan update was more of a technical data update as there was minimal acreage allocated for future service. The total allocation for the Eden SSA plan amounted to 24 acres. Areas outside of the service area but within the corporate limits were the primary focus. In a similar fashion, Town areas were removed from the service area based on the likelihood of receiving service. These scenarios were provided on the mapping supplied to committee members. A brief discussion of the planning area boundary ensued with Mr. Huffman indicating no changes to the planning area boundary were made. The addition of an Endangered Resources section was drafted for this plan to help developers determine the endangered or environmental issues in a particular development proposal. This section also guides the developer to the necessary WDNR departments responsible for determining endangered resources. Ms. Schneider asked where the typographical error was and needed further clarification.
Mr. Huffman explained the typo involves the design flow numbers and was more than likely a transposition with data taken from the Compliance Maintenance Annual Report (CMAR). Ms. Schneider also asked about the holding tank section of the report. The question stems from the holding tank provisions within the service area and whether they would be allowed. Mr. Huffman responded in the affirmative, however, this section is primarily focused on larger commercial holding tanks. According to Fond du Lac County there are no large holding tanks within the immediate service area. In addition, the CMAR reporting for the Eden wastewater treatment plant states no hold tank waste was delivered to the plant in that reporting year. Mr. Hanna moved to approve the 2030 Eden Sewer Service Area Plan update contingent upon receiving confirmation of the Town of Eden approval, expected in July, 2015. Ms. Schneider made the second. Motion carried.

c) Proposed Resolution 15-15 – Approving the 2035 Oakfield Sewer Service Area

Mr. Huffman led the discussion for the 2035 Oakfield Sewer Service Area Plan update and described the general characteristics of the local conditions. This plan update was similar to that of the 2035 Eden SSA plan whereby very little acreage was allocated for future sewer service. The total acreage allocated to the update totaled approximately 107 acres. Provided mapping showed the areas to be added and those to be removed. The largest area added lies east of the village corporate limits. This area will primarily be developed as single family residential development, with scattered highway development along CTH B and along the northern border of this allocation along Church Street. Other areas added were located on the southern and western portions of the village. These areas were added to fill out the corporate limit area. Small areas of environmentally sensitive areas totaling approximately 11 acres were also included in this update. Mr. Huffman stated that the Town of Oakfield Sanitary District, located south and west of the Village of Oakfield, had no acreage allocated for future use. This small sanitary district operates a community collection and treatment system that was near its capacity in terms of additional flows. The sanitary district indicated during the process, that no additional hook-ups to the existing system would be allowed. In addition, there are no future plans to expand this community system. Base on this information, the update recommendations that the sanitary district explore regionalization options in the future. This will require working with the Village of Oakfield in the future. In terms of the planning area boundary updates, Mr. Huffman stated there were no boundary changes to describe. The planning area boundary is based on the extraterritorial review powers granted to the village.

Mr. Huffman indicated that the Town of Oakfield and the Oakfield Sanitary District acted to approve the plan update as presented at their regularly scheduled meeting held on June 8, 2015. Mr. Huffman informed committee members he would be attending tonight’s Village of Oakfield council meeting whereby it is expected that the council will approve the 2035 Oakfield SSA plan update via resolution. Mr. Huffman added these eventual approvals will be submitted to the full commission at its July, 2015 quarterly meeting. Ms. Thunes asked if this plan went to a public hearing. Mr. Huffman indicated that the public hearing was held on April 20, 2015 at the Village of Oakfield Community Center. Mr. Huffman then respectfully requested approval of this plan update contingent upon receiving the necessary local approvals. There being no further discussion Mr. Kautza moved to approve the 2035 Oakfield SSA plan update contingent upon receiving Village and Town of Oakfield approvals. Mr. Hanna made the second. Motion carried.

d) 2030 Neenah-Menasha ‘Sewer Hold’ Removal, Village of Harrison

Mr. Huffman began with background information regarding this amendment to the 2030 Neenah-Menasha SSA. This amendment request involves lifting the sewer extension hold area located in the districts’ northeast sector. Committee members were reminded
of the January 30, 2015 Community Facilities Committee whereby the removal of the sewer extension hold area was approved contingent upon the Town/Village of Harrison amending their comprehensive land use plan to update future land use designations for this area. Mr. Huffman then referred to the submittal by the Village of Harrison documenting the resolution to amend the future land use, complete with mapping to support the resolution. Upon staff review, East Central felt the criteria for this action has been met. Given these circumstances Mr. Huffman proceeded to present the amendment to the committee.

Mr. Huffman began to describe the actual hold area to be lifted citing the total acreage involved to be at approximately 244 acres. As per the mapping provided, the committee was able to discern this as the amendment area and the magnitude of the project involved. In addition, Mr. Huffman stated there were preliminary sewer design and routing that has been mapped. Sewer mains range from an eight inch force main to fifteen inch collector sewers. In addition, a proposal is included for a lift station to be placed on the north side of HWY 10/114 and east of Wilz Court. A small portion of this sewer system exits and re-enters the service area. This issue will be dealt with as ‘a transporting sewer easement’ of approximately 3 acres which is listed as 9e) on the agenda. Mr. Bellin asked if the sewer reentering the SSA was a fifteen inch pipe. Mr. Huffman responded in the affirmative, adding that the northern portion of the amendment area has been sized with 8, 12 and fifteen inch sewers. Mr. Huffman then introduced Mr. Martenson to clarify this sewer system.

Mr. Martenson explained that the lift station is designed to eventually accommodate the entire hold area amendment request. Mr. Martenson clarified that there was a temporary lift station south of HWY’s 10/114 that currently serves an established subdivision and areas south to the lakeshore. Currently wastewater flows by gravity, west from the existing lift station. It is anticipated that the new lift station will assume the capacity of the temporary lift station. All wastewater will eventually flow north across HWY’s 10/114, collector sewers will transport wastewater flow west to the treatment plant. Mr. Martenson then described the portion of sewer that exits the service area. It was determined that this was the most logical point to cross the small stream, thus avoiding the wetland complex within the area. It was then pointed out that this area was studied in 2000 and 2002 in order to confirm that the wastewater treatment plant had sufficient capacity to serve the area. Mr. Martenson reminded committee members that there will be no connections to any portion of sewer not in the sewer service area. This sewer system is also designed to handle flows from an existing development further east, (Zirbel Drive), which could be amended to the sewer service area in the future. The question of jurisdictional service came into play, whereby, Mr. Martenson explained that the Waverly Sanitary District services no less than four municipalities. A discussion ensued relative to a 23 acre parcel, not currently within the approved sewer service area. While the parcel is part of the hold area, the committee wondered if it should be included as part of this request. Mr. Hanna felt this should be done comprehensively now, as opposed to later. This is due to the fact that this area would need to be amended in order to provide service.

Ms. Schneider asked what the purpose of the ‘hold’ status is. Mr. Huffman explained these areas were designated as such because there were questions on who would serve it and by what method. He reminded the committee that the Village of Harrison did not exist at the time of the 2006 Neenah-Menasha SSA plan update. Infrastructure needs and cost-effectiveness were also considered. Questions arose over the sewer easement and its process here today. Mr. Huffman recommended the easement, which totals approximately 3 acres, be acted today through Action Item 9e). It is also expected the necessary permits and local approvals be in place to extend this easement. Mr. Kautza wanted reaffirmation that the treatment plant had the capacity to accept this additional flow. Mr. Martenson then gave specific information relative to the
sewer mains, lift station and force main construction and its flow direction. Mr. Kautza moved to lift the ‘hold’ status as presented to include the additional acreage (23 acres), not currently in the SSA. Mr. Mayou made the second. Motion carried.

e) Potential Sewer Easement Amendment – V. Harrison/Waverly SD

Mr. Huffman reiterated portions of the previous action item explaining why there is a need to create a sewer easement for the purposes of completing the proposed sewer network. Mr. Huffman explained there is no existing development in the immediate vicinity of this easement. Mr. Huffman stressed that in these instances no sewer connections would be allowed to this segment. Mr. Mayou moved to approve the sewer easement. Mr. Kautza made the second. Motion carried.

10. Program/Project Updates & Discussions

a) Review of 2015 Work Program – 1200 Program Element: Sustainable and Efficient Community Services & Facilities

Ms. Thunes led the discussion on the review of the 1200 program element for the 2015 work program that falls under this committee. She stated that we were halfway through the year and staff would like to review the status of the elements including updates on the current technical assistance projects and any future projects. She described the Greenhouse Gas Emission Study for the City of Neenah and explained that she was waiting for information from the City of Neenah before proceeding with this project. Ms. Thunes stated that she will provide updates to the committee on this project in the future.

Mr. Huffman described that the Town of Clayton technical assistance project will analyze the best method of the transporting and treating wastewater in an area devoid of a sewer service area plan. Mr. Huffman stated that while this project is considered an ongoing effort, the role of East Central has been somewhat diminished based on new circumstances concerning this project. He stated that the Town of Clayton has hired a private consultant to evaluate the wastewater treatment facility in Larsen-Winchester. Mr. Huffman stressed that there has been no communication with the private consultant to date.

Ms. Thunes informed committee members of the City of Oshkosh Greenhouse Gas Emissions Study and the technology being used to make an analysis of the issue. Ms. Thunes has held an initial meeting with the City to begin the process.

The remaining work program elements are the standard work items for this committee as related to sewer service area functions. The major work elements and the work items associated with them have remained consistent since the inception of this program and the committee responsible to carry out its functions. These include the administration, promotion, review powers for subdivision plats, sanitary sewer extensions and laterals, wastewater treatment facilities planning, coordinating efforts with the WDNR and the implementation of policies and procedures. Sewer Service area plan up dates are scheduled for Rosendale, Forest Junction and Fond du Lac SSA’s. Mr. Huffman indicated that the two approvals for Eden and Oakfield complete these projects and therefore they will be removed from the work program.

b) 2030 Fond du Lac Sewer Service Area Plan Update
Mr. Huffman stated that the Fond du Lac SSA plan update remains, at the request of the law firm heading up the Outside Sewer Group (OSG) plan update, in somewhat of a holding pattern. Based on conversations with John St. Peter, it was determined that the OSG update work needs a bit more time to complete. It is anticipated that the Fond du Lac SSA plan work will resume later this summer.

11. **Next Meeting**

The next regularly scheduled meeting was set for Wednesday, September 9, 2015 at 10:00 a.m. This time and date seemed to be agreeable with committee members.

12. **Adjourn**

A motion to adjourn was made by Mr. Bellin. Mr. Hanna made the second. Motion carried. This meeting ended at 11:05 a.m.
VILLAGE OF EDEN
April 21, 2015

THE REGULAR MEETING OF THE VILLAGE OF EDEN BOARD:

The Regular Meeting of the Village of Eden Board was called to order by President Dennis Immel. Present were Dennis Immel, Sheila Zook, Liz Augustyn, Jean Ziegler, John Stommel, Kirk Kramp, and Cory St Mary.

Pledge of allegiance was said.

A motion was made by Cory St Mary and seconded by Jean Ziegler to approve the minutes as presented. Motion Carried.

A motion was made by Kirk Kramp and seconded by John Stommel to approve the minutes from the special meeting. Motion Carried.

A motion was made by John Stommel and seconded by Kirk Kramp to approve the treasurer's report as presented. Motion Carried.

A motion was made by Jean Ziegler and seconded by Cory St Mary to pay the bills as presented. Motion Carried.

A motion was made by Kirk Kramp and seconded by Cory St Mary to approve temporary borrowing as needed. Motion Carried.

A motion was made by Kirk Kramp and seconded by Jean Ziegler to approve the building report as presented. Motion Carried.

A motion was made by Cory St Mary and seconded by Jean Ziegler to approve the operators licenses as presented. Motion Carried. Liz Augustyn Abstained.

A motion was made by Liz Augustyn and seconded by Cory St Mary to have the Bulky Waste for May 2, 2015 from 10-1. Motion carried.

The Owners of Manor Hill Park did not appear at this month's meeting.

A motion was made by John Stommel and seconded by Kirk Kramp to approve the 2035 Eden Sewer Service Area Plan presented by East Central Wisconsin Regional Planning Commission as presented. Motion Carried.

Discussion took place regarding the Hwy 45 project for 2018. Dennis informed the board that there would not be any problems with bidding the Sanitary Sewer Separate from the state bid. A motion was made by Cory St Mary and seconded by John Stommel to leave the electric poles in place as is due to the cost of burying the lines exceeding $600,000.00. Motion Carried.

Kirk informed the board that he had the funding in place for the playground equipment for the community park. He asks that the Park Commission cover the additional costs of mulch and borders.
motion was made by Paul Tibbetts and seconded by John Stommel to approve the set up and additional expenditures for the new play area. Motion Carried.

John Stommel was granted permission to make benches out of the old sand box that will be removed.

A motion was made by John Stommel and seconded by Kirk Kramp to approve the Baumhardt Contract for the extension of South Elizabeth Street. Motion Carried.

A motion was made by Kirk Kramp and seconded by Cory St Mary to approve the manhole repairs at Main Street and Fond du Lac Avenue that Dennis estimates will cost $2500.00. Motion Carried.

Liz informed the board that she will be having an MDA Ride with band and beverages on May 16, 2015. The outside portion will be closed down by 11 pm.

Discussion took place regarding Park Place Condos. Dennis will address the issues.

A motion was made by John Stommel and seconded by Cory St Mary to adjourn the meeting. Motion Carried.

Respectfully submitted,

Sheila M Zook
Clerk/Treasurer
Chairman, Dick Guell called the meeting to order at 7:00 p.m. Additional Board members present included Supervisors, Paul Tibbetts & Lee Fowler, Treasurer, Jim Murphy, Deputy Treasurer Carol Murphy & Clerk, Brenda J. Gosein. The meeting opened with the Pledge of Allegiance to the American Flag.

The next order of business was reading the minutes of the June 8th 2015 meeting. No one present wanted the June 8th 2015 minutes read. Tibbetts made a motion which was seconded by Fowler, to dispense with the reading of the June 8th 2015 minutes and approve the minutes as presented. The motion carried unanimously. All Town Board Meetings minutes are posted at the Eden Post Office, National Exchange Bank and the Town Hall.

The next order of business was the Treasurer’s Report/Bills. The financial report was read by Mrs. Murphy, and placed on file for audit. Checks #8014-#8022 were paid. Check # 8008 from the July meeting was used to pay Baumhardt Sand & Gravel, as they did not present a bill in June. The Town Board reviewed the bills presented. Fowler made a Motion, with a Second by Tibbetts, to accept the financial report as presented. The motion carried unanimously.

The next order of business was to review/approve Operator’s licenses presented. Two applications were received for Operator’s licenses. Both were new applications:

- Erick A. Johnston: The Town Board reviewed the application. Erik states that he has not had the operator’s course for > 10 years. There is a question if the course completed >10 years ago is sufficient to adhere to State Statutes.
- Chad R. Lange. Mr. Lange was not present at the meeting.

Guell made a Motion, Seconded by Fowler to Table approval of the applications until the requirements for approval are satisfied. The motion carried unanimously.

The next order of business was Discussion/Act on ECWPC’s Draft 2035 Eden SSA Plan Update. Mr. Huff presented the plan. He indicates that it is a 20 year plan. Most of the changes that have been made are technical. The Town Board reviewed the proposed changes. Tibbetts made a motion, Seconded by Fowler to accept the proposed plan. The motion carried unanimously.

The next order of business was to Discuss/Review/Act on Plan Commission’s recommendation for the request of a Special Use Permit by Melissa & Trevor Schill. There was discussion regarding the location of the driveway. There were recommendations that at a minimally a Dangerous Driveway sign would need to be placed. The Town Board recommended that a larger culvert be placed. Tibbetts made a motion, Seconded by Fowler to accept the Plan Commission’s recommendation and approve the Special Use Permit. The Town Board based this motion on the Town’s attorney advice on the determination of the size of the culvert and the need for a CSM. The motion carried unanimously.

The next order of business was to discuss the process to follow for property on UU (Flasch property) There are 2.45 acres that are currently Farmland Preservation and zoned agricultural. There is a CSM for this lot. The State Statutes state that it cannot be agricultural; it needs to be
residential for a home to be built on it. Mr. Guell spoke with the Town’s attorney, who stated that there were several options for the Flasch’s to follow.

- They could go before the Plan Commission and request that the property be re-zoned.
- They could request that DATCP make a determination regarding the property.

The Town Board advised that going to DATCP, would take a longer period of time. The Flasch’s decided to request a re-zoning through the Plan Commission. This will be on the August agenda. In addition, they need to know how far off the road the house needs to be. The existing fire # is okay. Mr. Guell will order fire #.  *Guell made a motion, Seconded by Fowler to Table the issue until the August meeting. The motion carried unanimously.*

**The next order of business was to discuss purchase of financial Software for the Town.** Mrs. Murphy indicated the tax software is ~$650 annually. The Clerk is continuing to research different software or modifying the current program.  *Fowler made a motion, Seconded by Tibbetts to Table the discussion until the August meeting. The motion carried unanimously.*

**The next order of business was Roads.** Bids were solicited for Roads, with only Scott responding.  *Tibbetts made a motion which was seconded by Fowler to approve all three projects presented, with the option to pay $26,424 in February of 2016. The motion carried unanimously.*

**The next order of business is to review/approve Building Permits.** The following building permits presented for review:

- 2015-#10    Marvin/Mary Tuttle    Bathroom upgrade    $700.00
- 2015-#11    John Batterman        Land use Permit, siding & deck    $20,000

*Fowler made a motion, Seconded by Tibbetts to approve the building permits as presented. The motion carried unanimously.*

**Opportunity for Citizen’s concerns:**
There was discussion regarding brush cutting on Church Road

**Correspondence reviewed.**

*Tibbetts made a motion, which was seconded by Fowler to adjourn the meeting. The motion carried unanimously. The meeting adjourned at 8:30 p.m.*

Respectfully Submitted,

Brenda J. Gosein-Municipal Clerk

Attendance:  Melissa/Mollie Schill, Joe Huffman (ECWPC), Brad/Colleen Flasch, Erick Johnston, Wayne Hass, Jim Baumhardt
September 21, 2015

Ms. Donna Kalata
East Central Wisconsin Regional Planning Commission
400 Ahnaip St, Suite 100
Menasha, Wisconsin 54952

Subject: 2035 Eden Sewer Service Area Plan

Dear Ms. Kalata:

We have completed our review of the subject Sewer Service Area (SSA) Plan Update request received by the Department on September 10, 2015. The Department hereby approves the plan update, which amends the 2000 Eden Sewer Service Area Plan. The 2035 sewer service area is comprised of 538.2 acres total, with the 24.1 acre addition representing a 5% increase in the sewer service area.

Within the 2035 sewer service area, 271.9 acres (50.5%) are considered developable. 58 acres (3.4%) are considered undevelopable. 48.5 acres are environmentally sensitive areas, comprised of 25.5 acres of wetlands, 18.3 acres of stream and wetland buffers, and 4.7 acres of open water.

The plan update had a public hearing on March 24, 2015. The plan update was approved by the East Central Regional Planning Commission through Resolution No. 14-15.

This plan update becomes a part of the State of Wisconsin’s Water Quality Management Plan and will be forwarded to the US Environmental Protection Agency to meet the requirements of the Clean Water Act of 1987 (Public Law 92-500 as amended by Public Law 95-217), and outlined in the federal regulations 40 CFR, Part 35.

This review is an equivalent analysis action under s. NR 150.20 (2) (a) 3, Wis. Adm. Code. By means of this review, the Department has complied with ch. NR 150, Wis. Adm. Code, and with s. 1.11, Stats.

The approval of this sewer service area plan update does not constitute approval of any other local, state, or federal permit that may be required for sewer construction or associated land development activities.

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.

We request that, when the final version of the report is printed, one copy be provided to this office (please direct to Josie Lathrop).

Sincerely,

Timothy R. Asplund
Monitoring Section Chief
Bureau of Water Quality

cc:
Mr. Joe Huffman, East Central Wisconsin RPC
Mr. Erick Fowle, East Central Wisconsin RPC
Ms. Lisa Helmuth – WQ/3
RESOLUTION NO. 14-15

APPROVING THE UPDATED 2035 EDEN SEWER SERVICE AREA

WHEREAS, the East Central Wisconsin Regional Planning Commission has been designated by the Wisconsin Department of Natural Resources as the sewer service area management agency for the ten county East Central region, and;

WHEREAS, the East Central Wisconsin Regional Planning Commission has entered into a memorandum of agreement with the Wisconsin Department of Natural Resources to develop, update and manage sewer service area plans for the designated area and select non-designated areas, and;

WHEREAS, the East Central Wisconsin Regional Planning Commission is preparing updated sewer service area plans for communities through the year 2035, and;

WHEREAS, the East Central Wisconsin Regional Planning Commission has held public participation and community meetings for those areas affected during the planning process, and;

WHEREAS, the Sewer Service Area Plans will be submitted to the Department of Natural Resources and certified as part of the Wisconsin Water Quality Plans.

NOW THEREFORE BE IT RESOLVED BY THE EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION:

Section 1. That the Commission adopt the draft plan for the 2035 Eden Sewer Service Area Plan Update and recommend the Wisconsin Department of Natural Resources certification of the aforementioned plan update, and;

Section 2. That the Commission provide continuing sewer service area planning and management functions including sewer service area amendments, review of wastewater and sewer plans and the review of sewer extension requests for the 2035 Eden Sewer Service Area.

Effective Date: June 10, 2015

Submitted By: Community Facilities Committee

Prepared By: Joseph W. Huffman, SSA Planner

Donna Kalata, Chair – Waushara County
| TABLE B-1: Existing Year 2020 SSA Acreage Characteristics (Based on 2014 Land Use) |
|---------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                | Total SSA Acres | % of Total SSA | Total Vacant SSA Acres | % of Total Vacant SSA | Total ESA/Water Acres | % of Total ESA/Water | SF Residential Acreage by Proposed Land Use Type | % of Total SF Residential Acreage |
| **2014 Sewer Service Area Total** | 114.06          | 22.46%          | 37.98           | 20.90%          | 5.24            | 2.89%           | 37.98           | 20.90%          |
| Single Family & Duplex Residential | 2.41            | 0.47%           | 0.78            | 0.41%           | 5.24            | 2.89%           | 5.24            | 2.89%           |
| Multi-Family Residential        | 3.00            | 0.55%           | 0.78            | 0.41%           | 5.24            | 2.89%           | 5.24            | 2.89%           |
| Transportation/Roads/Railroads & Ind. Parking Facilities | 5.24            | 2.89%           | 5.24            | 2.89%           | 5.24            | 2.89%           | 5.24            | 2.89%           |
| Existing/Planned Stormwater Detention Ponds | 6.65            | 3.71%           | 6.65            | 3.71%           | 6.65            | 3.71%           | 6.65            | 3.71%           |
| Vacant/Developable (Includes woodlands, agric. or undeveloped uses) | 11.10           | 6.16%           | 11.10           | 6.16%           | 11.10           | 6.16%           | 11.10           | 6.16%           |
| ESA - Stream Buffer & Wetland Buffer | 4.59            | 0.89%           | 4.59            | 0.89%           | 4.59            | 0.89%           | 4.59            | 0.89%           |
| ESA - Wetland                   | 4.59            | 0.89%           | 4.59            | 0.89%           | 4.59            | 0.89%           | 4.59            | 0.89%           |
| Open Water                      | 4.59            | 0.89%           | 4.59            | 0.89%           | 4.59            | 0.89%           | 4.59            | 0.89%           |
| **TOTALS**                      | 275.09          | 53.51%          | 227.03          | 52.68%          | 23.89%          | 23.89%          | 23.89%          | 23.89%          |

East Central Wisconsin Regional Planning Commission

2035 Eden Sewer Service Area Plan
Appendix B: SSA Demographic & Acreage Projection Tables

B-1
## Table B-2: Proposed Year 2035 Acreage Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Total SSA</th>
<th>V. Eden SSA</th>
<th>T. Eden SSA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acres</td>
<td>% of Total</td>
<td>Acres</td>
</tr>
<tr>
<td>2050 SSA Planning Area (acres)</td>
<td>7,476.2</td>
<td>100.0</td>
<td>391.8</td>
</tr>
<tr>
<td>Square Miles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2035 Sewer Service Area Total</td>
<td>538.20</td>
<td>100.0%</td>
<td>348.75</td>
</tr>
<tr>
<td>Single Family &amp; Duplex Residential (including mobile homes &amp; Accessory bldgs)</td>
<td>117.62</td>
<td>21.9%</td>
<td>98.25</td>
</tr>
<tr>
<td>Multi-Family Residential</td>
<td>2.41</td>
<td>0.4%</td>
<td>2.41</td>
</tr>
<tr>
<td>Commercial</td>
<td>28.92</td>
<td>5.4%</td>
<td>28.81</td>
</tr>
<tr>
<td>Industrial</td>
<td>9.04</td>
<td>1.7%</td>
<td>5.22</td>
</tr>
<tr>
<td>Public/Institutional (includes park &amp; recreation)</td>
<td>36.40</td>
<td>6.8%</td>
<td>32.69</td>
</tr>
<tr>
<td>Utilities (includes WWTP)</td>
<td>1.65</td>
<td>0.3%</td>
<td>1.65</td>
</tr>
<tr>
<td>Transportation/Roads/Railroads/Parking Facilities</td>
<td>75.87</td>
<td>14.1%</td>
<td>63.67</td>
</tr>
<tr>
<td>Vacant, Developable (includes woodlands, agric. or undeveloped uses)</td>
<td>217.84</td>
<td>40.5%</td>
<td>79.36</td>
</tr>
<tr>
<td>ESA - Stream &amp; Wetland Buffers</td>
<td>18.29</td>
<td>3.4%</td>
<td>14.69</td>
</tr>
<tr>
<td>ESA - Wetland</td>
<td>25.51</td>
<td>4.7%</td>
<td>17.63</td>
</tr>
<tr>
<td>Open Water</td>
<td>4.65</td>
<td>0.9%</td>
<td>4.37</td>
</tr>
<tr>
<td>Total SSA Developed Acres</td>
<td>271.91</td>
<td>50.5%</td>
<td>232.70</td>
</tr>
<tr>
<td>Total SSA ESA/Water Acres</td>
<td>48.45</td>
<td>9.0%</td>
<td>36.69</td>
</tr>
</tbody>
</table>

Source: ECWRPC, V. Eden T. Eden
### Table B-3: Eden SSA Employment Forecasts 2020-2035

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>2014 C/I Acreage</th>
<th>Employment Density</th>
<th>Employees</th>
<th>Projected 2035 C/I Acreage</th>
<th>Employment Density</th>
<th>Employees</th>
<th>2010 - 2035 Employee increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>V. Eden</td>
<td>34.03</td>
<td>10.1</td>
<td>343.703</td>
<td>7.4</td>
<td>10.1</td>
<td>74.74</td>
<td>-268.963</td>
</tr>
<tr>
<td>T. Eden</td>
<td>6.68</td>
<td>10.1</td>
<td>67.468</td>
<td>32.31</td>
<td>10.1</td>
<td>326.331</td>
<td>258.863</td>
</tr>
</tbody>
</table>

Source: Eden, 2025 Comprehensive Plan; ECWRPC, 2012

### ECWRPC Long-Range Plan

#### Standard Employment Densities

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Employees/acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial</td>
<td>14.5</td>
</tr>
<tr>
<td>Wholesale</td>
<td>14.5</td>
</tr>
<tr>
<td>Commercial</td>
<td>12.0</td>
</tr>
<tr>
<td>Service</td>
<td>12.0</td>
</tr>
<tr>
<td>Trade</td>
<td>12.0</td>
</tr>
<tr>
<td>TCPU</td>
<td>4.1</td>
</tr>
<tr>
<td>Park &amp; Rec</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>10.1</strong></td>
</tr>
</tbody>
</table>

Source: ECWRPC Long-Range Plan
Table B-4 : Eden SSA - Commercial / Industrial Acreage Projections (YEAR 2035)**

**EXISTING SSA (2020)

Eden SSA

<table>
<thead>
<tr>
<th>Acres of existing commercial/industrial (C/I) development</th>
<th>Population</th>
<th>C/I Per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>1,903</td>
<td>0.02</td>
</tr>
</tbody>
</table>

**2035 - PROJECTED SSA (2035 projected minus 2010 existing)

Eden SSA

<table>
<thead>
<tr>
<th>Population projection</th>
<th>Population Increase (2010-2035)</th>
<th>C/I Per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,215</td>
<td>312</td>
<td>0.02</td>
</tr>
</tbody>
</table>

7 Projected Need* (2035 C/I Per Capita * Pop. Increase)

**ESTIMATED ACREAGE NEEDS

Eden 2035 SSA C/I Projection

7 C/I Acres Needed

Application of 15% Infrastructure Factor = Gross Acreage Needs for C/I Uses

7 * 1.15 = 7.7

Application of 20% Market Factor = Adjusted Gross Acreage Needs for C/I Uses

8 * 1.2 = 9

Note: This figure to be used as a guide for 2035 SSA allocations
Table B-5: Summary of SSA Acreage Modifications

<table>
<thead>
<tr>
<th>Land Use Type</th>
<th>Total SSA</th>
<th>V. Eden SSA</th>
<th>T. Eden SSA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Added</td>
<td>Removed</td>
<td>Added</td>
</tr>
<tr>
<td>2030 Sewer Service Area Total</td>
<td>24.14</td>
<td>12.45</td>
<td>0.00</td>
</tr>
<tr>
<td>Single Family &amp; Duplex Residential (including mobile homes)</td>
<td>2.17</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Multi-Family Residential</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Commercial</td>
<td>-2.75</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Industrial</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Public/Institutional (includes park &amp; recreation)</td>
<td>-3.76</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Utilities</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Transportation/Roads/Railroads</td>
<td>1.16</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Existing/Planned Stormwater Detention Ponds</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Vacant, Undevelopable</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Vacant, Developable (includes woodlands, agric. or undeveloped uses)</td>
<td>27.50</td>
<td>12.45</td>
<td>0.00</td>
</tr>
<tr>
<td>ESA - Stream &amp; Wetland Buffers</td>
<td>-0.24</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>ESA - Wetland</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Open Water</td>
<td>0.06</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Total SSA Developed Acres</td>
<td>-3.18</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Total SSA ESA/Water Acres</td>
<td>-0.18</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vacant Acres by Proposed Land Use Type</th>
<th>Total of All SSAs</th>
<th>V. Eden SSA</th>
<th>T. Eden SSA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Added</td>
<td>Removed</td>
<td>Added</td>
</tr>
<tr>
<td>SF Residential</td>
<td>12.45</td>
<td>0.00</td>
<td>12.45</td>
</tr>
<tr>
<td>MF Residential</td>
<td>0.00</td>
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<td>0.00</td>
</tr>
<tr>
<td>Commercial</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Industrial</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Public/Institutional (includes parks/churches/utilities, transportation)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Rural Preservation</td>
<td>44.50</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>TOTALS</td>
<td>27.49</td>
<td>-29.46</td>
<td>12.45</td>
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Source: ECWRPC, Village of Eden, Town of Eden
<table>
<thead>
<tr>
<th>MUNICIPALITY</th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fond du Lac</td>
<td>1,045</td>
<td>1,089</td>
<td>1,104</td>
<td>1,119</td>
<td>1,134</td>
<td>1,149</td>
<td>1,164</td>
</tr>
<tr>
<td>Fond du Lac</td>
<td>1,041</td>
<td>1,086</td>
<td>1,102</td>
<td>1,117</td>
<td>1,132</td>
<td>1,147</td>
<td>1,162</td>
</tr>
<tr>
<td>Fond du Lac</td>
<td>1,020</td>
<td>1,066</td>
<td>1,082</td>
<td>1,097</td>
<td>1,112</td>
<td>1,127</td>
<td>1,142</td>
</tr>
<tr>
<td>Fond du Lac</td>
<td>980</td>
<td>1,034</td>
<td>1,050</td>
<td>1,066</td>
<td>1,082</td>
<td>1,097</td>
<td>1,112</td>
</tr>
<tr>
<td>Fond du Lac</td>
<td>940</td>
<td>1,006</td>
<td>1,022</td>
<td>1,038</td>
<td>1,054</td>
<td>1,069</td>
<td>1,085</td>
</tr>
<tr>
<td>Fond du Lac</td>
<td>1,747</td>
<td>1,793</td>
<td>1,838</td>
<td>1,883</td>
<td>1,928</td>
<td>1,973</td>
<td>2,018</td>
</tr>
<tr>
<td>Fond du Lac</td>
<td>1,749</td>
<td>1,795</td>
<td>1,840</td>
<td>1,885</td>
<td>1,930</td>
<td>1,975</td>
<td>2,020</td>
</tr>
<tr>
<td>Fond du Lac</td>
<td>1,755</td>
<td>1,801</td>
<td>1,846</td>
<td>1,891</td>
<td>1,936</td>
<td>1,981</td>
<td>2,026</td>
</tr>
<tr>
<td>Fond du Lac</td>
<td>1,785</td>
<td>1,830</td>
<td>1,875</td>
<td>1,920</td>
<td>1,965</td>
<td>2,010</td>
<td>2,055</td>
</tr>
<tr>
<td>Fond du Lac</td>
<td>1,825</td>
<td>1,870</td>
<td>1,915</td>
<td>1,960</td>
<td>1,995</td>
<td>2,040</td>
<td>2,085</td>
</tr>
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<td>3,889</td>
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<tr>
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<td>4,592</td>
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<td>4,969</td>
</tr>
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<td>Fond du Lac</td>
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<td>5,061</td>
<td>5,106</td>
<td>5,151</td>
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<td>5,513</td>
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<td>Fond du Lac</td>
<td>5,324</td>
<td>5,370</td>
<td>5,415</td>
<td>5,460</td>
<td>5,505</td>
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<tr>
<td>Fond du Lac</td>
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</tr>
<tr>
<td>Fond du Lac</td>
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<td>6,071</td>
<td>6,116</td>
<td>6,161</td>
<td>6,206</td>
</tr>
</tbody>
</table>

Source: DOA 2010-2040 Population Projections by MCD, October 2013

Appendix B: SSA Demographic & Acreage Projection Tables

Table B-6: Fond du Lac Population Projections 2010-2040

2035 Eden Sewer Service Area Plan
APPENDIX C

ENVIRONMENTAL ASSESSMENT OF 2035 SSA ALLOCATIONS
APPENDIX C: ENVIRONMENTAL ASSESSMENT OF 2035 SSA ALLOCATIONS

The Eden 2035 SSA acreage allocations are contained in two areas within the proposed sewer service area. Environmental issues are elements to this planning process and are described below. If known, aquatic invasive species, elevated nitrate levels in groundwater, loss of natural shorelines, etc., are identified.

<table>
<thead>
<tr>
<th>Eden 2035 SSA Allocation – Area 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
</tr>
<tr>
<td>Town of Eden, T14N R18E, S ½, NW ¼, Section 16; This area totals 50.8 acres.</td>
</tr>
<tr>
<td><strong>General Physical Features</strong></td>
</tr>
<tr>
<td>This area is predominately in agricultural use and is bisected on its western edge by CTH V. Also prominent is a forested area in the eastern portion of this allocation.</td>
</tr>
<tr>
<td><strong>Current Development</strong></td>
</tr>
<tr>
<td>There is an existing farmstead and single family structure west of CTH V that totals approximately 4.5 acres.</td>
</tr>
<tr>
<td><strong>Planned or Proposed Development</strong></td>
</tr>
<tr>
<td>This allocation area is classified as a rural preservation area and is expected to develop as single family residential. There is the potential for institutional or light industrial use, however, an amendment to the comprehensive plan may be in order.</td>
</tr>
<tr>
<td><strong>Limiting Environmental Conditions</strong>*</td>
</tr>
<tr>
<td>There are two wetland designations within this area totaling approximately 2 acres, (including wetland buffers). There are approximately 12 acres of steep slopes found in three areas of this allocation.</td>
</tr>
<tr>
<td><strong>Water Features</strong></td>
</tr>
<tr>
<td>This area has two small ponds, (less than 1 acre in size).</td>
</tr>
<tr>
<td><strong>WDNR Natural Heritage Inventory</strong></td>
</tr>
<tr>
<td>While endangered resources are present the species recorded are not legally protected. It is recommended, however not required, that an Endangered Resources review be conducted prior to development. (See the ER Preliminary Assessment at the end of this appendix).</td>
</tr>
<tr>
<td>Eden 2035 SSA Allocation – Area 2</td>
</tr>
<tr>
<td>-------------------------------</td>
</tr>
<tr>
<td><strong>Location</strong></td>
</tr>
<tr>
<td><strong>General Physical Features</strong></td>
</tr>
<tr>
<td><strong>Current Development</strong></td>
</tr>
<tr>
<td><strong>Planned or Proposed Development</strong></td>
</tr>
<tr>
<td><strong>Limiting Environmental Conditions</strong></td>
</tr>
<tr>
<td><strong>Water Features</strong></td>
</tr>
<tr>
<td><strong>WDNR Natural Heritage</strong></td>
</tr>
</tbody>
</table>

*Natural occurring environmental conditions where development may not be suitable such as: groundwater within 1 foot of the surface, slopes greater than 12%, and bedrock occurring within 5 feet of the surface. Sources: ECWRPC, WDNR’s Ecological Landscapes of Wisconsin, Ecosystem Management Planning Hand Book, WDNR’s 2006 Impaired Waters List (303d list), and WDNR’s Natural Heritage Inventory Working List.*
ENDANGERED RESOURCE PROTECTIONS

Species listed as Threatened or Endangered under Wisconsin’s Endangered Species Law (s. 29.604 Wis. Stats):

- **State-listed animals** - Vertebrates and invertebrates are protected on all lands and waters of the state.
- **State-listed plants** – Protected on public lands and on lands that the person does not own or lease, except in the course of forestry, agriculture, bulk sampling associated with mining or utility actions.

Species protected by the **Federal Endangered Species Act of 1973**, as amended includes those federally-listed as Endangered or Threatened and their Designated Critical Habitats:

- **Federally-protected animals** – Protected on all lands.
- **Federally-protected plants** – Protected on federal lands and in the course of projects that include federal funding. They are also protected on other lands if they are removed, cut, dug up or damaged in knowing violation of any law or regulation of any state or in violation of a criminal trespass law.

**Special Concern Species, High-Quality Examples of Natural Communities**

High Conservation Value areas and unique natural features such as caves or animal aggregation sites are not legally protected by state or federal endangered species laws. However, other laws and policies related to Forest Certification or master planning or granting and permitting processes may require or strongly encourage protection of these resources. The main purpose of the Special Concern classification is to focus attention on species about which some problem of abundance or distribution is suspected before they become endangered or threatened.

**State Natural Areas**

SNA’s protect outstanding examples of Wisconsin’s native landscape of natural communities and significant geological formations. Endangered species are often found within SNA’s. SNA’s are protected by law from any use that is inconsistent or injurious to their natural values, (s. 23.28 Wis Stats).

Appendix C includes data on the township range areas included in the sewer service area plan. Prior to development or land disturbance these lists should be consulted to determine if there might be endangered resources in the area. If endangered resources are indicated the developer or municipality should take the project area through the **Natural Heritage Inventory Public Portal** prior to requesting an Endangered Resources Review to ensure a review is necessary. If the Endangered Resources Preliminary Assessment you receive from the NHI Public Portal indicates that no further actions are necessary, you can submit the Endangered Resources Preliminary Assessment Report with other WDNR permit applications to indicate the Endangered Resources issues have been addressed. If, on the other hand, the Endangered Resources Preliminary Assessment indicates further actions are recommended or required, the next step would be to complete the Endangered Resources Review Request Form. By including the Endangered Resources Preliminary Assessment Report with the Endangered Resources
Review Request the Endangered Resources reviewer will have the ability to call up the project area from the NHI Public Portal ensuring the project area is accurately accessed thus reducing the time needed to complete the review. To learn more about the Natural Heritage Inventory please use this link: http://dnr.wi.gov/topic/nhi/.
Natural Heritage Inventory data township tool – Town of Eden

Data for Township 14N, Range 18E

The following is a list of species and natural features on the Natural Heritage Working List that have been documented for T14N, R18E. Sensitive species have been removed, where applicable, and the data presented here should not be used for screening or reviewing a proposed land development or land management project for potential impacts to endangered resources. Learn about other methods for obtaining data, including project-specific data here.

Click on the table headings to sort the table, and click on a heading again to change the sort order. Each species or community on the list has been documented in at least one location (but possibly many locations) within the township. The scientific names link to pages with more information about each species or feature. Also, these data were last updated on February 5, 2015, so there may be more recent county records not reflected here. Return to the township tool.

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>WI Status</th>
<th>Federal Status</th>
<th>Group</th>
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</thead>
<tbody>
<tr>
<td>Migratory Bird Concentration</td>
<td>Migratory Bird Concentration</td>
<td>SC</td>
<td></td>
<td>Other~</td>
</tr>
<tr>
<td>Site</td>
<td>Site</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shrub-carr</td>
<td>Shrub-carr</td>
<td>NA</td>
<td></td>
<td>Community~</td>
</tr>
<tr>
<td>Southern mesic forest</td>
<td>Southern Mesic Forest</td>
<td>NA</td>
<td></td>
<td>Community</td>
</tr>
</tbody>
</table>
Endangered Resources Preliminary Assessment

Created on Monday, March 09, 2015. This report is good for one year after the created date.

Results

Further actions recommended. Endangered resources are present; however, the species recorded are not legally protected. Therefore an Endangered Resources Review [http://dnr.wi.gov/topic/ERReview/Review.html](http://dnr.wi.gov/topic/ERReview/Review.html) is recommended but not required for this project.

Project Information

<table>
<thead>
<tr>
<th>Landowner name</th>
<th>Town of Eden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project address</td>
<td>Township of Eden</td>
</tr>
<tr>
<td>Project description</td>
<td>Future Land Use</td>
</tr>
</tbody>
</table>

Project Questions

<table>
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<tr>
<th>Question</th>
<th>Answer</th>
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</thead>
<tbody>
<tr>
<td>Does the project involve a public property?</td>
<td>No</td>
</tr>
<tr>
<td>Is the project on a federal property?</td>
<td>No</td>
</tr>
<tr>
<td>Is the project federally funded?</td>
<td>No</td>
</tr>
<tr>
<td>Is the project a utility, agricultural, forestry or bulk sampling (associated with mining) project?</td>
<td>No</td>
</tr>
<tr>
<td>Is the project property in Managed Forest Law or Managed Forest Tax Law?</td>
<td>No</td>
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</tbody>
</table>

Endangered Resources Preliminary Assessment

Created on Monday, March 09, 2015. This report is good for one year after the created date.

Results

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</table>
EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION

Donna Kalata, Chair
Michael Thomas, Vice-Chair
Eric Fowle, Secretary-Treasurer

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*To be determined