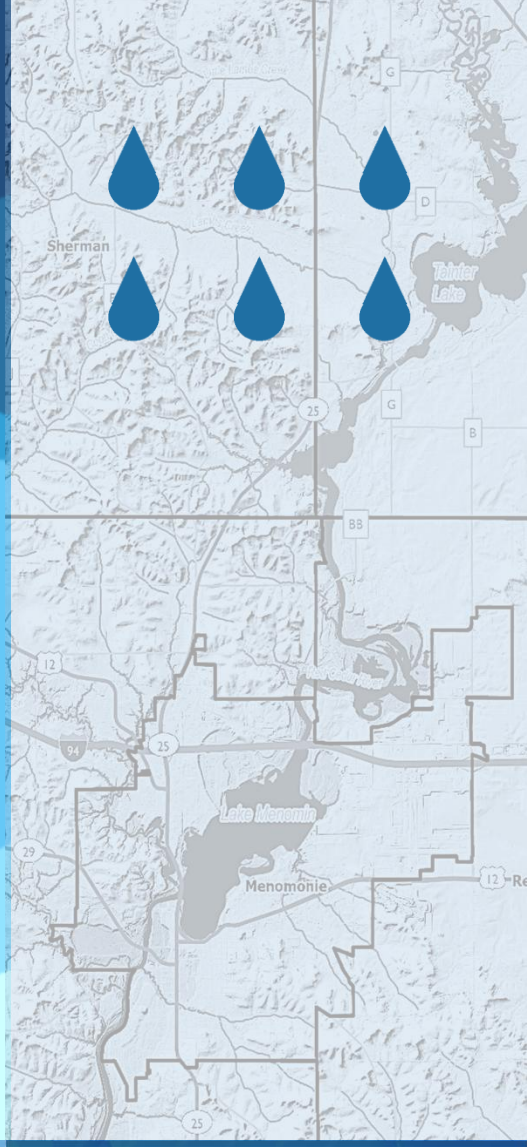
Menomonie Urban Sewer Service Area Plan for 2045





Locally Approved Draft

7/22/26

<INSERT WDNR APPROVAL LETTER ONCE RECEIVED>

MENOMONIE URBAN SEWER SERVICE AREA PLAN FOR 2045

Prepared by:

Menomonie Area Local Water Quality Advisory Committee
and
West Central Wisconsin Regional Planning Commission
(WDNR-designated Local Planning Agency)

Approved by:

Wisconsin Department of Natural Resources
XXXX XX, 2026

WEST CENTRAL WISCONSIN
REGIONAL PLANNING COMMISSION

Menomonie Area Water Quality Advisory Committee

Dunn County Land & Water Conservation	--	Chase Cummings
Dunn County Economic Develop. Corp.	--	Adam Accola
Town of Menomonie	--	Kent Jackson
Town of Red Cedar	--	Robert Cook
Town of Sherman	--	Sherri Vodinelich
Town of Tainter	--	Darwin Anderson
City of Menomonie	--	David Schofield
City of Menomonie	--	Megan Hines
City of Menomonie	--	Jason Garcia
West Central WI Regional Planning Comm	--	Chris Straight

Menomonie Urban SSA Plan
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CHAPTER 1 – INTRODUCTION

1.1 WHAT IS A SEWER SERVICE AREA (SSA) PLAN?

In short, Sewer Service Area (SSA) Plans anticipate and forecast growth for a planning (study) area for the next 20 years and identify the most cost-effective and environmentally sound regional mix of wastewater treatment solutions for the study area with an emphasis on protecting surface water quality.

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. One of the principal purposes of areawide plans is to identify cost-effective solutions to wastewater collection and treatment problems on a regional basis. To accomplish this objective, areawide plans are required to include "the identification of treatment works necessary to meet the anticipated municipal and industrial waste treatment needs of the area over a twenty year period," and a program to "regulate the location, modification and construction of any facilities within such area which may result in any discharge in such area" [Public Law 92-500, Section 208(b)(2)(A)]. The overarching planning tool used to address these requirements in the Menomonie area is the urban sewer service area plan.

The State of Wisconsin has incorporated many of the Federal areawide and facility planning requirements into the Wisconsin Administrative Code. As reflected below, the SSA Plan is part of a collection of locally guided areawide water quality management policies and plans (AWQMP) driven by Section 208 of the Federal Clean Water Act and Chapters NR 110 & 121 of Wisconsin Administrative Code. WDNR has overall responsibility for areawide water quality planning as described under NR 121, which includes sewer service area planning.



NR121, supplemented by WDNR planning guidance, largely sets forth the requirements for sewer service area planning. SSA Plans:

- Anticipate the study area's future needs for wastewater treatment.
- Evaluate alterative means for achieving water quality goals/standards and identifies the most cost-effective regional wastewater treatment approach.
- Encourage efficient and environmentally-sound sewer collection and treatment systems.
- Discourage the degradation of water quality and encroachment upon environmentally sensitive areas, especially when development would have an adverse impact on water quality.
- Help coordinate water quality protection plans, programs, and policies within the urban area.
- Are used by local, State, and Federal agencies when considering municipal wastewater facility plans, permitting for municipal sewer extensions (i.e., 208-conformance reviews), certain private interceptor sewer mains, and certain related grant applications.
- Are not intended to restrict growth, obligate municipalities to provide sewer service, or affect community annexation policies.

A SSA Plan is required for designated urban areas and communities with a population over 10,000 in nondesignated areas. For most urban areas in the State, WDNR partners with regional planning commissions to serve as the region's areawide coordinating and local planning agency. For the Menomonie urban area, a nondesignated area under NR 121, WDNR has identified West Central Wisconsin Regional Planning Commission (WCWRPC) as the local planning agency.

The SSA Plan has a strong relationship with Facility Plans for wastewater treatment facilities, which is described under NR 110. Approved facility plans are required before approval of plans/specs for reviewable sewage collection and treatment projects. Facility plans must demonstrate the need for proposed projects by systematically evaluating feasibility alternatives and selecting the most cost-effective means of meeting effluent limits and water quality stands. Facility plans and plans/specs for all sewage projects must be in conformance with the approved AWQP, which includes the SSA Plan. The following subsection of NR 121 best summarizes these relationships:

> *"The most cost-effective regional wastewater systems for all urban areas shall be identified over a 20-year planning period based upon an analysis of alternative waste treatment system configurations. Wherever possible, applicable recommendations of approved facility plans shall be used to determine the urban area[s treatment needs. This analysis shall be consistent with s. NR 110.09, and shall include a cost-effectiveness analysis of regional versus individual treatment plants for the outlying areas including subsurface waste disposal systems. Water quality and other environmental impacts shall be considered."*

Other key SSA planning concepts:

- From a State rules perspective, the SSA Plan is "blind to annexation", but is driven by cost-effectiveness and water quality protection. Water quality issues and the provision of sanitary sewer may cross municipal boundaries and there are mechanisms for changing the SSA Plan and its boundary in the future.
- The boundary is not driven by water quality or the water bodies, but is driven by growth. Major areas unsuitable for waste treatment systems should be excluded from the acreage included within the SSA boundary, including environmentally sensitive areas. Otherwise, the boundary is largely driven by the growth forecasts, wastewater facility plans, and the cost-effective provision of wastewater treatment.
- NR 110.08(5) restricts the construction of new sewage treatment facilities in order to protect water quality (i.e., "the non-proliferation policy").
- When evaluating the most cost-effective regional wastewater solution, it ultimately comes down to regional cost-effectiveness and the ability to protect water quality. If an area is not yet sewered, what is the most cost-effective approach considering distance, gravity flow, development density, construction costs, benefits, etc.? A municipal wastewater treatment system (sanitary sewer) provides the highest level of environmental protection, planning, management, and monitoring; such facilities are the preferred treatment system when service can be provided in a cost-effective manner.
- When evaluating cost-effectiveness, utilize NR 110 as a guide and all infrastructure and resource costs and efficiencies should be considered, not just the cost of construction or density of development. Cost-effectiveness should also consider the societal and resource costs for the area as a whole over the 20-year planning period. Duplication of treatment systems or overlapping types of services is not efficient. Part of effectiveness is also identifying where sewers and treatment systems should not be installed because associated development would adversely impact water quality.

It is important to recognize that regulatory enforcement of SSA planning rests with the State of Wisconsin. The roles of West Central Wisconsin Regional Planning Commission (WCWRPC) and the Local Water Quality Advisory Committee are advisory to the communities and the Wisconsin Department of Natural Resources (WDNR).

1.2 LOCAL SEWER SERVICE AREA PLANNING HISTORY

This urban sewer service area (SSA) plan updates the *Menomonie Urban Sewer Service Area Plan for 2015*, which was approved by WDNR on May 10, 1995. All previous SSA Plans for the urban area have been facilitated by WCWRPC. During the 1995 SSA Plan update, representatives from the Dunn County Strategic Planning Task Force acted in the capacity of the Local Water Quality Advisory Committee; the committee for the 2026 plan update included the same municipalities, plus the Dunn County Economic Development Corporation. SSA Plan administration has continued to be performed by the Dunn County Land Conservation Department, with WCWRPC assistance if necessary. There have been no SSA Plan amendments of any type since 1995.

1.3 SSA PLANNING SCOPE

The urban SSA Plan is intended to be an important planning and development guide for local communities[1]. SSA planning fosters intergovernmental coordination and is useful in the development of other community and water quality-related plans. And being grounded in State law, consideration of local development proposals within the sewer service area must be consistent with the SSA Plan.

To support these roles, the SSA Plan must include the following key components described within NR 121.05:

1. Define a planning or study area.
2. Utilize State-defined population forecasts and locally approved density standards to project future needs for sewer service and establish the geographic extent of the sewer service area for a twenty-year planning period. The SSA boundary shows where urban growth is most likely to occur but is not a guarantee of such growth.
2. Incorporate technical data, such as wastewater flow projections and wastewater treatment plant capacity assessments. The sewer service area plan shall include criteria for the construction of future treatment systems within the areawide planning area (NR110.08(5)).
3. Define and identify environmentally sensitive areas that should be protected from development within the SSA. Areas unsuitable for the installation of waste treatment systems because of physical or environmental constraints are to be excluded from the sewer service area.
4. Define policies, procedures, and responsibilities to achieve plan goals, administer plan conformance (e.g., 208 reviews), and for the review of plan amendments and updates.

State rules suggest that the approved urban sewer service area plan is required to be reviewed and potentially updated every five years to reflect changes in statutes and policies, and to review data, such as population projections and housing densities. While this update of the plan was comprehensive, WDNR advised that a complete re-write was not necessary.

It is recognized that NR 110 and NR 121 are outdated due to changes in resources, complexity of growth, and other factors; some things in State code no longer exist and the State no longer prepares basin-level water quality management plans. The SSA Plan is not intended to be an Areawide Water Quality Management Plan (AWQMP). There are subsections of NR 121.05 that are addressed in other plans and do not need to be included or updated in the SSA Plan, though should be referenced when possible. The SSA Plan should support and complement these other plans. The SSA Plan is not intended to duplicate or replicate other plans, but can explain how the plans are connected.

[1] While this plan can be an important planning and development tool, the plan should not be used or viewed to promote nor hinder annexation petitions or urban density development.

1.4 SSA PLAN UPDATE PROCESS

NR121 requires "the preparation of the [SSA] plan be carried out if possible by a local planning agency under contract with the [Department] and "a local policy advisory committee made up of representatives of the various local units of government in the planning area shall be established, or an existing body used, to assist the department in the preparation of the plan and to act in an advisory role to the department in matters concerning the implementation of the plan."

For the 2026 SSA Plan update, WCWRPC continues to serve as the **local planning agency** responsible for preparing the SSA Plan. Since the SSA Plan has not been amended since 1995, there have been no Local Water Quality Advisory Committee (LWQA Committee) meetings in the interim. Further, the 2015 SSA Plan did not include any guidance regarding SSA Plan updates. As such, a new LWQA Committee was formed that included representatives similar to those listed on page 4 of the 1995 Plan. The **Menomonie Area LWQA Committee** re-constituted in 2025 included the City of Menomonie, Town of Menomonie, Town of Red Cedar, Town of Sherman, Town of Tainter, Dunn County, and the Dunn County Economic Development Corporation, with WCWRPC serving as a non-voting Committee chair. A representative from the Tainter Lake Association was also invited to participate during meetings.

The LWQA Committee (steering committee) was a working group without a formal structure or meeting minutes for planning meetings, except for the public hearing meeting during which a vote was taken on the draft SSA Plan update. The public hearing notice was published in the City of Menomonie's official newspaper as a Class 2 notice with the second insertion appearing at least 7 days prior to the public hearing. The public hearing notice also invited written comments on the draft plan; no written or public comments were received. A copy of the public hearing notice is included in Appendix A. Minutes documenting the public hearing and LWQA action on the final draft plan are included in Appendix B. Chapter 9 of the SSA Plan outlines the SSA Plan administration approach once the plan is approved by WDNR, including future plan updates.

The following table provides the general timeline and major steps during the plan update:

Project Initiation – agreements, flyer, press release, begin data collection, activate committee	Nov '24 – Jan '25
Steering Committee Meeting #1 – project overview, facility plans/capacities, set planning area	Jan 30, 2025
Initial Data Collection & Review – WCWRPC review of data, plans, etc.; includes consultation with municipalities and other stakeholders. Commence with update to plan text.	Jan -July
Steering Committee Meeting #2 – data review, discuss growth trends & development plans, discuss draft ESA definitions & policies; introduce water quality components of NR 121.5	July 15, 2025
WCWRPC analysis of land use trends & development constraints. Draft ESA section & potential policy changes.	July-Sept 2025

Steering Committee Meeting #3 – comments on ESA & water sections; discuss remaining goals, objectives, & policies; discuss growth assumptions, constraints, & future land use	August 28, 2025
WCWRPC prepares growth projections & initial land use analysis; continues to update plan text	Oct-Jan
Steering Committee Meeting #4 – finalize ESAs, growth projections & acreage needs for sewer growth, potential infill areas, potential sewered growth areas	October 30, 2025
WCWRPC prepares develops boundary alternatives; continues to update plan text	Jan-Feb 2026
Steering Committee Meeting #5 – draft SSA boundary alternatives, address any remaining policy concerns, plan administration approach	Feb 17, 2026
WCWRPC prepares initial draft SSA Plan Update for Committee Review	Feb-April 2026
Steering Committee Meeting #6 – Review key draft SSA Plan sections & address any remaining issues	April 28, 2026
WCWRPC prepares final draft SSA Plan Update for Committee review	April-May 2026
Steering Committee Meeting #7 – Review final draft & finalize proposed SSA boundary	June 4, 2026
Final draft made available for public comment. Class 2 public hearing notice issued and written comments on plan invited.	Notice published on July 1 and July 8, 2026
Public Hearing and Steering Committee advisory action on draft SSA Plan	July 22, 2026
Locally Approved Draft SSA Plan to WDNR for Final Review & Approval	July 23, 2026

CHAPTER 2 – STUDY AREA

2.1 DEFINING THE STUDY (PLANNING) AREA

NR 121.05 requires a map of the area which the plan is being prepared. While code calls this the "planning area boundary", this SSA Plan refers to this as the "Study Area" to avoid confusion with the SSA Plan boundary.

The establishment of a study area assists by focusing the plan update efforts on a defined geographic area and facilitates a comprehensive examination of data needed in the planning effort. **The Study Area is the area for which data is being gathered.** WDNR water quality staff emphasized that the Study Area is "for data collection purposes" and "has no regulatory significance."

The criteria used in delineating the Study Area included:

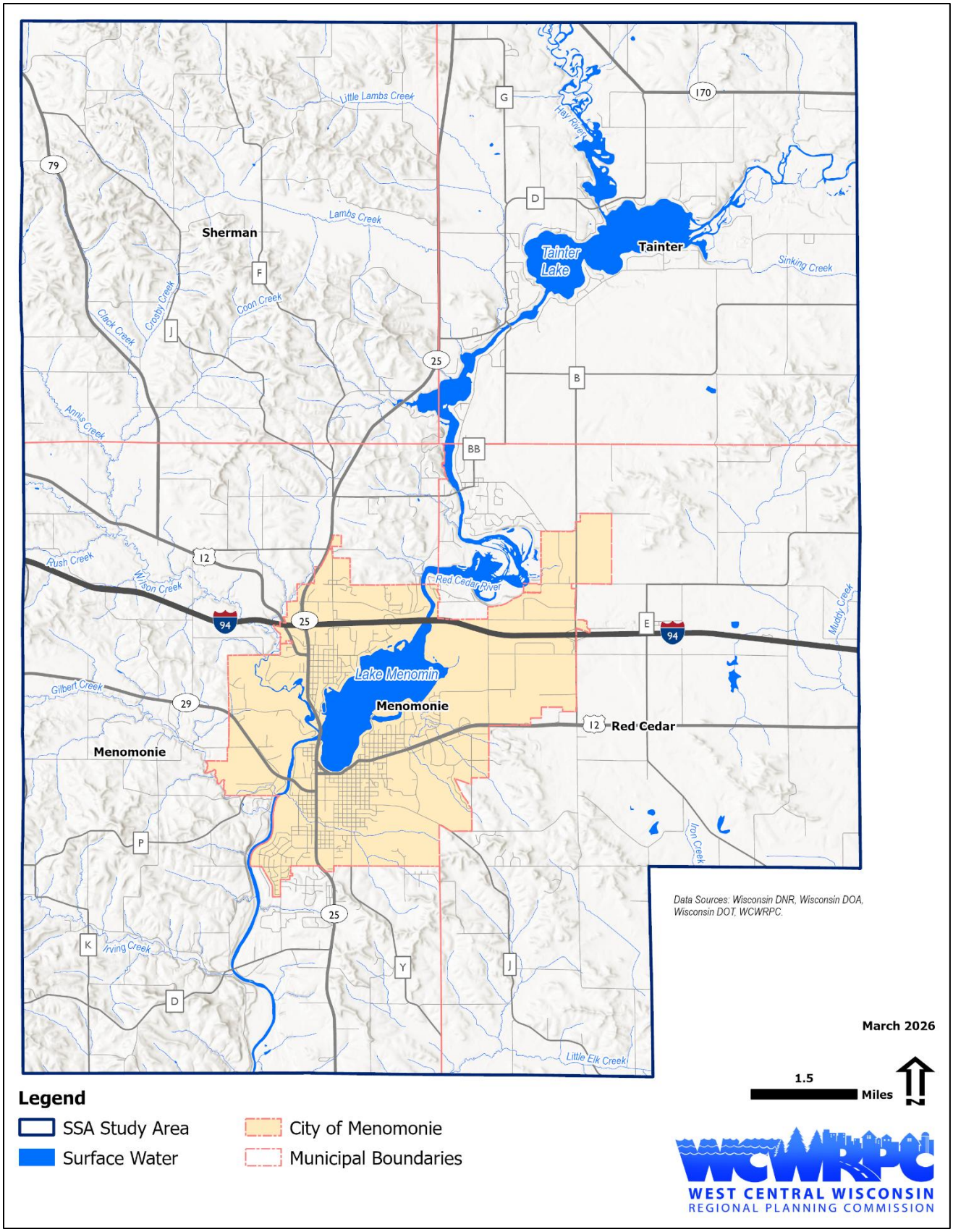
1. The recognition of areawide land use trends and patterns, including growth areas defined in local land use and comprehensive plans.
2. The recognition that water quality and growth problems are areawide concerns
3. The delineation of Study Areas in previous SSA planning efforts.
4. The Study Area must be large enough to encompass whatever is eventually identified as the Sewer Service Area (SSA). The Study Area should be large enough or far enough out that it will include any areas that could be reasonably and efficiently served by sanitary sewer in the next 20 years. However, it is expected that many areas within the Study Area will not be sewered and may not even be developed within the next 20 years.
5. Clusters or concentrations of existing residential, commercial, and manufacturing development should be included within the Study Area.
6. To assist with data analysis and support plan consistency, the Study Area should not split municipal boundaries when reasonable.

For the purpose of this SSA Plan, the Study Area will also be referred to as the Menomonie urban area.

2.2 THE STUDY AREA

Considering the previous criteria, the Water Quality Advisory Committee did not modify the Study Area that was used in the 1995 SSA Plan. The Study Area encompasses approximately 107,948 acres consisting of the City of Menomonie and the Towns of Menomonie, Red Cedar, Sherman, and Tainter, in their entireties as shown in Map 2.1.

Map 2.1 SSA Plan Study Area



CHAPTER 3 – PHYSICAL SETTING

This chapter summarizes the key physical characteristics of the Study Area. As part of a water quality management plan created under NR121, Chapter 3 gives emphasis to and is largely limited to aspects of the Study Area's physical setting related to water quality or the cost-efficient provision of sewer service.

3.1 OVERVIEW

Geology & Topography

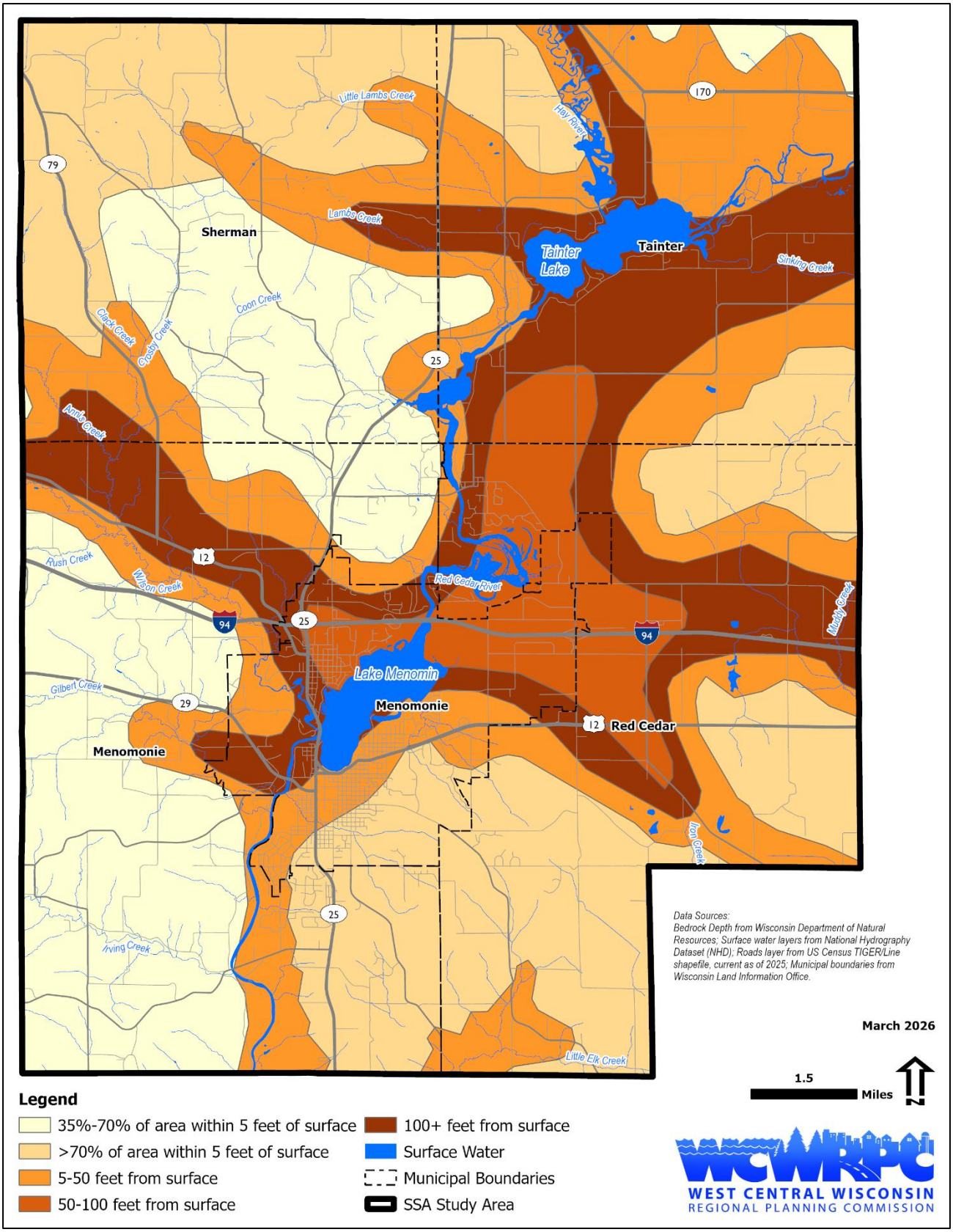
The bedrock type for the Study Area is Cambrian-age sandstone. As shown in **Map 3.1**, the depth to bedrock varies depending on location in the Study Area. Where depth to bedrock is shallow, contaminants generally have less time with the earth's natural pollutant removal process found in unconsolidated surficial deposits. Depth to bedrock is also used to evaluate the importance of bedrock type in determining an area's susceptibility to groundwater contamination. The greater the bedrock depth, the more likely it is that the water table is located above the bedrock. When the bedrock is shallow, the bedrock type can affect the ease with which infiltrating waters flow to the groundwater. Factors such as bedrock type and depth may influence the most cost-efficient and environmentally sound solution for wastewater treatment.

Map 3.2 shows the general topography of the Study Area, which ranges from 714 to 1,266 feet above sea level. Some of the steepest slopes occur along stream banks. The highest point of elevation within the Study Area is in the Town of Sherman, which has hilly terrain with a high point at Otteson Bluff. As the slope increases, the potential for erosion, runoff to surface waters, and flash flooding also increases. Groundwater recharge also tends to be lower on steeper slopes when compared to flatter areas. For such reasons, steep slopes are considered environmentally sensitive areas (ESAs) under this plan and are further described in Chapter 3.5.5.

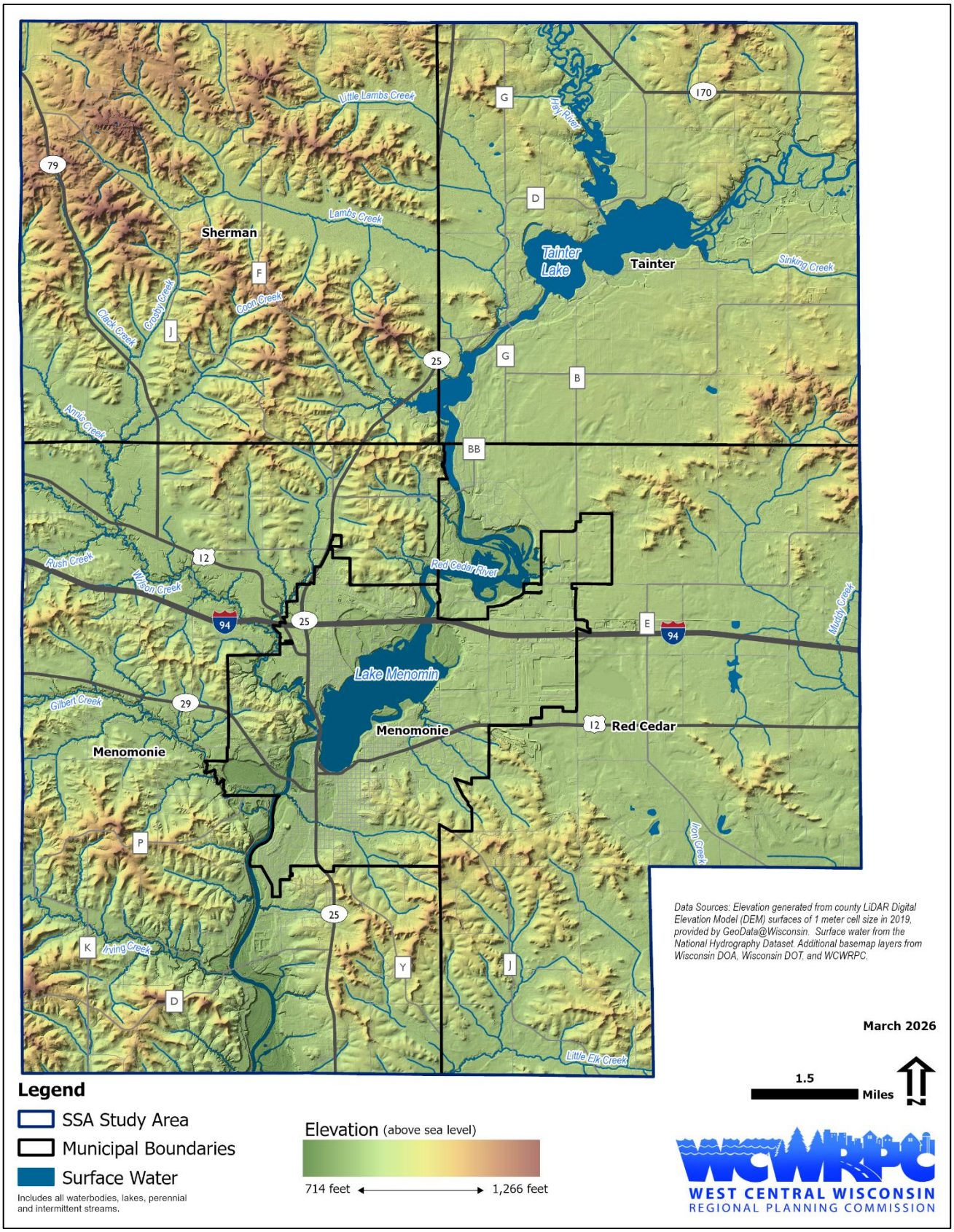
Groundwater

Groundwater is a limited resource, and the protection of its quality and quantity is consistently a top priority during planning efforts across west-central Wisconsin. Precipitation percolates through the soil and bedrock, eventually reaching a saturated zone known as an aquifer. An aquifer is an underground layer of permeable or fractured material that can store, transmit, and supply water. Groundwater availability is closely tied to local geology. For the Study Area, groundwater is found in sandstones of the Cambrian age and in unconsolidated deposits of sand and gravel within glacial drift. The sand and gravel aquifer is not a continuous rock unit, as is the sandstone bedrock aquifer, but occurs as outwash deposits and valley alluvium. The sand and gravel aquifer is usually much shallower than the sandstone aquifer, and is sometimes referred to as the upper aquifer. The sandstone (or 'lower') aquifer generally underlies much of the area, except in areas of Precambrian undifferentiated igneous and metamorphic bedrock; the sand and gravel aquifer is generally found overlaying this bedrock.

Map 3.1. Depth to Bedrock



Map 3.2 Topography & Surface Waters



As shown in **Map 3.3**, some areas within the Study Area have very high groundwater levels (i.e., a high water table), which have an increased susceptibility to pollutants. Wetlands, an ESA-type further described in Chapter 3.5.4, are typically a place where high groundwater levels intersect with the land surface.

The movement of groundwater is primarily influenced by gravity and topography, flowing from areas of higher recharge and higher elevation to lower areas where groundwater discharge to lakes and rivers might occur. However, well pumping also influences flow and can change regional groundwater flow toward the wells instead of its natural flow direction. Groundwater levels also change over time, especially as surface recharge changes. Overall, the regional flow of groundwater within the Study Area is towards the Red Cedar River valley into Lake Menomin and the Red Cedar River channel. The natural rate of groundwater movement through sandstone is relatively slow, only a few inches to feet per day. Due to such variability, mapping aquifers and the groundwater quantity and movement is complicated and changes over time with fluctuations in recharge and use/demand. No single groundwater study has been completed that encompasses the entire Study Area.

Surface Waters

Maps 3.2 & 3.4 delineate the Study Area's surface waters, which are divided among 17 HUC-12 sub-watersheds. The surface waters in the Study Area have a total surface area of approximately 3,500 acres or 5.5 square miles. Tainter Lake, an impoundment of the Red Cedar River located north of the City of Menomonie, is the largest body of water at 1,387 acres. The second largest water body in the Study Area is Lake Menomin (1,009 acres), another impoundment of the Red Cedar River located on the north side of the City of Menomonie. The Red Cedar River is also an important water body in the Study Area; the river originates in southwestern Sawyer County to the north and flows south into the Chippewa River south of the Study Area. These reservoirs, lakes, and the rivers themselves are recreational resources for Dunn County.

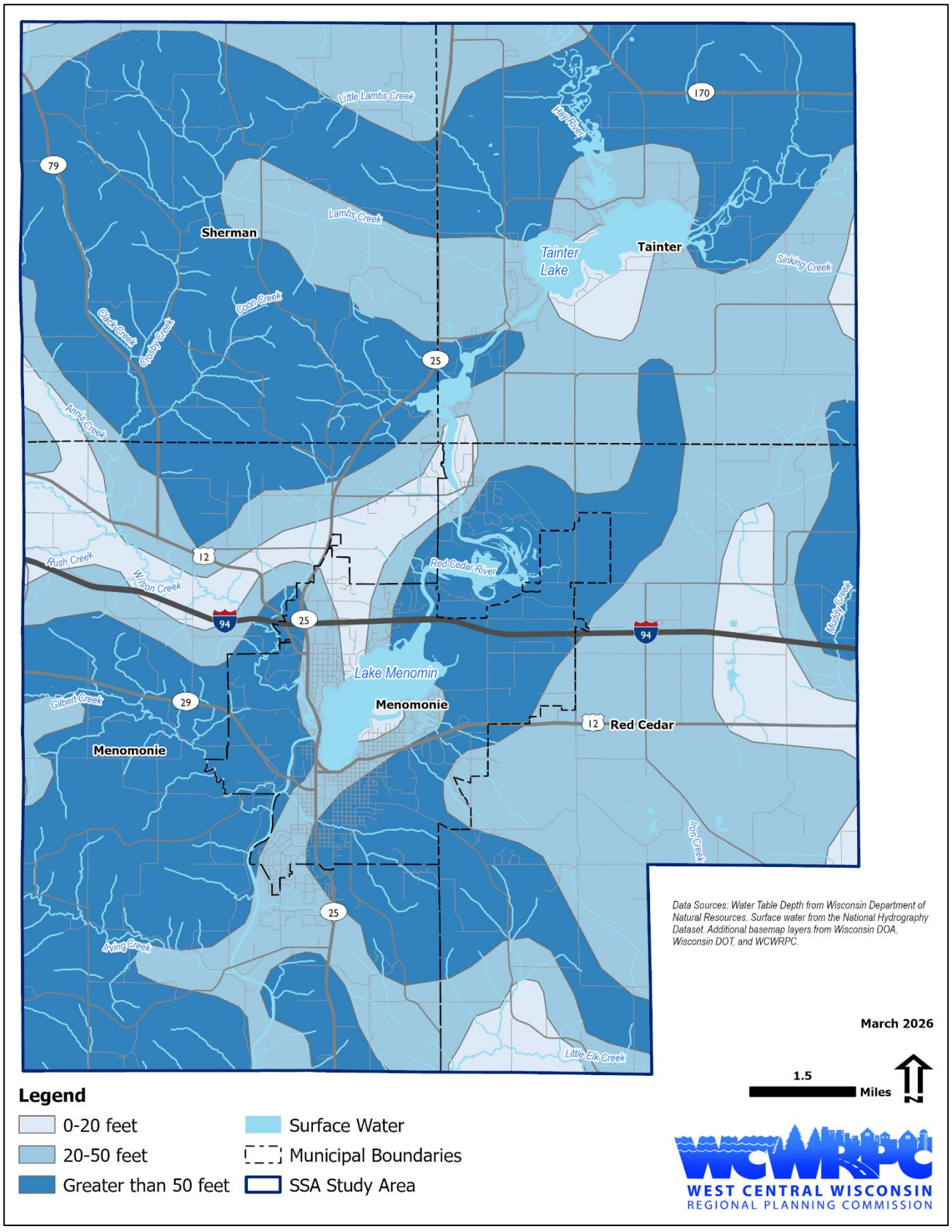
Land Cover

Historically, the Study Area's landscape was primarily forests, which spurred the development of lumberyards in the area. The resulting deforestation allowed for the development of settlements and farmland. **Map 3.5** shows that the dominant land cover within the Study Area today taken from 2024 USGS satellite imagery, which is summarized in **Table 2**. In 2024, cultivated cropland and forest were the predominate cover types, encompassing about 63% of the Study Area. Developed areas comprise almost 12% of the area. About 7% of the area is open surface waters and wetlands.

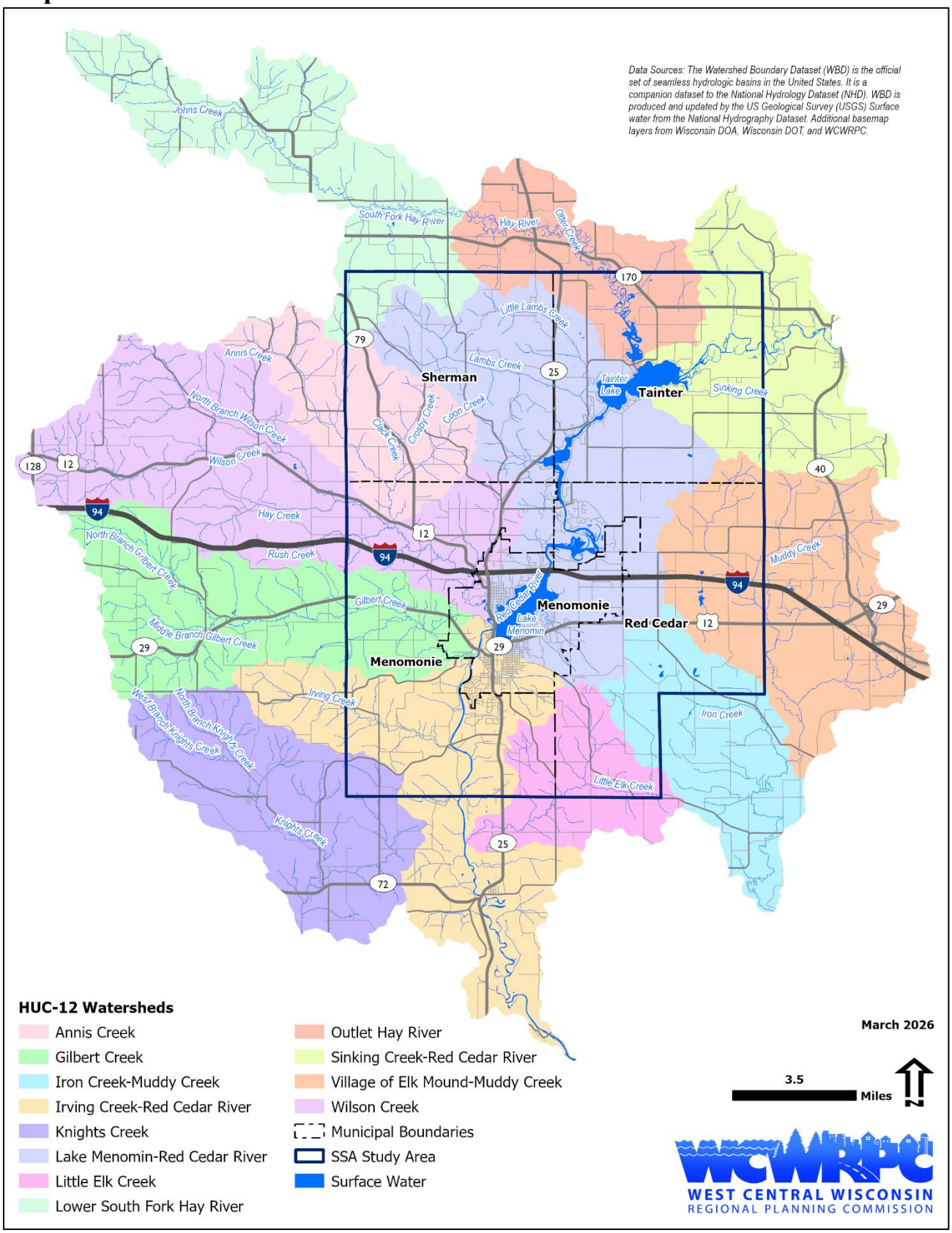
Table 2. Study Area Land Cover, 2024

Land Cover Type	Acres	Percent
Open Water	3,034.47	2.8%
Developed, Open Space	7,055.55	6.5%
Developed, Low Intensity	4,053.73	3.8%
Developed, Medium Intensity	1,708.19	1.6%
Developed, High Intensity	553.67	0.5%
Barren Land	142.12	0.1%
Deciduous Forest	20,482.38	19.0%
Evergreen Forest	1,086.21	1.0%
Mixed Forest	3,034.74	2.8%
Shrub/Scrub	175.87	0.2%
Herbaceous	454.35	0.4%
Hay/Pasture	12,434.73	11.5%
Cultivated Crops	46,503.91	43.1%
Woody Wetlands	4,690.26	4.3%
Emergent Herbaceous Wetlands	2,442.66	2.3%

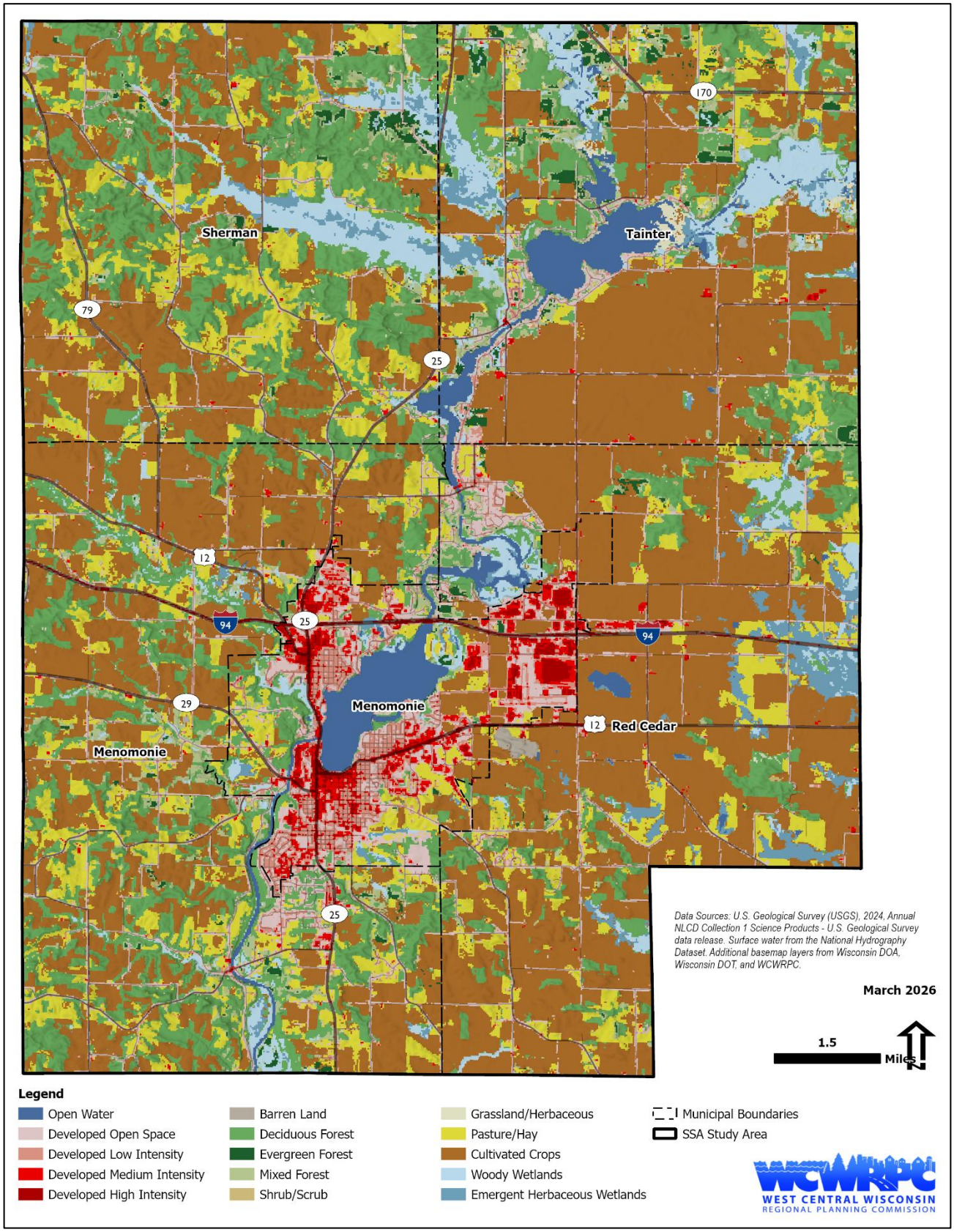
Map 3.3 Depth to Groundwater



Map 3.4 Surface Waters & HUC-12 Watersheds

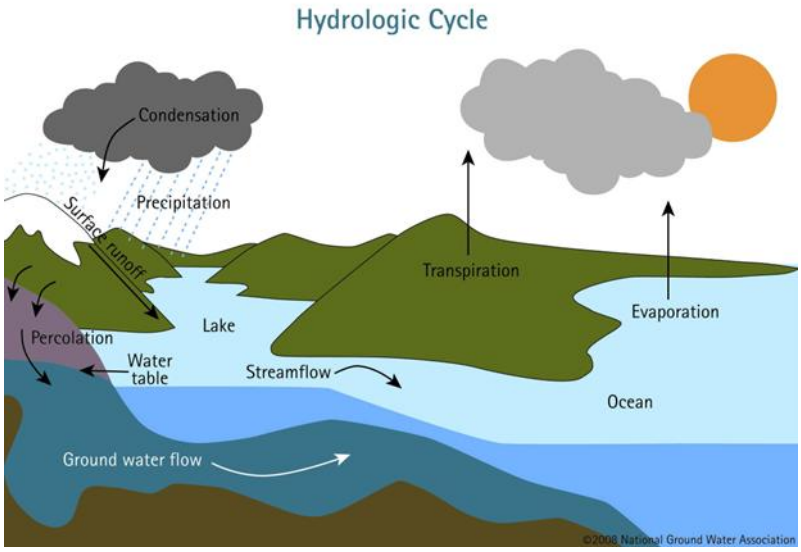


Map 3.5 Land Cover



3.2 GROUNDWATER QUALITY ASSESSMENT

Groundwater is a limited resource, and both its quality and quantity are important factors. These factors are primarily influenced by local geology and local land use. Precipitation percolates through the soil and bedrock where it eventually reaches a saturated zoned known an aquifer. It is from these aquifers that wells are used to draw water.



Groundwater in the Study Area is generally abundant and of good quality. All public and most private potable water used within the Study Area comes from groundwater sources. Municipal water supplies and private wells from groundwater sources also support the area's economy, services, and other domestic uses. The hydrologic conditions of aquifers can influence their use as water supplies. The sandstone aquifer can provide an available supply of water for municipal water supplies, whereas the sand and gravel aquifer is suited to individual domestic water supplies. The rock formations of Cambrian sandstone can yield more than 1,000 gallons per minute, while the sand and gravel deposits typically yield significantly less.

Some Potential Sources of Groundwater Contamination

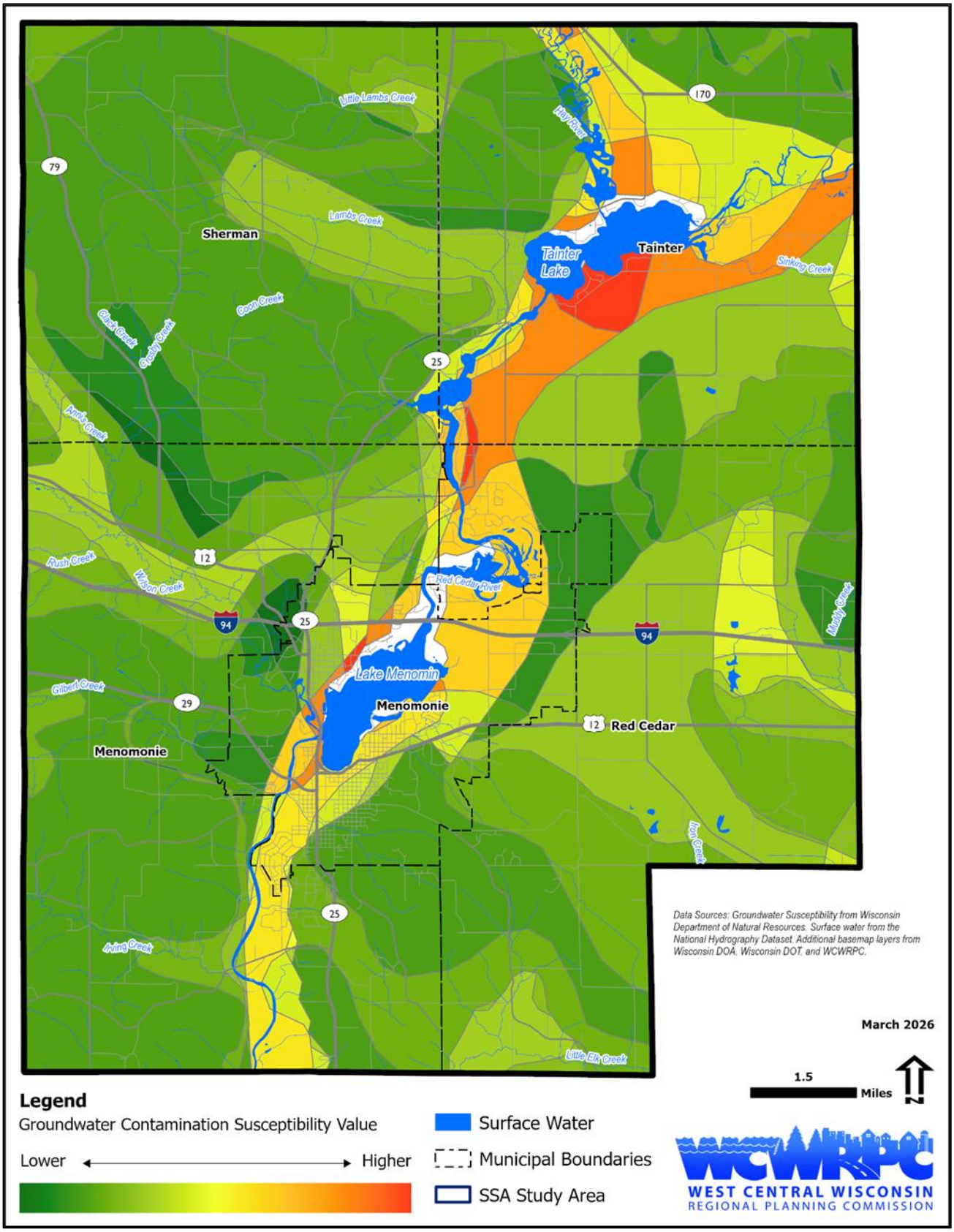
- Chemical storage
- Landspreading of animal, sewage, and industrial waste
- Road salt usage and storage
- Animal feedlots
- Use and spillage of fertilizers and pesticides
- Accidental spills
- Septic tanks and drainfields
- Underground storage tanks
- Underground pipelines and sewers
- Landfills
- Mines, pits, and quarries

3.2.1 Groundwater Quality Conditions

Groundwater quality has been a greater concern than quantity in the Study Area. Contamination is most likely to occur where fractured bedrock is near the ground surface, in very sandy soils, or where only a thin layer of soil separates the ground surface from the water table.

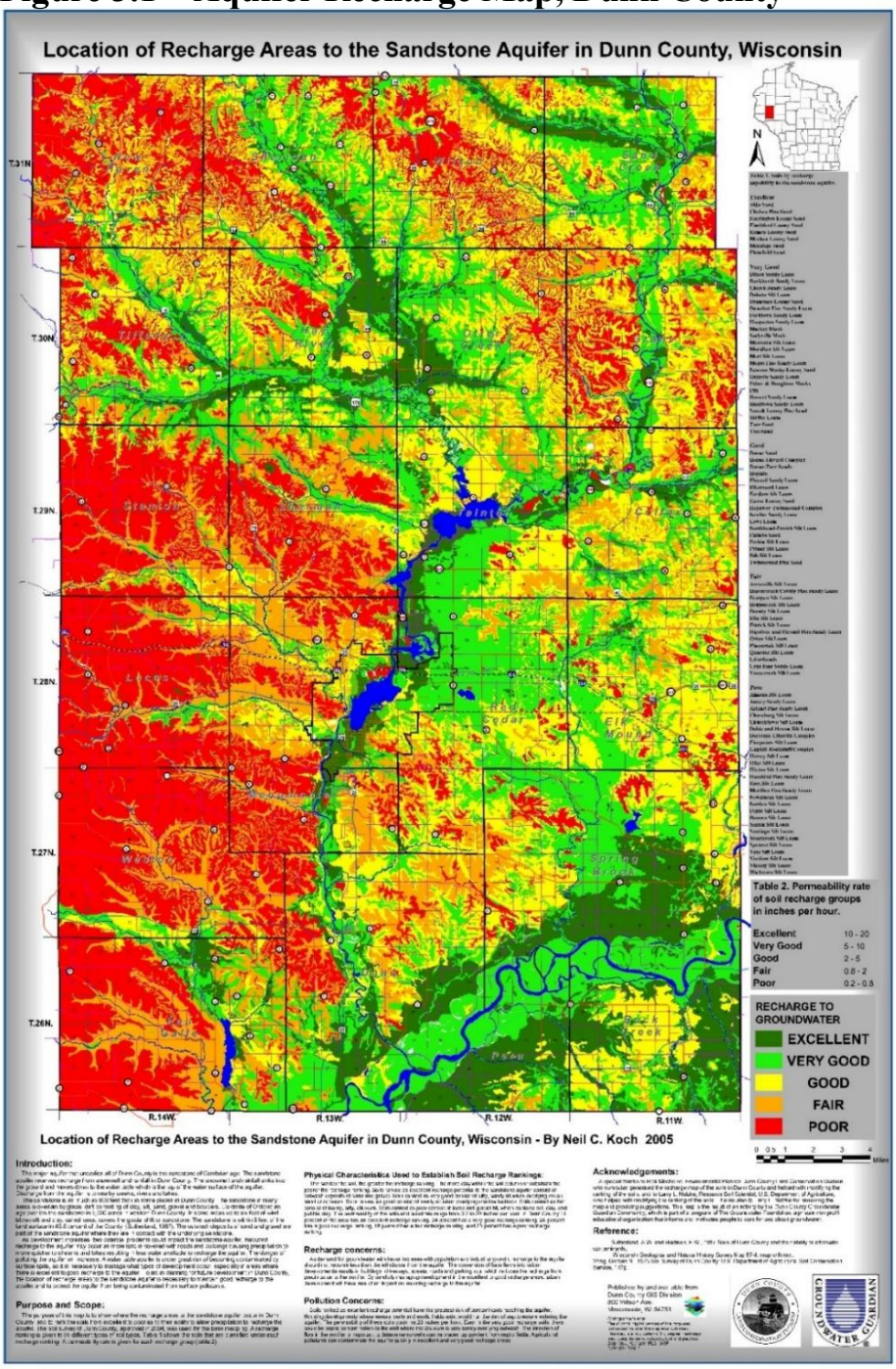
Map 3.6 shows generalized locations within the Study Area with a potential for elevated Groundwater Contamination Susceptibility. The susceptibility varies due to the presence of permeable glacial deposits, sandy soils, and shallow depth to groundwater in some areas. Areas with these conditions, particularly in outwash plains and along river and stream corridors, are more susceptible to contamination from surface activities such as agricultural practices, on-site wastewater treatment systems, and land development.

Map 3.6 Groundwater Contamination Susceptibility



Within the Study Area, the Town of Menomonie has adopted a groundwater protection overlay district that limits development (types, min 30% open space, wastewater treatment options) within areas that are mapped as excellent, very good, and good recharge areas. The groundwater protection overlay ordinance references the map shown below in Figure 3.1. During the plan update process, concerns were raised over the map's accuracy for decision-making; supplemental soil testing and site-specific analysis is recommended. Dunn County does not use this map for planning purposes and, instead, has historically utilized attenuation and susceptibility data produced by USGS/WGNHS for general planning purposes, such as the data used to produce Map 3.6.

Figure 3.1 Aquifer Recharge Map, Dunn County



Areas with elevated contamination risk may benefit from increased groundwater/well monitoring, lower densities of development, and/or municipal wastewater treatment rather than private, on-site systems, if cost-efficient. Alternative on-site systems, such as holding tanks, might be considered in existing developed areas when alternatives are not cost-efficient.

Significant private well testing has been conducted in Dunn County. A 2025 *Wisconsin Groundwater Coordinating Council Report to the Legislature*[2] identifies nitrate contamination as a serious problem in Wisconsin's groundwater due to sources like fertilizers, manure, and septic systems. The report estimates that 12.1% of private wells in Dunn County exceed the safe drinking standard for nitrate contamination. The current safe drinking water standard for nitrates is 10 milligrams per liter; infants and pregnant women in particular are advised to avoid drinking water that exceeds this limit. Many households with private wells have installed reverse osmosis systems to mitigate the health risks. Well testing data also identifies nitrates as the most common groundwater pollutant concern for the Study Area. **Map 3.7** shows average nitrate test results from 1980-2024 for the general area by section. Some sections may have one test results while others may represent multiple tests.

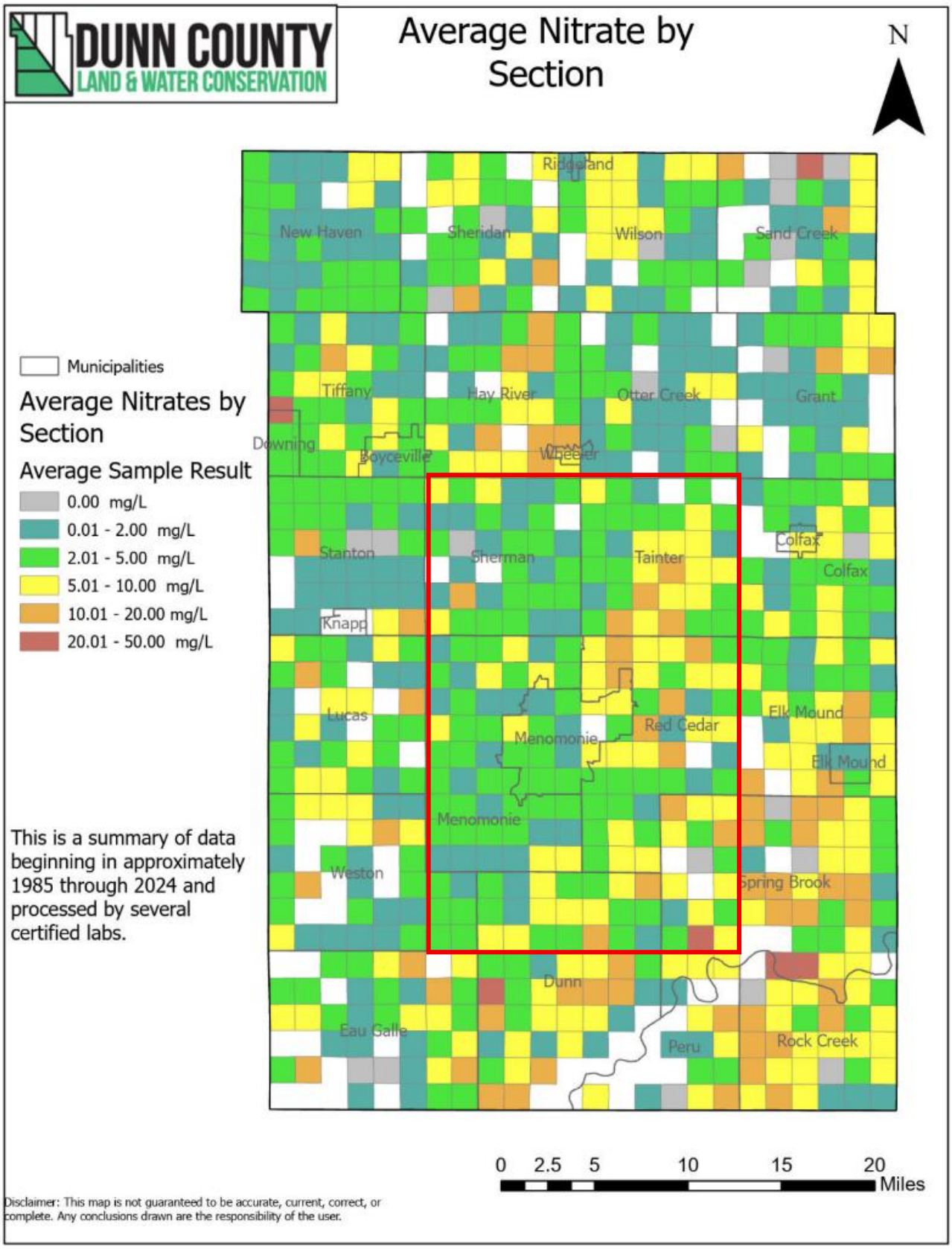
There are no atrazine prohibition areas within the Study Area. **Map 3.8** shows one area within the Study Area that has special deep well casing requirements due to the existence of Herbicide contamination. A number of scattered sites throughout the Study Area have experienced contamination. There are no sites on the Superfund National Priority List within the Study Arear or Dunn County. Map 3.8 also shows the location of known landfills within the Study Area for which setback requirements apply for public and private wells.

Additional groundwater contamination concerns do exist within the Study Area, including chloride (salt) and manganese. Bacteria (e.g., coliform, E Coli) can get into well water when work is performed on a well, if a well is not properly built, or if there are nearby sources of animal or human waste. Testing for these other contaminants is not as robust compared to nitrates.

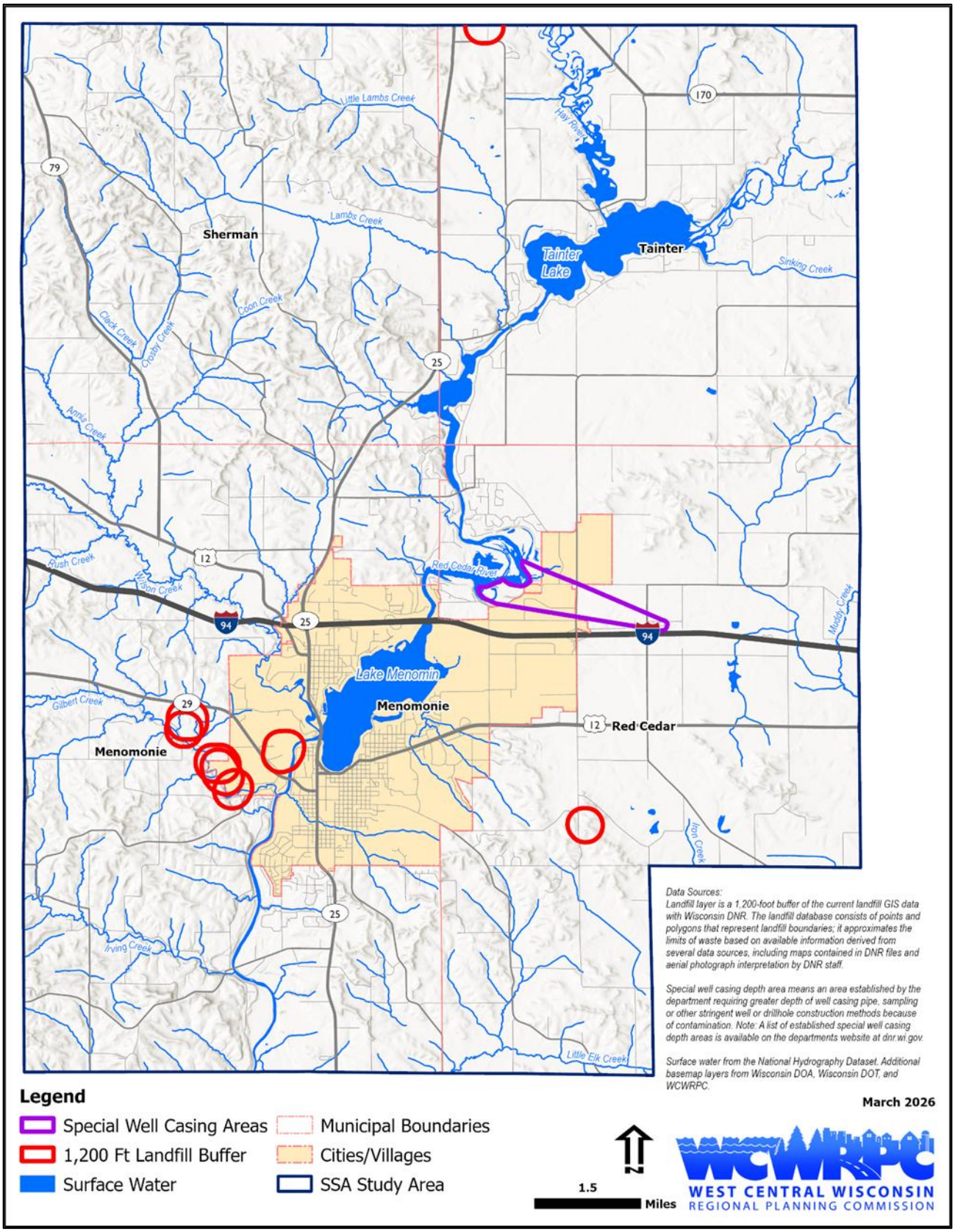
During community planning efforts, there has been increasing concern expressed over contamination threats due to pharmaceuticals and Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS). As of Spring 2026, PFAs have not been detected above the WI DHS hazard index in the City of Menomonie's municipal water system. In 2023 the County collected samples from all Town wells for the presence of PFAS; while PFAs was present in the Town of Red Cedar and Town of Sherman wells in the Study Area, they were below the standards set forth by WI DHS. The 3M Campus in the City of Menomonie, as well as a Development of Farm Field at 59th and 708th in the Town of Tainter, are both sites that are open under investigation due to PFAs levels.

[2] *Wisconsin Groundwater Coordinating Council Report to the Legislature*. Fiscal Year 2025. https://widnr.widen.net/view/pdf/xoiyo1pkdi/GCC_Report_2025.pdf

Map 3.7 Well Testing Averages for Nitrates, 1985-2024



Map 3.8 Landfills & Special Well Casing Areas



What are PFAS?

PFAS are a group of human-made chemicals used for decades in numerous products.



Products that **may contain PFAS**.

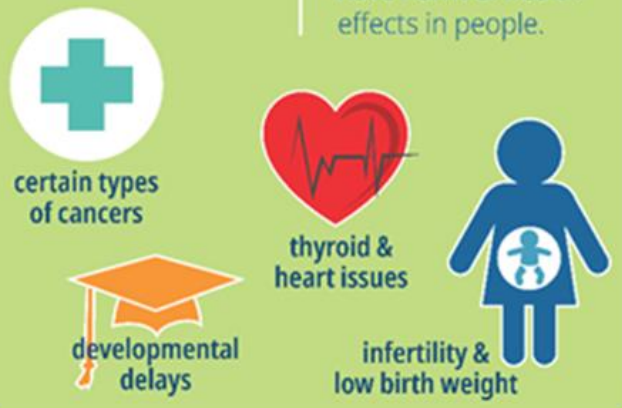
What is Wisconsin Doing About It?



Additional efforts include a **PFAS Action Committee** (WisPAC) and a **PFAS Technical Advisory Group.**

Why Should I Care?

PFAS persist in the environment and the human body for long periods of time. Recent findings indicate that exposure to certain PFAS may have harmful health effects in people.



What You Can Do...



Test Your Water
dnr.wi.gov/u/?q=177



Check State Fish Advisories
dnr.wi.gov/u/?q=176



Learn More About PFAS Health Risks
dnr.wi.gov/u/?q=175

Visit **dnr.wi.gov**, search **PFAS**.

RR-114b-E

3.2.2 Drinking Water Sources & High-Capacity Wells

Chapter 3.5.3(b) discusses groundwater recharge & wellhead protection areas for these public wells that should be considered as part of water quality management planning.

In all, there are 4 public/municipal wells that are among the 108 high-capacity wells permitted by the State of Wisconsin within the Study Area. Sixty of these wells are agricultural or orchard irrigation wells.

What is a High-Capacity Well?

The Wisconsin DNR defines a high-capacity well as any well, or combination of wells on the same property, with the capacity to withdraw more than 100,000 gallons of water per day. It excludes residential and fire protection wells. WDNR approval is required for the construction and operation of these wells due to potential impacts on groundwater resources.

3.2.3 Groundwater Quality Management Plans and Policies

This Sewer Service Area (SSA) Plan is part of the larger collection of water-related plans constituting the areawide water quality management plan described under NR 121. As noted in Chapter 1, it is the intent of this SSA Plan to identify and reference, but not duplicate, these other related plans. Key plans and policies pertaining to groundwater quality include:

State of Wisconsin

Wisconsin Statutes §160 establishes the framework for developing numeric groundwater quality standards, both enforcement standards and preventive action limits, with the scope of minimizing the concentration of contaminants concentration in groundwater and to protect public health and the environment. Chapter 160 also established the Groundwater Coordinating Council (GCC) to strengthen coordination among state agencies involved in groundwater protection and research.

While Ch. 160 defines the statutory framework for establishing Wisconsin's groundwater standards, Wisconsin Administrative Code NR 140 contains such standards and provides guidelines and procedures for regulatory authorities to manage regulated activities and facilities that may impact groundwater resources. NR 809 establishes drinking water standards for public water systems. Rulemaking for NR140 and NR809 is underway to establish new state groundwater and drinking water standards for certain PFAs substances.

These groundwater policies are primarily administered by the Wisconsin Department of Natural Resources (WDNR) through its Drinking Water & Groundwater Program. The groundwater and drinking water standards are recommended by Wisconsin Department of Health Services (DHS) and/or based on federal benchmarks. Various State departments have groundwater-related roles, and they may collaborate with WDNR and DHS in identifying substances of concern and establish appropriate standards. For example, the Department of Agriculture, Trade and Consumer Protection (DATCP) takes a lead role in groundwater education and monitoring for pesticides. WDNR also partners with many Federal, State, and local partners in the protection of groundwater resources, such as the GCC and the Groundwater-level Monitoring Network. The GCC makes an annual report to the Legislature describing the state of groundwater in Wisconsin, summarizing council activities, and making recommendations. The primary 2025 Annual Report recommendations focus on:

- Addressing PFAS contamination in groundwater.

- Addressing nitrate contamination in groundwater.
- Addressing pesticide contamination in groundwater.
- Finding solutions for water-stressed areas affecting communities, economic activity and water resources.

Other key State groundwater policies include:

- Wisconsin Statutes §280 – Well Drilling, Heat Exchange Drilling, & Pump Installing
- NR 123 – Well Compensation Program
- NR 141 – Groundwater Monitoring Well Requirements
- NR 811 – Requirements for the Operation & Design of Community Water Systems
- NR 812 – Well Construction & Pump Installation
- NR 820 – Groundwater Quantity Protection
- NR 845 – County Administration of NR 812 for Private Wells

Wellhead Protection Plans

Chapter 3.6.3 discusses wellhead and source water protection planning and policies.

Dunn County Land & Water Resource Management Plan

Wisconsin law requires each county to have a land and water resource management plan (LWRM Plan) that has been approved by the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). The LWRM Plan guides the activities of county land and water management departments in their efforts to protect and improve land and water resources over a 10-year period. The State requires each county to update its LWRM Plan every five years to remain eligible for conservation staff funding and cost-share grants.

Groundwater protection is a significant component of Dunn County's LWRM Plan. The County's LWRM Plan 2017-2026 was adopted in 2016 and is in the process of being updated, with adoption anticipated in 2026. This plan represents the primary, current groundwater protection plan for Dunn County, including an analysis of available data and related goals and strategies.

Other Dunn County Groundwater Initiatives

- Continues to coordinate and promote well testing through the County Public Health Department and Land & Water Conservation Division, and provides summary data to communities for planning purposes.
- Involved in the implementation of the Ad-Hoc Groundwater Committee recommendations and implementation of the Watershed Plan for the Red Cedar River.
- Collaborates with other partners, including produced-led watershed groups and farmer-led watershed councils, to improve soil and water conservation throughout the watersheds.
- Groundwater sampling in 2023-2025 in partnership with the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP).
- Incorporating groundwater protection as a significant component of the Natural Resources element of the County's Comprehensive Plan, which is being updated with adopted anticipated in 2026.

3.3 SURFACE WATER QUALITY ASSESSMENT

Generally, Sewer Service Area (SSA) planning has a primary emphasis on protecting surface water quality from the impacts of growth.

3.3.1 Surface Water Quality Conditions

Impairments (303d-listed)

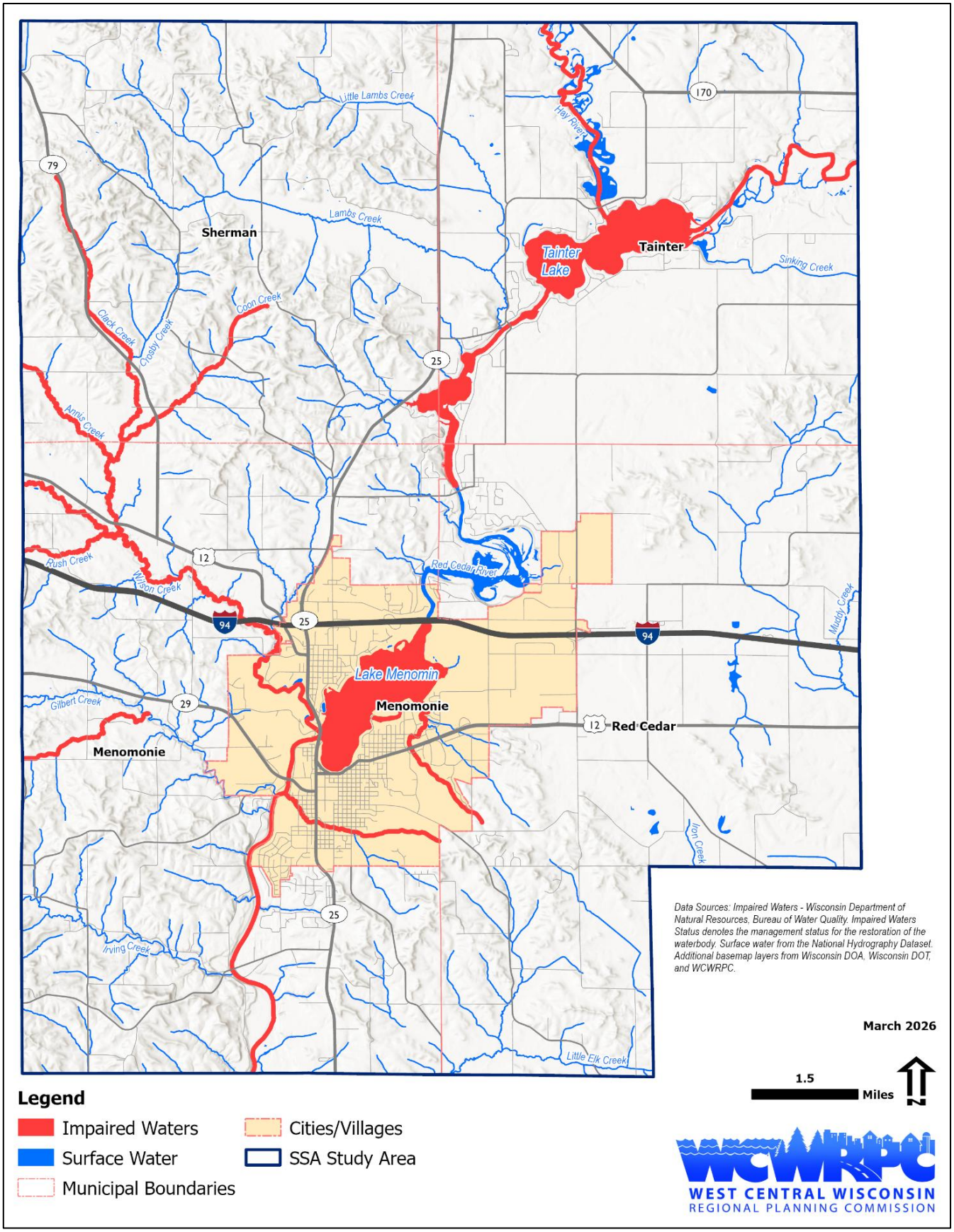
Table 3 lists the surface waters shown on **Map 3.9** that are impaired (303d-listed) as not meeting water quality standards.

Table 3. Impaired/303d-Listed Waters

Water Body	Pollutant(s)	Related Impairments
Lake Menomin	Total Phosphorus	Excess Algal Growth, Elevated pH , Eutrophication
Tainter Lake	Mercury, Total Phosphorus	Excess Algal Growth, Elevated pH , Eutrophication
Annis Creek	Total Phosphorus	
Clack Creek	Elevated Water Temperature, Total Phosphorus, Sediment/Total Suspended Solids	
Coon Creek	Sediment/Total Suspended Solids, Unknown Pollutant	Elevated Water Temperature, Degraded Biological Community, Degraded Habitat
Hay River	Total Phosphorus	
Red Cedar River (3 segments)	Total Phosphorus, PCBs	Elevated pH, Eutrophication, PCBs Contaminated Fish Tissue
Rush Creek	Total Phosphorus	
Unnamed	Total Phosphorus	Degraded Biological Community
Unnamed	Chloride	Acute Aquatic Toxicity, Chronic Aquatic Toxicity
Unnamed	Chloride	Acute Aquatic Toxicity, Chronic Aquatic Toxicity
Wilson Creek	Total Phosphorus	

Phosphorus is the primary pollutant, largely from the runoff of nutrient and sediment from farm fields, stormwater, and shoreland areas. While models suggest that agricultural lands are the principal source of this excessive phosphorus, communities, landowners, and farmers all have a role in land planning, managing stormwater, and promoting best management practices to reduce such runoff and nutrient-loading into our surface waters.

Map 3.9 Impaired (303d-listed) Waters



Some of the Study Area's water bodies have had struggles with unhealthy levels of bacteria or other disease-causing micro-organisms. Potential sources of bacteria can include sewage overflows, failing septic systems, animal waste (e.g., waterfowl, manure), and other polluted runoff.

Water Conservation Features

Though impairments exist, most of the streams and rivers in the Study Area have been identified by the WDNR Healthy Watersheds, High-Quality Waters initiative as high-quality waters due to it being a unique or rare resource (e.g., trout streams), biotic integrity, or its overall quality. However, none of the watersheds in the Area have been identified as being among the State's healthiest.

Outstanding Resource Waters (ORWs) or Exceptional Resource Waters (ERWs) are WDNR-designated surface waters that provide outstanding recreational opportunities, support valuable fisheries, and wildlife habitat, and have good water quality. ORWs do not have any point source pollutants directly to the water, though they may receive non-point runoff. If a waterbody has existing point sources at the time of designation, they may be designated as an ERW. There are no ORWs/ERWs within the Study Area.

Map 3.10 shows the trout streams within the Study Area:

- Little Lambs Creek (Class II)
- Crosby Creek (Class II)
- Clack Creek (Class II)
- Annis Creek (Class II)
- Wilson Creek (Class II)
- Rush Creek (Class II)
- Gilbert Creek (Class II)
- Irving Creek (Class II)
- Little Elk Creek (Class II)
- Muddy Creek (Class III)

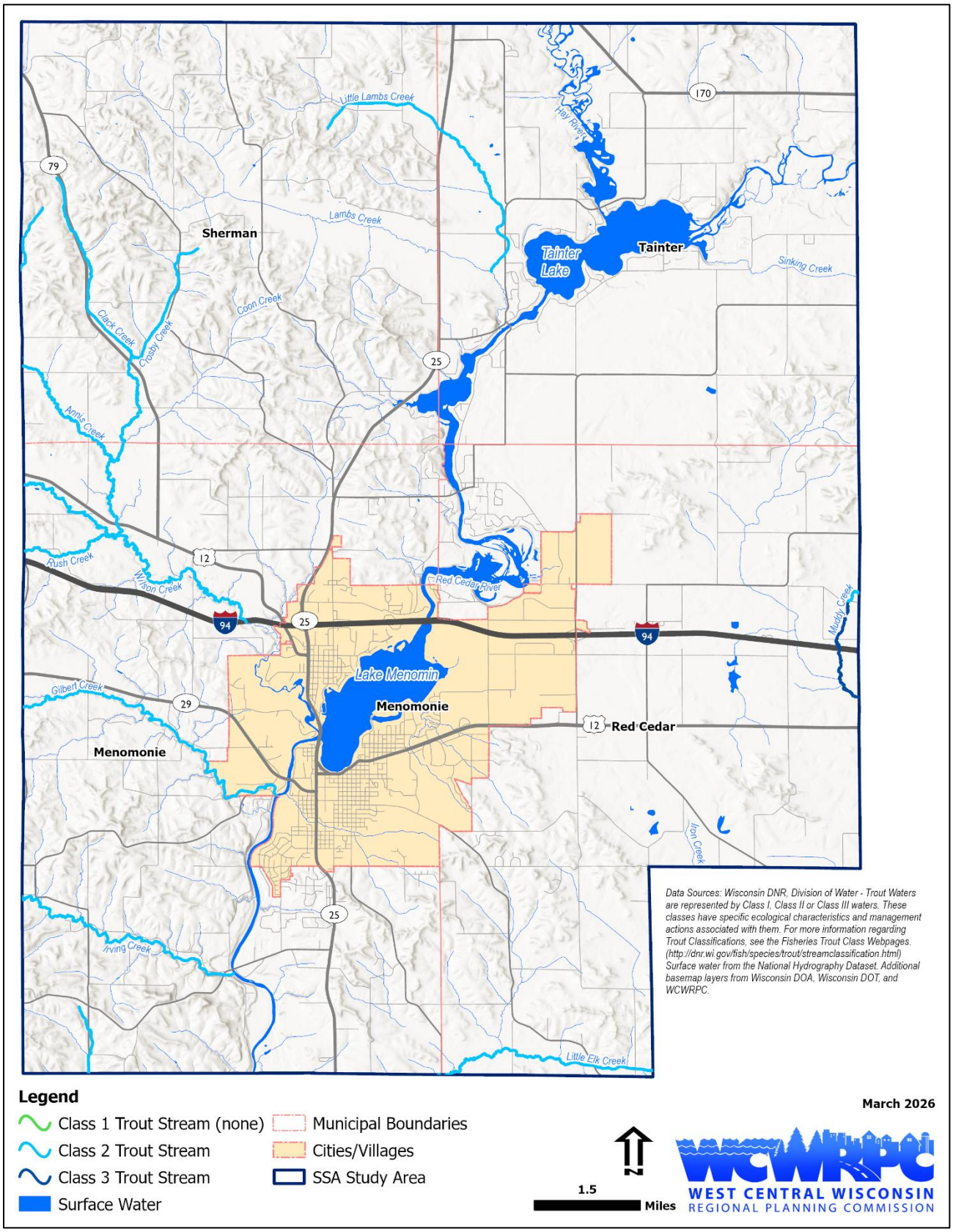
A mix of factors contribute to trout stream health, including streambed geology, temperature, pH, aquatic plants, cover/shade, and clean water. DNR uses three categories to classify trout streams:

Class 1 High-quality trout waters that have sufficient natural reproduction to sustain populations of wild trout, at or near carry capacity. Consequently, streams in this category require no stocking of hatchery trout. These streams or stream segments are often small and may contain small or slow-growing trout, especially in the headwaters.

Class 2 Streams in this classification may have some natural reproduction, but not enough to utilize available food and space. Therefore, stocking is required to maintain a desirable sport fishery. These streams have good survival and carryover of adult trout, often producing some fish larger than average size.

Class 3 These waters are marginal trout habitat with no natural reproduction occurring. They require an annual stocking of trout to provide trout fishing. Generally, there is no carryover of trout from one year to the next.

Map 3.10 Trout Streams



3.3.2 Point Sources of Potential Pollutants and Permitted Discharges

Surface water pollution comes from point sources and nonpoint sources. Point source pollution originates from a specific entry point, such as a wastewater treatment plant, industrial discharge, stormwater pipe, or hazardous materials spill. Since these sources can be traced to a specific location, they are easier to monitor and regulate. Many regulated point sources spend millions of dollars to comply with phosphorous or other water quality standards, even though they often represent a relatively low percentage of the pollutant-loading problem.

DNR is authorized to issue Wisconsin Pollutant Discharge Elimination Systems (WPDES) individual and general permits authorizing discharges to surface water and/or groundwater. Individual (i.e., site-specific) WPDES permits are issued to municipal and industrial facilities discharging to surface water and/or groundwater. General permits are issued for a wide-range of categories of industrial, municipal, and other wastewater discharges.

There is one wastewater treatment facility (WWTF) in the Study Area, the Menomonie WWTF, which has a permit to discharge treated wastewater to the Red Cedar River, located in the Wilson Watershed of the Lower Chippewa River Basin. This is further discussed in Chapter 5.1. The following summarizes the permit limits for this WWTF:

Permit Limit	Menomonie WWTF
$CBOD_5$	25 mg/L*
Suspended Solids	30 mg/L*
pH	9.0 su
Ammonia Nitrogen	N/A
Chlorine	N/A
Mercury	3.6 ng/L
Phosphorus	0.3 mg/L*

*Monthly average

Stormwater discharges to surface waters may fall under an individual or general permit. Stormwater management and permitting is discussed in Chapter 3.3.5. No single database is available that identifies all WPDES individual and general permits, so this report was unable to identify all permitted point sources/discharges within the Study Area.

3.3.3 Non-Point Sources of Potential Pollutants

Nonpoint-source (NPS) pollution, largely polluted runoff, is the biggest cause of surface water pollution in Wisconsin, degrading or threatening an estimated 90% of inland lakes. Runoff occurs when water cannot infiltrate the soil; rain or snow melt washes sediment, nutrients, and other pollutants off the landscape, threatening downstream surface water resources.

Polluted runoff comes from both rural and urban sources. In an urban or developed setting, this is largely due to runoff from the hardscape (e.g., roof tops, parking areas, compacted soils). Many city and village residents do not realize that stormwater drains bypass wastewater treatment

facilities and empty directly into our rivers, lakes, and streams. In a rural setting, runoff is the result of compacted soils, soil erosion, and other attributes of poor soil health from agricultural, forestry, and recreational uses. Runoff also increases flooding, peak flow events, and shoreland/bank erosion, thereby exacerbating pollutant loading into our rivers, lakes, and streams.



An emphasis of watershed and county conservation plans is partnering with farmers, farmland owners, forestry/logging businesses, agri-business, lake groups, and other support partners to promote soil health best management practices and other land conservation initiatives that benefit farmers, water quality, healthy forests, and the environment.

As noted previously, phosphorus is the primary surface water quality impairment in the Study Area. Phosphorus is essential to plant life, and some level of phosphorus is naturally occurring. Farmers add fertilizers and animal manure that are rich in nitrogen and phosphorus to fields to increase yields. Landowners who use lawn fertilizer have similar goals. Phosphorus is also added to our surface waters from organic sources and effluent, such as from livestock and municipal wastewater treatment plants. When runoff and soil erosion containing nutrients such as phosphorus washes into our water bodies, the result is excess nutrient loading. Sediment is often travelling with the phosphorus as erosion occurs.

Agriculture is the primary source of phosphorus loads in Wisconsin waters. The 2015 Red Cedar River Basin Watershed 9KE Plan estimated that about 66% of the phosphorus loading was runoff from cropland (sources WDNR, 1999). The second highest percentage source was forest/woodland at 10%.

Like groundwater, surface water is susceptible to other contamination, such as chloride from road salt, oil or grease from equipment and parking lots, and sediment from erosion during construction. Stormwater management is a crucial tool in mitigating pollutant runoff as will be further discussed in Chapter 3.3.5.

3.3.4 Surface Water Quality Management Plans

As noted previously, this Sewer Service Area (SSA) Plan is part of the larger collection of water-related plans constituting the areawide water quality management plan described under NR 121. It is the intent of this SSA Plan to identify and reference, but not duplicate, these other related plans. Key plans pertaining to surface water quality include:

Total Maximum Daily Load (TMDL)
A TMDL is the calculation of the maximum amount of a pollutant allowed to enter a waterbody so that the waterbody will meet and continue to meet water quality standards for that particular pollutant. A TMDL determines a pollutant reduction target and allocates load reductions necessary to the source(s) of the pollutant.

There is one TMDL limit within the Study Area, established for Tainter Lake and Lake Menomin; both impoundments are on the Red Cedar River and located within the Red Cedar River Basin. The TMDL Plan for Tainter/Menomin, completed in 2012, establishes a Phosphorus limit. Both lakes are hypertrophic and experience severe summer algae blooms and poor water clarity. In 2012, the U.S. EPA approved a TMDL developed by WDNR for these lakes, calling for a 65% (330,000 lbs) reduction in total phosphorus.

Nine Key Element (9KE) Plans
Nine Key Element Plans are watershed plans based on EPA's planning framework that bring community partners together to address non-point source pollution or runoff. For the Study Area, phosphorus and soil erosion (sedimentation) are the primary focus of these plans, with a strong emphasis on promoting soil health best management practices among farmers and farmland owners. Having and maintaining a 9KE Plan provides greater opportunity to secure Federal Section 319 dollars for projects recommended in the plan.

The Study Area is covered by one 9KE Plan: "A River Runs Through Us: A Water Quality Strategy for the Land and Waters of the Red Cedar River Basin". The Plan was adopted in 2015 and is in the process of being updated.

Lake, Stream, & Watershed Management Plans
These plans are created to improve or protect a surface water and its ecosystem as a whole, but may also include recommendations related to the use of that water. Most commonly, a lake management plan is created by a lake group or municipality that meets the guidelines under NR 191.45, which serves as a prerequisite for funding under NR 193. The scope and content of such plans will vary by water body, and may incorporate additional studies and sub-plans (e.g., aquatic invasive species, aquatic plant management plan, shoreland/woody habitat assessment, water quality & macro-invertebrate studies).

County Land & Water Conservation Plan
Surface water quality protection and restoration as major components of the Land & Water Conservation Plans for Dunn County. Conservation staff from Dunn County actively participate in the creation of water-quality plans to provide support to landowners, lake groups, and other partners in the implementation of these plans.

3.3.5 Stormwater Management

Our rivers, lakes, and streams are part of and are impacted by our stormwater management and flood control systems. Stormwater management, shoreland regulations, and best practices are primarily intended to protect our surface waters from sediment and other pollutant loading. On the

other hand, floodplain regulations and flood controls are mainly for public safety and to avoid or mitigate flood damage.

Stormwater management is often associated with urban areas and development, where practices such as detention basins, rain gardens, porous pavement, etc., are installed to accommodate runoff or mimic natural drainage systems lost due to development. Stormwater management also includes strategies farmers and timber managers use to prevent run-off, such as filter strips, grass swales, settling basins, and soil stabilization on slopes.

Urban Stormwater (MS4) Permits

As a federally designated urbanized area, the City of Menomonie has been required to obtain a Municipal Separate Storm Sewer System (MS4) permit to reduce stormwater runoff by implementing stormwater management programs with best management practices.

These State and Federal MS4 storm sewer discharge permits, collectively, are frequently referred to as the Phase I and Phase II rules, with Phase I mainly affecting the largest communities, such as Madison and Milwaukee, and Phase II later impacting smaller municipalities. More than 200 Wisconsin municipalities must meet these Phase I and II rules. For the SSA Study Area, a MS4 permit has been granted for the City of Menomonie.

While MS4 permits usually do not include effluent limits like other WPDES permits, MS4 communities are required to conduct a variety of educational, enforcement, and best practices activities. The regional Rain to Rivers of Western Wisconsin group was created, in part, to meet MS4 public outreach and education requirements.



Industrial Stormwater Permits

Pollutants carried in storm water runoff from industrial facilities threaten or degrade water quality in many areas of the state. Because of this problem, state and federal laws require that certain dischargers of industrial storm water have a storm water discharge permit. The purpose of the permit is to identify conditions under which industrial storm water can be discharged so that the quality of surface waters, wetlands and groundwater is protected. NR 216 contains a list of industries that must obtain stormwater discharge permit coverage and related rules. For those municipalities within the Study Area, 20 industries have been issued stormwater permit coverage by WDNR.

WDNR Stormwater Construction Permits

NR 151, NR 216, and SPS 320-325 identify the runoff management performance standards, prohibitions, and measures for farms as well as the urban standards to control construction site erosion, manage runoff from roads and manage fertilizer use on large turf areas. Landowners of most construction projects where one or more acres of land will be disturbed must submit an application called a Notice of Intent (NOI) to request coverage under the Construction Site Storm Water Runoff General Permit No. WI-S067831-6. The NOI shall include:

- a written erosion control and, as applicable, a post-construction stormwater management plan.
- an erosion control map (construction plans) including topography, wetlands, waters, proposed limits of land disturbances, grading, permanent vegetation, post-construction stormwater features, etc.
- soil loss/sediment discharge calculations
- wetland assessment method
- consideration of endangered species or threatened resources (will be reviewed by WDNR)
- long-term maintenance agreements and/or permission letter for stormwater practices
- additional evaluation and modeling, and agreement requirements depending on the site, infiltration practices, etc.
- site photos

These permits are issued by WDNR. Permit applications to WDNR include the creation of an erosion control and stormwater management plan describing the best management practices that will be used on-site for erosion control consistent with the requirements of the construction site storm water permit. Certain agricultural activities are exempt from permit requirements under NR 216. And depending on the project scope, a site may or may not be required to include post-construction stormwater management practices.

Municipal Stormwater Management Plans & Local Ordinances

Local plans and regulations to protect surface water quality from erosion and runoff are a crucial to achieving the ultimate purpose of areawide water quality management planning and the goals of this SSA Plan.

Most communities do not have a municipal-level stormwater management plan and such plans are not required as part of MS4 permit, but can guide permit-related activities. Municipal stormwater

management plans analyze stormwater and guide public stormwater infrastructure capacity, improvements, and maintenance. Such plans may be created for all or a part of a community. Stormwater management can also be incorporated into a variety of other local planning tools, including conservation plans, comprehensive plans, capital improvement plans, zoning and land division ordinances, and site plan review procedures. The City of Menomonie has a stormwater management plan and stormwater utility, and manages extensive stormwater infrastructure as shown on **Map 3.11**.

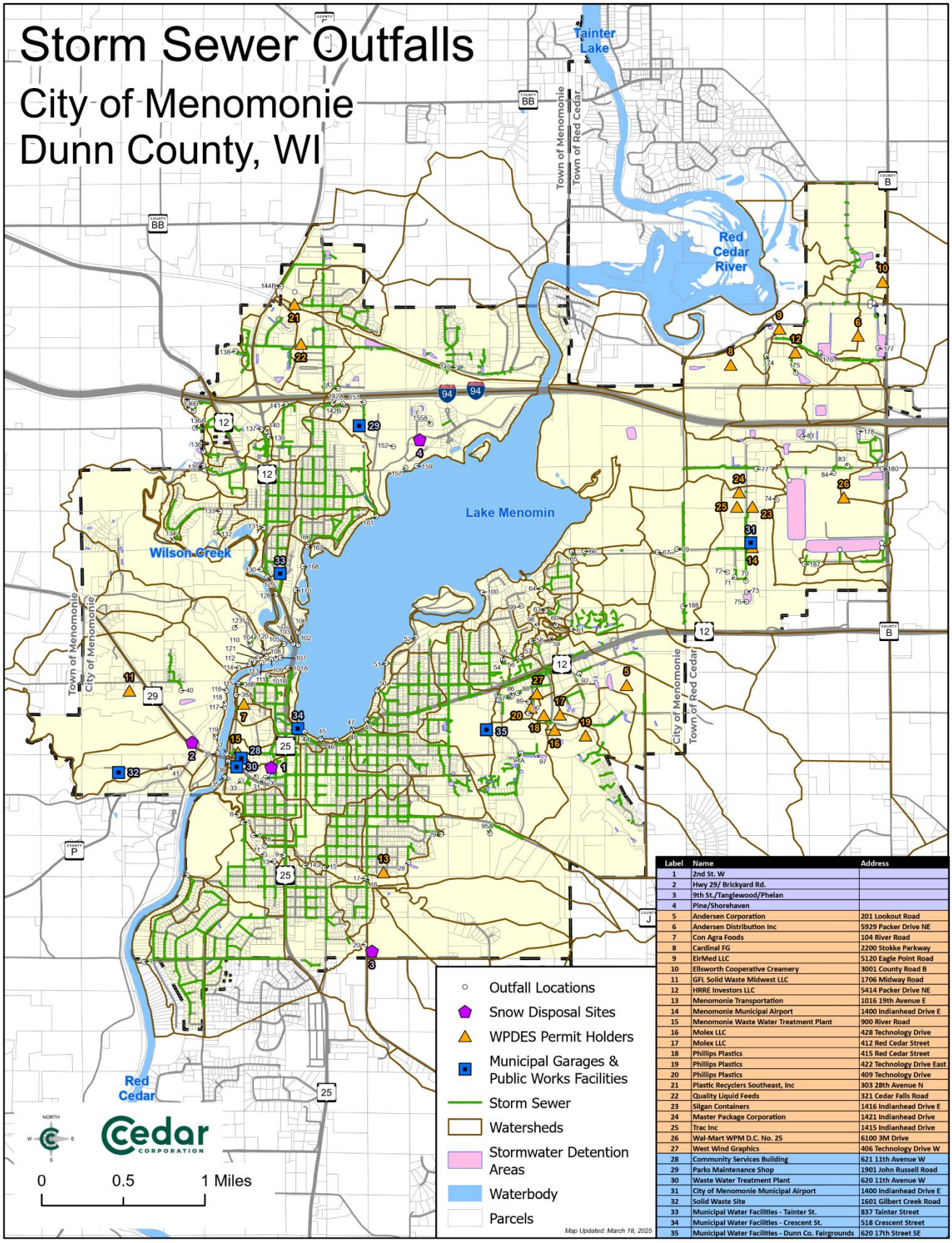
In addition to the WDNR Stormwater Construction permit discussed previously, local erosion control and stormwater permitting requirements also apply and may regulate smaller areas of disturbance. These local ordinances are often based on NR 151 and NR 216 requirements and typically include both erosion control during construction as well as post-construction stormwater management. Some local ordinances also require such a permit for new land divisions and/or subdivisions, if significant impervious surface will be created, or if environmentally sensitive areas will be disturbed. In short, a proposed construction project in the urban area will often need to obtain both a WDNR and local stormwater and erosion control permit.

The following table identifies the stormwater and erosion control ordinances for the local units of government in the Study Area as identified by the communities:

Unit of Government	Stormwater Management & Erosion Control Policies
City of Menomonie	Title 8 - Chapter 3:Stormwater Utility; Title 9 – Chapter 10:Erosion Control, 11:Stormwater Management, 12: Illicit Stormwater Discharge and Connection
Town of Menomonie	Towns and County do not have stand-alone stormwater management or erosion control ordinances. For the towns, NR 151 and 216 requirements are enforced as part of land/building permitting processes with WDNR review when required. Stormwater management and land suitability is considered as part of Town and County land division ordinance. County ordinances with stormwater permitting components include Chapter 10: Agricultural Performance Standards, Chapter 14: Shoreland Protection Ordinance, and Chapter 16: Land Division Regulations.
Town of Red Cedar	
Town of Sherman	
Town of Tainter	
Dunn County	

A number of communities noted that stormwater-related policies can also be found within their zoning and/or land division regulations. Some private facilities have their own stormwater management or stormwater pollution prevention plans.

Map 3.11 City of Menomonie Stormwater Management System



Label	Name	Address
1	2nd St. W	
2	Hwy 29/ Brickyard Rd.	
3	9th St./Tanglewood/Phelan	
4	Pine/Shorehaven	
5	Andersen Corporation	201 Lookout Road
6	Andersen Distribution Inc	5929 Packer Drive NE
7	Con Agra Foods	104 River Road
8	Cardinal FG	2200 Stokke Parkway
9	EirMed LLC	5120 Eagle Point Road
10	Ellsworth Cooperative Creamery	3001 County Road B
11	GFL Solid Waste Midwest LLC	1706 Midway Road
12	HRRE Investors LLC	5414 Packer Drive NE
13	Menomonie Transportation	1016 19th Avenue E
14	Menomonie Municipal Airport	1400 Indianhead Drive E
15	Menomonie Waste Water Treatment Plant	900 River Road
16	Molex LLC	428 Technology Drive
17	Molex LLC	412 Red Cedar Street
18	Phillips Plastics	415 Red Cedar Street
19	Phillips Plastics	422 Technology Drive East
20	Phillips Plastics	409 Technology Drive
21	Plastic Recyclers Southeast, Inc	303 28th Avenue N
22	Quality Liquid Feeds	321 Cedar Falls Road
23	Silgan Containers	1416 Indianhead Drive E
24	Master Package Corporation	1421 Indianhead Drive
25	Trac Inc	1415 Indianhead Drive
26	Wal-Mart WPM D.C. No. 25	6100 3M Drive
27	West Wind Graphics	406 Technology Drive W
28	Community Services Building	621 11th Avenue W
29	Parks Maintenance Shop	1901 John Russell Road
30	Waste Water Treatment Plant	620 11th Avenue W
31	City of Menomonie Municipal Airport	1400 Indianhead Drive E
32	Solid Waste Site	1601 Gilbert Creek Road
33	Municipal Water Facilities - Tainter St.	837 Tainter Street
34	Municipal Water Facilities - Crescent St.	518 Crescent Street
35	Municipal Water Facilities - Dunn Co. Fairgrounds	620 17th Street SE

3.4 LONG-TERM WEATHER PATTERNS AND IMPLICATIONS

The National Oceanic and Atmospheric Administration (NOAA) classifies the Study Area as having a warm summer humid continental climate. Warm to cool summers and cold winters are the main characteristics. The average monthly temperature ranges from 13 degrees Fahrenheit in January to 71 degrees Fahrenheit in July. Annual precipitation averages 36 inches, with the majority falling in May-August. Seasonal snowfall ranges from 30 to 98 inches (2013-2022).

Regardless of the debate over the causes, there is substantial evidence that Wisconsin's long-term weather patterns are changing. The 2003 report Confronting Climate Change in the Great Lakes Region, published by the Union of Concerned Scientists and the Ecological Society of America, projected that by 2030, summers in Wisconsin may resemble those in Illinois overall in terms of temperature and rainfall, and by 2100, the summer will resemble that of current-day Arkansas, and the winter will feel much like current-day Iowa. And a University of Maryland model suggests that by 2080, the climate of Menomonie will be similar to that of northern Oklahoma.[3] Increasing temperatures and shifting precipitation patterns are the two primary factors that will impact our water resources.

To further document these changes in weather patterns and explore their impacts on our State, the Wisconsin Initiative on Climate Change Impacts (WICCI) was formed as a collaborative effort of the University of Wisconsin and the Wisconsin Department of Natural Resources. **Map 3.12** includes maps from the 2021 Assessment Report showing longer-term weather trends for Wisconsin. Temperatures and annual precipitation have increased in the Study Area at a rate higher than the State average. As a result, the area must anticipate increased extreme precipitation events annually, as well as greater severity within individual events.

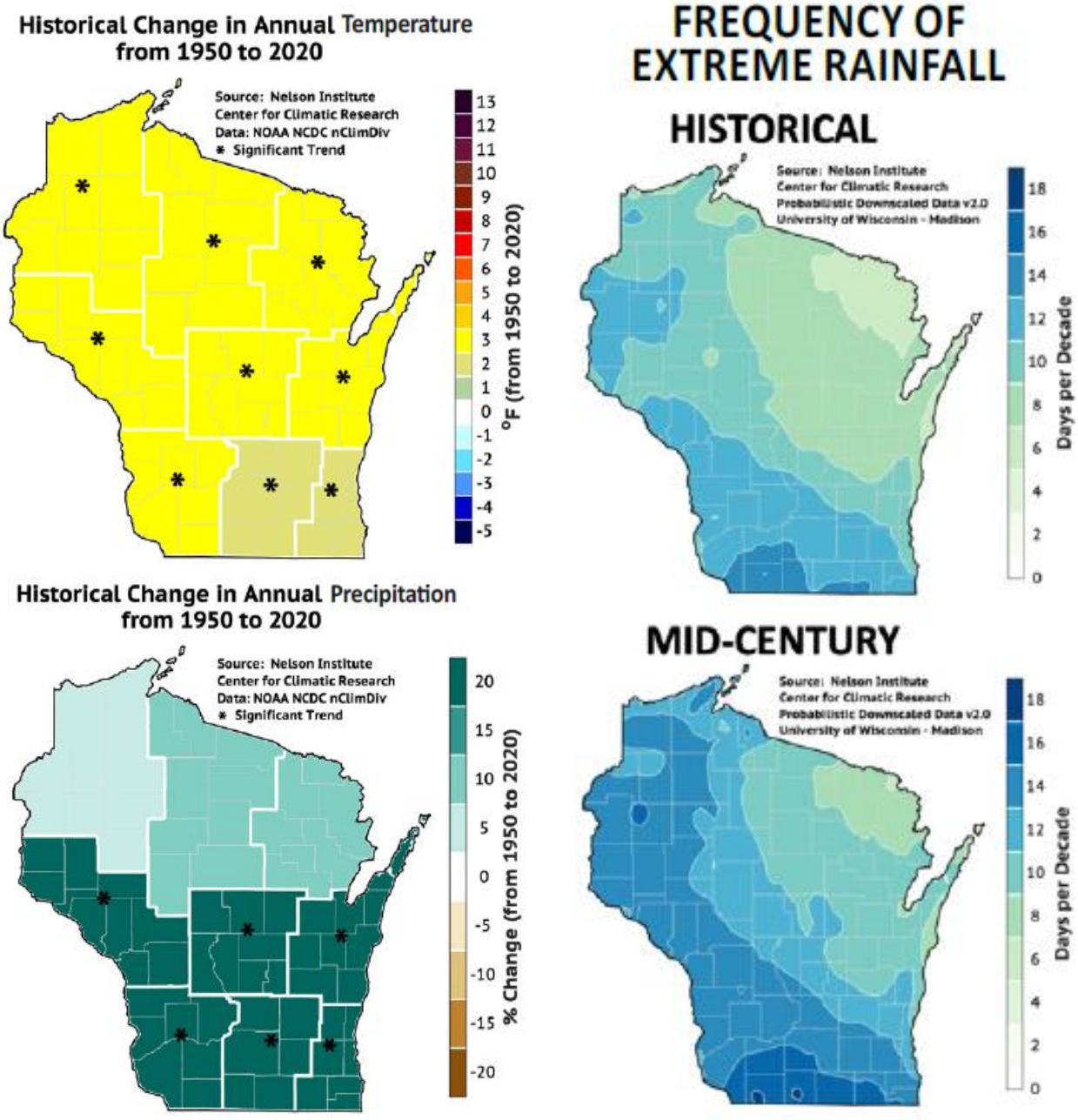
Wisconsin's average daily temperature has become three degrees Fahrenheit warmer since the 1950's and the last two decades have been the warmest on record. By 2050, the WICCI report projects that the number of extreme heat days in Dunn County will grow from about 10 to 25-30 per year. Higher temperatures will result in increased evapotranspiration and longer growing seasons. Over time, these trends have the potential to impact surface and groundwater. Trout streams, in particular, are especially vulnerable to increases in water temperature. Temperature can also change water biology and chemistry, such as increasing algal blooms.

Wisconsin has also become wetter; the average precipitation has increased 17 percent (about 5 inches) since 1950, with most of this increase occurring during the winter months. By 2050, the WICCI report projects that the Study Area will experience 10% more winter and spring precipitation, a 0-5% increase in summer, and a 5% increase in fall. This is a positive trend for groundwater recharge, potentially offsetting increased evapotranspiration. However, most notable for surface water quality, the frequency of extreme rainfall events is also increasing. The WICCI report projects that the frequency of extreme rainfall events (2+" within 24 hours) will increase from about 8-10 per decade to 14-16 per decade. The report details that the Study Area is already experiencing an increase in 100-year rainfall events, with such events ranging from 5.75" to 6" in magnitude. These increasing heavy rainfall and flooding events are not reflected in current

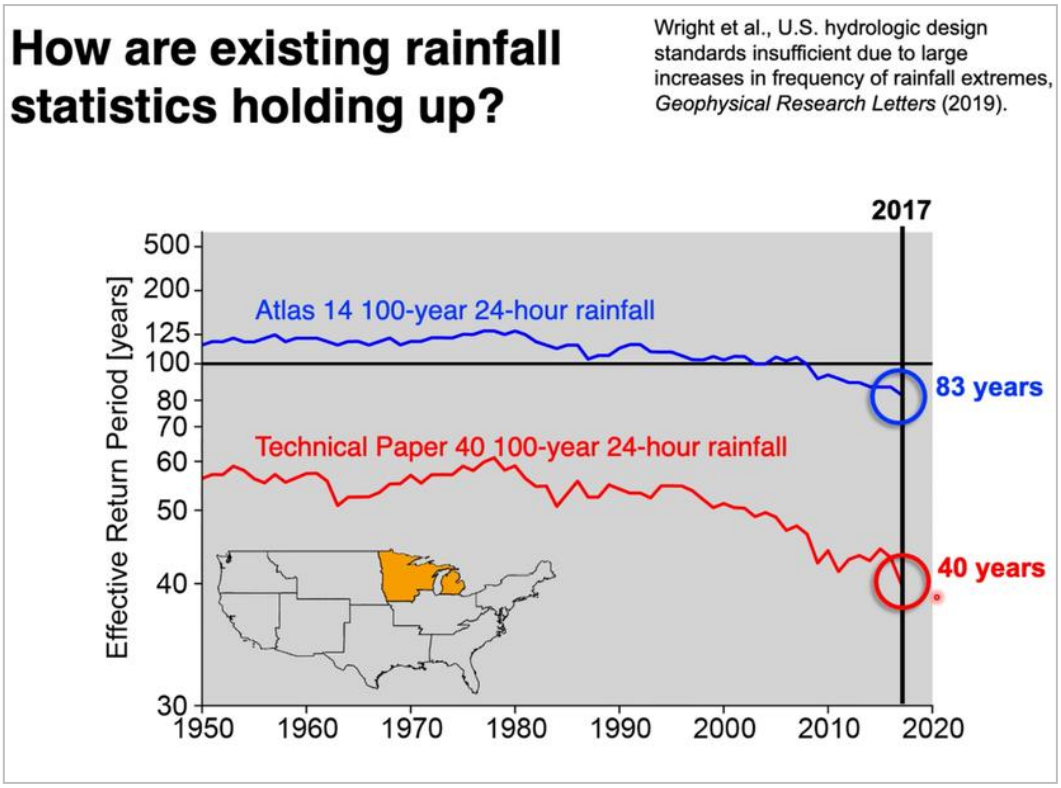
[3] https://www.umces.edu/futureurbanclimates

floodplain maps and stormwater management models. For example, most stormwater modeling and design standards for Wisconsin municipalities use the precipitation frequency data from NOAA's Atlas 14 (based on 1900-2010 trends) and the older Technical Paper 40 (published in 1961).

Map 3.12 Selected Maps from the 2021 WICCI Report



A 2019 study summarized by the graphic below shows that a 100-year rainfall event based on Atlas 14 was occurring every 83 years by 2017 in the upper Midwest, and the frequency of such events has been increasing significantly since 2010. A separate National Weather Service-funded study from 2019 suggests that today's 100-year rainfall event will be a 20-year storm by the late 21st century. Atlas 15 reflecting more recent trends is not expected to be released before 2027. In the interim, some Wisconsin municipalities are already considering these trends. As an example, Dane County continues to use Atlas 14 data, but in 2021 it updated its erosion control and stormwater management ordinance to require peak rate control based on 200-year storms, instead of 100-year storms.



An increase in flooding will not only impact the built environment, but it will also impact the natural environment. Steep slopes, shorelines, and riparian areas will be more vulnerable to damage, erosion, and habitat degradation with increases of flooding intensity and runoff. In addition, more opportunities will exist for pollutants, sediment, and debris to enter our surface waters. This is consistent with the comments of many local officials during area mitigation planning efforts, who felt that there has been an increase in heavy rainfall events, which have been contributing to localized flash or stormwater flooding.



3.5 ENVIRONMENTALLY SENSITIVE AREAS

3.5.1 What are Environmentally Sensitive Areas (ESAs)?

Wisconsin Department of Natural Resources (WDNR) states that environmentally sensitive areas (ESAs) are "critically important" to sewer service area planning and are defined as:

> "**Major areas unsuitable for the installation of waste treatment systems because of physical or environmental constraints are to be excluded from the service area. Areas to be considered for exclusion from the sewer service area** because of the potential for adverse impacts on the quality of the waters of the state from both point and non-point sources of pollution include but are not limited to wetlands, shorelands, floodways and floodplains, steep slopes, highly erodible soils and other limiting soil types, groundwater recharge areas, and other such physical constraints." NR 121.05(1)(g)(2)(c).

NR 121 suggests the types of ESAs that should be excluded from development in order to prevent adverse effects on water quality should an ESA be degraded or encroached upon. WDNR has further stated that it is ultimately a local decision and the types of ESAs can vary by SSA plan, though certain ESAs, such as surface waters, 100-year floodplains, wetlands, and steep slopes, are common to all plans.

For purposes of creating, updating, amending, and administering the *Menomonie Urban Sewer Service Area Plan*, environmentally sensitive areas (ESAs) are:

- features of the natural environment of significant size that, if substantially disturbed, could degrade or negatively impact surface or groundwater quality,
- mapped and delineated for purposes of creating, updating or amending the SSA boundary and in greater detail for the review of specific projects and sanitary sewer extensions to determine consistency with the SSA Plan (i.e., 208 Review),
- protected from intensive land disturbances within the entire SSA regardless of the status or type of wastewater treatment,
- excluded from the developable acreage within the SSA, but may be located within the SSA boundary,
- preferably excluded from the SSA if large, contiguous ESAs are adjoining the existing or proposed SSA boundary,
- potential barriers to the provision of cost-efficient services, which could influence the SSA boundary, and,
- not encroached upon by an intensive land disturbance of this SSA Plan, unless: (i) no reasonable alternative exists or the encroachment is necessary to mitigate/remedy an existing environmental problem, (ii) if appropriate best practices are taken to protect water quality, and (iii) the ESA classification is removed through a SSA Plan amendment, subject to the definitions, policies, and exceptions of the State of Wisconsin and this SSA Plan.

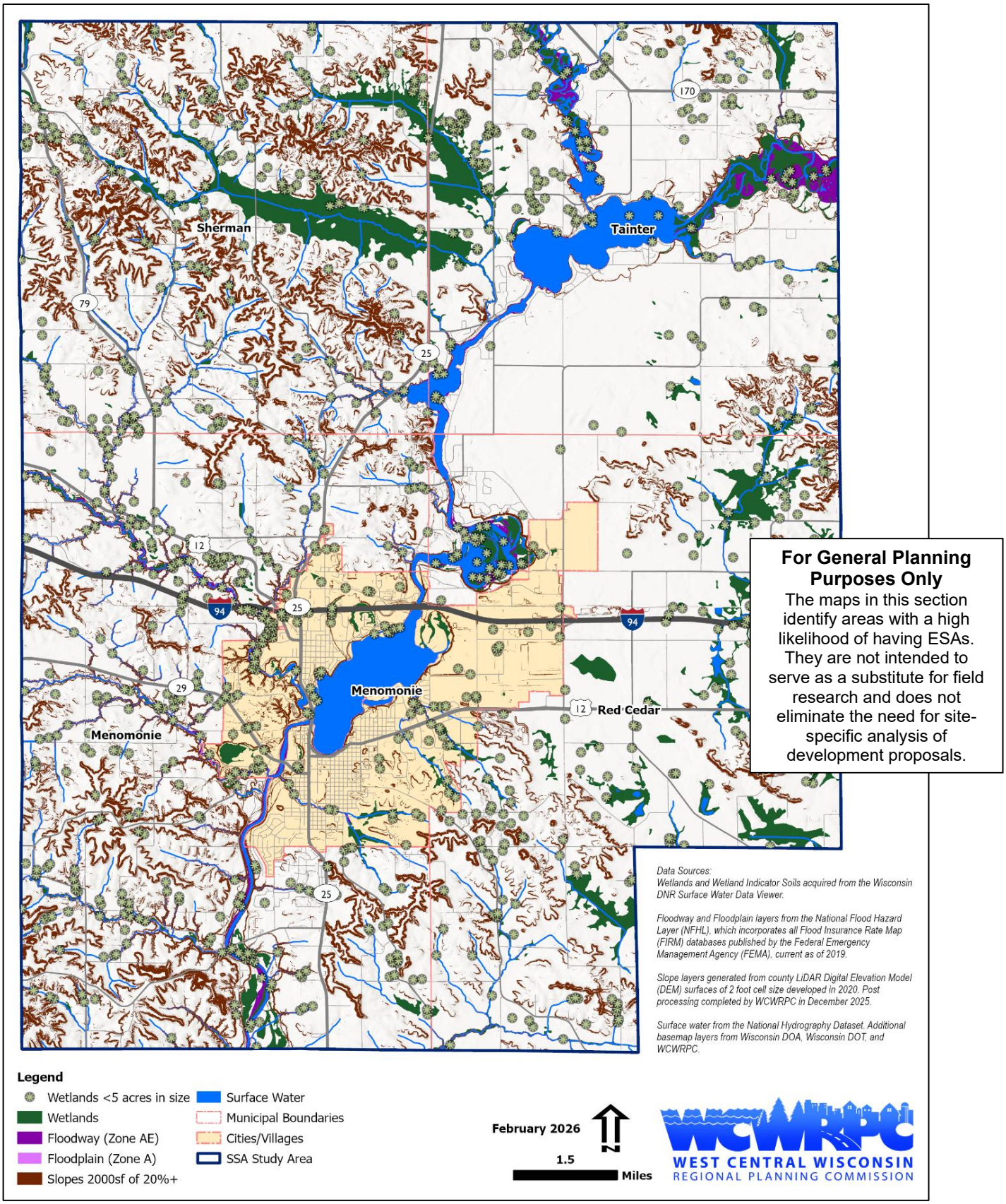
Certain areas within the SSA are already protected and not expected to be intensively developed within the 20-year planning period, such as public parks, conservancy areas, and the airport grounds. For such areas, they are treated similarly to an ESA in that their acreage can be excluded from the developable acreage within the SSA, even though some improvements may occur (e.g., a new park pavilion or trailhead).

After considering the guidance of NR 121, existing environmental protections, and the natural features of the SSA Study Area, the Menomonie Area Water Quality Advisory Committee, in consultation with Wisconsin Department of Natural Resources determined that the following are environmentally sensitive areas (ESAs) for purposes of this SSA Plan:

ESA	Summary ESA Guidance
Surface Waters, when no 100-year floodplain determined.	All surface waters, regardless of navigability, as shown in the WDNR Surface Water Data Viewer.
Floodway or 100-year Floodplain	As delineated on FEMA Flood Insurance Rate Maps and subject to any approved revisions or amendments: • The floodway for the Special Flood Hazard Area, if delineated as part of Zone AE, OR • The entire 100-year floodplain (Zone A), if the floodway is not mapped
Wetlands	As identified on WDNR Wetland Inventory. If wetland-indicator soils exist, a certified wetland delineation may be required and any areas identified as wetlands shall become a Wetland ESA.
Steep Slopes	• 20% or greater in slope • Natural or unengineered • Contiguous area at least 2,000 square feet in size • Measured over 50' in run
Class A Steep Slope	• Partially or wholly located within any other ESA
Class B Steep Slope	• Not a Class A Steep Slope

Map 3.13 is a compilation of the ESA maps found in this section demonstrating that these barriers to development are distributed throughout the Study Area. These mapped ESAs will change over time as more accurate information becomes available. The most recent, available maps and GIS data will be used to delineate the ESAs for review of proposed sewer extensions and hookups, as well as more accurate survey information provided by the applicant. Due to the accuracy limitations of some mapping information, field research may be needed and actual site-specific data will also be used to determine plan conformance, such as in the case of endangered species and habitats.

MAP 3.13 Environmentally Sensitive Areas (ESAs)



3.5.2 Surface Waters

*A **Surface Water** is a natural or artificial named or unnamed lake or naturally flowing stream as defined by NR 103.02, Wisconsin Administrative Code. Surface waters include all springs, stream headwaters, streams, lakes, and waterfalls, regardless of navigability, shown in the WDNR Surface Water Data Viewer.*

The surface waters within the Study Area are shown on **Map 3.14**. Intermittent streams, drainageways, and non-navigable streams may be considered surface water ESAs if they are mapped as a surface water on the WDNR Surface Water Data Viewer. The following man-made water-related features are generally not identified as ESAs: cooling lakes, farm ponds, ponds created as the result of an approved quarry or infrastructure project, facilities constructed for the treatment of wastewaters, roadside ditches, and most stormwater detention ponds or similar artificial stormwater management improvements. However, should appropriate regulatory agencies determine that such man-made features are waters of the United States or waters of the State, and if development or disturbance would pose a significant risk to water quality, the ESA criteria and restrictions set forth in this plan shall apply. Since 100-Year Floodplain ESA includes the surface water area, this surface water ESA does not include areas were the floodplain has been determined in order to avoid redundancy.

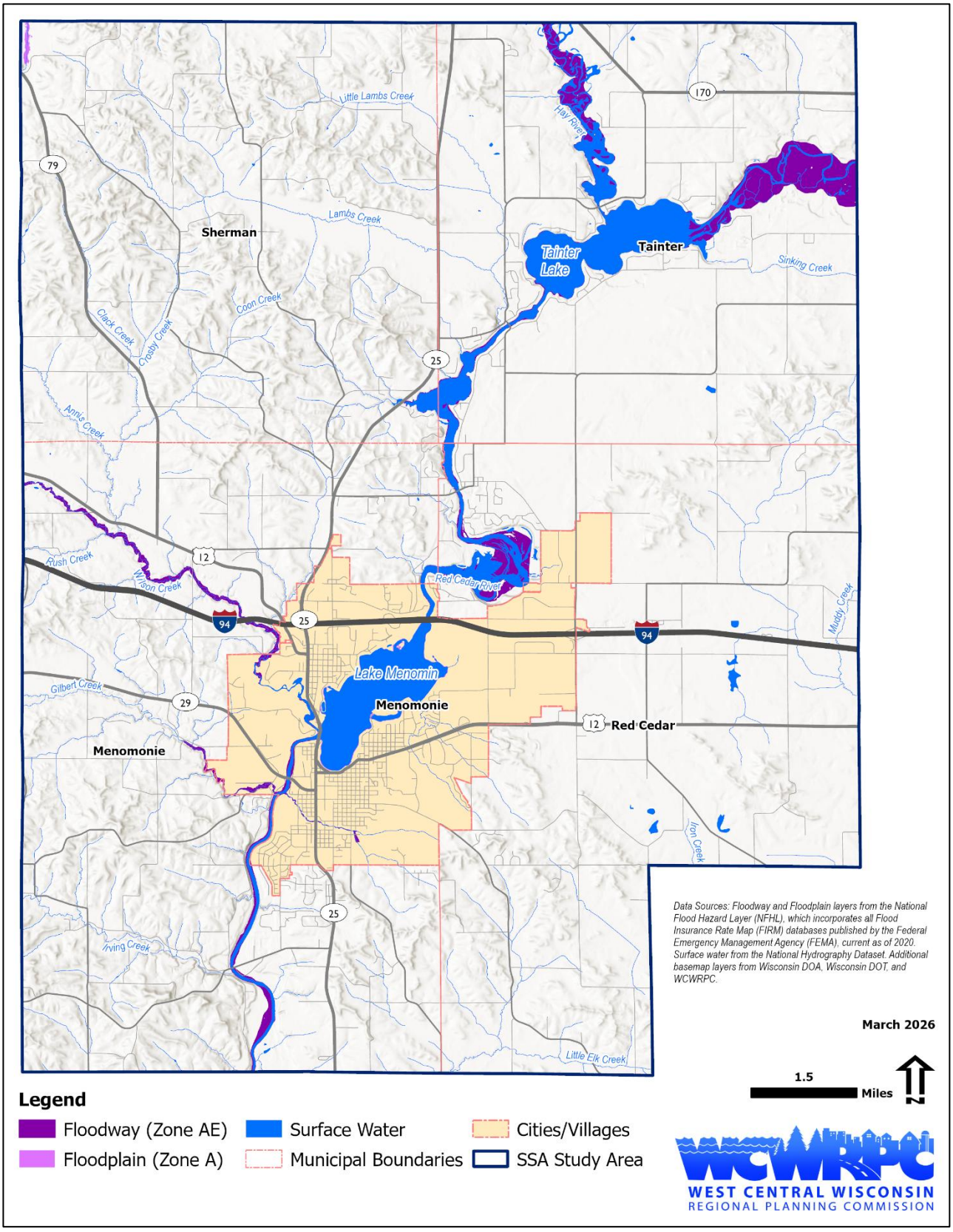
Surface Waters Background

Left unsaid in previous SSA plans for the urban area prior to 2018 is that surface waters are also an environmentally sensitive area. Protection of the water quality of area surface waters is the primary overarching purpose of this plan. The Menomonie area is fortunate to have surface waters that perform important environmental, wildlife habitat, recreational, economic, and quality of life functions for the region. The state of the surface waters within the Study Area is previously discussed in Chapter 3.3.

Surface waters include all springs, stream headwaters, streams, lakes, and waterfalls, and some can have special status, such as trout streams and outstanding or exceptional resource waters. Surface waters are also often adjacent to or part of shoreland, wetland, and floodplain areas, which may help explain its absence in previous SSA Plans. No inventory of natural springs exists, so they will be considered on a case-by-case basis. However, natural springs are often associated with surface water, wetlands, or steep slopes, so most will be included within other ESAs.

As discussed later in this sub-section, additional shoreland and shoreland-wetland regulations are enforced by Dunn County and the City of Menomonie though shorelands and surface water setbacks are not included or regulated as an additional ESA in the context of this plan. Local units of government may have additional setbacks or buffer areas for surface waters or certain resource waters (e.g., trout streams); no such buffers are included as part of the ESA.

MAP 3.14 Surface Waters & 100-Year Floodplains



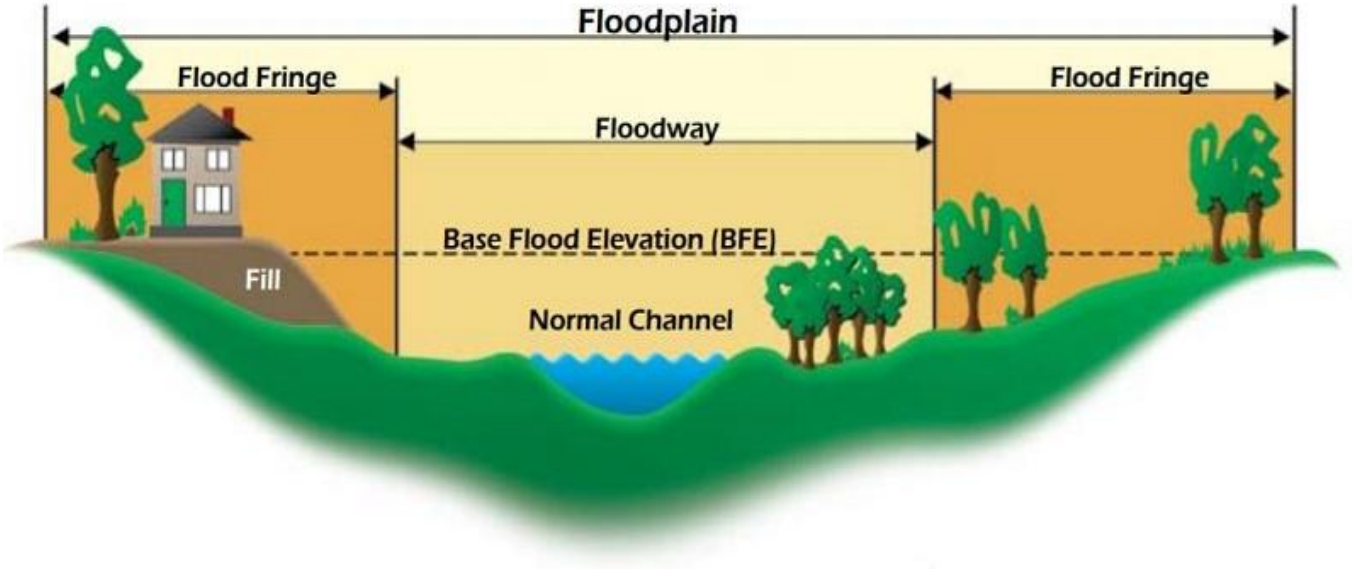
3.5.3 Floodways or 100-Year Floodplains

The 100-Year floodplain is the Special Flood Hazard Area consisting of the floodway and flood fringe (see diagram below) that has been or may be covered by flood water during a regional flood event having a 1-percent chance of being equaled or exceeded in any given year as defined by NR 116.03, Wisconsin Administrative Code. For this SSA Plan, the following shall be an ESA as delineated on FEMA Flood Insurance Rate Maps and subject to any approved revisions or amendments:

(1) The floodway, if delineated and mapped as part of the Special Flood Hazard Area, which is typically mapped as Zone AE.

(2) Otherwise, the Special Flood Hazard Area (i.e., 100-year floodplain) in its entirety typically mapped as Zone A, if the floodway has not been delineated and mapped.

A floodplain is typically an area of relatively flat land on either side of a water body covered by water during a regional (100-year) flood event. It contains layers of sediments deposited by the river or lake during floods and encompasses both the floodway and flood fringe. The **floodway** is the main channel of the river and the adjoining land, which are required to carry the main flow of a 100-year flood event. The **flood fringe** is that part of the floodplain outside the floodway, which plays a water storage role during a flood event, but water depth and velocity is generally much lower than compared with the floodway; some development may be allowed in the flood fringe if carefully planned and elevated sufficiently above the Base Flood Elevation with dryland access. Floodplains play an important role in filtering stormwater before it reaches surface water and by removing pollutants and debris from inland river waters during a flood event. Floodplains also offer important water storage areas during flood events to help reduce the impacts of flooding downstream.



Elements of a Floodplain.
Source: Wisconsin Department of Natural Resources.

Federal Emergency Management Agency Flood Insurance Rate Maps (FIRMs) identify the 100-year floodplain and were used to delineate flood hazard areas within the Study Area. These maps are now available in a digital form (i.e., D-FIRMs).

The 100-year floodplains are delineated as the "A" or "AE" zones on the FIRMs, including any FEMA-approved map changes, revisions, amendments, including Conditional Letters of Map Revision or Amendment (e.g., CLOMR, CLOMA), until such time that an effective FIRM is revised or amended. Since surface waters are also an ESA, the floodplain/floodway ESA overlaps the adjacent surface water ESA.

Zone A and Zone AE map the same thing—a 100-year flood event—though Zone AE has greater map accuracy. More detailed data is available for Zone AE, including calculated Base Flood Elevations (BFEs) and delineation of the floodway vs. flood fringe, in most cases. During the 2026 SSA Plan update, local units of government noted that the flood fringe can potentially be developed. As such the definition of this ESA was modified so that the flood fringe is not an ESA (i.e., not protected from encroachment) when the flood fringe has been delineated and mapped. Encroachment may be allowed if a structure is elevated at least two feet above the base flood elevation, dryland access is available, and net flood storage[4] is not reduced. Due to such challenges, developing in the flood fringe can be costly and is relatively uncommon.

100-Year Floodplain/Floodway Background

The FIRMs for Dunn County were last updated and made effective December 2, 2011, and are available in a digital format (D-FIRMs). The accuracy of these D-FIRMs was much improved since LIDAR data was available and used to produce the updated maps. In this context, LIDAR (Light Detection and Ranging) is the use of remote sensing from aircraft to obtain more accurate topographic elevation data. This data was then used to more accurately estimated flood elevations for the D-FIRMs. The 100-year floodplains are shown previously on **Map 3.14**. The entire 100-year floodplain acreage is included as part of the ESA acreage for this SSA Plan update. Further, during SSA Plan administration (e.g., 208-conformance reviews for sewer extensions), applicants may be required to provide documentation from WDNR and/or FEMA to confirm that proposed development is located outside of a floodplain or floodway. And the actual floodplain/flood fringe maps and ESA acreages will change over time as FIRM maps are updated and amended.

There is existing development potentially located within the 100-year floodplains of the Study Area. The largest concentrations of existing floodplain development lie near Lake Menomin and Tainter Lake as well as along the Red Cedar River. Local topography may effectively minimize the risk of flooding to structures in many of these areas.

Floodplain zoning is required to be implemented by counties, cities, and villages by Wisconsin Statute 87.30(1), which limits future floodplain development in the Study Area. Flooding is also mitigated locally by natural hazard or flood mitigation plans that encourage restrictions on future floodplain development. Due to the inherent risks to development in floodplain areas, WDNR

[4] For purposes of this plan, **flood storage** refers to an area's ability to temporarily hold excess water, such as during a heavy rain or snow melt event, to reduce the volume, velocity, and peak flow of water moving downstream. For this plan, such areas may or may not be formally designated or mapped as flood storage areas.

guidelines for SSA planning recommend that floodplains should be excluded from local sewer service areas and that proposals to reduce floodwater conveyance capacity or flood storage should be denied unless remedial actions (in conformance with NR 116) are identified and approved. WDNR will not approve a SSA Plan or plan amendment that is inconsistent with local or State floodplain regulations.

3.5.4 Wetlands

*A **Wetland** is any area in which water is at, near, or above the surface long enough to support hydrophytic vegetation or water-loving plants and which has soils indicative of wet conditions as defined by NR 103, Wisconsin Administrative Code.*

Wetlands may be seasonal or permanent and are sometimes referred to as swamps, marshes, or bogs. Wetlands may or may not be mapped as part of the Wisconsin Wetlands Inventory as shown on the WDNR's Surface Water Data Viewer. If wetland-indicator soils (i.e., potential hydric or poorly drainage soils or areas of high water table) are shown on the Data Viewer, a site-specific survey and/or certified wetland delineation shall be required as part of the land division process or when sewered development is being proposed on the site; if wetlands are identified and confirmed, the area becomes a Wetland ESA. Additional wetland setbacks may be required by the State, county, or local government, but no setback areas or buffers are considered part of the ESA.

Wetlands Background

Wetland areas serve as groundwater recharge zones, as water storage areas during flooding events, and also as a habitat for a variety of plants and animals. Wetlands act like a sieve, filtering out silts before they can enter streams and lakes. Particular attention must be given wetlands within shorelands due to potential surface water impacts from disturbance. Activities such as flooding, draining, ditching, excavating and building are all regulated in wetlands.

WDNR guidelines for sewer service area planning state that all wetlands, regardless of size, are environmentally sensitive areas and should be excluded from local sanitary sewer areas. According to WDNR SSA planning guidance, proposed development projects near a wetland should be evaluated according to the following:

- The presence or absence of physical alterations in the wetland resulting from human activity. Wetlands which have not been altered should be given high priority for preservation.
- The availability of reasonable alternatives to development of the wetland. Where alternatives are available, wetlands should be protected from development.
- The potential impacts of the proposed actions on other scarce natural resources in or outside of the wetland. Consideration should be for protection of the wetland when the area is or has been known to be a habitat for state or federally designated rare, threatened or endangered species; or where it is determined that the wetland type is scarce or rare either statewide or regionally.
- Presence of or proximity to scientific study areas, sanctuaries, and refuges. Direct or indirect adverse impacts in these areas should be evaluated when reviewing an amendment to the plan.

- Effect on water quality of adjacent stream. SSA Plan amendments should not result in an adverse effect on an adjacent stream. Such effects include interference with the maintenance of dry season stream flow; increasing sediment, nutrient or other pollutant loading to the stream and decreasing the instream plant and animal habitat conditions.

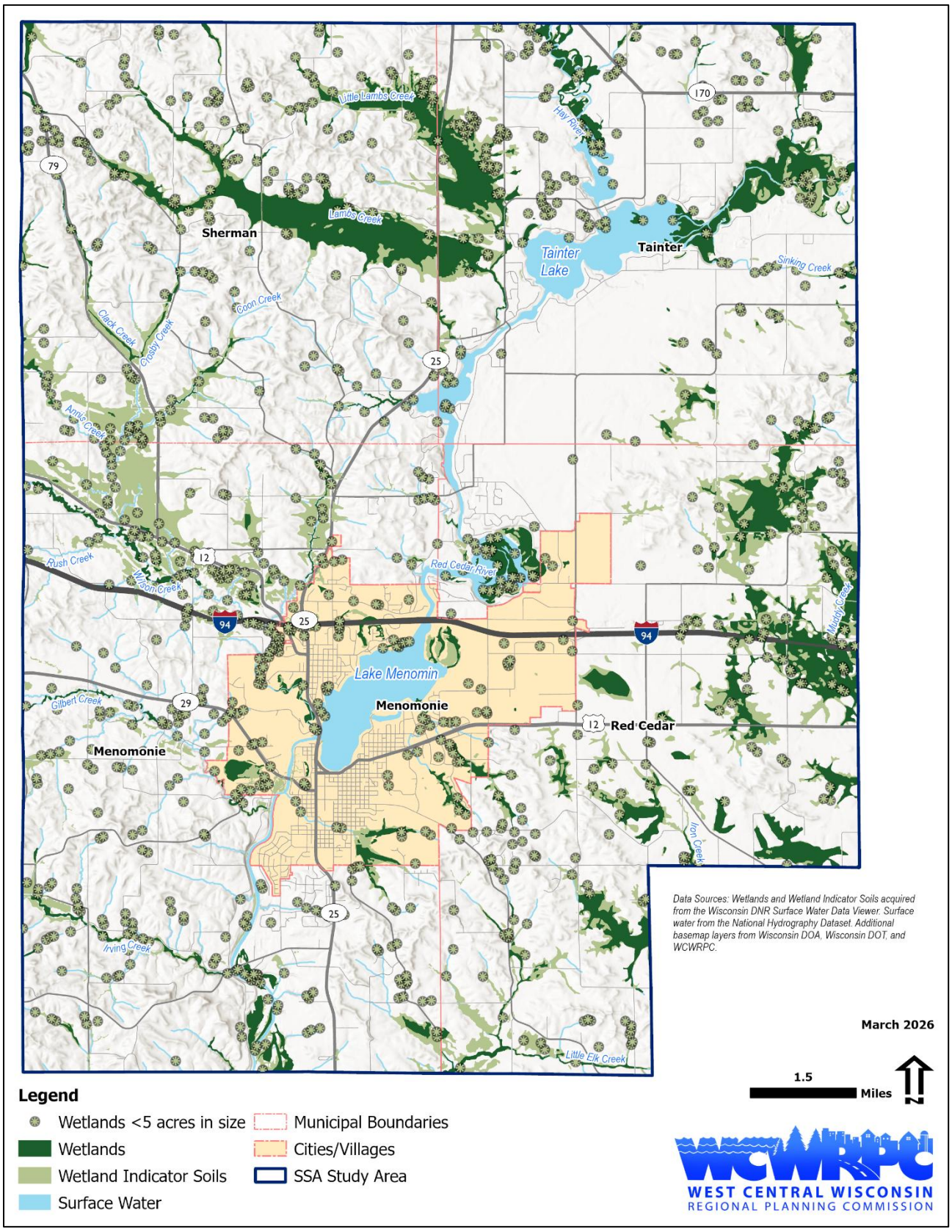
WDNR Wisconsin Wetland Inventory maps were used to identify known regulated wetlands within the Study Area, which are shown in **Map 3.15**. Although WDNR is now mapping wetlands of 2 acres or more, the Inventory was originally designed to identify wetlands of 5 acres or more. Many of the smaller wetlands are not mapped, though wetlands are regulated even if they do not appear on the Wisconsin Wetlands Inventory.

Map 3.15 also includes **wetland indicator soils** (e.g., hydric or poorly drained soils) based on NRCS soil survey data. These soils are an indicator that a potential wetland may exist, but an on-site investigation is often required to confirm or delineate whether the possible presence and extent of a wetland. The WDNR Surface Water Data Viewer will be used to ensure access to the latest wetland mapping, unless a wetland determination has been accepted by WDNR.



Photos courtesy of Tim Miland, Pat Trochlell, Kyle Magyera, Cherie Hagen, and Joanne Kline

MAP 3.15 Wetlands



3.5.5 Steep Slopes

For delineating ESAs in this plan, a steep slope is a contiguous area of natural or un-engineered slope that is at least 2,000 square feet total in size and a combination of slopes that are 20% or greater. Steep slope ESAs for this plan are further divided into two classes:

***Class A Steep Slope ESA** – A Class A steep slope is a contiguous area of steep slope ESA that are partially or wholly located within any of the aforementioned ESAs (e.g., surface waters, floodplains, wetlands).*

***Class B Steep Slope ESA** - Any steep slope ESA not a Class A steep slope is a Class B steep slope.*

For this SSA Plan:

- **Natural or Un-Engineered Slopes.** Only natural or un-engineered slopes are considered ESAs if they meet the other criteria in this section. The following are generally not considered steep slope ESAs:
    - Engineered, man-made steep slopes, including walk-out basements, if a grading/stabilization plan has been approved by the pertinent regulating jurisdiction(s).
    - Older, man-made slopes that were purposefully engineered or graded according to standards at the time and have since stabilized and revegetated and temporary stockpiles, spoil heap, or overburden. Such artificial slopes will be evaluated on a case-by-case basis with WDNR consultation and may be treated as a steep slope ESA depending on site characteristics, management practices, soil erodibility, and proximity to surface waters or other ESAs.
- **Minimum Slope Size.** A contiguous area of steep slope less than 2,000 square feet total (about 0.05 acres) shall not be considered an ESA due to its small size.
- **Minimum Slope Width.** Slopes shall be measured over a horizontal distance of 50 feet. Slopes shall be measured as the change in elevation over the horizontal distance between consecutive contour lines and expressed as a percent. If the elevation change over the 50 feet distance is less than 20%, the area is not a Steep Slope ESA.
- **Special Considerations.** Large contiguous areas of steep slopes exist that have varying drainage characteristics and level of risk to surface water quality. When determining steep slope ESAs, the following may be considered on a case-by-case basis:
    a. **Determining the steep slope ESA when multiple areas of steep slope ESA are separated by a small area of slope that does not meet minimum size or slope**. Areas exist where a single steep slope topographic feature may be separated or divided by a small area that does not meet the minimum slope (e.g., along the length of a single hillside there is a small section of 20+% slope with a run less than 50', but the hillside overall meets the steep slope ESA definition). Such areas may still be considered an ESA if:
        - The area is 20% or greater as measured over 50 feet and

- The area is part of the same topographic slope that connects two other areas that otherwise meets the steep slope ESA definition and is within 50' of the two other adjoining steep slope ESA areas.

b. **A portion of a connected steep slope ESA may be a different class based on drainage and distance to other ESAs.** When determining if a Steep Slope ESA overlaps another ESA (i.e., determining whether it is Class A or Class B), local natural drainage and runoff patterns may need to be considered. If it can be reasonably demonstrated that the natural drainage for a portion(s) of a Steep Slope ESA is not connected to another ESA, likely due to distance, or otherwise threatens water quality, then the slope can be considered a Class B slope.

Steep Slopes Background

The definition of Steep Slope ESA may vary among local governments within the SSA Study Area. Consistent with most jurisdictions in the urban area, this SSA Plan recognizes that 12% (or 13%) up to 20% slopes can often be encroached upon without soil erosion or runoff with good management practices, **so this Plan does not consider slopes less than 20% to be an ESA.**

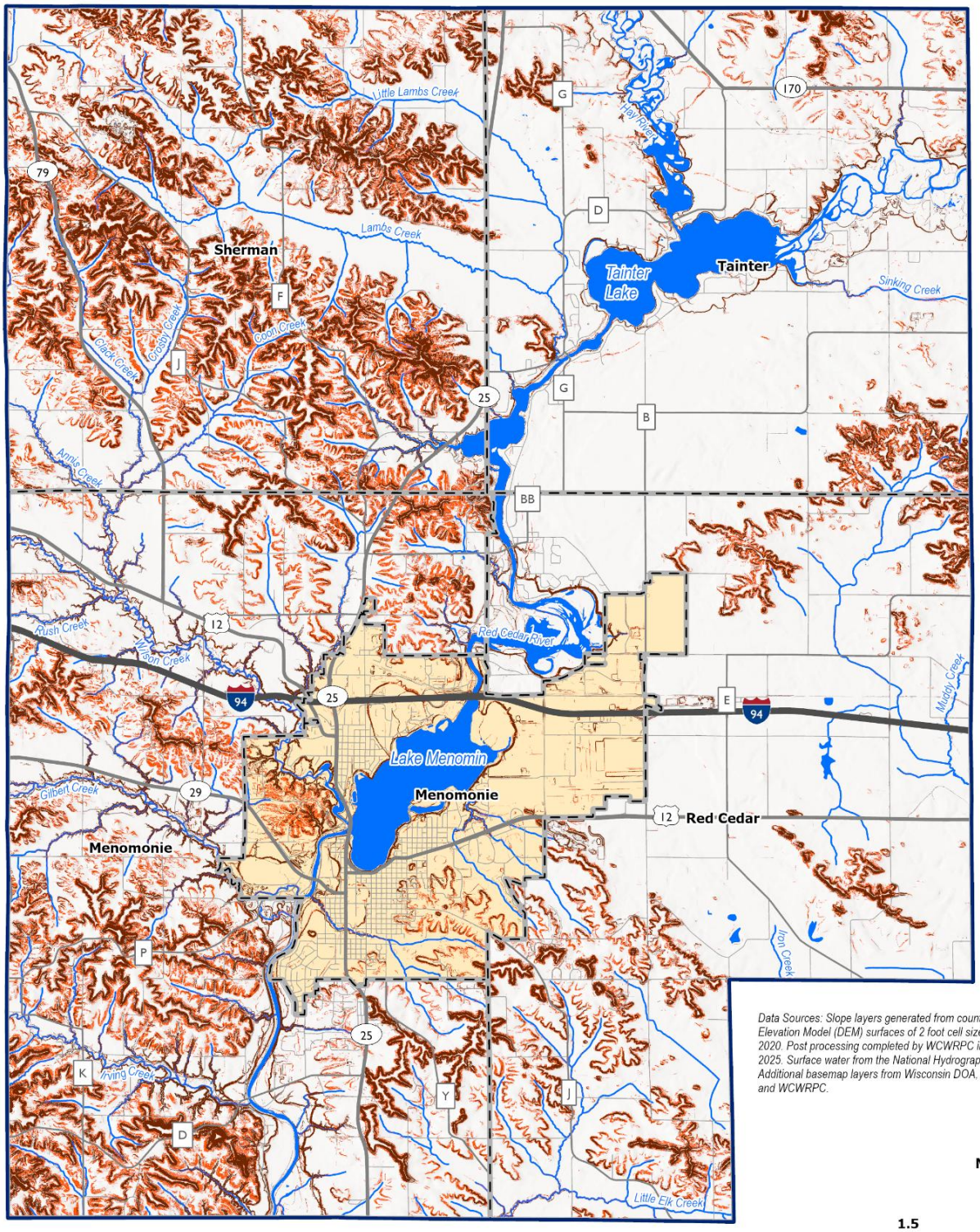
Mapping Steep Slopes. Map 3.16 shows locations of potential steep slope ESAs of 2,000 square foot or more in size within the Study Area. While this data is helpful for generally identifying areas where steep slope ESA may exist, it has a number of shortcomings requiring case-by-case consideration:

- The slopes are based on remote-sensing technology (LiDAR), which doesn't distinguish between natural and man-made slopes.
- There is no reliable way to consider the minimum 50' run criteria or to easily classify the slopes into Class A vs. Class B.
- Site-specific land surveys will have a higher level of accuracy.

For project-specific decisions, such as 208-conformance reviews, topographic/elevation maps prepared by a licensed engineer are preferred and will often be required, especially if steep slopes potentially exist within the project area.

Measuring the Slopes. Measurements are made from a point at the top of the slope in a straight line immediately downgrade and connected to a dot at the bottom (or toe) of the slope. Slope is defined as RISE divided by RUN. Slope is measured by the amount of elevation increase over a certain distance; slope is not equal to the degree of the angle. For instance, a 100% slope would be a 45-degree angle over the length of the run, since the rise and run would be equal (a 200-foot lot with a 200-foot elevation increase over its distance forms a 45-degree angle of the slope). Measurements shall be made at multiple points along the topographic feature, including the steepest grades.

MAP 3.16 Steep Slopes



Data Sources: Slope layers generated from county LiDAR Digital Elevation Model (DEM) surfaces of 2 foot cell size developed in 2020. Post processing completed by WCWRPC in December 2025. Surface water from the National Hydrography Dataset. Additional basemap layers from Wisconsin DOA, Wisconsin DOT, and WCWRPC.

March 2026

1.5 Miles

Legend

- Slopes 2000sf of 12% to 20%
- Slopes 2000sf of 20%+
- Surface Water
- Municipal Boundaries
- City of Menomonie
- SSA Study Area

WCWRPC
WEST CENTRAL WISCONSIN
REGIONAL PLANNING COMMISSION

Soil Conditions. Soil type and the erodibility of soils are not directly considered in this SSA Plan when reviewing proposed sewer extensions or amendments except for evaluating older manmade slopes as previously discussed. However, engineering studies, erosion control plans, stormwater management practices, and other actions are often required to protect surface waters from soil runoff when utility extensions and new development are proposed. It is the responsibility of the local unit of government and other regulating agencies to consider and ensure compliance with applicable rules. Obtaining such permits and approvals are typically secured prior to requesting a 208 Review.

12% up to 20% Slopes. Slopes equal to or greater than 12% up to 20% as measured above are considered steep slopes for which best management practices are required and enforced by the local regulating jurisdiction, but are not an ESA for purposes of this plan. See Policy 2.1.7 in Chapter 4. However, WDNR encourages local units of government to considered these 12% to 20% slopes as an ESA, especially if located in close proximity to a surface water. Should WDNR believe such slopes are not being adequately managed in the future, how these slopes are treated within this SSA Plan may be revisited.

Local jurisdictions within the Sewer Service Area are responsible for ensuring that plans and best practices are implemented to prevent erosion and runoff, including for all areas of 12% slope.

3.6 Additional Environmental Considerations

The following are additional environmental considerations that may potentially limit development or are environmental features that may benefit from protective measures or special consideration:

a. Shorelands
b. Groundwater Recharge & Wellhead Protection Areas
c. Other Significant Natural Resources

For purposes of this SSA Plan, the above additional environmental considerations are primarily defined, interpreted, considered, and protected by local or State regulating jurisdictions; they are not planned for or directly protected through this SSA Plan. The above environmental considerations are:

- not classified as ESAs under this SSA Plan due to: (i) they are adequately protected by ordinance, so it would be excessively duplicative to also review and consider them during SSA Plan administration or (ii) it is not possible to clearly delineate the extent of a constraint within the entire SSA,
- not excluded from the SSA boundary, but dedicated Natural Areas and public recreational lands are excluded from the developable SSA acreage when they are known and can be delineated,
- potentially considered when evaluating proposed plan amendments, but based on the interpretation and guidance of the regulating jurisdiction(s), and
- not considered when reviewing specific projects and sanitary sewer extensions to determine consistency with the SSA Plan (i.e., 208 Reviews), but project applicants or the local community should confirm that they are being considered during planning and permitting.

It is recognized that Dunn County and local governments within the SSA Study Area may have additional ESAs, environmental considerations, or areas to be protected (e.g., prime farmlands, natural areas, endangered species, historical/cultural resources). To the extent that the SSA Plan considers local comprehensive plans and known development plans, such features may be considered when establishing and amending the SSA boundary.

3.6.1 Shorelands

Lands which are: (a) within 1,000 feet of the ordinary high-water mark of navigable lakes, ponds or flowages; or (b) within 300 feet of the ordinary high water mark of navigable rivers or streams, or to the landward side of the floodplain, whichever distance is greater, excluding certain lands adjacent to farm drainage ditches as defined by NR 115.03, Wisconsin Administrative Code.

As required by Wis. Stats. Chapter 30 and NR 115, shoreland regulations are regulated and enforced by the counties and municipalities within the sewer service area:

- Wetlands within shoreland areas are regulated in the cities and villages.
- All shorelands are regulated by county zoning regulations in the unincorporated towns.

Shorelands Background

Shorelands are usually considered prime residential building areas because of their scenic beauty. However, shorelands also provide valuable habitat for both aquatic and terrestrial animals and vegetation, and act as buffers to protect water quality.

Wisconsin requires counties, cities, and villages to protect and prevent the loss and erosion of these valuable resources by adopting and enforcing a shoreland or shoreland-wetland zoning ordinance consistent with the standards found in Chapter NR 115 or NR 117 of State Administrative Code. Shoreland regulations govern lot size, setbacks of structures from waters, landscaping, siting of wastewater systems, and filling.

Shorelands are excluded as a separate ESA in the context of this SSA Plan since: (i) there may be existing development in shoreland areas on private septic systems for which a sanitary sewer connection is preferred in the future, (ii) shorelands are already closely regulated, but are treated differently within incorporated versus unincorporated areas under State law, and (iii) there are certain types of land disturbances specifically allowed under State law within shoreland areas that are best enforced by county and municipal staff rather than through this plan. The exclusion of shorelands as an ESA here does not diminish their importance as sensitive areas and the need to closely regulate shorelands for water quality protection.

WDNR will not approve a SSA Plan or other plan action that is inconsistent with local shoreland ordinances. In addition, when evaluating a plan or amendment, WDNR will consider potential adverse effects of shoreline development on water quality (e.g., erosion, filtering, recharge), fish and wildlife habitat, storm/flood water storage capacity, and nearby scientific study areas, refuges, or scarce wetlands.

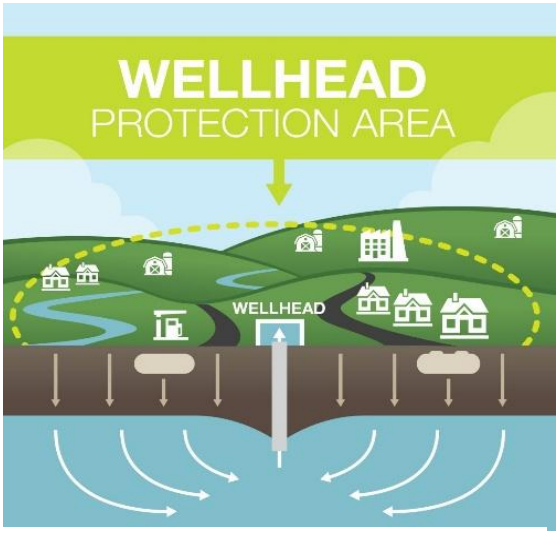
3.6.2 Groundwater Recharge & Wellhead Protection Areas

Groundwater recharge areas are places where precipitation infiltrates the ground and replenishes the water table. **Wellhead protection areas** are the surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such well or wellfield. **Groundwater protection areas** encompass both of the above and are source water protection areas for public water supplies.

Groundwater recharge maintains the quantity of water in an aquifer. The natural process of recharge can be altered by land use and development. Impervious surfaces that prevent precipitation from soaking into the ground, such as buildings and pavement, affect the rate of recharge and quantity of available groundwater.

This SSA Plan recognizes that:

- This is the only environmental consideration with a groundwater focus. Overall, SSA planning places a greater emphasis on the protection of surface water quality with less attention given to groundwater.
- Groundwater recharge areas are typically not included as an ESA in most SSA Plans since recharge occurs most anywhere that rain and snow melt enters the soil and reaches the water table. Further, groundwater protection regulations vary within the Study Area. The Town of Menomonie has adopted a Groundwater Recharge Protection Overlay District Ordinance that limits land use types and densities in certain areas. Wellhead protection ordinances, such as the one adopted by the City of Menomonie, typically allow some development as a condition use within wellhead areas.
- Recharge and protection areas for wells are recognized for their importance of protecting drinking water supply. Wellheads and well fields are protected by a mix of State law, local regulations, and local planning (e.g., well setback, wellhead protection planning/zoning).
- The regulation and protection of groundwater recharge and wellhead protection areas are the responsibility of State and local regulatory bodies. Local jurisdictions can have different rules regarding allowable development within wellhead/groundwater protection areas and some areas.
- Groundwater and wellhead protection areas may influence the SSA boundary, since municipal sanitary sewer provides a higher level of groundwater protection than private septic systems within such protection areas. Otherwise, this environmental concern is not considered during the administration (e.g., performing 208 reviews) of this SSA Plan.



source: City of Sacred Heart MN

Groundwater Recharge Areas Background

The state of groundwater within the Study Area is previously discussed in Chapter 3.2, including related programs and policies.

Wellhead protection planning is administered by the WDNR as required by the U.S. Environmental Protection Agency (EPA) and the 1986 amendments to the Federal Safe Drinking Water Act. Wellhead planning and protection is encouraged for all communities but is required when any new municipal well is proposed, as required by State administrative code for all new public water supply wells constructed after May 1, 1992. The City of Menomonie has created wellhead protection plans for their municipal wells and has adopted a wellhead protection ordinance (Title 10-Chapter 22). Dunn County has not adopted a wellhead protection ordinance. While such ordinances can vary, they are typically overlay zoning districts that regulate land uses within the 30-day and 5-year zones of contribution (recharge areas) for municipal water supplies as well as require certain separation or setback distances.

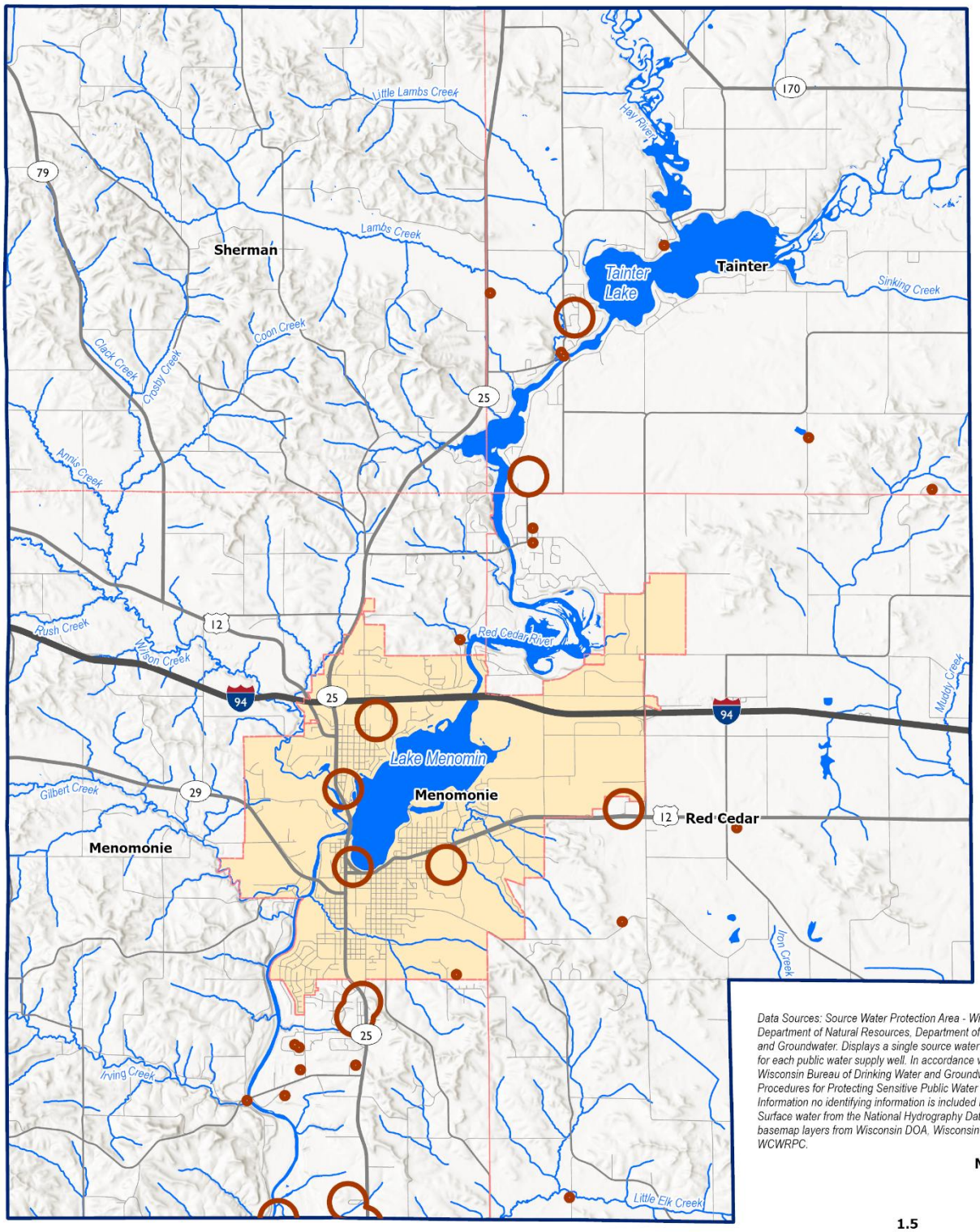
Under State rules, Groundwater (Source Water) Protection Areas exist for all public wells, which are shown in **Map 3.17** for the Study Area. These areas represent WDNR's determination of the best available estimate of the 5-year groundwater time-of-travel for areas contributing to the recharge of public wells. The extent of these protection areas vary by well type and size:

Municipal wells	Size will vary based on advanced delineation and study, else a minimum of 1,200-foot radius is used.
Other than Municipal system	1,200-foot fixed radius. A smaller community system serving a limited population, such as a mobile home park or subdivision.
Non-transient, non-community wells	1,200-foot fixed radius. Serves 25+ of the same people for 6+ months per year, such as schools and factories.
Transient non-community wells	200-foot fixed radius. Serves a transient public, such as a campground, gas station, or restaurant.

These public wells must meet certain siting, design, operation/maintenance, and reporting requirements under State code and separation distances from certain sources of contamination are enforced. However, as shown on the map, development exists and can occur within these protection areas. Additional State, county, and municipal rules regulate the installation and abandonment of private wells, including a variety of setbacks and additional rules for high-capacity wells.

Though development may be allowable within groundwater protection and recharge areas, the protection of the groundwater in these areas is of utmost concern to the local communities. In these areas, municipal wastewater connections might be preferred over private, on-site treatment systems for some uses. As such, these groundwater recharge areas are an environmental consideration but are not an environmentally sensitive areas for which sanitary sewer connections should be discouraged.

MAP 3.17 Groundwater Protection Areas



3.6.4 Other Significant Natural Resources

Other significant or unique natural resources or limiting environmental conditions, that if encroached upon could degrade surface or groundwater quality, may be considered during SSA planning or 208-reviews on a case-by-case basis. Such feature may include but are not limited to:

- *Springs, poorly drained areas, and areas of seasonally high groundwater within 1 foot of the surface.*
- *Areas of highly erodible soils located in or within 20 feet of another ESA.*
- *Areas of shallow bedrock within five feet of the surface.*
- *Closed depressions, natural sinkholes, or significant subsurface karst geology.*
- *Plants, animals, and natural communities that appear on the Wisconsin endangered and threatened species lists or in the Wisconsin Natural Heritage Inventory.*
- *Environmental corridors, if they are formally designated by local units of government in the future. Such corridors are linear, continuous feature on the landscape that is maintained with one or more of the following purposes: (1) provide high quality wildlife habitat and/or the movement of wildlife; (2) offer linked recreational opportunities, (3) provide greenspace and open space; and (4) protect water quality, sensitive lands, and other areas that require protection from disturbances and development.*

Our natural environment and water resources are diverse and complex. Often, accurate data is lacking or not accessible on the above, making it very difficult to consider.

On a case-by-case basis, the SSA Plan administrator, the Menomonie Area Water Quality Advisory Committee, and/or Wisconsin Department of Natural Resources may identify other significant or unique natural resources as an environmental consideration. When a sanitary sewer extension (208-conformance review) or plan amendment proposal is received, additional study or delineation may be required to determine if a proposed intensive land disturbance of a natural resource will impact water quality and if additional consideration or protection is warranted.

CHAPTER 4 – GROWTH & DEVELOPMENT TRENDS

4.1 SOCIO-ECONOMIC CHARACTERISTICS & TRENDS

Located along the I-94 corridor, roughly 60 miles east of the Minneapolis-St. Paul urban area and 30 miles west of Eau Claire, the Menomonie area is in an advantageous position as an agricultural and manufacturing hub between two growing metropolitan centers. The City of Menomonie is the largest community within the study area with an estimated 2025 population of 16,971. It is also the county seat for Dunn County. Much of this chapter focuses on growth and projections for the City of Menomonie as it is expected all city growth will be sewered and a primary driver of the SSA boundary.

4.1.1 Population & Household Trends

Population Growth

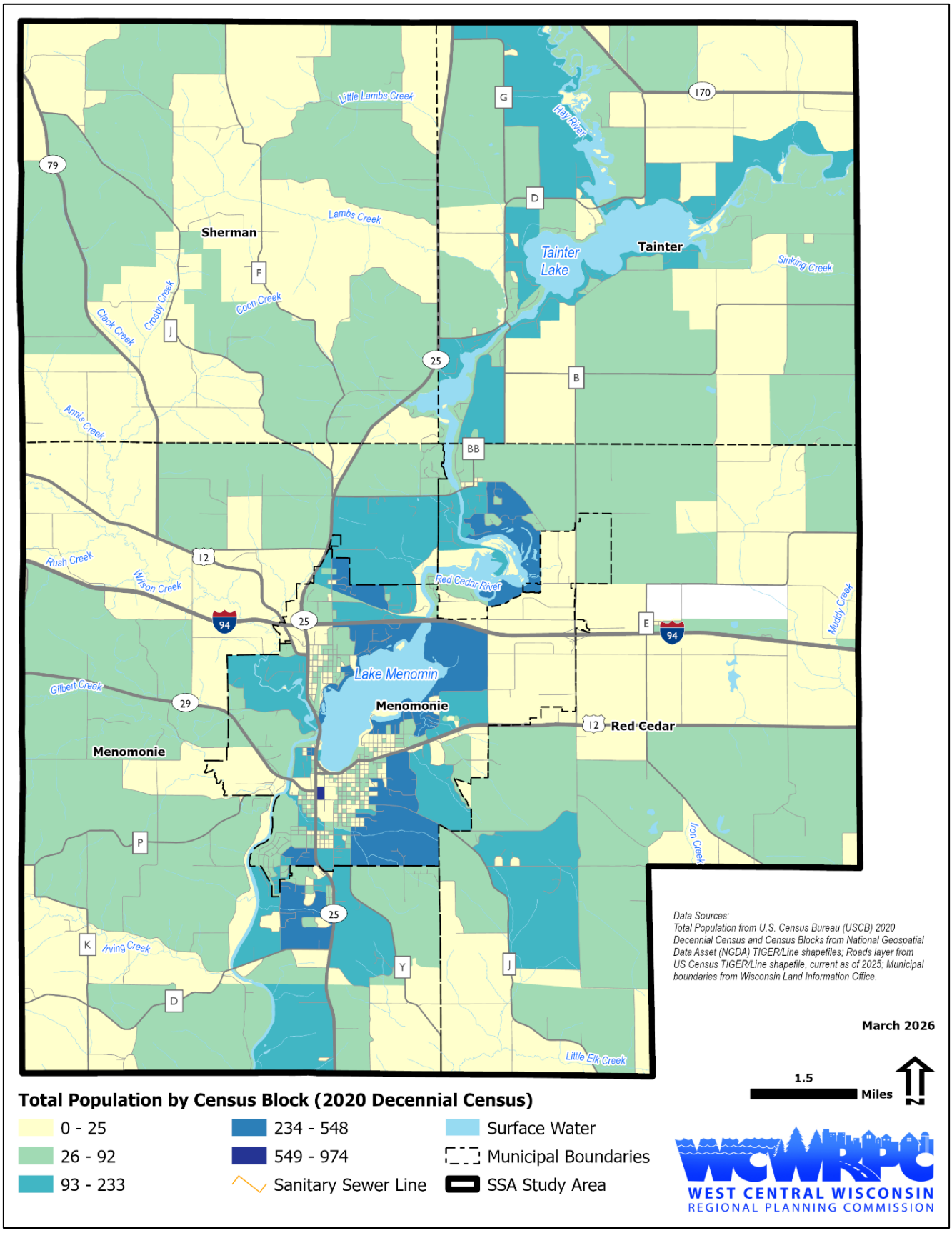
Map 4.1 shows the population counts for census blocks within the planning area. The map does not take into account densities of population, which are shown later in **Section 4.2.1**.

According to the 2000 Census, the population of the study area totaled 22,648. That total increased by 15.6% to 26,182 by the 2020 Census, and the Wisconsin Department of Administration (WDOA) estimates the population grew another 1.7% to 26,615 by 2025. **Table 4.1** shows the change in population over the last three censuses.

Table 4.1 Population by Community, 2000-2025

	Census Totals				DOA Estimate	
Place	**2000**	**2010**	**2020**	**2010-2020**	**2025**	**2020-2025**
T Menomonie	3,174	3,366	3,415	+49	3,503	+54
T Red Cedar	1,673	2,086	2,359	+273	2,465	+20
T Sherman	748	849	922	+73	988	+10
T Tainter	2,116	2,319	2,643	+324	2,688	+21
C Menomonie	14,937	16,264	16,843	+579	16,971	+380
Total	**22,648**	**24,884**	**26,182**	**+1,298**	**26,615**	**+485**

Map 4.1 2020 Population by Census Block



Population growth rate

Using a combination of decennial Census results and DOA estimates, the annual growth rate for all Study Area communities has averaged 1.13%. Unincorporated communities have grown at a faster rate, averaging 1.26% annually compared to 1.07% for the City of Menomonie. Generally, the growth rate has ranged between +/- 2%, with outliers occurring during census years when actual counts were completed and estimates re-aligned with the updated information. Growth rates have been more volatile since 2020. This volatility can be attributed, in part, to remote work policies since the COVID pandemic and subsequent redistribution of the population given greater freedom of choice on where to live. During the last 25 years, average annual growth was highest in 2022 (+5.41%) and lowest in 2021 (-5.52%).

Housing units

The Wisconsin Department of Administration provides annual estimates of housing unit development, but the smallest unit of government included is counties. As shown in **Table 4.2**, housing development in Dunn County has outpaced the State average since 2020. Over the last four years, the County has built an average of 148 homes per year. **Map 4.2** shows the housing unit counts for 2020 census blocks in the study area.

Table 4.2 WDOA Housing Units Estimates, 2020-2024

Place	4/1/2020 Census	4/1/2021 Estimate	4/1/2022 Estimate	4/1/2023 Estimate	4/1/2024 Estimate	# Change ('20-'24)	% Change ('20-'24)
Dunn County	18,693	18,811	18,916	19,050	19,434	741	4.0%
Wisconsin	2,727,726	2,749,878	2,776,637	2,801,113	2,824,401	96,675	3.5%

source: Wisconsin Department of Administration & 2020 Census

Figure 4.1 shows that net new construction for the City of Menomonie has been increasing. While there have been some older residential units lost, most of these units were located within older, sewered neighborhoods. **Table 4.3** shows that the City experienced an increase of **75.5 housing units per year** between 2021-2024. No large-scale infill or redevelopment projects were part of this growth. All 3+ unit development occurred as part of two development projects on the City's far east side in 2023. All new mobile homes were installed on the City's far north side.

While these trends raise questions about the accuracy of the WDOA projections, there is a very important factor in the demand for housing units—the extremely tight local housing market. The 2019-2023 5-year estimates from the U.S. Census American Community Survey (ACS) show that the City of Menomonie had a 0.0% vacancy rate for owner-occupied housing and 3.8% for renter-occupied housing. A healthy housing market should have vacancy rates in the ranges of 2-2.5% for owner and 5-7% for rental housing. Vacancy rates for the greater area are not much better—Dunn County had vacancy rates of 0.2% and 3.9% for owner-occupied and renter-occupied housing, respectively. The construction of new housing units within the City is not only addressing an increased demand among the increasing, less-transient non-student population[5], but is likely also attempting to "catch up" to add more flexibility and choices within a very tight housing market.

[5] Analysis of the student population is discussed later in this chapter.

Map 4.2 2020 Housing Units by Census Block

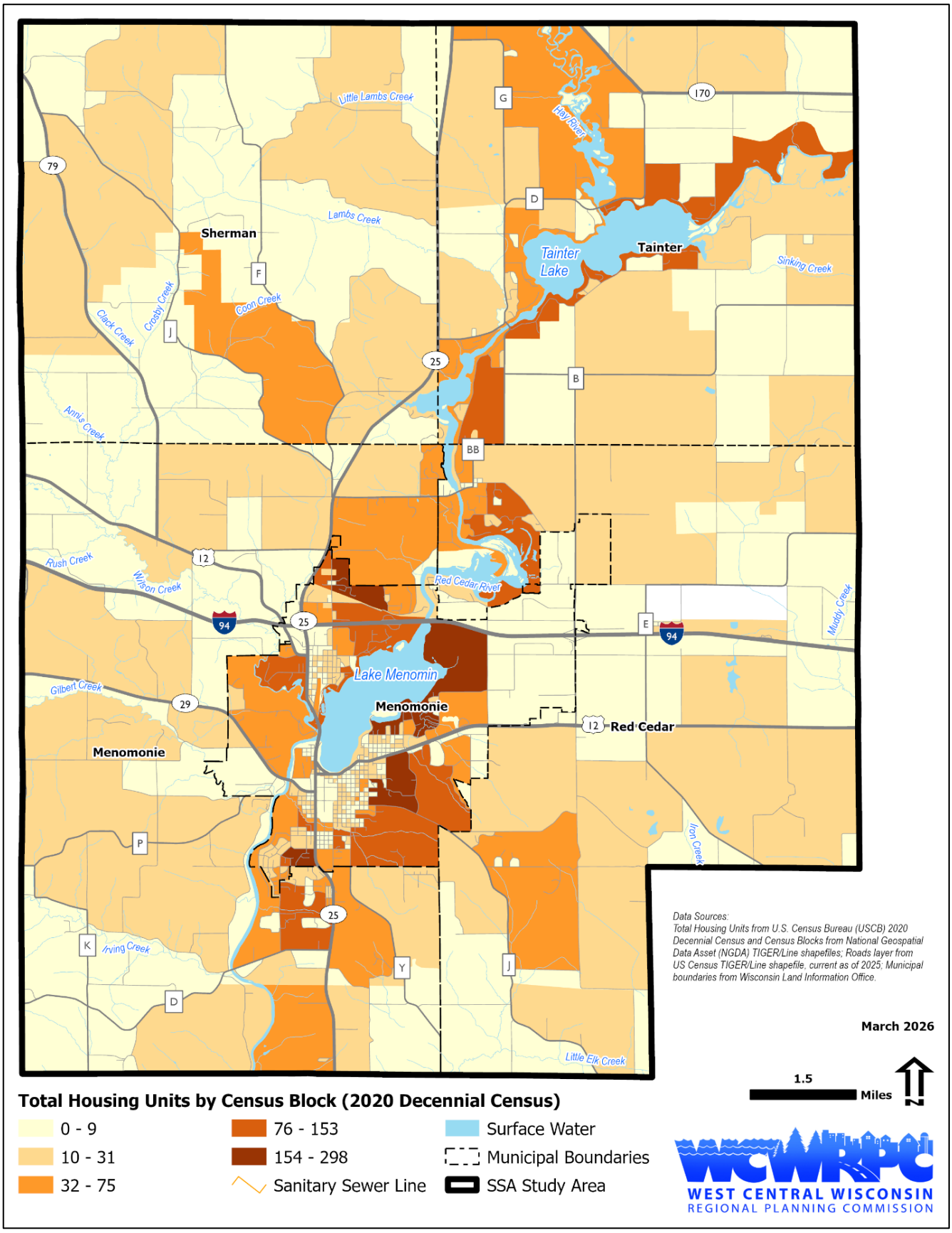


Figure 4.1 City of Menomonie Net New Construction by Property Class, 2011-2025



Table 4.3 City of Menomonie Change in Residential Units, 2021-2024

Year	Single Family	Two Family	Three or More Unit	Mobile Home	Total Housing Units
2021	11	2	0	9	22
2022	17	4	0	8	29
2023	17	0	191	7	215
2024	21	2	0	13	36
Total 2021-2024 by Type	**66**	**8**	**191**	**37**	**302**

Housing unit types and residential development splits

Table 4.4 shows the units by structure type according to the 2023 5-Year ACS estimate. The City of Menomonie is more evenly split between single-family / duplex development (51.61%) and multi-family development (43.89%). The towns feature predominantly single-family /duplex development (90.88%) over multi-family (1.11%). Development along the fringes of the City of Menomonie are mixed but feature a composition closer to town development patterns.

In discussion with community representatives, it was determined that a split of 75% single-family and 25% multi-family would be appropriate for projecting the unit types to be built during the 20-year planning period within new sewered growth areas along the City's periphery.

Table 4.4 2023 Residential Structures by Type

	1-Unit, Detached		1-Unit, Attached		2 Units		3+ Units (Multi-Family)		Mobile Home		Total
Place	#	% (of Total Units)	#	%	#	%	#	%	#	%	#
Town of Menomonie	1,086	86.26%	8	0.64%	0	0.00%	0	0.00%	165	13.11%	1,259
Town of Red Cedar	696	87.88%	48	6.06%	26	3.28%	6	0.76%	16	2.02%	792
Town of Sherman	351	87.53%	17	4.24%	15	3.74%	0	0.00%	18	4.49%	401
Town of Tainter	989	78.80%	78	6.22%	55	4.38%	35	2.79%	98	7.81%	1,255
City of Menomonie	2,680	40.82%	325	4.95%	384	5.85%	2,882	43.89%	295	4.49%	6,566
Unincorporated Towns	3,122	84.22%	151	4.07%	96	2.59%	41	1.11%	297	8.01%	3,707
Study Area Communities	5,802	56.48%	476	4.63%	480	4.67%	2,923	28.45%	592	5.76%	10,273

source: 2019-2023 ACS, B25024

Population per household

Table 4.5 shows that average household size has decreased since 2000 for the Study Area. In 2010, communities within the Study Area had an average household size of 2.38 persons (using a weighted average based on number of households). The average dropped slightly to 2.34 persons per household in 2020. Unincorporated communities have had a higher average of roughly 2.59 persons in 2020, increasing slightly to 2.62 in 2023 according to 5-Year ACS estimates. The City of Menomonie decreased from 2.20 persons per household in 2020 to 2.18 in 2023. Decreasing household size can support demand for additional housing units, even when the total population remains stable or declines.

Table 4.5 Average Housing Size, 2000-2023

Place	2000	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Town of Menomonie	2.81	2.67	2.75	2.77	2.97	2.8	2.64	2.65	2.61	2.42	2.45	2.66	2.65	2.88	2.79
Town of Red Cedar	2.82	2.75	2.71	2.66	2.59	2.53	2.48	2.48	2.55	2.71	2.76	2.73	2.61	2.6	2.55
Town of Sherman	2.75	2.52	2.55	2.6	2.51	2.46	2.52	2.57	2.47	2.43	2.38	2.59	2.29	2.22	2.29
Town of Tainter	2.5	2.36	2.53	2.52	2.53	2.63	2.5	2.53	2.41	2.39	2.24	2.39	2.59	2.63	2.58
City of Menomonie	2.35	2.26	2.29	2.28	2.3	2.28	2.3	2.3	2.22	2.22	2.24	2.20	2.15	2.15	2.18
Weighted Averages (by number of households)															
Unincorporated Towns	2.71	2.58	2.66	2.65	2.69	2.65	2.55	2.57	2.52	2.48	2.45	2.59	2.59	2.67	2.62
Study Area Communities	2.48	2.38	2.43	2.42	2.45	2.42	2.40	2.40	2.34	2.32	2.32	2.34	2.31	2.33	2.34

source: U.S. Census

4.1.2 Population & Household Characteristics

Median Age

Table 4.6 shows the median ages of residents in the communities in the Study Area. The median age is that age at which there are the same number of people in the population with ages above it

and below it. Over the past decade, the median age has been steadily increasing in all Study Area communities, though the Study Area communities and Dunn County are still younger than the State median. Higher median ages reflect longer life expectancy and decreasing birth rates, but also influences other social factors such as average household size. It is also worth noting that the student population of UW-Stout has kept the median age for the City of Menomonie and Dunn County low.

Table 4.6 Median Age – 2010-2020

Place	2010	2020	Change
Town of Menomonie	40.9	43.2	+2.3
Town of Red Cedar	39.5	41.0	+1.5
Town of Sherman	45.2	46.3	+1.1
Town of Tainter	46.2	46.6	+0.4
City of Menomonie	23.4	25.1	+1.7
Dunn County	33.5	35.8	+2.3
State of Wisconsin	38.5	40.1	+1.6
Weighted Averages by Population			
Unincorporated Towns	42.5	43.9	+1.4
All Study Area Communities	29.9	31.6	+1.7

source: U.S. Census

Births, Deaths, and Migration

To provide further insight into local demographic trends, **Table 4.7** shows the fertility and death rates for Dunn County for 2010, 2020, and 2023. Birth and fertility rates in the area continue to decline, while the death rates have increased.

These trends become even more apparent in **Figure 4.2**. The chart shows a relatively steady, albeit slow, decrease in the number of births during the 2010s in Dunn County. The County's births are still exceeding the number of deaths, but the margin has been reduced significantly (from 162 in 2013 to 23 in 2023). It is likely that the number of births will continue to decline while the number of deaths continues to increase, given the increase in median ages across the County and existing fertility and mortality trends.

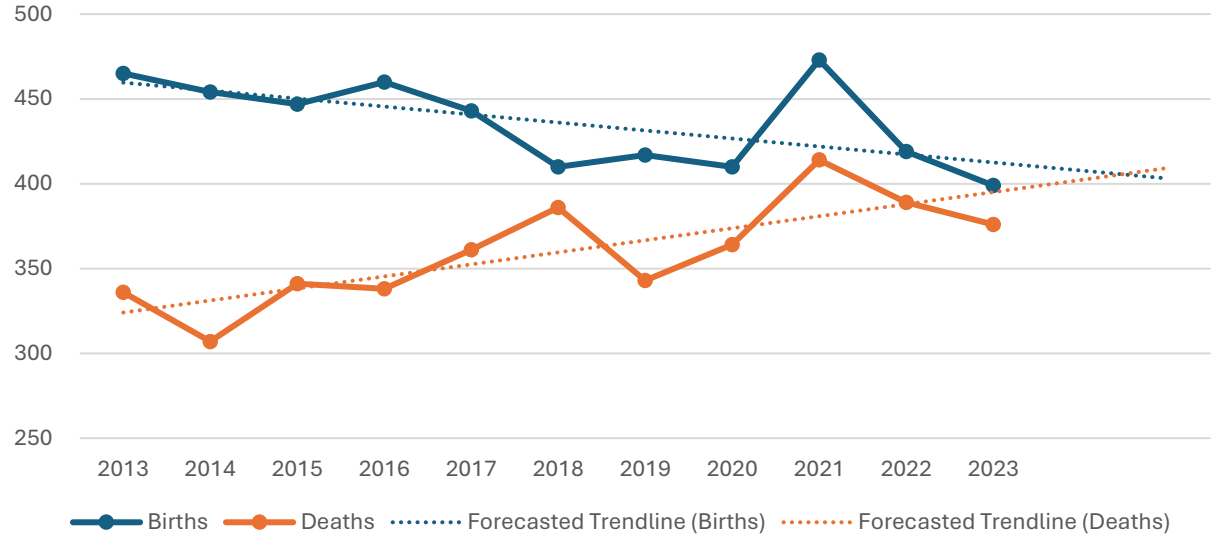
Table 4.7 Fertility and Deaths, 2010-2023

Dunn County	2010	2020	2023	Change ('10-'23)
number of births	468	410	399	-14.7%
fertility rate (births per 1,000 women ages 15-44)	48.0	41.0	40.0	-16.7%
number of deaths	305	364	376	23.3%
death rate (deaths per 100,000 population)	695.0	801.0	821.1	18.1%

source: Wisconsin Department of Health Services

The fertility rate on a national level continues to decline due to a number of factors including concern over a growing population and its demand on natural resources, the general state of the economy, married couples in which both partners work outside of the home, those same married couples having fewer or even no children, a smaller percentage of marriages, and increased divorce rates. Dunn County appears to be following this trend as well.

Figure 4.2 Dunn County Births and Deaths 2013-2023



source: Wisconsin Department of Health Services

To estimate in-migration, the following formula is used:

Beginning of decennial population + Births – Deaths = Expect population from Natural Increase

Actual end of decennial population – Expected end of decennial population = Net In-Migration

Table 4.8 shows in-migration constitutes 45% of population growth in Dunn County. In-migration is a significant component of the area's population increase and will likely remain so.

Table 4.8 Dunn County Net Migration – 2000-2020

	2000 Pop.	Expected 2020 Pop. from Natural Increase	Actual 2020 Pop.	Net Migration
Dunn County	39,858	42,967	45,440	+2,519

sources: U.S. Census; Wisconsin Department of Health Services

It is important to remember that the Study Area represents roughly 58% of the population in Dunn County, so countywide birth, death, and migration trends are also influenced by communities outside the Study Area. Such data is not readily available at the municipal level for most communities.

4.1.3 Population & Household Projections

NR 121 requires that the SSA Plan include population forecasts for 20 years in 5-year increments consistent with the forecasts or forecast methodology developed by the Wisconsin Department of Administration.

Table 4.9 provides insight into the population trends for the study area as provided by the U.S. Census (2010 & 2020) and the Wisconsin Department of Administration (2025-2050).[6] As a whole, the Study Area increased in total population by 6.96% between 2010 to 2025. However, the projections suggest that the area will experience a 10.6% population decrease between 2025 and 2050, with most of this loss occurring in the City of Menomonie.

Table 4.9 Population Growth and Projections

Community	Census		WDOA Est.	2024 WDOA Population Projections					
	2010	2020	2025	2025	2030	2035	2040	2045	Change ('25-'45)
Town of Menomonie	3,174	3,415	3,503	3,415	3,415	3,370	3,324	3,246	-7.3%
Town of Red Cedar	1,673	2,359	2,465	2,471	2,582	2,655	2,727	2,764	12.1%
Town of Sherman	748	922	988	985	1,047	1,094	1,140	1,170	18.4%
Town of Tainter	2,116	2,643	2,688	2,709	2,774	2,800	2,826	2,819	4.9%
City of Menomonie	14,937	16,843	16,971	16,516	16,189	15,657	15,125	14,468	-14.7%
Unincorporated Towns	7,711	9,339	9,644	9,580	9,818	9,919	10,017	9,999	3.7%
All Study Area Communities	22,648	26,182	26,615	26,096	26,007	25,576	25,142	24,467	-8.1%

source: U.S. Census Bureau, Wisconsin Department of Administration

The City of Menomonie strongly believes that the above WDOA projections for the City are inaccurate, especially given that the City has been experiencing residential growth. Based on the above, the City grew by 128 residents between 2020-2025 (+26 residents/year), instead of decreasing towards the lower 2030 projection. Two concerns in particular were identified during the planning process:

1. A short-term decrease in the UW-Stout student population was captured in the 2020 Census count, and;
2. The City of Menomonie had inaccurately reported housing units to the Department of Administration, resulting in an undercount of housing units and artificially low housing growth rates.

[6] The Wisconsin Department of Administration (WDOA) prepares the official population estimates and projections for the State of Wisconsin. The latest projections released in December 2024 for the years 2030, 2040, and 2050; the projections for 2035 and 2045 in the table were included by WCWRPC as the 5-year average change between WDOA's projection years.

Student Population Volatility

The 2020 Census population and decreasing WDOA projections for the City were likely strongly influenced by the student population at the University of Wisconsin-Stout. The full-time enrollment counts in the **Table 4.10** shows a substantial decrease in recent years that preceded the 2020 Census and undoubtedly influenced the projections.[7]

Table 4.10 UW-Stout Full-Time Enrollment Trends

School Year	Full-Time Students	Change in Full-Time Students
2010-2011	7,279	
2017-2018	7,525	+246
2020-2021	6,419	-1,106
2024-2025	5,653	-766

While WDOA estimates that the City gained 128 residents between 2020-2025, the City likely lost a very large number of student residents during the same time period; **growth in the City's non-student population is significantly outpacing any losses in the student population.** And for sewer service area planning, changes in student population are relatively less important since **students are not driving new residential development in the growth areas of the study area.** Looking forward, preliminary numbers for the 2025-2026 school year suggest that UW-Stout's enrollment has experienced a significant rebound, returning to pre-2020 numbers.

City of Menomonie Housing Unit Reporting

Table 4.3 shows the recent net change in housing units within the City of Menomonie as reported to the State of Wisconsin. Such data is considered by Wisconsin DOA during the creation of their official population projections. During the planning process, it was learned that the City had previously submitted housing unit change data incorrectly for some years prior to 2021—data had been based on changes in structures and not by housing unit. This error significantly understated the City's housing growth (e.g., an apartment building was reported as 1 new structure and not for the multiple housing units it contained). The City feels that this also influenced the WDOA projections.

Though local units of government and WCWRPC have expressed concerns with the accuracy of the forecasts, Wisconsin Department of Administration stands by the official State population projections at this time and no revisions are expected prior to after the next decennial census in 2030.

Historically, WDOA's population projections have included projections for households. The 2024 WDOA projections did not provide data for households.[8] The most recent household projections are from WDOA's 2013 projections, which indicated continued growth in households. After

[7] The Census reports students by the place in which they live most of the year, which would be Menomonie for the majority of full-time students. It is also notable that these trends preceded the COVID-19 pandemic in 2020 and continued through at least 2024, so the change in student population cannot be attributed to the pandemic alone.

[8] WDOA released household projections in early 2026. Since this SSA Plan update was nearly complete, they have not been integrated, but should be considered for future Plan updates.

consideration of the concerns with the 2024 WDOA population projections, it was decided that no urban, sewered growth could be forecasted based on population trends. However, it is still important to recognize that sewered residential growth has been occurring within the City of Menomonie and is expected to continue. Effective, reliable planning must reflect what is occurring on the ground. **It is anticipated that housing growth will continue at current rates (+75 units per year) through 2045.**

4.1.4 Employment & Commuting Trends

The Wisconsin Department of Workforce Development estimates that Dunn County added 1,316 jobs between 2020 and 2025. Manufacturing and Health Care and Social Assistance provide the most jobs of all industry clusters, the Retail Trade and Accommodations and Food industry clusters added the most jobs, and the highest growth rates were in smaller industry clusters including Mining, Quarrying, and Oil and Gas Extraction, as well as Arts, Entertainment, and Recreation. **Table 4.11** provides a breakdown of employment by industry in Dunn County.

Table 4.11 Industry Employment 2020-2025, Dunn County

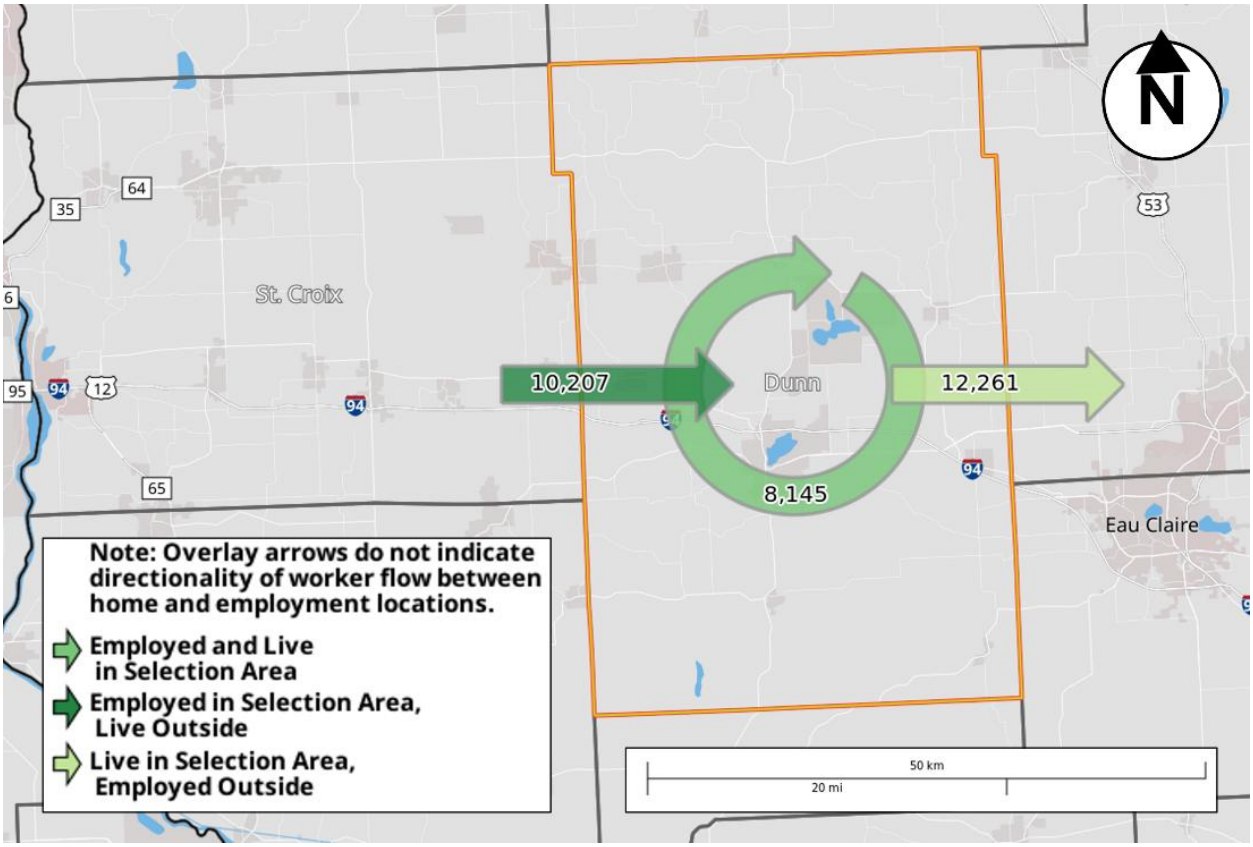
NAICS	Description	2020 Jobs	2025 Jobs	2020 - 2025 Change	2020 - 2025 % Change
44	Retail Trade	2,048	2,315	267	13%
72	Accommodation and Food Services	1,220	1,422	203	17%
42	Wholesale Trade	707	844	136	19%
90	Government	3,330	3,451	121	4%
23	Construction	1,011	1,124	114	11%
71	Arts, Entertainment, and Recreation	130	237	106	81%
56	Administrative and Support and Waste Management and Remediation Services	348	445	97	28%
31	Manufacturing	3,413	3,495	82	2%
11	Agriculture, Forestry, Fishing and Hunting	828	901	73	9%
54	Professional, Scientific, and Technical Services	388	454	66	17%
52	Finance and Insurance	443	476	33	7%
21	Mining, Quarrying, and Oil and Gas Extraction	12	42	31	263%
53	Real Estate and Rental and Leasing	136	151	14	10%
48	Transportation and Warehousing	2,098	2,110	12	1%
61	Educational Services	27	39	12	45%
22	Utilities	51	57	6	12%
51	Information	49	50	1	1%
99	Unclassified Industry	0	0	0	0%
55	Management of Companies and Enterprises	51	47	(5)	(9%)
81	Other Services (except Public Administration)	582	565	(17)	(3%)
62	Health Care and Social Assistance	2,434	2,398	(36)	(1%)
TOTAL		**19,306**	**20,621**	**1,316**	**7%**

source: Lightcast Q1 2026 Data Set, Wisconsin Department of Workforce Development

Figure 4.3 shows the commuter trends within Dunn County. According to 2023 data, 56% of workers in Dunn County commute in from other counties. Dunn County residents primarily work outside of the county, with 60% commuting to other counties for employment. Having less than

50% of Dunn County's residents working within the county supports the idea that Dunn County operates in a supporting role to nearby metropolitan areas

Figure 4.3 2023 Inflow / Outflow Job Counts for Dunn County



Source: U.S. Census Bureau

4.2 GROWTH CHARACTERISTICS

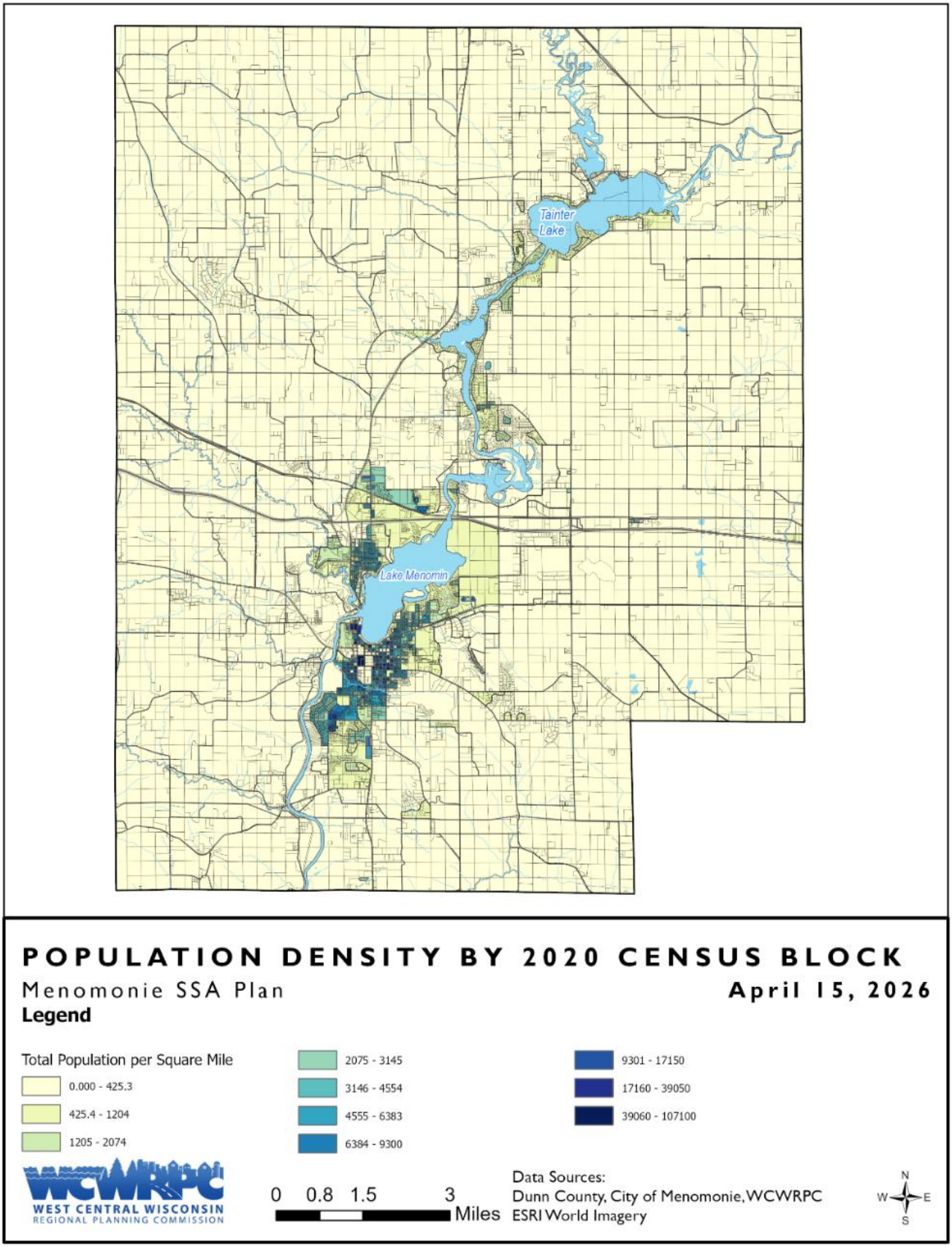
This section summarizes the population and land use trends within the Study Area.

4.2.1 Study Area Population Distribution

Map 4.3 shows population densities are concentrated within the City of Menomonie and the Red Cedar River between the City of Menomonie and Tainter Lake. There is notable density just south of the City of Menomonie, this area includes a mobile home park and several established subdivisions. This area was discussed for a potential Sanitary District during the planning process.

The highest densities within the City of Menomonie are near downtown and the UW-Stout Campus. Additional concentrations at lower densities can be found on the northwest side of Lake Menomin and the north end of the City.

Map 4.3 Distribution of Population by Census Block



4.2.2 Study Area Land Use Trends & Patterns

Development of land is occurring across the Study Area. **Table 4.12** shows the total acreage of land classified as residential, commercial, or industrial increased by 2,197 acres between 2019 and 2024, or 21.33%. Residential development is the primary activity in the unincorporated towns, while commercial / industrial development is occurring primarily within the City of Menomonie. It is important to note that commercial and industrial uses can be assigned interchangeably, so this plan consolidates commercial and industrial assessments for projections as non-residential development. The total acreage of non-residential development within the City of Menomonie increased by 585 acres or 43% over the 5-year period.

Table 4.12 Assessment by Land Classification, 2019-2024

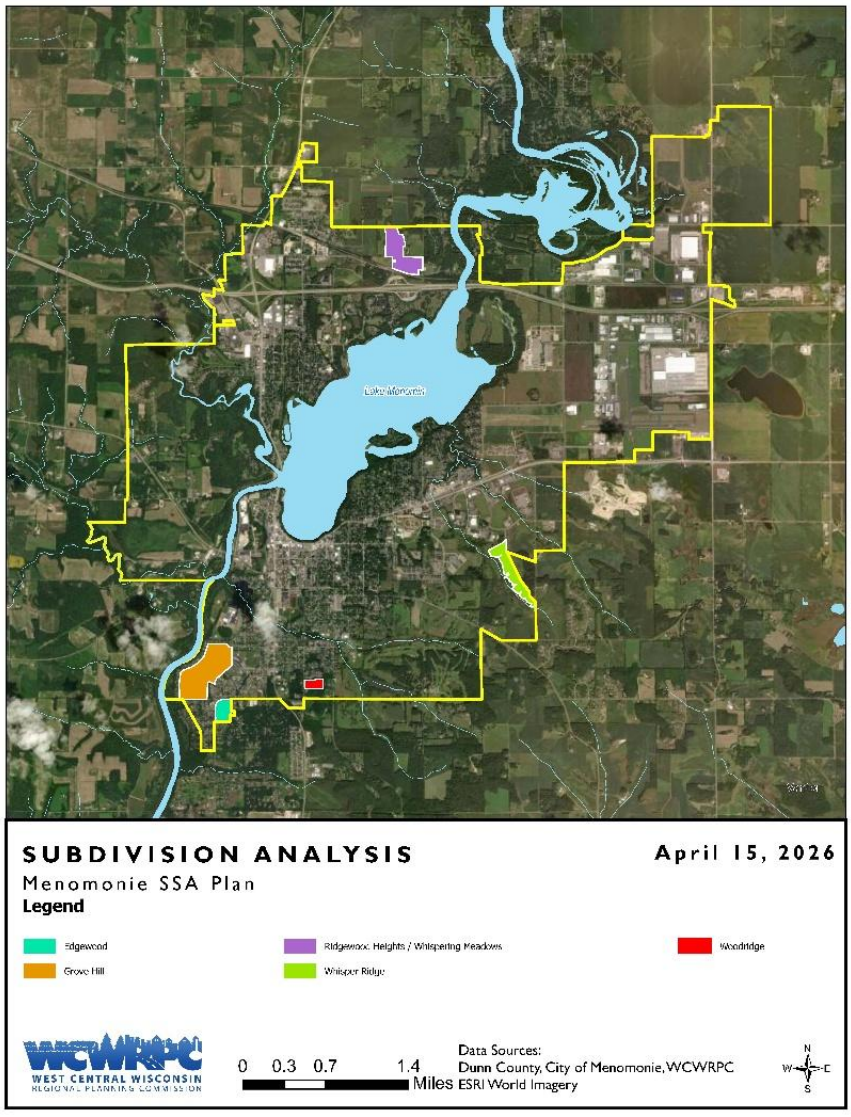
	Acres		
	Residential	Commercial	Industrial
Town of Menomonie			
2019	3,153	365	-
2024	3,215	407	-
Town of Red Cedar			
2019	1,577	197	223
2024	1,848	171	223
Town of Sherman			
2019	851	10	-
2024	1,126	14	-
Town of Tainter			
2019	1,675	245	-
2024	1,754	168	-
City of Menomonie			
2019	639	913	450
2024	1,621	1,508	440
Unincorporated Towns			
2019	7,256	817	223
2024	7,943	760	223
All Study Area Communities			
2019	7,895	1,730	673
2024	9,564	2,268	663

Current residential development patterns were analyzed for infrastructure demands and unit sizes deemed appropriate by the market. **Table 4.13** provides the name of the subdivision, the total acreage, the amount and percentage of acreage used for infrastructure (roads, outlots), the "developed" acreage and density in terms of acres per unit. **Map 4.4** provides the locations of the subdivisions.

Table 4.13 City of Menomonie Density of Subdivision Developments

Subdivision	Total Acreage	Infrastructure	% Infrastructure	Acres	Units	Density (acres / unit)	Zoning	Max Density (Per Zoning)
1 - Edgewood	13.24	3.67	27.7%	9.57	90	0.11	R-3 (4-unit)	0.32
2 - Grove Hill	79.97	13.3	16.6%	66.67	173	0.39	R-1	0.23
3 - Ridgewood Heights / Whispering Meadows	43.89	11.11	25.3%	32.78	172	0.19	R-2 / R-3 / PUD	0.23 - 0.51
4 - Shorewood Heights	39.07	5.81	14.9%	33.26	70	0.48	R-1	0.23
5 - Whisper Ridge	32.97	5.72	17.3%	27.25	127	0.21	R-1 / R-2 / R-3 / R-4	NA due to R-4 zoning having a per unit allocation
6 - Woodridge	7.63	1.23	16.1%	6.4	17	0.38	R-1	0.23
				Does not include roads and outlots				

Map 4.4
City of Menomonie
Example Subdivisions



NR121.05(g)2.b. requires the establishment of municipally approved population density standards. The example subdivisions provide a range of unit densities (excluding infrastructure and outlots) of 0.11 acres per unit to 0.48 acres per unit. **For this SSA Plan, the following are the locally-approved average residential population densities:**

- **0.4 acres per unit for single-family and duplex structures, and;**
- **0.2 acres per unit for 3+ unit structures.**

Commercial and industrial acreage was reviewed using annual assessments. **Table 4.14** shows the acreage assessed as Commercial and Industrial for 2014 and 2024. The acreage for both categories has increased over the 10-year period.

Table 4.14 2014 & 2024 Assessed Acreages, City of Menomonie

	Improved Acres			
	2014	**2024**	**2014-2024**	
Commercial	1,243	1,390	147	11.8%
Industrial	363	371	8	2.2%
Total	1,606	1,761	155	9.7%
		Commercial 5-year average		5.9%
		Industrial 5-year average		1.1%

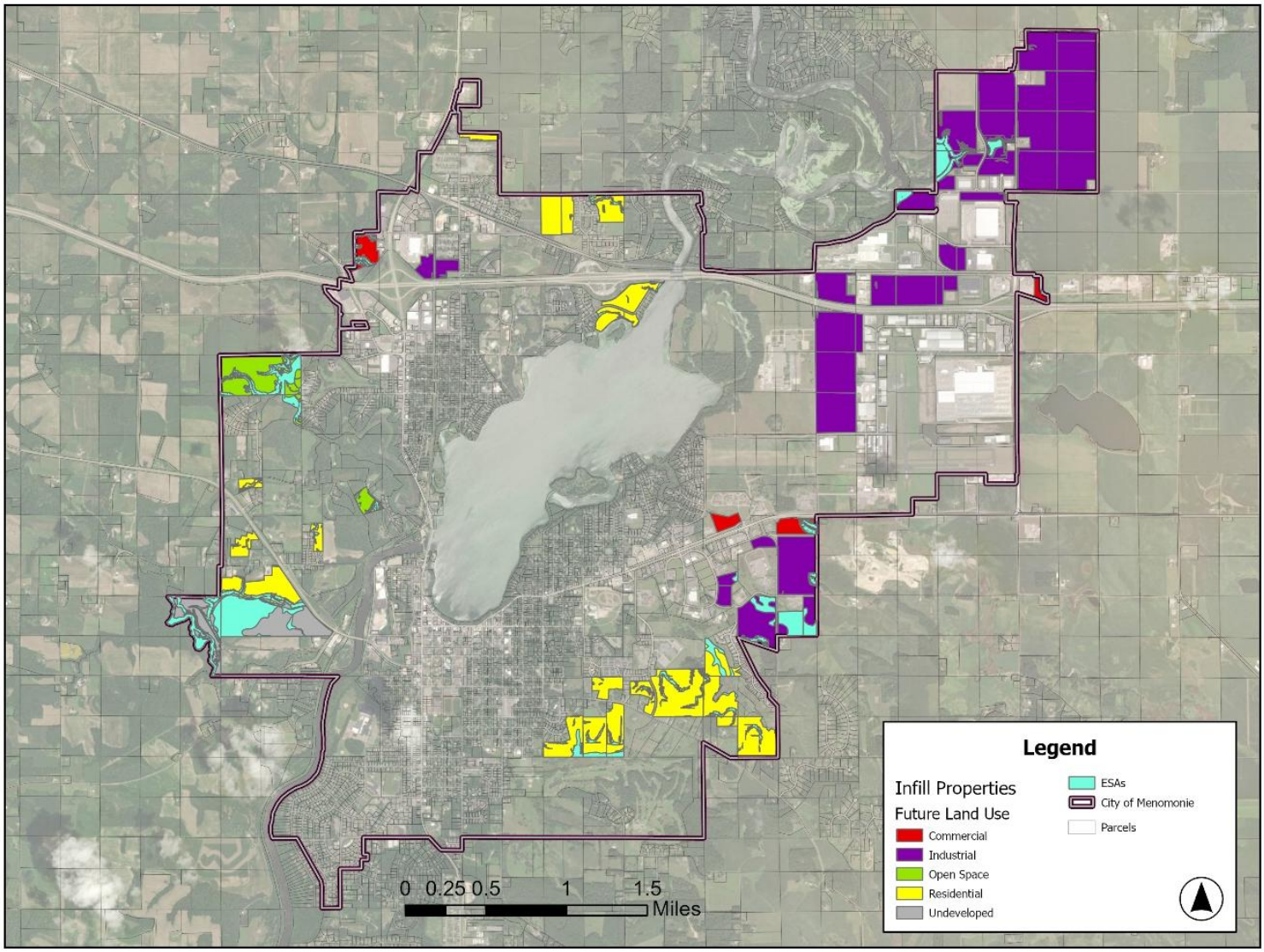
source: 2014 & 2024 Statement of Assessment, Wisconsin Department of Revenue

It is worth noting that the assessment of a property as either commercial or industrial can be subjective; warehousing is often cited as a business activity that can be assigned to either assessment category

4.2.3 Redevelopment & Infill Opportunities

Map 4.5 shows the pockets of remaining development opportunities (or "infill" opportunities) within the City of Menomonie categorized by their preferred future land use. These parcels met two factors: they were greater than 5 acres, and they have less than $10,000 of assessed improvement value. There are some limitations to development for some of these parcels. The Menomonie Municipal Airport east of Lake Menomin imposes some height restrictions on nearby parcels. ESAs along the City's west and southeast pose some challenges to fully developing lots within the City's limits.

Map 4.5 <u>Potential</u> Developable Lands within City



This analysis identified 1,541 acres of potentially developable land within the City's limits. After removing identified ESAs, the developable acreage totaled 1,316 acres. Utilizing the City's Comprehensive Plan and discussions with City Staff, the lots were identified for their future land use. In total, the City has 840.71 acres of land for Commercial / Industrial uses, and 338.90 acres for residential uses. **Table 4.15** shows the breakdown of developable land within the City analyzing the developable parcels identified in **Map 4.5**.

Table 4.15 Potential Developable Acreage of City of Menomonie Infill Parcels

Future Land Use	Total Acres	Acres in ESA	Developable
Commercial	47.62	8.10	39.52
Industrial	861.99	60.80	801.19
Open Space	98.93	31.88	67.05
Residential	388.11	49.21	338.90
Undeveloped	144.81	75.43	69.38
Total	**1,541.46**	**225.42**	**1,316.04**

While **Table 4.15** lists developable acreage for the Open Space and Undeveloped categories, their intended uses indicate these parcels are not anticipated to be developed within the next 20 years.

4.2.4 Recent Growth Areas

Residential Growth

Newer subdivisions have been approved for lands in the City's north and southeast. These subdivisions push development and platted roadways to the City's municipal boundary, meaning any additional development or road extensions in these areas will require annexation.

Commercial / Industrial Growth

In 2025, the City of Menomonie annexed roughly 320 acres in the northeast to accommodate commercial / industrial development. It is anticipated that the City's industrial areas to the northeast and east will continue to grow as utilities are made available.

4.3 LAND USE PLANS & BOUNDARY AGREEMENTS

4.3.1 Comprehensive/Future Land Use Plans

Table 4.16 summarizes the status of comprehensive and land use planning for the municipalities within the Study Area at the time this plan was completed. The Town of Sherman and Dunn County are in the process of updating their comprehensive plans, but those updated plans were not approved at the time of writing.

Table 4.16 Comprehensive Plan Summary for Study Area Communities

Place	Comprehensive Plan Years (adopted)	Growth Areas or Projections

Town of Menomonie	1999-2020 (May 1999)	• Residential
		  ○ South, along City of Menomonie (limited segments)
		• Commercial (all extending out from City of Menomonie)
		  ○ CR BB Corridor
		  ○ SR 12 Corridor
		  ○ SR 29 Corridor
		  ○ SR 25 Corridor

Town of Red Cedar	2005-2025
	(2005, amended 2016)
		• Residential
		  ○ Along eastern border of City of Menomonie (excluding I-94 and SR 29)
		• Commercial / Industrial
		  ○ Along northeast border of City of Menomonie (primarily I-94 and SR 29 corridors)

Town of Sherman	Update in Progress	None

Town of Tainter	2022-2042
	(July 2022)
		• Rural Residential along Red Cedar River and Tainter Lake
		• Commercial / Transition (higher density development)
		  ○ Along periphery of Tainter Lake Residential (north and east)
		  ○ SR 25 (south near Red Cedar River)

City of Menomonie	2007-2027
	(June 2007)
		• Residential
		  ○ North, southeast, and south
		• Commercial / Industrial
		  ○ Northeast and east sides
		  ○ South (along SR 25)

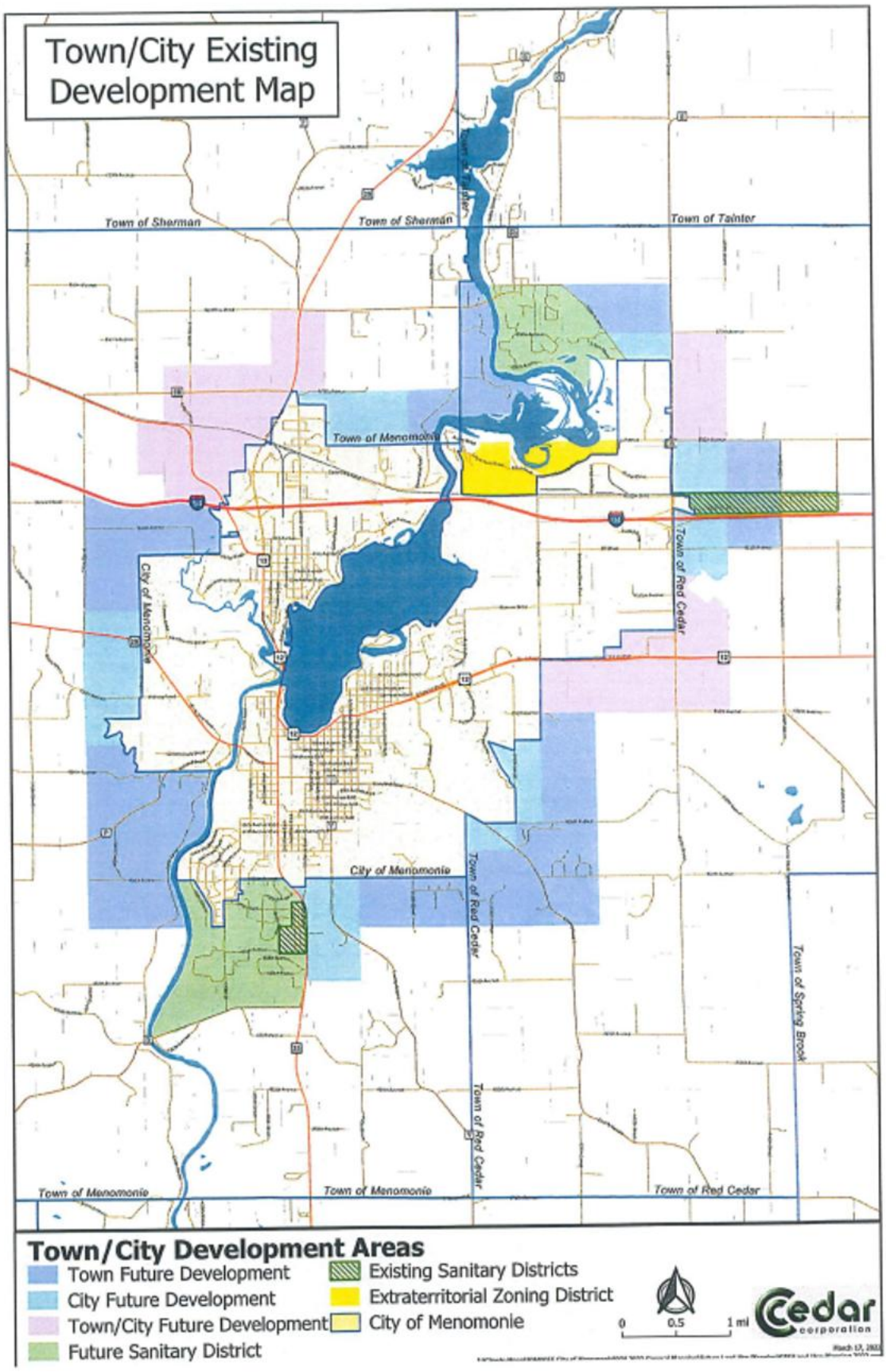
Dunn County	2010-2030 (2009, amended 2016) Update in Progress	• "The intent is that the broad County plan will generally depict the planned growth patter, while local (town) plans will describe in detail the type, amount, and intensity of preferred development." (p.86)

4.3.2 Boundary Agreements

While there are intergovernmental agreements for various services, stormwater management, etc., throughout the Study Area, no formal intergovernmental boundary agreements have been identified for communities within the study area.

The primary intergovernmental growth plan for the Study Area is a joint town / city Boundary Area Development Map, shown in **Figure 4.4**, developed and endorsed by the Town of Red Cedar, Town of Menomonie, and City of Menomonie in 2022. The map is not a Cooperative Boundary Agreement as defined under Wis. Stats. § 66.0307. It is a guiding document that identifies potential development areas around the periphery of the City of Menomonie. This map was an often-cited document during SSA planning discussions and development of the proposed Sewer Service Area Boundary.

Figure 4.4 Town/City Development Areas



4.4 FORECAST OF URBAN GROWTH

4.4.1 Methodology for Population, Housing, & Employment Projections

For projecting potential sewered, urban growth in the study area, the following assumptions are used:

- The recent growth in housing units for the City of Menomonie will drive the needed sewered residential acreage (urban growth), less any residential "infill" opportunities within the City that are already sewered. It is assumed that all new urban growth will be sewered. City officials have indicated that most residential growth has and will continue to occur at the City's periphery, which would add to the sewered growth acreage need.[9]
- Commercial / Industrial growth will require access to utilities and should be sewered.
- Industrial growth will generally require larger lots and occur near existing industrial uses.
- All other types of growth (e.g., institutional, educational, public / utility) are not independently projected. Rather, these types of development are incorporated into residential and commercial / industrial acreage demands through the market and public / infrastructure allowances.
- No new wastewater districts outside of the City of Menomonie have been specifically proposed at this time. However, there are some areas of older, smaller residential lots near Tainter Lake that have older individual wastewater systems that are at-risk of failure without sufficient land onsite to replace such systems with a traditional drainfield or mound system. Treatment alternatives could include holding tanks, a smaller local community system, or a sewer connection to the City of Menomonie's system; such alternatives are discussed in Section 5. Potentially providing sewer service in this area is driven by water quality and health concerns (i.e., possible failing POWTS) and not growth. As such, this area will be treated independently from the housing unit projections prepared for urban growth and financial costs may be outweighed by environmental considerations.
- It is anticipated that most other growth within the unincorporated towns within the Study Area will continue to be at rural densities that will allow for the safe installation and long-term maintenance of individual onsite septic systems. While there may be some opportunities for shared treatment systems or smaller community systems, no such specific plans were identified during the planning process.

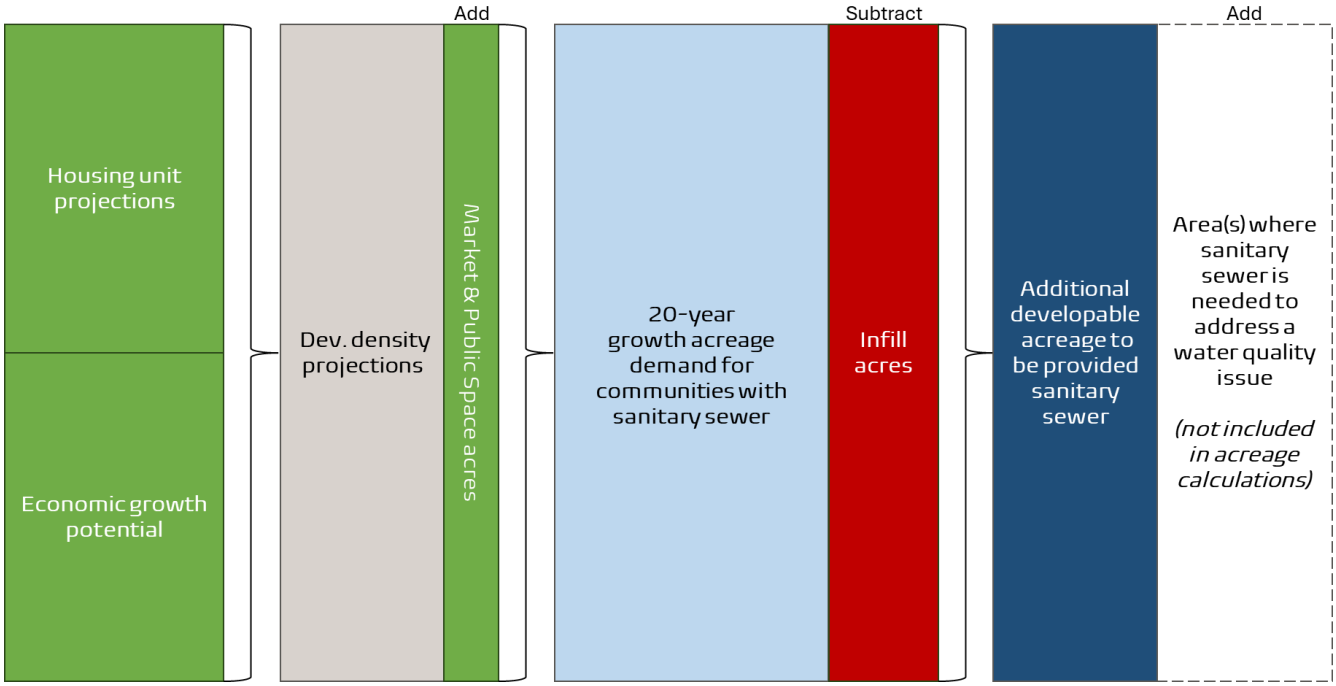
Figure 4.5 shows the general approach for determining the acreage demanded outside of the current City boundary. Using the acreage projections for both residential and commercial / industrial uses as outlined in **Sections 4.4.2-4.4.3**, the acreages were multiplied by a market factor and public space / infrastructure factors to create a total allowance percentage. The market factor allows flexibility in choosing where to live and recognizes that not all land is for sale. Not all of the proposed SSA will develop. The public space / infrastructure factor provides acreage for needed streets, stormwater systems, neighborhood parks, and other smaller public or institutional uses. Developable infill acreage within the City of Menomonie is subtracted out of the total acres

[9] While recent housing unit trends for the City are being used to project future urban growth, there is not an assumption that such urban growth will all occur within the City of Menomonie.

needed to arrive at the additional acreage needed outside of the City of Menomonie requiring sanitary sewer.

As part of the growth forecasting process, the City and towns were asked to identify any areas that will require sanitary sewer due to issues or concerns with existing sanitation infrastructure. The existing development around Tainter Lake was identified as an area of concern due to the use of private septic systems and density of development.

Figure 4.5 Sewered Area Acreage Demand Flow Chart



The additional developable acreage demand calculated in **Sections 4.4.2 and 4.4.3** are used in Chapter 6 to develop the SSA boundary, along with consideration of ESAs and constraints identified in **Chapter 5**.

4.4.2 Urban (Sewered) Residential Acreage Projections

It is recognized that NR 121 requires that the sewer service area be delineated based on WDOA 20-year population forecasts. As discussed in Section 4.1, while the City of Menomonie's urban population was forecasted to decrease overall, this was likely influenced by an apparent short-term loss in UW-Stout student population, which has since rebounded. More importantly, the City's non-student population continued to increase during the same time period, and it is the non-student population that is driving urban residential growth. This is borne out by the continued residential (sewered) construction within the City during this period. As such, this plan update relies on actual residential construction trends to forecast urban (sewered) residential growth.

City officials expect that the recent rate of new residential growth within the City will continue, which is consistent with the City's goals and other plans. For SSA Plan update purposes, a change of +75 housing units per year is assumed to continue throughout the planning period. T**his projected rate of growth is likely high, but ensures that adequate SSA acreage will be available to accommodate sewered growth should it be realized.** The City and the SSA Plan update advisory committee believe that new urban residential development will predominately be single-family and duplexes, concluding that the 2023 development of multi-family was an outlier. For planning purposes, residential projections were calculated using three assumptions:

1. 1,500 new residential units will be developed over the next 20 years;
2. Development will be split 25% / 75% between 3+ unit and single-family/duplex developments, and;
3. Per unit densities for each type are 0.2 acres per unit for 3+ unit developments and 0.4 acres per unit for single-family/duplex developments.

Table 4.16 provides the 5-year projections for residential development, identifying the total units needed, type of development, and acreage demands. A 100% market factor and 20% public infrastructure factor were applied, for a total residential allowance of 120%. **With the allowance applied, a total of 1,155 acres are projected to be developed for residential use over the next 20 years.**

Table 4.16 5-Year Residential Demand Projections

		Units by Development Type		Acreage Demand		
Year	**Housing Unit Growth**	**Single-Family / Duplex**	**Multi-Family (3+)**	**Single-Family / Duplex**	**Multi-Family (3+)**	**Total**
2030	375	281	94	112.5	18.8	131.3
2035	375	281	94	112.5	18.8	131.3
2040	375	281	94	112.5	18.8	131.3
2045	375	281	94	112.5	18.8	131.3
2025-2045	**1,500**	**1,125**	**375**	**450**	**75**	**525**
Total Acreages with 100% Market + 20% Public Allowances				**990**	**165**	**1,155**

4.4.3 Urban (Sewered) Commercial / Industrial Acreage Projections

NR121 does not require forecasts for non-residential development. The 1995 Menomonie SSA Plan lacked acreage projections for future non-residential urban/sewered growth, instead deferring to the City's comprehensive plan to help identify potential commercial, industrial, and other non-residential growth areas for possible inclusion in the SSA Plan. For this SSA Plan update, commercial / industrial growth trends and projections were created as a guide, but underestimates anticipated growth when compared to local plans and the development areas map in Figure 4.4.

The 5-year average growth rate was used throughout the 20-year period to arrive at a total demand for commercial and industrial acreage by 2045. **Table 4.17** shows the acreage projections at 5-year intervals for commercial and industrial growth. A 20% public infrastructure and 50% market factor were applied to the acreage demands for a total commercial / industrial allowance of 70%. **With the allowance applied, a total of 639 acres are projected to be developed for commercial / industrial use over the next 20 years.**

Table 4.17 5-Year Commercial / Industrial Demand Projections

					2045 Acres Needed	
	2030	2035	2040	2045	2025-2045	+70% allowance
Commercial	1,472	1,559	1,651	1,749	359	610
Industrial	375	379	383	387	17	28
Total	1,847	1,938	2,034	2,136	376	639

4.4.4 Acreage Allocations for Future Development

Table 4.18 suggests at least 816 acres of additional sewered **residential** growth will occur by 2045. While the table suggests that **commercial / industrial** growth may be met through the "infill" of vacant land within current City of Menomonie corporate limits, available commercial / industrial land within the City has limited opportunities for larger developments and the Town / City Development Areas Map envisions significant commercial / industrial development at the City's periphery that is currently unsewered.

Table 4.18 20-Year Growth Demand Acreage

	2030	2035	2040	2045	2025-2045	Infill	Growth Demand
Residential Acreage	289	289	289	288	1,155	338.9	816.1
Comm / Industrial Acreage	148	155	163	173	639	840.7	-201.7
Total Acreage	437	444	452	461	1,794	1,179.6	614.4

The above calculations, along with consideration of ESAs and development constraints identified in **Chapter 5**, help inform the Sewer Service Area boundary developed in **Chapter 6**.

CHAPTER 5 – WASTEWATER FACILITY ASSESSMENT

This chapter summarizes the existing and future characteristics of the wastewater treatment processes and facilities within the Study Area. NR 121 requires that the SSA Plan identify sewage collection needs and the most cost-effective regional wastewater system approach, which must be consistent with approved facility plans wherever possible.

The City of Menomonie manages the only wastewater treatment facility within the Study Area, which serves the City and a sanitary district within the Town of Menomonie on the City's south side. Existing unsewered development, physical features on the landscape (e.g., topography, rivers, highways), and intergovernmental relationships are the primary barriers to the cost-effective expansion of sanitary sewer; such barriers must be considered when determining the SSA boundary.

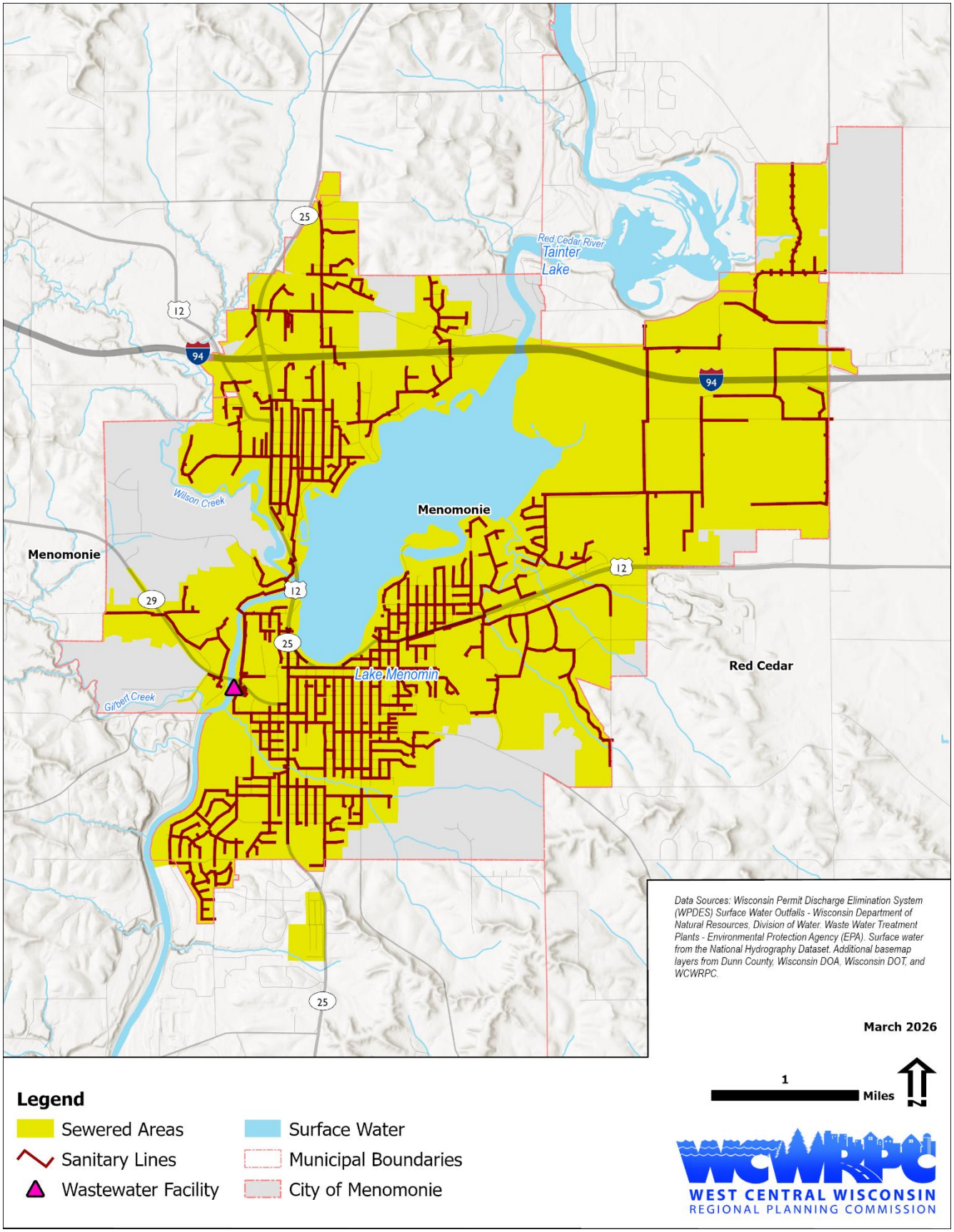
5.1 WASTEWATER FACILITIES & FACILITY PLANS

Wastewater facility plans shall be prepared for each reviewable project involving new or modified sewerage systems owned by municipal or other non-industrial entities pursuant to s. NR 110.08(1), Wis. Adm. Code. The basic purpose of facility planning is to assess the condition of a sewerage system, establish a need for improvement, evaluate options to address system needs and to identify the cost-effective alternative. Facility plans identify wastewater needs and treatment facility improvements for a 20-year planning period. As required by NR 110, facility plans must include design flow calculations consistent with population projections and must consider various potential solutions to address wastewater management needs. In short, these plans demonstrate the need for proposed public wastewater treatment facility projects by: (i) systematically evaluating feasible alternatives and (ii) selecting the most cost-effective means of meeting effluent limits and water quality standards.

As shown on **Map 5.1**, there is currently one publicly owned municipal wastewater treatment facility (WWTF) in the Study Area. The City of Menomonie's facility serves the City and, as part of a sanitary district, Birch Terrace mobile home park located south of the City within the Town of Menomonie. The Menomonie WWTF treats domestic wastewater from residents, along with industrial wastewater from several industries such as 3M Manufacturing, Badger Iron, Cardinal Glass, and Con Agra/Swiss Foods. Some industry pre-treats its wastewater before entering the City's system.

The City of Menomonie facility is located at 620 11th W. Avenue in Menomonie. It is situated on approximately seven acres along the eastern bank of the Red Cedar River in the southeastern portion of the City. The WWTF uses biological and chemical phosphorus removal, activated sludge (primary treatment), UV disinfection, and anaerobic digestion to treat the sludge. The treated sludge is then land applied, while Class B anaerobically digested sludge is thickened by a gravity belt and then hauled to a sludge storage site prior to land applied. The treated effluent is discharged into the Red Cedar River adjacent to the facility.

MAP 5.1 Wastewater Facility & Sewered Areas



The City's Wastewater Facility Plan was last updated in 2018 to include a filter project. BOD is primary limiting factor for growth capacity, though the facility has struggled at time with treating phosphorus due to large food manufacturing/dairy industries. The phosphorus primary ends up in the sludge and is chemically bound; discharge to the Red Cedar River is cleaner than the river water itself according to City staff. The City is exploring adaptive management and water quality trading programs to collaborate with landowners and farmers within the watershed to reduce phosphorus-loading overall to the Red Cedar.

Current Permit Limits for Menomonie WWTF

Table 5.1 displays the monthly permit limits and average levels of the Menomonie WWTF for total suspended solids (TSS) and biochemical oxygen demand (BOD). **Table 5.2** compares data facility data such as the population served, design and average flow, treatment type, and sludge treatment and disposal.

Table 5.1: Monthly Permit Levels and Average Levels for BOD and TSS

	Permit Effluent Limit	Effluent Monthly Average
Biological Oxygen Demand (BOD mg/L)	25	2 - 9
Total Suspended Solids (TSS mg/L)	30	3 - 13

Table 5.2: Wastewater Treatment Facility Plan Data

Original Construction Date of Oldest Building Still in Use	1941
Most Recent Significant Upgrade	2021
Population Served (based on 2020 Census)	16,843
WPDES Permit Number	WI-0024708-10-1
Permit Expiration Date	9/30/2025
Receiving Water	Red Cedar River
Design Flow (mgd)	3.308
Average Flow (mgd)	2.798
BOD Design Loading (lbs/day)	7,760
BOD Average Loading (lbs/day)	3,282 – 6,802
Treatment Type	Activated Sludge
Sludge Treatment	Anaerobic Digestion and UV Disinfection
Sludge Disposal	Land Application

The Menomonie WWTF is meeting permit effluent limits for the effluent flowing into the Red Cedar River with average daily flows well below design flows.

Wastewater Flow Projections

Projected wastewater treatment plan flows and loadings for the sewered residential growth for 2045 were calculated using existing flows, existing BOD loadings, and Wisconsin Department of Administration (WDOA) population projections for the City of Menomonie.

Table 5.3 displays the estimated sewered population for Menomonie's WWTF based on WDOA population projections. If the City's population were to decrease as projected, then meeting design flow and permit levels for residential growth should not be a challenge. However, the City believes the WDOA projections to be inaccurate.

Chapter 4 forecasts that the City will continue to grow by 75 housing units per year or +1,500 housing units by 2045. Assuming a 5% average vacancy rate and a 2.18 persons per household, this would result in 3,106 more residents requiring sanitary sewer or an 18.3% population increase from 2025. As discussed in Section 4.4.2, this rate of growth is very likely high but was based on recent trends and ensures that the SSA boundary will be adequately sized to accommodate potential residential growth.

Table 5.4 displays the projected total residential wastewater flow and BOD loadings for the WWTF utilizing the 18.3% projected population growth discussed above. Given that the 18.3% population increase is an unlikely high growth scenario, it is expected that **the current WWTF would be able to handle the residential flow for the City through the year 2045**.

Table 5.3: Wastewater Treatment Residential Demand

	2025 WDOA Population Estimate	2045 Population Forecast	Percentage change
City of Menomonie	16,971	13,811	-18.6

Table 5.4: Wastewater Projections based on Residential Demand

	Current Avg Flow or Loading	Projected Increase	2045 Projected	Design or Permit Level
Biological Oxygen Demand (lbs/day)	3,282 – 6,802	+18.3%	3,883 – 8,026	7,760
Flow	2,798		3,310	3,308

As with all projections, it is assumed that the conditions of the past will continue. It does not take into consideration a significant change in the rate of growth, the development of new heavier water users (e.g., food processing manufacturing), or future WWTF upgrades. Many conditions can change in the future that could adjust the trajectory of the projections. As noted in Chapter 4, the City of Menomonie believes strongly that the WDOA projections are incorrect and the City will experience significant growth over the next twenty years. Using the above methodology to predict

demand in 2045, it is expected that the current WWTF will likely be able to handle the additional flow from the projected residential growth within the City in the year 2045.

Wastewater demands from commercial, industrial and institutional land uses can vary greatly. For example, a one-million square foot warehouse, which might have wastewater from breakrooms and bathrooms only, can discharge less wastewater than a small "wet" industry. The City of Menomonie has generally been selective of the types of industries that it attracts. Existing industries, together, contribute an average of 0.40 mgd (400,000 gallons per day) of wastewater from the 437 acres with assessed manufacturing improvements. This figure is assumed to be representative of the types of industries that the City will attract going forward.

5.2 LANDSPREADING & RESIDUAL WASTE

The Menomonie WWTF uses landspreading on local farmland each spring and fall to dispose of sludge after it has been treated with anaerobic digestion and UV disinfection. During the winter, sludge is hauled to be stored in a 1.8-million-gallon facility for land application in the summer.

The Menomonie WWTF has identified 150 acres with clay soils being used for land application. Tests conducted in the last four years on the cake sludge show that the sludge does not exceed the High Quality or Ceiling limits for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, or zinc. The level of molybdenum did exceed the 80% level in one month. The source of the molybdenum is identified, and their discharge is limited by a Local Discharge Permit.

Land disposal is currently dependent on having willing private partners. With growing concerns about PFAS and other media coverage of the risk of residual chemicals, there is the potential that it will be more difficult to find acreage upon which landspreading is allowed.

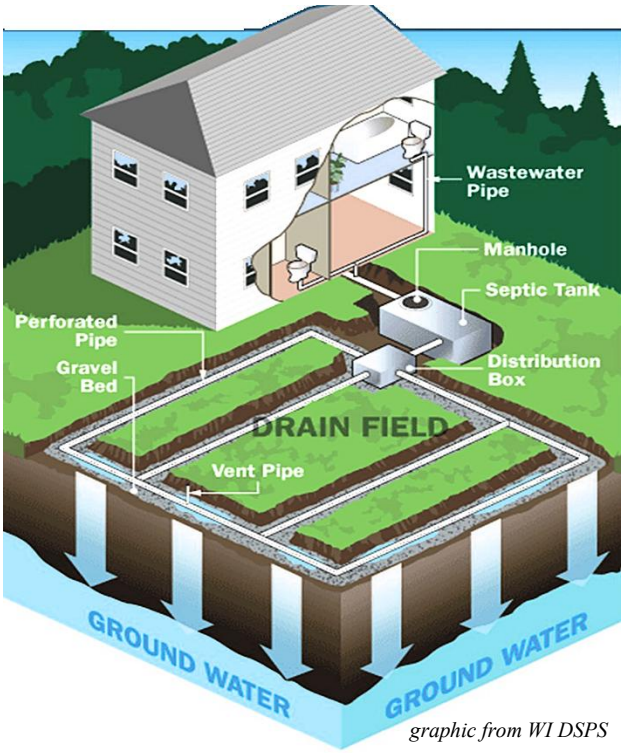
5.3 PRIVATE ONSITE WASTEWATER TREATMENT & HOLDING TANKS

Private onsite wastewater systems (POWTS) store, treat, or dispose of wastewater (or perform a combination of these functions) on the site at which the wastewater is generated.

POWTS represent an alternative to accommodate development where public sewer does not exist and is not cost-effective. POWTS are used in those unsewered areas that are not served by existing sanitary sewer systems. Within the Study Area, this includes all areas outside those currently sewered areas shown in Map 5.1.

Most POWTS types within the Study Area are conventional septic systems with drainfields or mound systems, with some scattered holding tanks in the Rush area and around Tainter Lake. There is also one shared or cluster wastewater system in the Town of Tainter for a duplex development. There are less than fifty POWTS scattered within the City of Menomonie.

It is important to require compliance for POWTS maintenance (POWTS) due to the potential for groundwater contamination. Many private wells in the Study Area already have high nitrates and communities have expressed concerns with growing water quality threats such as pharmaceuticals Some POWTS are aging on smaller lots, which could make it a challenge for future system replacement. While construction permitting and regular pumping reporting are required, there is no specific tracking of failing POWTS within the Study Area. However, concern was expressed over the concentration of aging septic systems on smaller lots near Lake Tainter where lot sizes are insufficient for replacement systems.



graphic from WI DSPS

5.4 REGIONAL WASTEWATER TREATMENT APPROACH

State of Wisconsin Requirements

NR 121 requires as part of SSA planning that the most cost-effective regional wastewater systems for urban areas shall be identified over a 20-year planning period based upon an analysis of alternative waste treatment system configurations. Wherever possible, applicable recommendations of approved facility plans shall be used to determine the urban area's treatment needs. This analysis shall be consistent with NR 110.09, and shall include a cost-effectiveness analysis of regional versus individual treatment facilities for the outlying areas including subsurface waste disposal systems. Water quality and other environmental impacts shall also be considered.

The Wisconsin Department of Natural Resources maintains a non-proliferation policy for wastewater treatment. The first sentence of NR 110.08(5), Wis. Admin. Code reads, "It is the policy of the department to restrict the construction of new sewage treatment facilities in order to preserve and protect the quality of waters of the state." Any proposals for new or upgraded facilities must be "necessary" and "cost-effective" (NR 110.08(5), 110.08(6), and 110.08(4)). Regionalization alternatives typically provide certain efficiencies in management and operation from one plant versus multiple smaller plants, though these alternatives should be individually assessed on a project-specific basis for environmental pros and cons.

WDNR considers a municipal wastewater treatment system (sanitary sewer) to provide the highest level of environmental protection, planning, management, and monitoring. Such facilities are the preferred treatment system when service can be provided in a cost-effective manner. Elevated

nitrate levels in groundwater within the Study Area is a significant concern and individual septic systems can be a source of nitrogen in groundwater.

Regional Alternatives & Approach

During the planning process, a range of alternative wastewater alternatives were considered for the Study Area. At this time, no growth areas at urban densities exist outside the City of Menomonie, with the possible exception of the Birch Terrace mobile home park that is already connected to the City's WWTF. Some concentrated residential development has occurred along Tainter Lake to the north on smaller lots, which could necessitate study in the future for a possible smaller WWTF. Except for near the City of Menomonie as the City grows, no other development at urban densities is anticipated by 2045 within the Study Area.

In light of the information in this Chapter, wastewater alternatives, and the plans of local units of government, the most cost-effective and environmentally sound regional wastewater approach would include:

- Continue to maintain and improve the Menomonie wastewater treatment facilities in accordance with regularly updated and State-approved facility plans.
- No new WWTFs are necessary or anticipated within the next 20-years, with two possible exceptions:
    - The Tainter Lake area should continue to be located within the Menomonie SSA, but a longer-term solution should be studied to determine the best mix of wastewater solutions (e.g., holding tanks, cluster systems, smaller WWTF, sanitary sewer extension from Menomonie) that is cost-effective and environmentally sound. Given the phosphorus impairment and TMDL on Tainter Lake and the Red Cedar River, it is expected that it would be very difficult to obtain a permit for an additional WWTF discharge to the Lake or River. As an alternative, a smaller WWTF with a seepage-cell system might be considered if area soils permit and is cost-effective; the location for such a system could be explored as part of town comprehensive planning.
    - The need for a site-specific treatment facility for a new industry could arise if effluent would exceed what can be cost-effectively managed by the Menomonie WWTF.
- Extend municipal sanitary sewer to urban growth areas when cost-effective.
- POWTS and smaller, shared wastewater systems are appropriate for lower-density development if properly maintained.
- Subdivisions and other areas of existing unsewered development at "light densities" are likely not cost-effective for the provision of sanitary sewer unless there are failing POWTS or elevated water quality concerns. However, such areas are not necessarily a barrier to extending sanitary sewer to nearby growth areas.
- Municipal sanitary sewer is generally the preferred wastewater treatment alternative in areas where there are elevated water quality concerns (e.g., wellhead protection areas, high groundwater table, excessively drained soils), if cost-effective.
- Physical features, such as Interstate 94 and large floodplains, and steep slopes can be barriers to the cost-effective provision of municipal wastewater service.

- Encourage cooperative planning, cooperative boundary agreements, and service agreements between local governments to achieve the most cost-effective and environmentally sound wastewater approach for the Study Area.
- Local comprehensive plans reflect social concerns and goals of each community that must be considered during wastewater planning. Consideration of local comprehensive plans must be balanced with the other aspects of cost-effectiveness discussed above, especially when community plans conflict.

CHAPTER 6 – SEWER SERVICE AREA DELINEATION

6.1 WHAT IS THE SEWER SERVICE AREA BOUNDARY

NR 121.05 requires that the Sewer Service Area (SSA) Plan identify areas for which sanitary sewer may be needed or desirable within the next 20 years to accommodate forecasted growth. The SSA boundary represents a long-term vision for the growth of the urban area identifying what could potentially be sewered.

PLEASE NOTE

Inclusion of lands within the Sewer Service Area (SSA) boundary does NOT determine or guarantee that these lands will be developed, sewered, or annexed by 2045.

The SSA boundary is the geographic extent of the Sewer Service Area (SSA). Sewer Service Areas (SSAs) are typically smaller than the SSA Study Area, which is described in **Chapter 2**. Data is collected for the larger Study Area, which helps to define the more focused SSA.

The SSA includes areas with a ***potential*** for future sewered development or areas for which sanitary sewer may be desirable by 2045, excluding the environmentally sensitive areas defined in **Section 3.5**. for which intensive land disturbances should be avoided. The SSA boundary is guided by the 20-year growth forecasts and criteria in NR 121 and NR 110, including identifying the most cost-effective and environmentally sound regional mix of wastewater treatment solutions for the Study Area. This boundary is driven by projected growth and the cost-effective provision of sanitary sewer, not water quality issues, though an area might be added to the SSA if sanitary sewer is desired in order to protect water quality. Once the SSA boundary is established as part of an approved update to the SSA Plan, sanitary sewer extensions are not allowed outside the SSA boundary without a SSA Plan amendment. The SSA Plan and its boundary shall be reviewed every five years, with periodic updates to reflect changes in growth, land use, and wastewater management.

6.2 OVERALL DELINEATION APPROACH

Building upon Chapter 4, five primary factors guided the overall 2045 SSA delineation approach:

1. Projected residential growth for the City of Menomonie, which was largely driven by actual recent housing construction, anticipated residential mix (i.e, 1-2 unit vs. 3+ unit), and recent development density trends.
2. Potential commercial and industrial growth areas near the City of Menomonie.
3. The 2022 Town/City Development Areas Map.
4. The potential extension of sanitary sewer for potential sanitary districts to the south of Menomonie and, possibly, to the Tainter Lake area.
5. Consideration of Environmentally Sensitive Areas (ESAs) and other barriers to the cost-effective extension of municipal sanitary sewer.

6.3 PROJECTED GROWTH AREAS

The Town/City Development Areas Map described in **Section 4.3.1** was heavily utilized in defining proposed urban growth areas requiring sewer service. This map not only identified likely development areas around the City of Menomonie; it also generally identified the prominent type of development most likely to occur within those developed areas by referencing and the municipality that would likely regulate that development.

WCWRPC analyzed the lands within the Boundary Area Development Map and divided them into general areas by the planned divisions of municipal control. These areas were then assigned their respective use, according to the future or preferred land use map of the corresponding municipal comprehensive plan. Finally, discussions were held with the Water Quality Planning Advisory Committee to determine which areas of the Boundary Area Development Map have the greatest potential to experience or require sewered development over the next 20 years.

Map 6.1 and its summary table show the analysis of those areas with the highest potential of sewer development interest over the next 20 years, the developable acreage within those areas, and the type of development that is expected to occur in those areas.

Table 6.1 Analysis of Urban (Sewered) Demand and Included Acreages by Use

	Sewered Growth Acres		
	Projected Growth Demand	Included in Growth Areas Outside the City	Difference
Residential	816.1	889.3	+73.2 acres
Commercial / Industrial	-201.7*	1,309.3	+1,511.0 acres

The estimated residential acreage within the growth areas is comparable to and can accommodate the projected residential growth demand. As noted in Chapter 4, while recent trends-based projections of future commercial/industrial sewered growth may be met through the "infill" of vacant land within current City of Menomonie corporate limits, available commercial / industrial land within the City has limited opportunities for attracting larger business ventures and the Town/City Development Areas Map envisions significant commercial / industrial development at the City's periphery in areas that are currently unsewered.

In addition to developable urban growth areas, **Map 6.1** includes the two proposed sanitary districts that were identified in the Boundary Area Development Map as well as a potential future extension to properties around Tainter Lake (called the "Tainter Sanitary District" for convenience) to address potential water quality issues, if deemed cost-effective in the future.

6.4 SEWER SERVICE AREA BOUNDARY 2045

The Menomonie Urban Sewer Service Area (SSA) boundary is shown on **Map 6.2**.

Total SSA boundary size: 20,957 acres

Estimated ESA acreage: 5,624 acres (based on Map 3.13)

Total 2045 SSA size: 15,333 acres

The chart in Map 6.1 provides a breakdown of ESAs within the overall SSA boundary, the potential Tainter Sanitary District boundary, and growth areas. **Approximately 2,300 acres within the urban growth areas are considered developable**; these acres are the likely growth areas outside the City with no known ESAs and are currently unsewered, but are most anticipated to be sewered in the future.

It is important to note:

- The Tainter Sanitary District area was included within the SSA boundary solely due water quality concerns at the recommendation of the Advisory Committee. This area is included due to the potential future need for a shared or community wastewater solution to address older septic systems on smaller lots near the lake. The mapped District area provides for the option of extending sanitary sewer from the City as one potential alternative, though additional study would be required before determining the most cost-effective solution. The Tainter Sanitary District is not considered a growth area of the City under this plan, so its developable acreage is not included within the table in Map 6.1.
- The SSA Boundary reflects areas with an elevated or higher likelihood of being sewered by 2045. The boundary does not determine or guarantee that these lands will be developed, sewered, or annexed by 2045.

As represented on Map 6.2, the 2045 SSA boundary follows section lines, quarter section lines, or quarter-quarter sections of lines as surveyed under the U.S. Public Land Survey System, except the following extents of boundary:

- The center of Gilbert Creek, generally following the incorporated limits of the City of Menomonie (about 4,985 linear feet)
    - Starting at the quarter-quarter section line between SW-q NE-q, s-28 t-28N r-13W and NW-q SE-q, s-28 t-28N r-13W, south and Ending at the quarter-quarter section line between SE-q SE-q, s-28 t-28N r-13W and NE-q NE-q, s-33 t-28N r-13W
- The eastern bank of the Red Cedar River along the incorporated limits of the City of Menomonie (about 6,223 linear feet) crossing over to the western bank.
    - Crosses river at the quarter-quarter section line between SE-q SW-q, s-34 t-28N r-13W and NE-1 NW-1, s-03 t-27N r-13W
- the western bank of the Red Cedar River within the Town of Menomonie (about 8,366 linear feet)
    - Starting at the quarter-quarter section line between SE-q SW-q, s-34 t-28N r-13W and NE-1 NW-1, s-03 t-27N r-13W, south and Ending at the centerline of County Highway D

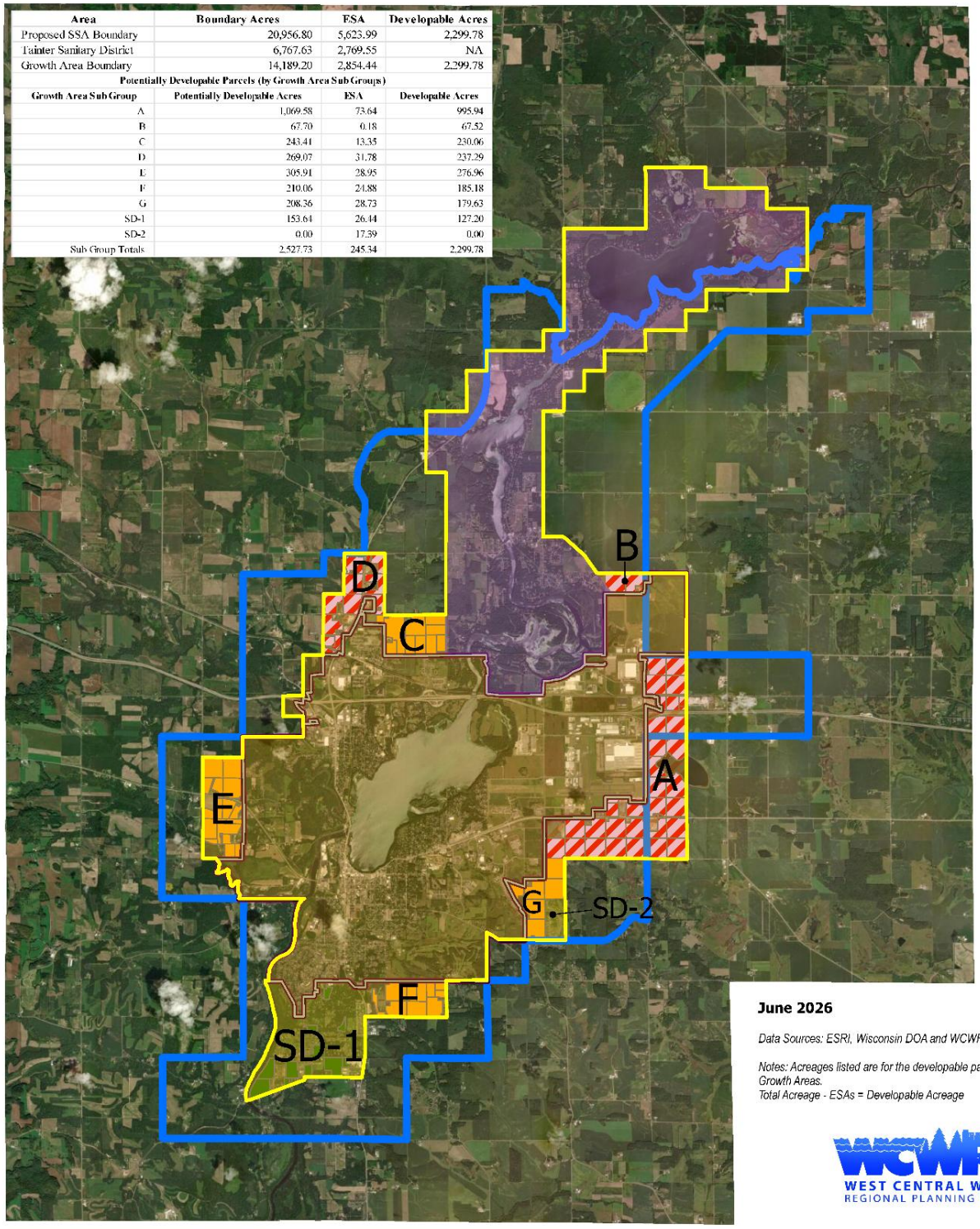
- a segment of the centerline of County Highway "D" from the east bank of the Red Cedar River within the Town of Menomonie (about 3,978 linear feet)
    - Starting at the western bank of the Red Cedar River, east and Ending at the quarter-quarter section line of SW-q NE-q, s-10 t-27N r-13W and SE-q NE-q, s-10 t-27N r-13W
- a segment of State Road 25 from roughly County Road D to quarter-quarter section north of 472nd Avenue within the Town of Menomonie (about 1,537 linear feet)
    - Starting at the quarter-quarter section line of NE-q NW-q, s-11 t-27N r-13W and SE-q NW-q, s-11 t-27N r-13W, north and Ending at the center of s-02 t-27N r-13W (intersection of 4 quarter-sections)
- a short segment of the centerline of County Highway "J" within the Town of Red Cedar (about 904 linear feet)
    - Starting at the quarter-quarter section line of SE-q NE-q, s-36 t-28N r-13W and SW-q NW-q, s-31 t-28N r-12W, south and Ending at the quarter-quarter section line of SW-q NW-q, s-31 t-28N r-12W and NW-q SW-q, s-31 t-28N r-12W
- The centerline of 708th Avenue within the Town of Red Cedar (about 4,519 linear feet)
    - Starting at the quarter-quarter section line of NW-q SE-q, s-06 t-28N r-12W and NW-q SW-q, s-06 t-28N r-12W, south and Ending at the quarter-quarter section line of SE-q SW-q, s-05 t-28N r-12W and NE-q NW-q, s-08 t-28N r-12W

Map 6.1 Analysis of Potential SSA Boundary and Development Acreages

Area	Boundary Acres	ESA	Developable Acres
Proposed SSA Boundary	20,956.80	5,623.99	2,299.78
Tainter Sanitary District	6,767.63	2,769.55	NA
Growth Area Boundary	14,189.20	2,854.44	2,299.78

Potentially Developable Parcels (by Growth Area Sub Groups)

Growth Area Sub Group	Potentially Developable Acres	ESA	Developable Acres
A	1,069.58	73.64	995.94
B	67.70	0.18	67.52
C	243.41	13.35	230.06
D	269.07	31.78	237.29
E	305.91	28.95	276.96
F	210.06	24.88	185.18
G	208.36	28.73	179.63
SD-1	153.64	26.44	127.20
SD-2	0.00	17.39	0.00
Sub Group Totals	2,527.73	245.34	2,299.78



June 2026

Data Sources: ESRI, Wisconsin DOA and WCWRPC

Notes: Acreages listed are for the developable parcels in the Growth Areas.
Total Acreage - ESAs = Developable Acreage

WCWRPC
WEST CENTRAL WISCONSIN
REGIONAL PLANNING COMMISSION

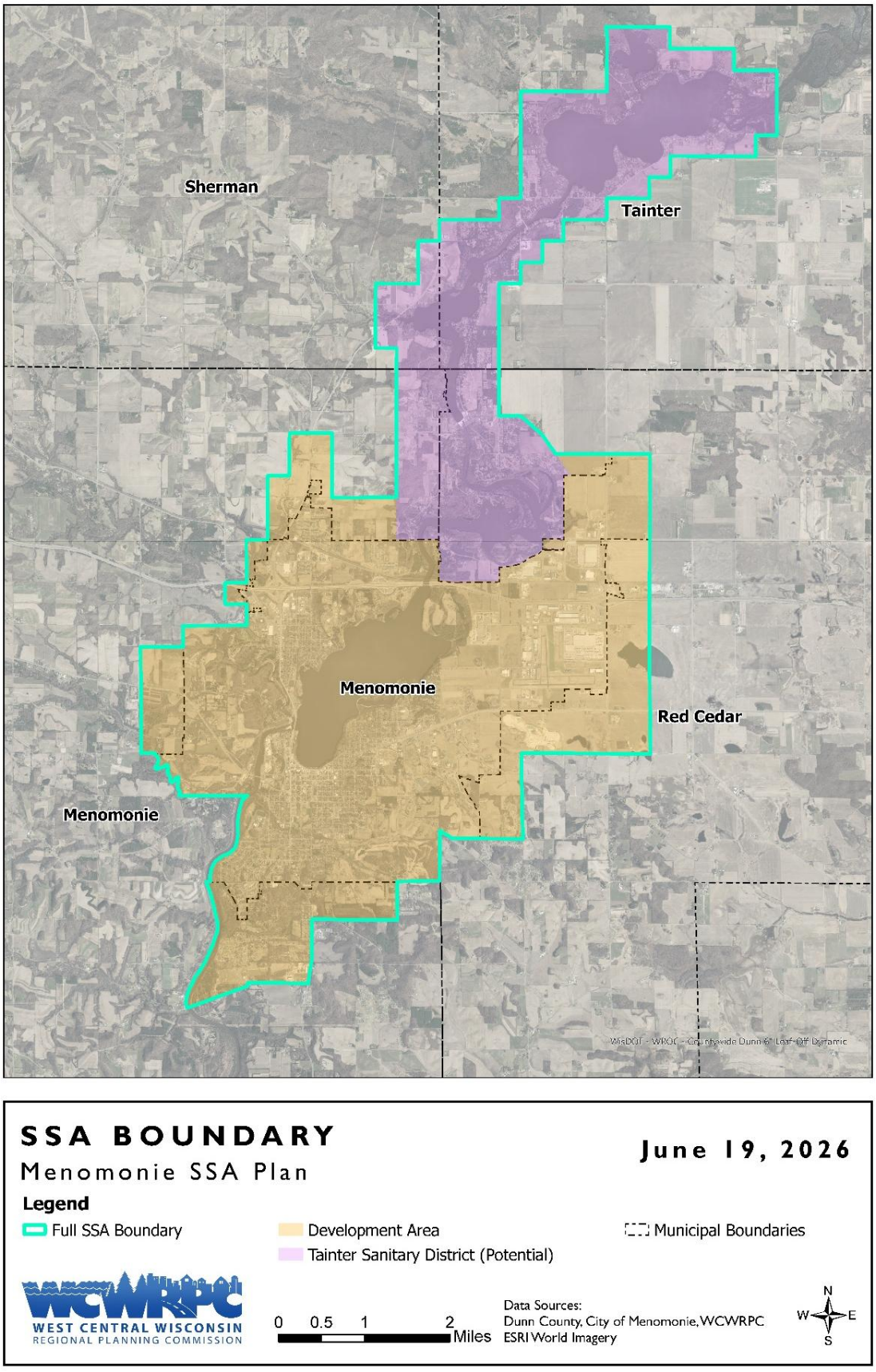
Legend

- Industrial / Commercial
- Residential
- Sanitary District
- Current SSA Boundary
- Proposed SSA Boundary
- City of Menomonie
- SSA Sub Areas
- Development Area
- Tainter Sanitary District (Potential)

1.5 Miles

N

Map 6.2 2045 Menomonie Urban Sewer Service Area Boundary



6.5 SUMMARY OF BOUNDARY CHANGES SINCE 1995 PLAN

Map 6.1 also provides a visual comparison of the 1995 Sewer Service Area boundary vs. the 2025 boundary. **Table 6.2** identifies the acreage changes between the previous plan's boundary and the updated boundary.

The new boundary is smaller by roughly 8,110 acres, reflecting the more structured approach described in Chapter 4 compared to the 1995 Plan. The new boundary extends further to the east and north than the previous plan but otherwise shrinks the 1995 boundary.

Table 6.2 Acreage Comparison Between SSA Plans

Place	Previous Plan SSA Acreage	New Plan SSA Acreage	Difference
City of Menomonie	9,918.25	10,219.24	+ 300.99
Town of Menomonie	8,586.54	2,961.72	- 5,624.82
Town of Red Cedar	5,332.14	3,457.63	- 1,874.51
Town of Sherman	756.61	514.22	- 242.39
Town of Tainter	4,473.21	3,803.99	- 669.22
Total	29,066.75	20,956.80	- 8,109.95

All acreage calculations are aligned to the current municipal boundaries.

Of the roughly 20,957 acres included in the new SSA boundary, approximately 2,300 acres are slated for possible future sewered development outside of current City limits, if the extension to Tainter Lake (including Tainter Lake) is excluded. The extension to Tainter Lake is smaller than the previous plan in terms of acreage, though it was also shifted to include all lakefront properties, as opposed to only those properties to the south and east of the lake in the previous plan.

CHAPTER 7 –
GOALS, OBJECTIVES, AND POLICIES

Goal is a long-term desired outcome toward which programs or activities are ultimately directed, but might never be attained. It represents a general statement which outlines the most preferable situation which could possibly be achieved if all the objectives and policies were developed to their fullest degree.

Objective is a more specific, measurable, intermediate end that is achievable and marks progress toward a goal.

Policies are the way in which programs and activities are conducted to achieve an identified objective and goal. They are courses of action selected to guide and determine present and future decisions. The policies stated in this plan represent an effort to improve the quality of life in and around the Menomonie Urban Area through the protection of surface water quality, while recognizing the diversity in character and resources of the area's communities.

Mandatory vs. Advisory Policies are identified for each objective. Those **Mandatory Polic**ies that direct action using the words "will" or "shall" are mandatory for compliance with the *Menomonie Urban Sewer Service Area Plan*. In contrast, those **Advisory Policies** that direct action using the word "should" are advisory and serve as guides, reflecting a common vision of the communities within the Study Area. Local governments can achieve such advisory policies by implementing the planning and regulatory tools they are authorized to use, such as, comprehensive planning, zoning, subdivision controls, impact fees, and site plan review. There are discretion and flexibility in how local governments implement many of the advisory policies and some of these policies do not include narrow definitions. Compliance with **Advisory Policies** is not required as part of Sewer Service Area 208 Compliance Reviews or Plan Amendments, but should be considered as part of SSA Plan updates.

Goal 1:
Create an orderly and efficient pattern of community growth and development that will provide a safe, high quality living environment.

Objective 1.1 **Guide future growth within the urban sewer service area to occur in an efficient and orderly manner to promote contiguous, compact, and cost-efficient development.**

Mandatory Policies

Policy 1.1.1 **SSA Boundary.** The SSA boundary is driven by projected urban (sewered) growth, the most cost-effective regional mix of wastewater management solutions, and, in certain cases, the need to extend sanitary sewer to an area in order to protect water quality. Sanitary sewer extensions will not be made beyond the 20-year urban sewer service area (SSA), unless the plan is amended. It is recognized that growth areas may be phased to guide orderly development and the SSA boundary may need to be amended in the future to accommodate growth that was unanticipated in the Wisconsin Department of

Administration population forecasts or this plan. The policies of this Chapter only apply to the lands within the SSA and not the larger SSA Study Area, except Policy 1.1.6.

Policy 1.1.2 **Sewer Extensions & City Boundaries.** Through negotiations with affected communities and landowners, the City of Menomonie will evaluate the cost-effectiveness of providing sanitary sewer service beyond its corporate limits through annexation or the creation of sanitary districts.

Policy 1.1.3 **Annexation-Neutral.** The Sewer Service Area Plan (SSA Plan) and the SSA boundary will not be used to promote nor hinder annexation petitions or urban density development; the SSA boundary does not delineate or guarantee those lands that may be annexed. The SSA Plan is in addition to and does not supersede any other municipal or intergovernmental plans, boundary agreements, development agreements, or similar plans and agreements.

Policy 1.1.4 **Intergovernmental Communications.** Copies of 208-conformance review letters and plan amendment reports shall be provided to all local units of government included within the immediate or ultimate service areas for a proposed sewer extension. When a sanitary sewer extension will transect land or right-of-way owned by a unit of government other than the unit of government providing the municipal sanitary sewer, the 208-conformance review application must include documentation from that unit of government demonstrating their approval of the proposed extension.

Policy 1.1.5 **SSA Plan Amendments.** Proposed plan amendments shall be located within or have a common boundary with the current sewer service area. When evaluating swappable and developed/developable acreages for Type I and Type II amendments, the acreages of environmentally sensitive areas (ESAs) shall be excluded, but right-of-way and public infrastructure shall be included.[10] For Type 1 amendments, areas to be swapped must be within 20 acres or 2% of the total developed/developable acreage, whichever is greater. Unless a unique water quality or environmental concern exists (e.g., failing septic systems, conservation easements, Type I and Type II amendment areas shall be developed at urban densities, which are equal to or are higher than the average residential development density figures in Chapter 4.2.2, which will be used as a metric for evaluating efficient development[11] Chapter 9.4 includes additional requirements related to plan amendments.

Policy 1.1.6 **Local Water Quality Advisory Committee.** A water quality policy advisory committee made up of representatives of the various local units of government in the Study Area shall be maintained to assist Wisconsin Department of Natural Resources (WDNR) in SSA planning and to act in an advisory role to the department in urban growth and water quality matters concerning the implementation of the SSA Plan.[12] All municipalities within the

[10] When updating the 2026 SSA Plan boundary, ESAs were excluded when projecting developable acreage.

[11] The minimum average residential development densities in Chapter 4.1.3 are based on lot size and do not include an allowance for public right-of-way, stormwater management, etc., which is often 10%-20% of the total development area. Larger dedicated public lands (e.g., parks, airports, regional stormwater ponds), areas protected by conservation easement, and ESAs should not be included when determining density.

[12] As of January 2026, the Menomonie Area Water Quality Advisory Committee meets on a “as needed” basis to address SSA Plan updates or amendments. It is expected that the Committee will continue to

planning/study area, including Dunn County, shall be invited to participate as voting members of the Advisory Committee. The City of Menomonie shall have three representatives on the Committee and the Towns and County shall have one representative each. The Local Planning Agency shall chair the Advisory Committee and be a non-voting member.

Policy 1.1.7 **Plan Administrator.** With WDNR approval, a local Plan Administrator for the SSA shall be designated to act as a local advisor to WDNR on matters pertaining to the SSA Plan, to guide compliance with the mandatory policies of this Chapter, and to provide overall administrative support for implementation of the SSA Plan.[13]

Policy 1.1.8 **Local Planning Agency.** WDNR shall designate a local planning agency under contract to coordinate with the Local Water Quality Advisory Committee and WDNR in the review and update of the SSA Plan. The Local Planning Agency will also administer SSA amendments, with support from the Plan Administrator when necessary. The Local Planning Agency may or may not be the Plan Administrator, but may be needed to provide support to the Plan Administrator.[14]

Policy 1.1.9 **SSA Plan Reviews & Updates.** The SSA Plan shall be reviewed by the Plan Administrator, in coordination with the Local Water Quality Advisory Committee, at least once every five years and updated to address any significant policy or needed boundary changes.

Subject to WDNR funding and support, a full review and possible update/amendment to the SSA boundary shall occur at least once every 10 years, preferably following the release of updated Wisconsin Department of Administration (WDOA) population forecasts. Such a review is strongly recommended following the next release of WDOA population forecasts based on the 2030 decennial census. Unsewered development within the sewer service area may necessitate a SSA boundary update or amendment in order to reallocate forecasted growth. Limited changes to the SSA boundary may be addressed through a Type I or II SSA Plan amendment rather than a more comprehensive update.

Advisory Policies

Policy 1.1.10 Local government comprehensive plans should be updated every ten years to reflect changing economic and physical conditions. Cooperative boundary and land use planning between local units of government is strongly encouraged.

Policy 1.1.11 Urban development should be encouraged to "infill" vacant developable lands within city boundaries, then be staged outward according to local plans.

Policy 1.1.12 Sewer extensions that reflect the contiguous and compact pattern of development should receive priority over extensions that will contribute to urban sprawl. However, it may be cost-effective to provide sanitary sewer to an area not adjacent to an existing sewered area if the costs are paid for by the landowner or developer.

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include the same mix of representatives involved in the 2025-2026 update of this SSA Plan with the Local Planning Agency (WCWRPC) serving as a non-voting Advisory Committee Chair.

[13] As of January 2026, Dunn County Land & Water Conservation Department has been serving as the local Plan Administrator.

[14] As of January 2026, West Central Wisconsin Regional Planning Commission (WCWRPC) has been serving as the WDNR-designated Local Planning Agency.

Policy 1.1.13 The supply of land dedicated to urban development should approximate current and future needs as determined from population, employment/business, and land use projections, and be based on locally determined density standards.

Policy 1.1.14 Future commercial and industrial development should be guided to similar, compatible areas planned for such uses and be readily accessible to major transportation systems.

Policy 1.1.15 Future residential development should occur adjacent to existing development to contain costs of public service provisions, and reflect compact and orderly development.

Policy 1.1.16 Proposed SSA Plan amendments and updates should avoid creating large gaps within the service area boundary. Satellite sewer service areas extended to serve an existing development that has failing onsite sewage systems or otherwise protect water quality may be an exception to this criteria.

Policy 1.1.17 The presence of Environmentally Sensitive Areas (ESAs) does not prohibit an area's inclusion within the SSA boundary. ESAs are excluded from the developable acreage within the SSA, but may be located within the SSA boundary. It is preferred that large, contiguous ESAs that are adjoining or overlapping the proposed SSA boundary be excluded from the SSA boundary.

Objective 1.2 Guide future rural development to occur in an efficient, orderly, and compatible manner to maintain a rural character.

Advisory Policies

Policy 1.2.1 Rural development should take place adjacent to existing development to prevent further scattered development.

Policy 1.2.2 Future residential development should be directed to existing platted subdivisions.

Policy 1.2.3 Commercial and industrial development should be clustered around existing development to prevent scattered or strip development.

Policy 1.2.4 Development proposed for designated farmland preservation areas with high quality Class 1 or 2 soils for agricultural crop production should be discouraged consistent with applicable farmland preservation plans.

Goal 2:
Provide and maintain a full range of community facilities and services that are efficient, economical, and environmentally sound.

Objective 2.1 Provide municipal sanitary sewer systems that will effectively and economically serve urban development.

Mandatory Policies

Policy 2.1.1 **SSA Plan Consistency.** When a subdivision plat, condominium plat, certified survey map, or sewered development is proposed, the local regulating authority shall review the proposal for consistency with this Sewer Service Area Plan, if it can be reasonably expected that the proposed development would be sewered in the future. In such a case, regardless of the timing of the sewer extension, the policies in this Chapter regarding plan amendments shall apply and, if required, a plan amendment shall be obtained prior to any intensive land disturbance. The granting of a 208-review letter or plan amendment is not guaranteed, even if an ESA had previously been disturbed or encroached upon. Once development occurs, the local regulating jurisdiction has a responsibility for SSA Plan consistency, including ensuring that intensive land disturbances do not occur within environmentally sensitive areas.

Policy 2.1.2 **Initiating Review/Amendment Requests.** A request for a 208-conformance review letter can be initiated by a landowner, authorized developer, land surveyor, etc., or the municipality in which the sewer extension would be located. A request for a plan amendment can only be initiated by WDNR, the Local Water Quality Advisory Committee, or a municipality within the sewer service area.

Policy 2.1.3 **Scope of 208-Conformance Reviews.** 208-conformance reviews are conducted to confirm that: (1) the area to be served by a sewer extension or hook-up is located within the SSA boundary and (2) ESAs will be protected from disturbance subject to the policies and exceptions of this chapter.

208-conformance review shall consider not only the corridor of the proposed sanitary sewer extension or private hook-up (lands to be disturbed during its construction) for conformance with this SSA Plan, but also include the review of maps, development maps, engineering studies, etc., for the immediate and any future, ultimate areas that will be served by the sanitary sewer extension or hook-up.

If the ultimate service area is located outside the SSA, the 208-conformance review will be limited to lands within the SSA until such time that a SSA boundary amendment is approved.

208 Reviews & Sewer Extensions

A ***208-Conformance Review Letter*** refers to the water quality management review letter issued by the Plan Administrator (or a local municipality for a private hookup) regarding the consistency of a proposed **sanitary sewer extension or hook-up/PIMS** with this Sewer Service Area Plan. This conformance review is also referred to as a ***208 Review***.

A **sewer extension** is the installation or expansion of the public sewage system, including private interceptor sewers, but excluding plumbing in connection with buildings served, service laterals from buildings to a street main, and the maintenance or replacement of inadequate systems in areas previously served. Applicable **sewer hook-ups/PIMS** are discussed in Policy 2.1.15.

Policy 2.1.4 **208-Conformance Review Timing.** The 208-conformance review shall be the final, required permit review and approval for a proposed project in most cases. Submittal of a 208 Review application to the Plan Administrator will typically occur after the local municipality has approved the certified survey map, subdivision plat, and/or development agreement. Grading of the project site shall not commence until after the 208-conformance review is completed. When an ESA exists within the project area, any required grading plans, engineering reports, or other such studies shall also first be approved by the regulating entity and local municipality, and

referenced in the 208 Review application. On a case-by-case basis, the Plan Administrator may waive this policy when land development plans have not yet been finalized or when a permit/compliance certification is not issued until after certain actions have been completed (e.g., FEMA Letter of Map Revision, WDNR Notice of Intent for construction site stormwater permit).

Policy 2.1.5 **Timing of Engineering Studies and CSMs/Plats.** A project plan that is consistent with the SSA Plan resulting from an acceptable engineering study that is submitted to and approved by the local regulating entity before a subdivision plat or certified survey map is recorded shall allow the land divider to represent appropriate changes on the subdivision plat or certified survey map.

A project plan that is consistent with the SSA Plan resulting from an acceptable engineering study that is submitted to and approved by the local regulating entity after a subdivision plat or certified survey map is recorded shall require the land divider to represent appropriate changes on a separately recorded document, such as an Affidavit, that includes a legal description and graphic of the subject area. Until this is accomplished, a deed restriction or similar note on the plat or CSM shall designate ESAs as unbuildable and protected from intensive land disturbances.

Policy 2.1.6 **Conditional Approvals.** At the discretion of the Plan Administrator or WDNR, 208-conformance review letters and plan amendments may include conditions that are consistent with the goals, objectives, and policies of this Chapter. Also see Policy 3.1.21.

Policy 2.1.7 **Other Rules Still Apply.** The issuance of a 208-conformance Review Letter or approval of a plan amendment does not constitute approval or compliance with any other local, state, or federal permits or regulations that may be required for sewer construction or associated land development activities.

Policy 2.1.8 **Cost-Effectiveness.** Evaluation of cost-effectiveness shall consider financial, environmental, social, and other non-monetary factors as a whole over the 20-year planning period. When the monetary costs of alternatives are approximately equal (within 10% of each other), then non-monetary factors shall be used to make a decision on cost-effectiveness. A municipal wastewater treatment system (sanitary sewer system) provides the highest level of environmental protection, planning, management, and monitoring, and is the preferred regional wastewater solution when service can be provided in a cost-effective manner. Where municipal wastewater treatment is not cost-effective and challenges exist for on-site private systems, shared cluster systems may be an alternative if proper siting and maintenance can be guaranteed.

Policy 2.1.9 **Lift stations.** The installation, replacement, or upgrade of a lift station, with no new, planned extension, for municipal sanitary sewer does not require a 208-conformance review. However, the disturbance of an ESA during the lift station's construction shall be avoided and would be subject to the policies in Goal 3.

Policy 2.1.10 **Hook-ups & PIMS.** The municipality providing sewer services will serve as the designated water quality management agency for the review of proposed private sewer hookups, laterals, sanitary private interceptor main sewers (PIMS), or building sewer for new construction including determining applicability under State code, reviewing the proposal for conformance with this Sewer Service Area Plan, and issuing a 208-review letter if required as discussed in Section 9.2. This review authority does not extend to the

review and approval of plan amendments. This policy and the related procedures in Section 9.2 are under review by the State of Wisconsin, and may need to be modified in the future.

Policy 2.1.11 **Holding Tanks**. Holding tanks are a solution or repair of last resort and, when required, are most frequently installed in isolated rural areas without sewer service in order to replace failed private onsite sewage disposal systems that cannot be repaired in any other fashion. On a case-by-case basis, the local regulating jurisdiction may determine that holding tanks or shared cluster systems are preferred over other private onsite wastewater treatment solutions due to site conditions, such as sandy soils; connection to a sanitary sewer system is preferred when cost-effective. Chapter 8 includes additional policies and responsibilities related to the permitting of holding tanks and designation of holding tank service areas.

Policy 2.1.12 **Replacement of Existing Sanitary Sewer Lines.** Unless otherwise required by WDNR, a 208-conformance review is not required for the replacement of existing, previously permitted public sanitary sewer lines if the new collection system will utilize the same route (e.g., same right-of-way or easement area) and the system will not serve a new growth area. For a proposed re-routing of a replacement collection system, the new route shall be reviewed to ensure that utilities are routed or located to minimize or avoid impacts on environmentally sensitive areas (ESAs), but a 208-conformance review is not generally required. Any areas served by the proposed replacement are subject to the other SSA Plan policies of this plan.

Advisory Policies

Policy 2.1.13 Sanitary sewer extensions should be concurrent with the timing or provision of other public facilities and services and consistent with wastewater treatment facility plans.

Policy 2.1.14 Sewer extensions should occur contiguous to existing systems, according to local staging plans, where facilities can accommodate them.

Policy 2.1.15 The benefits of extending sanitary sewer to an existing development with failing private, onsite septic systems to protect water quality may outweigh financial cost-effectiveness. Sanitary sewer systems should be provided for existing development whenever they are the most cost-effective alternative for addressing failing on-site disposal systems. Proactively explore wastewater treatment alternatives for the Tainter Lake area as discussed within Chapter 5.4.

Policy 2.1.16 Sanitary sewer system construction and sizing should be staged to encourage lower capital investment and flexibility.

Policy 2.1.17 Existing capacity in sanitary sewer systems should be used before making substantial expansions or extensions.

Policy 2.1.18 Landowners with private wells should be aware of the importance of regular testing, and threats to their water supply, including risks related to private septic system maintenance. Regulations related to the maintenance/compliance of private septic systems, shared cluster septic systems, and well setbacks will be enforced. Developers of unsewered subdivisions should demonstrate through site plans that wells and septic systems can be properly spaced.

Policy 2.1.19 The number of waste treatment plants should generally be minimized to avoid duplication of facilities, institute economies of scale, and lessen environmental degradation.

Goal #3: Environmentally Sensitive Areas

Protect water quality through the consideration of environmental constraints and the protection of environmentally sensitive areas from encroachment by intensive land disturbances within the sewer service area.

Note: Given the emphasis of SSA planning on the protection of environmentally sensitive areas (ESAs) and water quality, Goal #3 is more robust than the previous two goals and provides detailed guidance for plan administration. All policies in Goal #3 are mandatory, though a portion of some policies may be discretionary.

Objective 3.1 Areas environmentally unsuitable for development shall be delineated, tracked, and protected from intensive land disturbances.

Mandatory Policies – General Water Quality & ESA Protection

Policy 3.1.1 **Protection of Environmentally Sensitive Areas (ESAs).** The ESAs in Chapter 3.5 shall be protected and not encroached upon by any **intensive land disturbance** within the Sewer Service Area (SSA) regardless of the status or type of wastewater treatment, subject to the policies and exceptions of this Chapter.

The plan allows, without a plan amendment, sewer extensions or hookups on lots that are partially within an ESA if the building construction or any other intensive land disturbance does not occur on that portion of the lot affected by any one of the ESAs. Municipalities and Dunn County must further ensure that sufficient setbacks and erosion control measures are taken, as determined by local zoning or land development controls.

Policy 3.1.2 **Intensive Land Disturbances.** For this plan, intensive land disturbances shall include but are not limited to construction, expansion, or replacement of the following uses:

- structures and accessory structures, including buildings, homes, outbuildings, sheds, garages, storage buildings, decks, and any objects with a foundation, excluding permitted retaining walls;
- impervious surfaces such as parking lots, concrete or asphalt surfaced storage areas, paved patios, private walkways, and swimming pools;
- private golf courses, campgrounds, man-made ponds, etc., if associated with any of the above; and,
- grading, filling, and dewatering related to the above. Fill must not reduce flood storage of a 100-year floodplain.

Policy 3.1.3 **ESA Encroachments shall be Avoided.** An ESA encroachment by an intensive land disturbance and a Type IV (ESA) Sewer Service Area Amendment shall only be approved in unusual circumstances **where no reasonable alternative exists** and/or when the encroachment is necessary to mitigate or remedy an existing environmental problem. A self-created hardship or desire to maximize developable area are not sufficient justifications for the approval of a Type IV amendment.

Policy 3.1.4 **Determining Reasonable & Avoidable for Encroachments.** The Plan Commission or similar authorized body empowered with making such a determination of the municipality in which a proposed ESA encroachment is located will make the determination whether

the encroachment has **no reasonable alternatives, was avoidable, or was necessary to mitigate or remedy an existing environmental problem**. This determination shall be clearly stated in an official record (e.g., meeting minutes, staff report); approval of a plan or plat that shows the encroachment is insufficient documentation alone. The SSA Plan Administrator will alert WDNR to this determination as part of a 208-conformance review.

Policy 3.1.5 **Unapproved ESA Encroachment.** Any unapproved alteration of any ESAs within the SSA to remove the status of these areas as an environmentally sensitive area, and hence make them available for sewered or unsewered development, is prohibited. No ESA may be modified, removed, graded, filled, or otherwise altered to avoid these requirements and policies.

If an ESA encroachment by an intensive land disturbance occurs that did not receive required approval(s) in accordance with the policies and procedures of this plan the following shall apply:

i. The encroachment area shall remain an ESA and be unbuildable until properly approved and/or a Type IV amendment is granted.

ii. On a case-by-case basis, the landowner may be subject to remediation or restoration costs or other penalties at the discretion of WDNR.

Policy 3.1.6 **Wetlands and Wetland-Indicator Soils.** The filling or removal of a wetland, in whole or part, shall require a Type IV SSA Plan Amendment (or minor amendment under Policy 3.1.28), even if WDNR had otherwise previously approved or issued an exemption determination for the wetland encroachment.

If wetland-indicator soils are shown on the WDNR Surface Water Data Viewer, a site-specific survey and/or certified wetland delineation performed by a third party, qualified delineator may be required on a case-by-case basis if an intensive land disturbance may encroach upon the wetland-indicator soils. Such a delineation may be required by the local regulating jurisdiction as part of their permitting processes or by the Plan Administrator with WDNR consultation prior to issuing a 208-conformance review determination.

Policy 3.1.7 **Shorelands.** Local regulating entities shall continue to protect shorelands as sensitive areas important to water quality to the extent allowable by State law, but shorelands are not included as an ESA nor are separately regulated under this Sewer Service Area Plan. Land disturbances in regulated shoreland areas are allowed to the extent permitted by State and local ordinances and approved by the regulating entity. However, some ESAs (e.g., steep slopes, floodplain/floodways, wetlands) may overlap with shoreland areas and such areas are covered under this Plan.

Policy 3.1.8 **Groundwater and Wellhead Protection Areas.** Wellheads for public drinking water will continue to be enforced consistent with State law. It is expected that Dunn County will continue to champion groundwater testing and protection programs that engage communities to protect groundwater and address the related challenges identified in Chapter 3.2.

Policy 3.1.9 **Additional Environmental Considerations.** The additional environmental considerations in Chapter 3.6 are primarily defined, interpreted, considered, and protected by local or State regulating jurisdictions; they are not planned for or directly protected through this SSA Plan. These additional constraints are typically not considered ESAs under this SSA Plan and are not excluded from the developable SSA acreage, though may overlap with an ESA.

When evaluating a SSA Plan amendment, the regulating jurisdiction(s) will interpret and evaluate any additional environmental considerations. Sanitary sewer extensions and development into physical or cultural resource areas not included as an ESA in this plan shall conform to applicable local, state, and federal rules and regulations.

The applicant shall be asked to identify any such unique features as part of a 208-conformance review or plan amendment request. WDNR and the Plan Administrator may consider unique environmental characteristics or features (e.g., springs, closed depressions) on a case-by-case basis.

Policy 3.1.10 **Stormwater Management.** Local units of government shall continue to ensure the enforcement of construction site erosion controls and stormwater management ordinances, ensure that stormwater facilities are adequately sized, and maintain related permits. Additional flood and stormwater management planning, programming, and related regulations, as well as low-impact development approaches that reduce impervious surfaces and limit run-off are encouraged, especially for areas near surface waters and wetlands.

Policy 3.1.11 **Relationship to Local Plans & Policies.** The ESA definitions in this Chapter are common and shared for their entire SSA Study Area for purposes of this SSA Plan. Dunn County and communities may have ESA definitions and policies that differ from this SSA Plan, including additional or more stringent standards.

The ESA definitions herein are only required for implementation and administration of this SSA Plan within the sewer service area. Decisions regarding the update, amendment, compliance, or administration of the SSA Plan shall be consistent with the definitions and policies in the SSA Plan. In cases of such differences, the most restrictive definitions and policies would, in effect, apply but would be administered separately. Since local units of government do have a responsibility and compliance role during implementation of the SSA Plan, consistency with ESA definitions is encouraged, but is not required.

Dunn County and local municipalities shall continue to consider, implement, and enforce the local shoreland, floodplain, erosion control, uniform dwelling code, stormwater, and steep slope regulations described in Chapter 3 and the policies of this Sewer Service Area (SSA) Plan as well as consider and abide by other applicable local, state, and federal rules pertaining to water quality and wetland protection. Local comprehensive plans and land use ordinances shall guide development away from environmentally sensitive areas within the SSA. Sufficient setbacks and erosion control measures shall be taken, as determined by local zoning or land development control, and may be more stringent than the policies in this Sewer Service Area plan at the discretion of the local regulating jurisdiction.

Policy 3.1.12 **Failure to implement SSA Plan regulations and policies** may impact sewer extension approvals within those municipalities where WDNR or WDSPS determine that improvements in enforcement are needed. As determined by the Wisconsin Department of Safety and Professional Services (WDSPS) or Wisconsin Department of Natural Resources (WDNR), if local construction site erosion controls and/or stormwater regulations are not adequately implemented as described in this plan, all sewer extensions into steep slope ESAs, regardless of class or location, will not be approved in the respective municipality until such time that the department determines that adequate enforcement is achieved. Similarly, WDSPS or WDNR may require changes in the review, approval,

amendment, and tracking processes under this plan should it be determined that the policies and procedures in this SSA Plan are not being adequately implemented or adhered to.

Mandatory Policies - Steep Slope ESAs

Policy 3.1.13 **Slopes near Surface Waters.** Any proposed projects or SSA Plan amendments for development on any 12+% slopes that would result in direct runoff into a stream shall be prohibited. Mitigation measures to protect water quality shall be required when necessary.

Policy 3.1.14 **Identifying Steep Slope ESAs.** Slope shall be defined, measured, delineated, and classified as described in Chapter 3.5.5, subject to the exclusions in Policy 3.1.26. The local regulating jurisdiction may be more restrictive in its definition and protection of steep slopes. Slopes less than 20% are not a Steep Slope ESA under this plan.

Summary of Steep Slope ESA Definitions

- Natural or un-engineered 20+% slope and min. of 2,000 square ft. is a steep slope ESA.
- Class A – The steep slope and/or its 20 ft. top & bottom buffer overlaps a surface water, 100-year floodplain, or wetland ESA
- Class B – Other Steep Slope ESA's that are not Class A slopes.

See Chapter 3.5 for full definitions.

Policy 3.1.15 **Steep Slope Exclusions.** The following are not considered Steep Slope ESAs under this SSA Plan, if an **engineering study** with a grading/stabilization plan and documented best management practices have been submitted to the regulating county or municipality to mitigate erosion AND the impacted area of steep slope is not located in another ESA.:

a. Engineered, man-made steep slopes, including walk-out basements, if a grading/stabilization plan has been approved by the pertinent regulating jurisdiction(s).

b. Older, man-made slopes that were purposefully engineered or graded according to standards at the time and have since stabilized. Such artificial slopes will be evaluated by the Plan Administrator on a case-by-case basis with WDNR consultation and may be treated as a Steep Slope ESA depending on site characteristics, soil erodibility, and proximity to surface waters or other ESAs.

c. Temporary man-made piles of soil (i.e., spoils piles, dirt stock piles) that were created in the last five years.

Policy 3.1.16 **Steep Slope Protections.** Regardless of location, proximity to other ESAs, or whether a sewer extension or hook-up is required, the local regulating entity (county and/or municipality) shall require the following for proposed intensive land disturbances within areas of steep slope:

i. Best management practices shall be required for erosion and stormwater control for all steep slopes of 12% or greater.

ii. Intensive land disturbances, including the excepted activities in Policy 3.1.26, shall avoid encroachment upon any steep slope ESAs to the extent reasonably possible.

iii. If **no reasonable alternative exists** and an encroachment upon a steep slope ESA is unavoidable:

- a Type IV SSA Plan Amendment may be required as discussed within other policies of this chapter.

- an engineering study with a grading/stabilization plan prepared by a Wisconsin-licensed engineer shall be required, filed with, and approved by the local regulating entity to demonstrate the suitability of the proposed intensive land disturbance while ensuring that erosion will be prevented and surface water and groundwater quality will not be negatively impacted.

Engineering Studies and Stabilization Plans

For this SSA Plan, an engineering study with grading/stabilization plan includes site planning documents, grading plans, stabilization plans, geotechnical reports or other such technical reports prepared by a Wisconsin-licensed engineer that sufficiently demonstrates that the land, with potential best practices, is suitable for the proposed intensive land disturbance without negatively impacting water quality.

Such engineering studies should include, at a minimum, the following (or comparable) information as required by the regulating entity:

(i) Summary of subject site and proposed changes.

(ii) Soil types.

(iii) Existing conditions and slopes, including existing erosion and slope stability.

(iv) Proposed land development.

(v) Proposed erosion control best management practices, including any retaining walls.

(vi) Identification of a single responsible party, before, during and after changes to slope.

(vii) Verification and statement that changes to slope does not reduce the existing water quality, the existing erosion, or the stability of the slope.

(viii) An engineer's stamp and signature on the report verifying the accuracy of the document.

Depending on project and site circumstances, a local regulating entity may require additional information or studies, including reports provided by a licensed, geotechnical engineer. At its discretion, the Plan Administrator may require that a copy of any approved engineering studies or stabilizations plans be provided with a 208-conformance review request.

Policy 3.1.17 **Class B Steep Slope Amendment Exception.** As an ESA, an encroachment upon a Class B steep slope by an intensive land disturbance shall only be approved in unusual circumstances **where no reasonable alternative exists** and/or when the encroachment is necessary to mitigate or remedy an existing environmental problem. A 208 Review Conformance Letter or other approval may be issued without a Type IV SSA Amendment for an intensive land disturbance within Class B steep slopes if an engineering study or its equivalent has been approved by the local regulating jurisdiction and such encroachments are reported to SSA Plan Administrator for tracking purposes. Depending on the nature of the encroachment, site, and potential for negative water quality impacts, the municipality and/or Plan Administrator shall consult with WDNR to determine whether a Type IV SSA Amendment is necessary.

Policy 3.1.18 **Cost-Effectiveness of an ESA Amendment.** Plan Amendments to allow sewered development on steep slope ESAs shall be the most cost-effective development alternative and shall be consistent with the existing development pattern and locally approved construction erosion control ordinances.

Mandatory - ESA Review & Plan Administration

Policy 3.1.19 **Mapping of ESAs.** The ESAs mapped in this SSA Plan are an approximate representation of known conditions at the time of map preparation. Not all ESAs may be mapped or mapped accurately. Such physical features may change over time from natural or human causes and new ESAs may be formed. Therefore, it is extremely important that, prior to any land-disturbing activity, the presence and location of ESAs be verified to the extent reasonably possible. Such verified information shall supersede and replace any previously mapped information set forth in this plan.

At the request of WDNR, the SSA Plan Administrator, a county, or municipality, the ESA boundaries and acreages as mapped in this plan may be corrected by the Plan Administrator to reflect more accurate information. The Plan Administrator may request technical support or approval of WDNR, municipalities, and others when considering such requests. Such corrections, including the addition of previously unmapped ESAs, will be tracked by the Plan Administrator, but shall not require a Type IV Sewer Service Area Plan Amendment unless determined that an amendment is needed by the Administrator, the local Water Quality Management Advisory Committee, or WDNR. Such a correction does not constitute a change of any deed restriction or any conditions of a CSM, subdivision plat, or land use permit without the consent and approval of the local regulating jurisdiction.

Policy 3.1.20 **Delineation of ESAs.** As part of applications for 208-conformance reviews and SSA Plan amendments, the applicant shall identify if any ESAs or other environmental considerations defined within Chapters 3.5 & 3.6 are known to exist within the area to be served by the project, will be impacted by the project, and if any related permits or approvals have been approved or will be required.

Prior to a 208 Review or consideration of a plan amendment, an applicant may be required to perform water quality-related studies and surveys to accurately delineate an ESA at their expense. This may include the performance of site-specific surveys and certified wetland delineation.

When a subdivision plat or certified survey map is created, re-platted, further subdivided, or otherwise changed, the ESA definitions and SSA Plan policies that are in effect at the time of the action or change shall apply. A change in the ESA definitions within this plan does not change any area designated as unbuildable on a previously approved plat or CSM.

Policy 3.1.21 **Considering ESAs during SSA Plan Administration.** The applicant shall provide the Plan Administrator sufficient information and approved plans or water quality-related studies to allow for a determination of whether any ESAs will be encroached upon by an intensive land disturbance.

When requesting a 208 Review, the following are strongly recommended and may be required by the Plan Administrator and/or WDNR:

a. The 208-conformance review request shall not be made until any site plans, erosion control plans, engineering studies, special hydraulic analyses, etc. have been approved by the regulating authorities that ensure that ESAs will be protected.

b. It is strongly encouraged that ESAs within a property, certified survey map, or subdivision to be served by sanitary sewer should be identified as an outlot and designated as being protected from intensive land disturbances. It is the responsibility of the landowners and municipality to ensure such outlots are not encroached upon.

It is recognized that detailed site plans are not always available when a sanitary sewer extension is proposed. In such instances, the Plan Administrator may issue a 208-conformance letter with conditions that any ESAs be protected or may request additional information, water quality-related studies, or actions in consultation with WDNR (see Policy 2.1.6). The local municipality in which the project is located has the primary responsibility of ensuring that any conditions in the 208-conformance letter are enforced.

Policy 3.1.22 **ESA Encroachment when a 208 Review is Required.** If encroachment of an ESA by an intensive land disturbance is expected and a 208-review letter is required from the Plan Administrator (or the municipality for sewer hook-ups/PIMS) prior to the provision of sewer service, a Type IV (ESA) Sewer Service Area Plan Amendment will first be required prior to the completion of the 208 Review, with the previously noted exception for Class B steep slopes.

A 208-review letter may be issued with conditions or restrictions if there is insufficient information available to verify a possible ESA encroachment OR if an ESA or other water quality-related environmental concerns exists within or near the project area. In such cases, including for phased development projects, the conditions shall include that any existing ESAs shall be unbuildable and protected from intensive land disturbances unless a Type IV SSA Amendment is approved. Local regulating jurisdictions are strongly encouraged to include a similar condition as part of their plat, survey map, and site plan review for projects when a sewer extension is required.

Policy 3.1.23 **Encroachment when no 208 Review is Required.** The local regulating county or municipality is responsible for reviewing, discouraging, minimizing, and mitigating any steep slope or other ESA encroachment and related impacts, regardless of the slope's or ESA's proximity to any other ESAs or if the intensive land disturbance is part of sewered or unsewered development. The county or municipality may request a Type IV SSA Amendment if needed and **reasonable**, and must report any ESA encroachments within the sewer service area to the Plan Administrator for tracking purposes. Based on the characteristics of the ESA or nature of the proposed disturbance, the local regulating jurisdiction or WDNR have the discretion to require a Type IV SSA Amendment at any time prior to permitting the disturbance.

Policy 3.1.24 **Responsibilities of Local Units of Government**. As an undesignated urban sewer service area, the administration of this SSA Plan requires cooperation and consistent compliance by all local units of government. Many of the policies in this chapter reference responsibilities of the communities and regulating jurisdictions within the SSA. In addition to the responsibilities:

a. Dunn County and communities shall inform the Plan Administrator of any changes regarding ESA location, encroachment, and size/acreage changes for tracking purposes, including updated ESA mapping data.

b. Local regulating entities and the Plan Administrator have a responsibility to report to WDNR any intensive land disturbances within an ESA that occur in a manner inconsistent with the policies and procedures of this Sewer Service Area Plan.

SSA Type IV (ESA Encroachment) Amendment Policies & Exceptions

Policy 3.1.25 **Type IV Amendments Required, with Exceptions.** An encroachment of any ESA defined in Chapter 3.5. by an intensive land disturbance shall require a Type IV (ESA) Sewer Service Area Amendment prior to the permitting of the disturbance, subject to the other policies and exceptions of this chapter. WDNR has the discretion to require a Type IV SSA Plan Amendment at any time for a proposed or unpermitted encroachment of an ESA.

Policy 3.1.26 **Exceptions to Type IV (ESA) SSA Amendments.** The following exceptions are provided to balance the protection of ESAs with legitimate local and regional development. When such conflicts occur, the problem shall be resolved with utmost care taken to protect water quality. For the following exceptions, Policies 2.1.3 & 2.1.4 apply; **no reasonable alternative shall exist** and the encroachment is unavoidable as documented by the local Plan Commission or other authorized body/staff empowered to make such a determination.

Only utility and public street crossings shall be permitted to encroach upon surface water, floodplain/floodway, and wetland ESAs without a Type IV SSA Amendment, except passive public recreational facilities (e.g., picnic areas, trails) and sports fields without seating or structures may be allowed in floodplain/floodway ESAs if the community can demonstrate that flood storage will not be reduced.[15]

For steep slope ESAs, an encroachment by the following uses and activities do not require a Type IV SSA Amendment:

- utilities that are routed or located to minimize or avoid impacts on an ESA or extend across an ESA to serve sewered development not located within the ESA or an ESA setback;
- passive public recreational facilities such as trails and picnic areas, excluding buildings, parking areas, and other significant hardscape;
- stormwater management improvements, when demonstrated that such facilities cannot fit or function elsewhere are part of the development;
- public streets, driveways, and private access roads, when demonstrated that such facilities cannot fit or function elsewhere are part of the development;
- walk-out basements and engineered, artificial steep slopes, including the re-engineering and re-grading of stabilized artificial slopes and previously approved grading plans, if an engineering report is submitted and approved by the local regulating entity;
- open decks and/or stairways on post and pier foundations, as well as paved patios extending up to 15 feet from the foundation of the principal structure, may encroach upon slopes 20% or greater or their buffer areas with approval of the local regulating authority and subject to any additional local regulations, though buffers or setbacks for such disturbances shall be encouraged if possible;
- forestry practices and grubbing, to the extent allowed by local regulating jurisdiction(s);

[15] Private streets and driveways are not an exception and cannot encroach upon surface waters, floodplains/floodways, and wetlands, unless an agreement is in place that the roadway will be dedicated as a public road with the intent to turn over maintenance to the municipality. On a case-by-case basis, the Plan Administrator, in consultation with WDNR, may require a hydraulic analysis to demonstrate that flood storage will not be reduced.

- grading, filling, and landscaping required for erosion control, stormwater management, or other health, safety, or natural resource protection purposes; and,
- existing development on private septic systems, if deemed environmentally beneficial or will remedy an existing environmental problem (e.g., failing on-site systems).

A Type IV (ESA) Sewer Service Area Amendment shall not be required for all previously specified ESA encroachment exceptions in Policy 3.1.26 if all other required water quality-related permits and approvals are received and mitigation plans have been approved by regulating entities for any potential adverse water quality-related impacts. In such instances, engineering studies, stabilization plans, hydraulic studies, and any other needed water quality-related approvals shall be obtained by the regulating jurisdiction(s) prior to requesting a related 208-conformance review. An exception to this requirement is a preliminary approval may be sufficient if a permit/compliance certification is not issued until after certain actions have been completed (e.g., FEMA Letter of Map Revision).

Any such disturbance of an ESA, regardless if encroached upon by an exempted activity or not, shall be noted in the 208-review letter and in the subject sewer/site plans and specifications so that an environmental review of the proposed action can be conducted, if necessary, during WDNR review of the proposed project. If a 208-review letter is not required, the SSA Plan policies still apply and the encroachment shall be reported to the SSA Plan Administrator.

Policy 3.1.27 **Directional Borings.** WDNR-approved directional or horizontal borings for utilizes and infrastructure under a surface water, floodplain/floodway, or wetland ESA is not considered an ESA encroachment if the installation of the boring commences and terminates outside of an ESA. Documentation showing the locations of a proposed boring and nearby ESAs must be submitted as part of a 208-conformance review request.

Policy 3.1.28 **Minor Type IV Amendments.** A request for a Type IV (ESA) Sewer Service Area Amendment for which less than one (1) acre of ESA is affected shall be considered a minor amendment. Minor amendment applications are considered by the Local Planning Agency in cooperation with the Plan Administrator. It is expected that the application and Local Planning Agency staff report for a minor amendment will be brief. The application must still include sufficient documentation showing the location of the ESAs, the nature of the encroachment, a determination that the encroachment was unavoidable and not alternative exists, mitigation measures, and the status of related permits/approvals. The amendment may be approved the SSA Plan Administrator and Local Planning Agency following consultation with and concurrence by WDNR Water Quality staff. The Local Planning Agency, Plan Administrator, and WDNR staff have the discretion to require the full amendment review and approval process as described in Chapter 6.4. depending on characteristics such as the site, the ESA, and potential water quality impacts. All permits and approvals related to the Type IV Amendment must be in place prior to submittal and approval of a 208-conformance review letter per Policies 2.1.4 and 2.1.5.

CHAPTER 8 -
HOLDING TANK SERVICE AREAS

In some cases, municipalities are faced with high-cost alternatives to improving their wastewater treatment and disposal situations. With the number of affordable alternatives diminishing, holding tanks may be the only alternative. As of October 1, 1987, a revised Chapter NR113 of the Wisconsin Administrative Code took effect to consistently handle this alternative. At the same time NR 113 was being changed, NR 205 was being revised to clarify Publicly Owned Treatment Works (POTW) obligations to accept septage[16]. The provisions of this chapter can only relate to programs and policy as they are currently enforced. Three terms should be defined here to aid in understanding the requirements of NR 113:

1. "**Publicly owned treatment works (POTW) planning area**" means the area delineated in a map form in which the planning for a specific POTW is being or has been prepared to cover. In other words, the area that a POTW is responsible to consider in planning a cost-effective regional wastewater treatment alternative. The SSA Study Area described in Chapter 2 should be used to determine the POTW planning area, unless the POTW has adopted its own POTW planning area map.

2. "**Publicly owned treatment works (POTW) sewer service area**" means the area presently served and anticipated to be served by a sewerage collection system as approved under ch. NR121 (i.e., the SSA boundary established by this SSA Plan) or as a facility planning effort done under ch. NR110, if no NR121 designation has been made.

3. "**Publicly owned treatment works (POTW) holding tank service area**" means the area outside the POTW's sewer service area, but inside or equal to the POTW's planning area where a contract has been developed for holding tank wastewater to be treated at the POTW.

The following general requirements are applicable to the Menomonie Urban Sewer Service Area are:

1. Holding tanks are a solution or repair of last resort and, when required, are most frequently installed in isolated rural areas without sewer service in order to replace failed private onsite sewage disposal systems that cannot be repaired in any other fashion.

2. Large commercial, industrial, recreational, or residential development holding tank private onsite wastewater treatment systems (POWTS) that singly or when added together or increased by successive additions generate 3,000 gallons of septage per day or greater shall contract with a wastewater treatment facility for treatment of the septage.

3. **A holding tank service area must be delineated for any holding tank outside the sewer service area, but within the SSA Study Area, generating 3,000 gallons or more of septage a day**. The service area for a POTW may include both an urban sewer service area and a

[16] The current NR 113 was created effective January 1, 1997 with subsequent corrections. The current NR 205 of the Wisconsin Administrative Code was created effective October 1, 1984.

holding tank area. The POTW should have the capacity to accept wastewater from both areas. The difference between the sewer and holding tank service areas is the holding tank service area including areas not intended to be sewered during the design life of the POTW. Also, holding tanks may be located in either service area and a Holding Tank Service Area Amendment is required.

4. Within a POTW planning area, any new holding tanks for new development, outside of the sewer service area and inside the POTW planning area that receive more than 3,000 gallons of wastewater per day require that the owner of the holding tank system and the POTW reach an agreement and seek a water quality management plan amendment by the SSA Plan Administrator with approval by WDNR. The amendment is needed to put the area tributary to the holding tank within a holding tank service area of the POTW. The new holding tank cannot be approved until the amendment has been completed or until WDNR has received adequate assurance that it will be completed. This type of amendment does not require an acreage swap. The SSA Plan Administrator will evaluate the amendment request and may recommend the holding tank owner consider other POTWs because of cost effectiveness or environmental concerns.

5. Holding tanks to replace existing failed onsite systems, which will receive more than 3,000 gallons of wastewater per day, should also be included in the designated POTW holding tank service area. However, if the owner of the holding tank can satisfactorily demonstrate that he is unable to become part of such a service area, the holding tank may be approved provided the owner has a multi-year contract with a POTW, of sufficient capacity, to provide treatment for all wastewater tributary to the holding tank. Further, the owner must provide satisfactory assurance all such wastewater will only be disposed of at a POTW.

6. Small holding tank (generating under 3,000 gallons per day) and septic tank wastewater must be taken to a POTW if:
   a. The septic tank is located in the POTW's sewer service area.
   b. The holding tank is located in the POTW's sewer service or holding tank service areas[17].
   c. The holding tank is located inside the POTW's planning area, but outside the POTW's sewer service and holding tank service area(s), if the POTW will accept the wastewater and the cost to the disposer/hauler is less than or equal to the amounts calculated pursuant to NR113.07(1)(f).

   The above requirements (in 4., including 4a., 4b., and 4c.) do not apply if the wastewater from small holding tanks and septic tank systems will be land spread in accordance with a WDNR or WPDES permit.

7. POTW's are required to accept, treat, and dispose of septage under certain circumstances as directed by 281.49 State Statutes and NR 205.

[17] The POTW acceptance requirement, for holding tank wastewater within the sewer service and holding tank service area and septic tank wastewater within the sewer service area is in NR205.07(2)(i).

No holding tank service area has been delineated in this SSA Plan, because there were no identified contracts to dispose of large holding tank wastewater into the Menomonie wastewater treatment plant. **In addition, to the knowledge of the City public works staff, there were no holding tanks in the SSA Study Area, and outside the sewer service area, required to contract with the POTW.**

The following table from the WDNR website summarizes State regulatory oversight for all holding tanks regardless of location:

SUMMARY OF HOLDING TANK PLAN REVIEW REQUIREMENTS

Wastewater type	Holding tank design	Requirements
Domestic	Generates less than 3,000 gallons per day	DSPS (or applicable designated agent) Plan Approval [exit DNR] (No DNR involvement)
Domestic	Generates 3,000 or more gallons per day	DSPS (or applicable designated agent) Plan Approval [exit DNR], but DSPS must obtain verification from the DNR that there is an agreement of commitment that tank contents will be disposed of at a publicly owned wastewater treatment plant.
Non-Domestic	Any size	DNR Plan Approved Submit DNR Form 3400-185 [PDF]
Mixture of Domestic and Non-Domestic	Any size	Submit DNR Form 3400-185 [PDF] to DNR for "concurrence" review/determination and obtain DSPS Plan Approval

Holding Tank Service Area Amendments

A holding tank service area amendment is required when a holding tank service area is added within the Menomonie Urban Sewer Service Area. This is a Type III SSA Plan Amendment under this plan. The Type III SSA Plan Amendment procedures are outlined in Chapter 9.3 of this plan.

An amendment request for a holding tank service area for new development cannot be approved if an intensive land disturbance encroaches on an environmentally sensitive area as defined in Chapter 3; those applicable policies and exceptions noted in Chapter 7 shall also apply.

CHAPTER 9 – PLAN IMPLEMENTATION

The *Menomonie Urban Sewer Service Area Plan* is the primary tool to be used in the review of proposals for sewer extensions and hookups (208 Reviews) and plan amendments. Such reviews and amendments are often triggered by a development proposal. **The procedures in Chapter 9 provide guidance to the Plan Administrator and Local Planning Agency, and promote conformance with the mandated policies in Chapter 7, though limited administrative flexibility and discretion shall also be permitted when reasonable and with WDNR consent.**

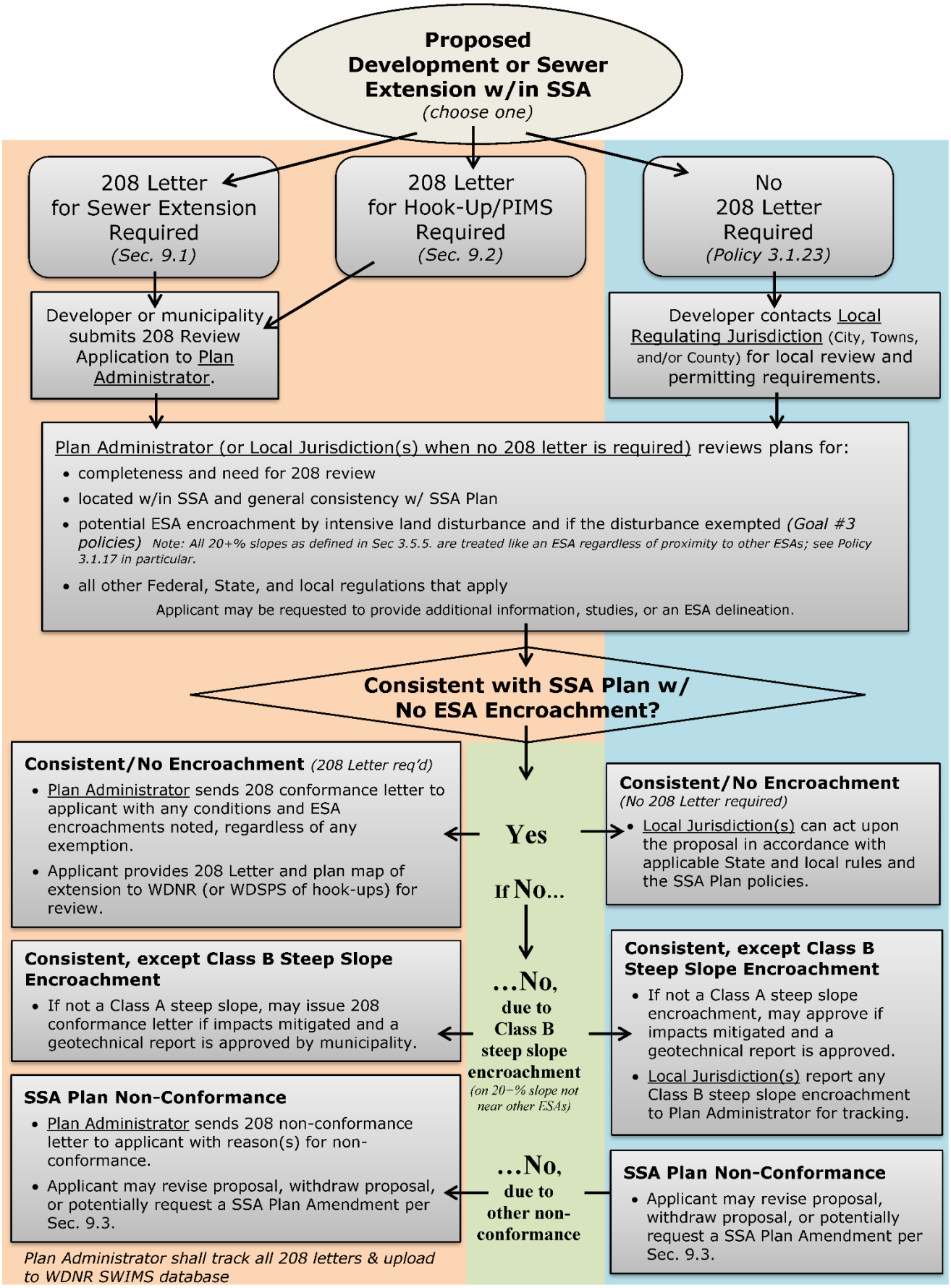
Developers and local officials must be aware of the policies and environmentally sensitive area criteria detailed within this plan when proposing or considering new development within the Sewer Service Area. Any approvals or conformance letters issued under this SSA Plan do not constitute approval of any other local, state, or federal permit that may be required for sewered construction or associated land development activities.

The Local Water Quality Advisory Committee and communities in the Study Area recognize the importance of residential, commercial, industrial, and other development in the urban area. Likewise, the importance of preserving water quality and the environment is also recognized. The implementation of this plan will be accomplished through site-specific review to ensure sensible decisions are made to protect our natural resources, but, also, to not unduly prevent development from occurring.

9.1 PROCEDURES FOR 208 REVIEW FOR SEWER EXTENSIONS

The designated Plan Administrator will review proposed sanitary sewer extensions for conformance with the Menomonie Sewer Service Area Plan (SSA Plan) when a Section 208-conformance review letter is required. The local review procedures for sewer extensions are outlined below and are also illustrated by the first column in the process chart on the following page. NR 110 should be reviewed by the applicant for detailed WDNR plan approval requirements.

1. Timing of 208 Conformance Reviews. The 208-conformance review shall be the final, required permit review and approval for a proposed project in most cases. See Policies 2.1.4 and 2.1.5.


Proposed Development or Sewer Extension w/in SSA
(choose one)
208 Letter for Sewer Extension Required
(Sec. 9.1)
208 Letter for Hook-Up/PIMS Required
(Sec. 9.2)
No 208 Letter Required
(Policy 3.1.23)
Developer or municipality submits 208 Review Application to Plan Administrator.
Developer contacts Local Regulating Jurisdiction (City, Towns, and/or County) for local review and permitting requirements.
Plan Administrator (or Local Jurisdiction(s) when no 208 letter is required) reviews plans for:
• completeness and need for 208 review
• located w/in SSA and general consistency w/ SSA Plan
• potential ESA encroachment by intensive land disturbance and if the disturbance exempted (Goal #3 policies) Note: All 20+% slopes as defined in Sec 3.5.5. are treated like an ESA regardless of proximity to other ESAs; see Policy 3.1.17 in particular.
• all other Federal, State, and local regulations that apply
Applicant may be requested to provide additional information, studies, or an ESA delineation.
Consistent with SSA Plan w/ No ESA Encroachment?
Yes
If No...
...No, due to Class B steep slope encroachment (on 20−% slope not near other ESAs)
...No, due to other non-conformance
Consistent/No Encroachment (208 Letter req'd)
• Plan Administrator sends 208 conformance letter to applicant with any conditions and ESA encroachments noted, regardless of any exemption.
• Applicant provides 208 Letter and plan map of extension to WDNR (or WDSPS of hook-ups) for review.
Consistent/No Encroachment (No 208 Letter required)
• Local Jurisdiction(s) can act upon the proposal in accordance with applicable State and local rules and the SSA Plan policies.
Consistent, except Class B Steep Slope Encroachment
• If not a Class A steep slope, may issue 208 conformance letter if impacts mitigated and a geotechnical report is approved by municipality.
Consistent, except Class B Steep Slope Encroachment
• If not a Class A steep slope encroachment, may approve if impacts mitigated and a geotechnical report is approved.
• Local Jurisdiction(s) report any Class B steep slope encroachment to Plan Administrator for tracking.
SSA Plan Non-Conformance
• Plan Administrator sends 208 non-conformance letter to applicant with reason(s) for non-conformance.
• Applicant may revise proposal, withdraw proposal, or potentially request a SSA Plan Amendment per Sec. 9.3.
SSA Plan Non-Conformance
• Applicant may revise proposal, withdraw proposal, or potentially request a SSA Plan Amendment per Sec. 9.3.
Plan Administrator shall track all 208 letters & upload to WDNR SWIMS database

2. Application to Plan Administrator. 208 Review applications for sewer extensions are typically submitted to the Plan Administrator by the landowner or landowner's representative (e.g., land engineering firm), but may be submitted by a municipality. Applications must include:

    - A cover letter[18] requesting the Section 208-conformance review with contact information, project name, address/location information, and acreage to be served by the sewer extension or hook-up as well as the general characteristics and length of the sanitary sewer extension. The letter should also describe any potential or proposed disturbance of an environmentally sensitive area (ESA), if known.
    - A project location map showing the sanitary sewer extension and, in most cases, a map showing the geographic extent of the project area served by the sewer extension.
        - Unless waived by the Plan Administrator, the application must identify the extent and acreage for an **immediate service area** that is the focus on the 208-conformance review. If additional areas may also be served by the sanitary sewer extension or hook-up in the future, the application must also include the extent and acreage for the **ultimate service area. The immediate service area for which the 208-conformance letter is issued shall consist of one or more full parcels.**
        - In cases where public infrastructure improvements are being planned with no proposed development plans for an immediate service area, the Plan Administrator may issue a 208-conformance letter without considering the immediate or ultimate service area. As a condition of approval, a 208-conformance review shall be required at a later date for the service area once plans become available.
    - 1 set of construction/engineering plans showing utility connections and locations, as well as plans/maps showing the planned footprint of any buildings, streets, parking areas, or other intensive land disturbance for the **immediate service area**. Preliminary or final certified survey maps and subdivision plats should be provided if available. Typically, detailed plans, including anticipated land divisions, are not available for the **ultimate service area** and (one or more) separate 208 conformance reviews may be needed in the future for the ultimate service area. If potential ESAs exist and plans showing building footprints and other potential land disturbances are not available at the time of the 208-conformance review, the Plan Administrator may:
        - Require additional information so that the conformance review can be completed, and/or
        - Issue a 208-conformance letter with conditions that no intensive land disturbance may encroach upon an ESA without an SSA Plan amendment. See Policies 2.1.6 and 3.1.21.

[18] The cover letter may be replaced by an application form with additional required information at the discretion of the Plan Administrator. An application fee may also be required.

- Additional maps and/or plans delineating and estimating acreages for any known environmentally sensitive areas (i.e., surface waters, 100-year floodplain/floodway, wetlands, and steep slopes of 20+%) within the immediate and ultimate project areas. See Policies 3.1.19 – 3.1.21.
- The status of other required permits and approvals, especially those related to stormwater management, erosion control, wetlands, or surface water protection. Best management practices are required for any encroachment upon a steep slope of 12+% and should be noted in the cover letter or included in the engineering plans.[19]
- If any ESA encroachment is unavoidable and no reasonable alternative exists, even if exempted under policies, documentation should be included as required by Policies 3.1.3 and 3.1.4.
- The Plan Administration may require an application fee for 208-conformance reviews at their discretion.

Submittal of a 208 Review application to the Plan Administrator will typically occur after the local municipality has approved the certified survey map, subdivision plat, and/or development agreement. When steep slopes exist within the project area, any required grading plans, engineering reports, or other such studies must also first be approved by the local municipality and submitted with or referenced in the 208 Review applications.

For proposed project areas containing ESA that may potentially be encroached upon, it is advisable that the applicant contact the Plan Administrator relatively early in the development process, prior to submitting a 208-review application, for an initial consultation regarding SSA Plan conformance. Applications may be delivered to the Plan Administrator by email, but the Plan Administrator not responsible for delays should e-mail correspondence is not delivered, accidently screened as spam, etc.; applicants are encouraged to verify receipt of application by the Plan Administrator.

3. Plan Administrator Review. The Plan Administrator, in consultation with WDNR staff if needed, determines the completeness of a 208 Review application. The Plan Administrator will review all applications for:
    - completeness and need for the 208-conformance review;
    - confirmation that the project is located within the sewer service area boundary;
    - potential encroachment of an environmentally sensitive area by an intensive land disturbance; and,
    - consistency and conformance with the required policies of this Sewer Service Area Plan.

[19] Inadequate enforcement of the Uniform Dwelling Code or local erosion controls may result in Wisconsin Department of Natural Resources denial of sewer extension requests into areas of 12% to 20% slopes within the municipality.

Consistent with the policies within Chapter 7, the Plan Administrator's 208-conformance review role is limited to the previous points. Under this SSA Plan, the following are the responsibilities of the regulating jurisdiction(s) and not the Plan Administrator:

- any required site visits and inspections;
- contacting other permitting agencies (unless the applicant);
- reviewing proposals to determine if a sewer extension or proposed new development is feasible, can be sewered, and is cost-effective, when located within the SSA boundary;
- providing technical or engineering review or guidance on where sewer can or cannot be located (if known ESAs are avoided), the design of stormwater management and erosion controls, hydraulic studies, wetland determinations, or other engineering/technical analysis;
- consideration of the availability and capacity of infrastructure and other services, including consistency with capital improvement plans, facility plans, official mapping, etc.;
- reviewing and approving certified survey maps, subdivision plats, land use permits or development plans for consistency with zoning, comprehensive plans, long-term growth plans, intergovernmental agreements, etc.;
- determining whether a proposed ESA encroachment is reasonable and unavoidable;
- identifying and reporting potential ESA encroachments when no 208-conformance review is required (see Section 9.3);
- ensuring that development occurs in a manner that is consistent with construction plans, land divisions, and, once issued, 208-conformance letters and conditions; and,
- facilitating compliance with local or state rules or policies outside of those policies and procedures explicitly required in Chapters 7, 8, and 9 of this SSA Plan.

The Plan Administrator may request or require additional information as part of the conformance review, especially when a potential encroachment of an environmentally sensitive area (ESA) exists or the extent of an ESA is uncertain. If there is any doubt as to whether an intensive land disturbance associated with the sewer extension project may encroach upon an ESA, the Plan Administrator may consult with and request site specific information from the local municipality, WDNR, and/or developer. For example, the Plan Administrator may contact WDNR regarding a possible encroachment upon wetland-indicator soils to determine whether a wetland delineation should be required by the applicant prior to issuing a 208-conformance letter.

This information, along with the policies from this plan, will be used to make an advisory recommendation to WDNR on the application. Under circumstances were the Plan Administrator is unable to make a determination of SSA Plan conformance, the Plan

Administrator may request a special review and/or determination by the Local Water Quality Advisory Committee or WDNR.

4. Plan Administrator Issues 208 Letter. The 208-review letter is an advisory recommendation to WDNR regarding a proposed sanitary sewer extension's conformance with the SSA Plan. the Plan Administrator will issue a sewer service area conformance or non-conformance letter (208-review letter) to the applicant **within 15 days of receipt of a complete application** necessary to perform the review, unless the Plan Administrator is otherwise unable to make a conformance determination (e.g., requires additional information, requires review/input from the Local Water Quality Advisory Committee or WDNR).

    - The Plan Administrator may issue a 208-conformance letter with conditions as discussed in Policy 2.1.6. the Plan Administrator may issue a 208-conformance letter for an encroachment upon a Class B steep slope **if no reasonable alternative exists** and an engineering report and sufficient documentation mitigating any erosion or surface water quality impacts has been approved by the municipality. See Policies 3.1.3 and 3.1.4. **A 208-conformance letter must also note any encroachment upon an environmentally sensitive area regardless of the project's location or type of encroachment.**
    - A 208 non-conformance letter may be issued by the Plan Administrator if insufficient information was provided for the review, a plan amendment is required, or the application otherwise does not conform with the SSA Plan. Typically, the Plan Administrator will reach out to the applicant or applicant's representative prior to issuing a non-conformance letter to ensure to discuss a potential non-conformance.
    - The Plan Administrator may deliver the 208-review letter by email, but the applicant may request the letter by mail if preferred.
    - It is the responsibility of the applicant to provide the sewer service area conformance letter and other materials required by NR110 to WDNR for final review and approval of the sewer extension.

5. If a 208 Non-Conformance Letter is Received by the Applicant. If a proposal is inconsistent with the SSA Plan, a 208 non-conformance letter for the proposed sewer extension is issued by the Plan Administrator to the applicant. The applicant has the following primary options:

    - The applicant may contact the Plan Administrator to determine if there an incorrect interpretation or misunderstanding had taken place.
    - The applicant may revise or withdraw their application. If an application is amended or request altered, the applicant must notify the Administrator that it wishes to have the proposed extension re-evaluated. For significant changes or elapsed time, the applicant may be required to resubmit their application in whole.
    - The applicant may request a SSA Plan amendment.

- Since the 208 letter is advisory, the applicant may correspond with WDNR as part of the WDNR's review to make their case why they believe the project should be approved without changes.
- The applicant may appeal a WDNR decision under this SSA Plan as described in Chapter 9.4.

6. Tracking & Reporting. As of April 2026, WDNR requires that 208-conformance letters and other official SSA Plan-related actions be uploaded to their Surface Water Integrated Monitoring System (SWIMS) database. Additional local tracking and records management are recommended. Tracking and reporting requirements may change over time.

9.2 PROCEDURES FOR SEWER HOOKUP REVIEW

The Wisconsin Department of Safety and Professional Services (WisDSPS) is the State regulating entity for sewer hook-ups and not WDNR.

Most sewer connections, laterals, and hook-ups, do not require a Section 208 hook-up review. However, Section 208 hook-up reviews are required for private interceptor main sewers (PIMS) that discharge to a municipal wastewater treatment facility. Section SPS 381.01(193), Wis. Adm. Code, defines a PIMS as "a sewer serving two or more buildings and not part of the municipal sewer system". The Section 208 hook-up review checks that the PIMS conforms with the SSA Plan or has been "designed in accordance with the appropriate water quality management plan" per s. SPS 382.30 (12)(b), Wis. Adm. Code.

The process for 208-conformance review applications for sewer hook-up is the middle column in the previous process chart and similar or identical to the procedures for sewer extensions reviews in Chapter 9.1, unless otherwise noted below.

1. Application to Plan Administrator. The application requirements and timing of a sewer hook-up review are generally the same as the requirements in 9.1. The Plan Administrator may require an application fee at their discretion. Prior to submittal of an application, a developer shall first consult with the local regulating jurisdiction providing sanitary sewer.

2. Plan Administrator Review. The Plan Administrator reviews the application for conformance with the SSA Plan, including potential ESA encroachment by intensive land disturbances. All other Federal, State, and local regulations also apply, and the local regulating jurisdiction may have additional standards and requirements that are more strict than those within the SSA Plan to the extent allowed for by law.

3. Plan Administrator Issues 208 Letter. If the requested sewer hookup is in conformance with the SSA Plan, a 208-conformance letter will be sent to the applicant. The sewer service area conformance letter and other materials required by WisDSPS must then be retained by the applicant and the Plan Administrator.

If an ESA encroachment by an intensive land disturbance is proposed, a 208-conformance letter cannot be issued unless a Type IV SSA Plan amendment is first approved in accordance with the policies of this SSA Plan. A 208-conformance letter issued by a municipality must note any ESA encroachment regardless of the project's location or type of encroachment.

4. If a 208 Non-Conformance Letter is Received by the Applicant. If a proposal is inconsistent with the SSA Plan, a 208 non-conformance letter for the proposed sewer hook-up is issued by the Plan Administrator to the applicant. The applicant has options similar to those identified in Chapter 9.1 (e.g., amending their application, requesting a plan amendment), in addition to appealing the decision under any local municipal rules.

5. Tracking & Reporting. As of April 2026, WDNR requires that all 208-conformance letters and other official SSA Plan-related actions be uploaded to their Surface Water Integrated Monitoring System (SWIMS) database. Additional local tracking and records management are recommended. Tracking and reporting requirements may change over time.

9.3 SSA PLAN CONFORMANCE IF NO 208-CONFORMANCE REVIEW

Dunn County and the municipalities, as local regulating jurisdictions, have the responsibility to review development within the sewer service area for SSA Plan conformance when no 208 Review for a sewer extension or hook-up is required. This process is reflected in the right column of the previous process chart.

When the local regulating jurisdiction receives any proposal/application for any proposed intensive land disturbance or sanitary sewer connections within the sewer service area, the local jurisdiction will review the proposal for:

- confirmation that the project is located within the sewer service area boundary if sewer services are to be provided;
- potential encroachment of an environmentally sensitive area by an intensive land disturbance; and,
- any other concerns regarding consistency and conformance with the required policies of this Sewer Service Area Plan, including the need for a 208 Review letter or SSA Plan amendment.

In some cases, there may be multiple local regulating jurisdictions reviewing and permitting a single project area. In such cases, all regulating jurisdictions should review the proposed development for SSA Plan conformance, though coordination between these jurisdictions is encouraged.

Within the sewer service area, all 20+% slopes as defined in Chapter 3.5.5 of the SSA Plan shall be treated like an ESA regardless of proximity to other ESAs. The regulating jurisdiction may permit an encroachment by an intensive land disturbance within a Class B steep slope if no reasonable alternative exists and an engineering report and sufficient documentation mitigating any erosion or surface water quality impacts has been approved by the municipality. **An**

encroachment by an intensive land disturbance upon a Class A steep slope within the sewer service area cannot occur unless a Type IV SSA Plan amendment is first approved.

A development proposal that does not conform with the SSA Plan should be denied due to non-conformance. In such a case, the applicant has options similar to those identified in Chapters 9.1 and 9.3 (e.g., amending their application, requesting a plan amendment), in addition to appealing the decision under any local municipal rules or appealing to WDNR as referenced in Chapter 9.5.

Any and all encroachments upon an ESA or loss of ESA acreage, regardless of size, type, exception, or proximity to other ESAs, must be reported by the municipality to the Plan Administrator for tracking purposes. Should the local regulating jurisdiction have any questions regarding this section, they should contact the Plan Administrator and/or Local Planning Agency.

9.4 SEWER SERVICE AREA AMENDMENTS

With the possibility of changes in development patterns or unique site-specific conditions, a mechanism for reviewing and revising the sewer service area (SSA) is essential. The amendment process allows communities to alter the SSA by using additional technical data, considering new community needs and trends, and addressing water-quality concerns in a cost-effective manner.

This initial part of Chapter 9.4 describes the overall SSA amendment process in general. This is followed by four subsections (i.e., 9.4.1, 9.4.2, 9.4.3, & 9.4.4) with additional procedures and criteria for each of the SSA Plan Amendment types.

The process of SSA amendments will be administered by the Local Planning Agency, with assistance from the Plan Administrator when necessary. All amendment records and updated boundary maps will be maintained by the SSA Plan Administrator, as provided by the Local Planning Agency.

Types of Amendments

Four types of amendments may be made to the Sewer Service Area:

- **Type I** amendments requests for boundary changes without the total acreage of the service area changing. (Land Swap Amendments)
- **Type II** amendments requests to alter the boundary and the acreage of the service area. (Land Addition/Subtraction Amendments)
- **Type III** amendments requests to add holding tank service areas to the plan. (Holding Tank Amendments)
- **Type IV** amendments requests for development of an environmentally sensitive area (ESA Amendments).

General Amendment Process

As reflected in the flowchart, all amendment requests follow the same general process, except Type IV minor amendments of less than one acres, which may skip Steps 3-7; see Policy 3.1.28.



Step 1: Application. In most cases, an amendment application will be prepared and submitted to the Local Planning Agency by the municipality in which the project is located or the municipality who owns the sanitary sewer lines being connected to. A developer requiring an amendment should work with their local municipality and the municipality will request the amendment. Though rare, amendments can also be initiated by WDNR, the Local Water Quality Advisory Committee, or SSA Plan Administrator. An application should only be submitted after authorization and action by the appropriate municipal decision-making body (e.g., Board/Council, Plan Commission).

Step 2: Staff Report. The Local Planning Agency, in consultation with WDNR staff if needed, determines the completeness of an SSA Plan amendment application, including if additional information is needed. The Local Planning Agency will consult with the Plan Administrator during the creation of the staff report. As needed, the Local Planning Agency will contact the applicant for clarification or more information, at the applicant's expense. The Local Planning Agency will also contact WDNR to discuss the proposed amendment and may require an in-person or virtual meeting with the applicant, WDNR staff, or other stakeholders prior to completing its staff report.

Once an application is deemed complete, the Local Planning Agency will review the application and, **within 30 days**, prepare a staff report considering the criteria later in this section along with any recommendations or suggested conditions and provide the staff report to the Local Water Quality Advisory Committee. For amendments involving multiple municipalities, the Local Planning Agency may extend the timeline to **45 days** to allow for a discussion meeting and obtain input from the municipalities potentially impacted by the amendment.

As reflected in Policy 3.1.28, for Type IV minor amendments, the Local Planning Agency may include an advisory approval cover letter with the staff report and send the approval letter and staff report to WDNR for a final decision (Step 8), thus skipping Steps 3-7. For particularly unique amendment requests involving circumstances that are not clearly or reasonably addressed in SSA Plan policies in Chapter 4, the Local Planning Agency may request an administrative review from WDNR, which has the discretion to skip Steps 3-6.

Step 3: Technical Committee Review (Optional). The Local Water Quality Advisory Committee may designate a Technical Advisory Committee to review amendment applications and Local Planning Agency staff reports, then make an advisory recommendation to the Advisory Committee. In such cases, the applicant is encouraged to be present at such meetings in order to answer questions. Technical Committee reviews should be properly noticed, public meetings, but do not offer an opportunity for public comment. The Local Planning Agency may collect additional information or revise its staff report as a result of the Technical Advisory Committee review.

Step 4: Public Hearing. Regardless of Step 3, **within 60 days** of the receipt of a complete amendment application in Step 2, the Local Water Quality Advisory Committee will conduct a public hearing during which the Local Planning Agency staff will present its report, the applicant will have an opportunity to present their request and answer questions, and an opportunity for public comment is provided.

The public hearing will be properly noticed in accordance with Local Planning Agency policies and State Open Meetings Rules requirements, including an invitation for written public comments on the amendment. The public hearing notice will be a Class 2 notice published in the local official newspaper with the second notice published **at least 7 days** prior to the hearing. The notice shall also be posted and distributed **at least 14** days prior to the meeting date to the following:

- Notice posted at the Plan Administrator's webpage
- Notice posted in three, public physical locations
- E-mailed to the County, City, Village, and Town Clerks in the sewer service area
- E-mailed to any individuals who have requested to be included on the Local Water Quality Advisory Committee or the Plan Administrator email lists
- E-mailed to the Local Planning Agency local media list for the study area

For Type I, II, and III amendments, the applicant municipality must provide to the Local Planning Agency with their application the names and mailing addresses of all landowners within the areas to be added to deleted. **At least 14 days** prior to the public meeting, the Local Planning Agency will distribute the public meeting notice by U.S. Mail to these landowners.

The notice shall invite written comment on the proposed plan amendment, which will be provided to the Advisory Committee and WDNR. Written comments must be sent to the Local Planning Agency by U.S. Mail and received by the Local Planning Agency prior to the public hearing during which public comment is invited.

Step 5: Advisory Committee Action. After consideration of the reports, and any public comments in Step 4, the Local Water Quality Advisory Committee shall evaluate the proposed amendment's consistency with specified amendment criteria later in this section and act upon amendment request during a public meeting **within 60 days** of being provided the staff report in Step 2. The Local Water Quality Advisory Committee's action is advisory to WDNR.

The Local Water Quality Advisory Committee may approve, approve with conditions, or deny the application. The applicant may request that the Local Water Quality Advisory Committee table the action if additional information is needed or to modify their request. Step 5 may occur during the same meeting of, but following, Step 4. **Within 15 days** following the Local Water Quality Advisory Committee decision, the Local Planning Agency will provide all materials, public comments, and the Local Water Quality Advisory Committee's meeting minutes (or resolution) to WDNR for a final decision on the amendment request.

Consideration of SSA Plan Amendments shall focus on consistency with the required policies in Chapter 7 and the criteria specific to each amendment type within Sections 9.4.1, 9.4.2, 9.4.3, & 9.4.4.

As a water quality management plan, 208-conformance and amendment reviews do not consider other aspects of planning, such as road safety, non-sewer utility capacity, farmland preservation, historical or cultural resources, etc.

Step 6: Comments on Advisory Committee Action. Any person, organization, or governmental body in favor of, objecting to, or providing information on the decision of the Local Water Quality Advisory Committee may submit written comments to WDNR **within 30 days** after the Local Water Quality Advisory Committee's advisory decision in Step 5. This includes appeals as described in Chapter 9.6.

Step 7: WDNR Decision. The Local Planning Agency will submit all amendment documentation to WDNR (see Amendment Submissions later in this section). WDNR will make the final and official determination on all plan amendments based on consideration of public comments, written comments, official action taken by the Local Water Quality Advisory Committee, policies and procedures of the Sewer Service Area Plan, and NR 121/NR 110 of the Wisconsin Administrative Code. WDNR will inform the applicant and the Local Planning Agency of its decision on amendment requests **within 60 days** of the Local Water Quality Advisory Committee's decision.

It is important to remember that SSA Plan approvals are formal amendments to the State's Areawide Water Quality Management Plan. Any plan amendments, once approved by the Local Water Quality Advisory Committee are forwarded to the WDNR for administrative decision to update the State's AWQM Plan. These decisions must consider the requirements outlined in State Administrative Code. WDNR regularly transmits updates to USEPA for certification as an amendment to the State's WQM Plan.

Post-WDNR Approval: Following WDNR approval of an amendment, the Local Planning Agency will modify the sewer service area map and track any changes. Once a SSA Plan amendment is approved, the Local Planning Agency can commence with the review of any 208-conformance review applications related to the project, if needed.

Amendment Applications

An application for an amendment to the Sewer Service Plan must include:

- A cover letter or completed application form, requesting and describing the amendment with contact information, project name, project locations, etc. The cover letter or application form should briefly identify, include, or be accompanied by:
    - type(s) of amendment(s) being requested;
    - a map showing the geographic extent and acreages of the immediate and ultimate service area that will be served by a sanitary sewer extension or hook-up related to the amendment, if any;
    - existing and proposed land use, development density and planned/known intensive land disturbances, including related maps;
    - a justification of why the amendment is needed and reasonable (see Policies 3.1.3 & 3.1.4);
    - existing and proposed services for the area (e.g., water, sewer, roads), including the cost-effectiveness of the wastewater treatment solution (address Policy 2.1.8), a description of the proposed wastewater treatment solution for the service areas, including the length of any planned sanitary sewer extensions; and an assurance that adequate wastewater treatment capacity is available for the proposed development.
    - the consistency of the project with the municipality's comprehensive plan;
    - any known physical, regulatory, or intergovernmental barriers or issues related to the proposed amendment; and,
    - what approvals for the project have been granted by the municipality or other regulating jurisdictions.
- All maps should be of sufficient detail to accurately identify boundaries.
- For Type I, II, and III amendments, acreages, maps, and legal descriptions for the areas to be added or deleted, along with names and mailing addresses of all landowners within the areas to be added or deleted.
- For Type I and II boundary amendment requests, the application should:
    - Include maps, acreages, and a legal description of all areas to be added or deleted from the SSA boundary. For Type I amendments, this information must be provided for both the **sending areas** (areas being deleted from the SSA) and **receiving areas** (areas being added to the SSA).
    - Include documentation that all property owners in any areas proposed to be deleted (swapped) from the sewer service area were notified of the application request, including contact information for each landowner. This must be completed **at least 14 days** prior to the public hearing.

- Include, if available, subdivision plats, construction sets, site plans, and ESA surveys/delineation.[20] ESAs must be generally mapped in extent, including acreages, so that an estimated, developable acreage for all involved lands is included with the application; ESAs are unbuildable unless a Type IV ESA amendment is approved.

- For Type IV ESA amendments, the application should:
  - Include 1 set of construction/engineering plans showing utility connections and locations, including the planned footprint of any buildings or other intensive land disturbance.
  - Include maps and acreages of any known ESAs within the immediate and ultimate service areas as well as any potential or proposed disturbance of an ESA or any water quality impacts, including detailed maps and acreages showing the extent and nature of the ESA encroachment(s) for which the amendment is being requested.
  - Documentation that the amendment is reasonable and the encroachment could not be avoided (see Policies 3.1.3 & 3.1.4);
  - Include how any potential impacts to existing ESAs are mitigated, including stormwater management plans and any best management practices being required for any encroachment upon a steep slope of 12+%;
- The Local Planning Agency may require an application fee for plan amendments at their discretion.

It is recognized that the level of detail required for an application may vary based on the size, type, and character of the amendment. An amendment application and staff report for a Type IV minor amendment is expected to be brief. A single application may be submitted for more than one type of amendment. The Local Planning Agency or WDNR may request that the applicant provide additional studies or data needed to fully consider the potential impacts of the proposed amendment. See the sub-sections below for additional application guidance.

Local Planning Agency's Amendment Submissions to WDNR

The Local Planning Agency will submit, at a minimum, the following to WDNR for action on a proposed SSA Plan Amendment:

1. Cover letter or memo from the Local Planning Agency noting the following:
   - Existing SSA Plan name/date and the amendment name/location/acreage
   - Type of action/amendment requested
   - Basis of the SSA amendment request
   - Timeline of key dates (e.g., application to Plan Administration, public hearing, local decision dates, consultations/submittal to WDNR).
2. Amendment application

[20] Detailed maps and plans, such as construction sets and subdivision plats, are not typically required as part of a Type I, II, or IIII SSA Plan Amendment, but may assist with the amendment review. Instead, such documents are typically required as part of a 208-conformance review.

3. Staff Report with analysis of proposed action and recommendation(s)
4. List and documentation of Local Water Quality Advisory Committee and other public involvement, including related meetings conducted by local municipalities
5. Public notice for public hearing and Local Water Quality Advisory Committee meetings
6. Minutes and/or resolution by the Local Water Quality Advisory Committee
7. Other relevant information as required by the SSA Plan

Only a cover letter/memo, amendment application, and staff report are required for minor amendments and it is expected, in most instances, that these documents will be much briefer than a "full amendment" (See Policy 3.1.28).

Tracking & Reporting

As of April 2026, WDNR requires that amendment submission, reports, decisions, and other official SSA Plan-related actions be uploaded to their Surface Water Integrated Monitoring System (SWIMS) database; once uploaded, a link(s) to the uploaded document(s) should be emailed to WDNR water quality staff. Additional local tracking and records management are recommended. Tracking and reporting requirements may change over time

9.4.1 Type I Amendment ("Swap"). The Sewer Service Area Boundary is Altered Without the Total Acreage Changing

With this amendment, acreage can only be added to the service area if a corresponding number of acres is subtracted. This "swap" requirement will keep the locally approved minimum average population or household density figures in Chapter 4.1 unchanged. A Type I Amendment application should include accurate maps and be very clear in defining which areas are being swapped. Any ESAs should be mapped and excluded from the acreages being swapped. Requests of this type should be submitted to the Administrator by the municipality in which the project is located or the municipality who will own the sanitary sewer lines that will serve the area being added to the SSA boundary.

The Local Planning Agency staff report and the review of the proposed amendment by the Water Quality Advisory Committee and WDNR shall be based on these criteria:

1. Cost-effectiveness of the proposed wastewater treatment solution (See Policy 2.1.8).
2. There will be no significant adverse water quality impact associated with providing sewer service to the area.
3. The proposed amendment is consistent with the required policies of this plan.
4. Existing or planned sewerage systems have sufficient capacity to treat projected flows.
5. The areas to be swapped are within 20 acres or 2% of the total developed/developable acreage, whichever is greater. (See Policy 1.1.5).

9.4.2 Type II Amendment ("Addition/Subtraction"). The Sewer Service Area Boundary is Modified and the Total Acreage is Altered

With this amendment, acreage cannot be added to the sewer service area (SSA) unless one or more of the following circumstances exist: (1) additional area is needed to accommodate unanticipated population growth; (2) a change in local population densities from the locally approved minimum average population or household density Chapter 4.1 have been approved by the local municipality; (3) failing on-site wastewater systems, and/or (4) the imminent development of a commercial/industrial area, with no residential growth, is proposed to be developed within three years. A Type II Amendment application must include population numbers, land use acreages, and other information to demonstrate that these three factors have been met. With WDNR concurrence, Type II Amendments may be considered on a community-by-community basis, including the forecasts and growth areas for each community specified in Chapters 4 and 6, rather than considering the acreage and circumstances for the SSA as a whole.[21]

Requests of this type should be submitted to the Local Planning Agency by the municipality in which the project is located or the municipality who will own the sanitary sewer lines that will serve the area being added to the SSA boundary.

The Local Planning Agency staff report and the review of the proposed amendment by the Water Quality Advisory Committee and WDNR shall be based on these criteria:

1. The extent to which the proposed amendment meets the four previous characteristics.
2. If the added area includes residential uses, identifying if a significant difference in the projected population and the actual population of the municipality exists.
3. Cost-effectiveness of the proposed wastewater treatment solution (See Policy 2.1.8).
3. There will be no significant adverse water quality impact associated with providing sewer service to the area.
4. The proposed amendment is consistent with the required policies of this plan.
5. Existing or planned sewerage systems have sufficient capacity to treat projected flows.

9.4.3 Type III Amendment. The Addition of a Holding Tank Service Area to the Plan

A holding tank service area is required if there is a holding tank within the SSA Plan Study Area and outside the Sewer Service Area boundary that generates 3,000 gallons or more of septage per day. Further explanation of holding tank service areas is contained in Chapter 8 of this plan. A request for this type of amendment must be made by the municipality owning the wastewater treatment facility that will service the tank.

[21] The 2026 Plan changes for Type II amendments were added due to local concerns with the accuracy of the latest Wisconsin Department of Administration population forecasts upon which the SSA growth acreages were determined.

Requests for a Type III amendment should be submitted to the Local Planning Agency and must include all previously described materials and documentation required for all SSA Plan amendments as well as the following:

1. A map of the proposed holding tank service area as well the identification of any existing holding tanks intersecting or within 1,000 feet of the holding tank service area.
2. The exact acreage of the proposed area.
3. Proof there is a contract with the POTW to handle the septage from the tank.
4. Narrative explaining that the proposed amendment is consistent with the policies and goals of this plan.

The Local Planning Agency will review the proposed amendment based on the information above and compliance with the policies and goals of this SSA Plan, including current requirements noted in Chapter 8.

A request for a Type III amendment for new development utilizing a new holding tank that encroaches on an environmentally sensitive area will be denied subject to the policies and exceptions of this plan; an amendment will be allowable if it is determined that the actual construction of all buildings and the holding tank are not on those portions of the holding tank service area within an environmentally sensitive area, and there are sufficient setbacks and erosion control measures taken, as defined by local zoning and land development regulations.

Upon review by the Local Planning Agency, the amendment must be reviewed by the Urban Area's Water Quality Advisory Committee, which will recommend approval or disapproval of the amendment request to WDNR. Following the Advisory Committee's action, the amendment request shall be submitted to WDNR for final approval.

9.4.4 Type IV Amendment. The Development of an Area Designated as an Environmentally Sensitive Area

All requests for Type IV amendments will be reviewed on a case-by-case, site-specific manner. A Type IV Amendment is requested by the municipality wishing to extend sewer service to an area delineated as an environmental sensitive area (ESA). Essentially, a Type IV amendment removes the ESA acreage from the SSA Plan. The plan recognizes the possible conflict between development and preservation of ESAs, and this amendment is an attempt to allow both to co-exist.

Requests of this type should be submitted to the Local Planning Agency by the city, village, or town in which the immediate service area is located. Information (e.g., maps, studies, surveys, technical data) needed to fully analyze and make an informed recommendation on the proposed amendment should accompany the request; failure to provide such needed information may result in delays during the approval process.

During the preparation of the staff report, the Local Planning Agency and WDNR staff will cooperatively review and analyze the proposed amendment. **The Local Planning Agency staff**

report and the review of the proposed amendment by the Water Quality Advisory Committee and WDNR shall be based on these criteria:

1. The project is located within the sewer service area
2. There will be no significant adverse water quality impact associated with the proposed intensive land disturbance.
3. The proposed amendment is consistent with the required policies of this plan.
4. The applicant has provided adequate documentation that no reasonable alternative exists to avoid the amendment. See Policies 3.1.3 and 3.1.4.
5. Documentation that all appropriate local, State, and Federal water quality-related permits and engineering studies (such as erosion control, stormwater management, wetland preservation, floodplain, etc.) have been or will be granted for the proposed development.

It is the responsibility of the municipality to review and ensure proper implementation of any best management practices, stormwater controls, and erosion control plan as required by State and local regulations. Such approvals by the municipality are needed for the issuance of a Type IV Amendment by WDNR. Once approval of the amendment is made by WDNR, the ESA map of the Sewer Service Plan will be updated to remove the environmentally sensitive area, thus indicating that the area is now considered developable within the SSA Plan.

An approved Type IV amendment allows development of an ESA with minimal environmental impacts. To that end, the Local Planning Agency or Local Water Quality Advisory Committee may recommend and WDNR may approve the amendment with specific conditions that must be met to ensure protection of the potentially affected water resources.

Once approved, the property owner shall record an affidavit or other legal document with the County Register of Deeds Office that documents the Type IV amendment with a graphic or map (e.g., a restrictive covenant, outlots, and/or notes on a certificate survey map and/or plat) that documents the extent of the approved ESA encroachment and the required protection of any other ESAs within the project area from encroachment by intensive land disturbance.

9.5 SEWER SERVICE AREA PLAN UPDATES

Sewer Service Area (SSA) Plan updates are facilitated by the WDNR-designated Local Planning Agency, typically with financial support from WDNR and/or sewered municipalities within the study area. A plan update may be limited to certain chapters or aspects of the SSA Plan and may (or may not) include a revision to the study (planning) area. A limited change to the SSA boundary is addressed through a Type I or II amendment and not a plan update.

NR 121 calls for sewer service area plan status review and a possible plan update every five years. At a minimum, it is recommended that the growth projections and SSA boundary be revisited following the release of updated Wisconsin Department of Administration population projections based on the latest Federal decennial census data. Frequent SSA plan amendments or the execution of intergovernmental boundary agreements that conflict with SSA boundary are other signals that

a plan update is probably in order. Plan updates, including significant plan policy or procedural changes, should only commence with WDNR approval and involvement. See Policy 1.1.9.

Similar to the steps for considering plan amendments, a plan update requires:

- Discussion and advisory review by Local Water Quality Advisory Committee.
- A public hearing on the draft plan update conducted by the Local Planning Agency with a Class I public hearing notice published **at least 14 days** prior to the hearing. The notice shall identify where the updated plan is available online for download. The notice shall invite written comment on the draft plan, which will be provided to the Advisory Committee and WDNR. Written comments shall be sent by U.S. Mail and received by the Local Planning Agency prior to the public hearing during which public comment is invited. All municipalities within the Study Area shall receive a copy of the notice.
- Advisory action by the Local Water Quality Advisory Committee
- WDNR approval of the updated SSA Plan, potentially with revisions.

Plan updates involving boundary changes do not require individual notification of or mailings to landowners.

9.6 APPEALS OF SEWER SERVICE AREA PLAN DECISIONS

Administrative Appeals. An action or administrative decision made by the Plan Administrator, Local Planning Agency, or a municipality in the administration of this plan may be appealed to the Local Water Quality Advisory Committee by a party directly impacted by the decision. The Local Water Quality Advisory Committee shall consider all available facts provided by the administrative entity and appealing party, then make a recommendation to WDNR **within 60 days** of the receipt of the appeal, unless the appealing party waives this timeframe. WDNR shall grant, conditionally grant, deny, or take other appropriate action on the appeal.

Appeals of 208 Reviews. Since 208-review letters are advisory, appeals of a recommended condition or a non-conformance identified in a 208-review letter should be made to the WDNR office (for sewer extensions) or WisDSPS office (for sewer hook-ups) responsible for reviewing and permitting the sewer extension or hook-up. Copies of such appeals should be provided to the Plan Administrator for local tracking purposes. WDNR or WisDSPS shall grant, conditionally grant, deny, or take other appropriate action on the appeal.

Appeals of Amendments and Other Plan Actions. Since the actions of the Plan Administrator, Local Planning Agency, and the Local Water Quality Advisory Committee regarding a plan amendment are advisory, any such appeal of a plan amendment decision by the Plan Administrator, Local Planning Agency or the Local Water Quality Advisory Committee should be directed to WDNR **within 15 days** of the decision. Appeals of any other actions under this plan should also be directed to the WDNR. WDNR does not accept revisions or personal appeals of submitted by developers, individuals, or other organizations. The appeal should include sufficient information on the facts involved and any requested remedy.

Appeals of a WDNR Decision

Wisconsin statutes and administrative rules establish time periods within which requests to review WDNR decisions must be filed. For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., a party has **30 days** after the decision is mailed, or otherwise served by the WDNR to file a petition with the appropriate circuit court and serve the petition on the WDNR. Such a petition for judicial review must name the Wisconsin Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to section 227.42, Wis. Stats., a party has **30 days** after the decision is mailed, or otherwise served by the WDNR, 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 NR 2.05(5), Wis. Adm. Code, and served on the Secretary in accordance with 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.

Copies of such appeals should be provided to the Plan Administrator for local tracking purposes.

Appendix A: Public Hearing Notice

NOTICE OF PUBLIC HEARING
on the
Update of the Menomonie Urban Sewer Service Area Plan for 2045

Notice is hereby given that West Central Wisconsin Regional Planning Commission and the Menomonie Area Water Quality Advisory Committee will hold a public hearing in the Council Chambers of City Hall on the first floor of 800 Wilson Ave. in the City of Menomonie at 5:00 p.m. on Tuesday July 21, 2026, to take testimony concerning the proposed update of the Menomonie Urban Sewer Service Area Plan for 2045.

In accordance with the Federal Water Pollution Control Act Amendments of 1972 (PL92-500) as well as NR110 and NR 121 of the Wisconsin Administrative Code, the Sewer Service Area Plan anticipates the Menomonie urban area's future needs for wastewater treatment to help protect the urban area from adverse water quality impacts through a cost-effective and environmentally sound 20-year sewerage system growth plan. The public can access the final draft of the plan on the City's website.

For those unable to attend the public hearing, written comments should be sent to West Central Wisconsin Regional Planning Commission c/o Chris Straight, 800 Wisconsin Street, Bldg D2, Mail Box 9, Eau Claire, WI 54703 or emailed to chris@wcwrpc.org. All correspondence will become part of the public record. Written comments must be received by WCWRPC no later than 12:00 PM on July 17, 2026. The Menomonie Area Water Quality Advisory Committee will consider any written comments regarding the draft plan update following the public hearing and prior to advisory action to the Wisconsin Department of Natural Resources on the plan.

Further information or questions, contact Chris Straight, WCWRPC, at 715-836-2918 or chris@wcwrpc.org or contact David Schofield, Director of Public Works, at dschofield@menomonie-wi.gov.

Dated: June 24, 2026

Published: July 1, 2026
July 8, 2026

Kate Martin, City Clerk

Appendix B: Local Water Quality Advisory Committee Action on Draft Plan

(7/21/26 Meeting & Public Hearing Minutes)

Menomonie Urban Sewer Service Area (SSA)
Plan Update Steering Committee

(serving as the Local Water Quality Advisory Committee to the WI Department of Natural Resources under NR 121)

Meeting Minutes
Plan Update Meeting #8 & Public Hearing
July 21, 2026 @ 5:00 PM

Location:
City Council Chambers, First Floor, Menomonie City Hall
800 Wilson Avenue, Menomonie, WI 54751

1. Introductions & Review of the Agenda

Committee Chair Chris Straight called the meeting to order at 5:03 PM and conducted a roll call of the Steering Committee:

Present	Municipality/Organization	Name	Title/Position
X	Town of Tainter	Darwin Anderson	Chair, Plan Commission
X	Town of Red Cedar	Bob Cook	Chairman
X	Town of Sherman	Sherri Vodinelich	Supervisor
	Town of Menomonie	Kent Jackson	Chairman
X	City of Menomonie	David Schofield	Director of Public Works
X	City of Menomonie	Jason Garcia	Wastewater Superintendent
X	City of Menomonie	Megan Hines	Environmental Program Coordinator, PW
X	Dunn County Land & Water Conservation	Chase Cummings	County Conservationist
	Dunn County Economic Develop Corp	Steve Lindberg	EDC Board Chair
X	West Central Wisconsin Regional Planning Commission (Committee Chair)	Chris Straight	Senior Planner

Mr. Straight briefly reviewed the agenda.

2. WCWRPC review of SSA Planning Purpose & Proposed SSA Plan Boundary

Mr. Straight reviewed the SSA Plan flyer, purpose of SSA Plan, and proposed SSA Plan boundary. As noted in the flyer, the inclusion of lands within the SSA boundary does not guarantee that these lands will be developed, sewered, or annexed by 2045.

3. Public Hearing on Draft SSA Plan

Mr. Straight noted that a public hearing draft of the Menomonie Urban Sewer Service Area Plan, dated 6/19/26, was made available for public comment at the City's website. A public hearing notice was

published in the City's official newspaper on 7/1/26 and 7/8/26. The public hearing notice also invited written comments on the draft plan. The notice will be included as an appendix in the SSA Plan.

Mr. Straight opened the public hearing. No members of the public were present. Mr. Straight asked the Committee members if they had any public comments; no Committee members had public comments. The public hearing was closed.

4. Review of Written Comments on Draft SSA Plan

Mr. Straight reported that no written comments on the Draft SSA Plan.

5. Committee Discussion on Public Comments and Draft SSA Plan

No public comments were received for discussion. Committee members from the Town of Red Cedar and Town of Sherman both reported that they had discussed the SSA Plan update with their respective boards and had no questions or plan changes.

Mr. Schofield asked to confirm that the environmentally sensitive areas are not included in the total SSA acreage unlike the previous plan. Mr. Straight referred to page 93 which states that the total SSA size is 15,333 acres, though the total acres within the SSA boundary is 20,957 acres with the ESAs (especially the lakes) being the difference. Mr. Straight confirmed with WDNR that a full legal description of the boundary is not necessary given the approach largely based on survey sections, so this briefer description will be added to page 93 instead of a separate appendix.

Committee members thanked Mr. Straight for leading the effort; they appreciated the process and thorough job.

6. Committee Advisory Action to Wisconsin Department of Natural Resources on the Draft SSA Plan

MOTION by Mr. Cook to approve the Menomonie Urban Sewer Service Area Plan for 2045 and recommend to Wisconsin Department of Natural Resources its final approval. Second by Mr. Schofield. A roll call vote was taken. **The motion was approved 8-0-0.**[22]

7. Next Steps

Mr. Straight will prepare the meeting minutes and attach them as a plan appendix. WCWRPC will send the plan to WDNR for their consideration and will copy Committee members on this correspondence. Mr. Straight briefly discussed plan implementation moving forward and offered assistance to Dunn County Land Conservation as needed. He noted that this group, as the Local Water Quality Advisory Committee, would be asked to meet again should the SSA Plan need to be modified or amended in the future. Mr. Straight thanked everyone for their efforts and patience.

8. Adjourn

After inviting any additional questions or comments, Mr. Straight adjourned the meeting at 5:18 PM.

[22] Note: The WCWRPC representative to the Committee chairs the meetings but does not vote.