

La Crosse Sewer Service Area Water Quality Management Plan 2013 - 2035



La Crosse Area Sewer Committee of the La Crosse Area Planning Committee

January 16, 2013

This plan serves as the Municipal Point Source Element of the Bad Axe – La Crosse (River Basin) Water quality Management Plan and is prepared for the purpose of meeting requirements of "Section 208" of the Federal Water Pollution Control Act as amended.

La Crosse Sewer Service Area Water Quality Management Plan 2012 – 2035

**La Crosse Area Sewer Committee of the La Crosse Area Planning Committee, the
Metropolitan Planning Organization for the La Crosse, Wisconsin and La Crescent,
Minnesota Metropolitan Planning Area**



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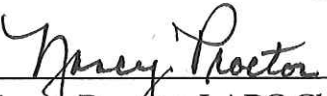
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ABSTRACT

Title: La Crosse Sewer Service Area Water Quality Management Plan
2013 - 2035

Plan Purpose And Contents: To plan for sewer line extensions in an environmentally sound manner to protect surface and groundwater from point and nonpoint sources of pollution and to meet the requirements of the Federal Clean Water Act and State Administrative Code N.R. 121. Identification and mapping of environmentally sensitive areas, preparation and enforcement of erosion control plans, planning for sewer growth and development within a sewer service area boundary, and identifying administrative responsibilities for implementing policies are the major components of the plan.

Approved By: La Crosse Area Planning Committee


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Chapter 1: INTRODUCTION

Sewer Service Area Planning

The *La Crosse Sewer Service Area Water Quality Management Plan 2013 – 2035* (“the Sewer Service Area Plan”) is an update to the *La Crosse Sewer Service Area Water Quality Management Plan 1999 – 2020* which was completed in 1999 by the Mississippi River Regional Planning Commission, with input from the Department of Natural Resources, the La Crosse Area Planning Committee and the La Crosse Area Planning Committee’s Technical Advisory Committee (TAC).

The *La Crosse Sewer Service Area Water Quality Management Plan 1999 – 2020* was approved by the Wisconsin Department of Natural Resources in September, 1999. The 1999 plan has been used for regulating sewer service within the La Crosse Sewer Service Area. In 2009 the City of La Crescent, Minnesota area was added to the Sewer Service Area.

Federal and State regulations require the Sewer Service Area Plan to indicate the most cost effective and environmentally sound wastewater treatment configuration for the sewer service planning area. Once the plan is approved by the State of Wisconsin, Federal and State Statutes require that permits for wastewater treatment facilities, facility plans for wastewater treatment facilities, interceptors and sewer extensions are to be in conformance with the plan.

Federal and State requirements call for the components of Sewer Service Area Plan to consist of the following four elements:

- 1) A regional treatment configuration. This is an analysis of the geographic contributory area for an urban area's treatment plant;
- 2) The delineation of a 20-year sewer service area. This is the land area which is projected to be served by public sewer over the next 20 years. This service area is determined using population projections and density standards and is influenced by environmentally sensitive areas such as steep slopes, floodplains, and wetlands;
- 3) The establishment or use of an existing policy committee to make recommendations, revise or amend the plan and to establish plan conformance review procedures. And;
- 4) A public participation element which documents the process that will be used for informing and involving the public in the area-wide planning process.

Federal and State Regulations

Sections 201, 208, and 209 of the Federal Water Pollution Control Act (Public Law 92-500) as amended by Public Law 95-2171 and Wisconsin State Administrative Code NR 121 are the major regulations that influence sewer service area planning.

Section 201 deals with the construction specifications that sewerage systems must meet in order to be in conformance with Clean Water Act standards and to be eligible for construction grants and loans.

Section 208 requires the preparation of area-wide water quality management plans – “208 Plans.” This Sewer Service Area Plan is a 208 Plan. The Governors of each state are to designate areas needing area-wide plans to deal with water quality concerns. In Wisconsin municipalities with a population of 10,000 or more are required to prepare 208 Plans. It is this requirement that led to the completion of the *La Crosse Sewer Service Area Water Quality Management Plan 1999 – 2020* in 1999 and numerous other plans across the state.

Section 209 of the Water Pollution Control Act calls for the preparation of plans for the Nation's river basins that will lead to the reduction of water pollution from "point sources" such as pipe, ditch or other specific discharge points and from "nonpoint sources" such as stream pollution from stormwater runoff which cannot be traced back to a pipe or ditch, for example,. The River Basin Plan that covers the La Crosse Sewer Service Area is titled *The Bad Axe-La Crosse Rivers Water Quality Management Plan*. This plan was first completed in 1980 and then was updated in 1994. This plan identifies pollution sources and links them to water quality problems and makes recommendations for reducing point and nonpoint source pollution. One of the recommendations in the 1994 Basin Plan is to "revise the *La Crosse Sewer Service Area Plan* to include all official changes since the August 1985 publication, review all area erosion control policies, ordinances, and implementation schemes and include as appendices." *The Bad Axe-La Crosse Rivers Water Quality Management Plan* is just one of the twenty-one major river basin plans that together cover the entire state.

Wisconsin State Administrative Code NR 121 along with State Statutes 144.025 (1), (2) and 147.25 outlines how water quality planning and implementation is to be carried out in Wisconsin in accordance with Federal and State water quality regulations.

Purpose and Benefits of Area-Wide Water Quality Planning

The purpose of these regulations that call for water quality planning is to prevent further degradation of the Nation's coastal waters and inland waters and to achieve a national goal of fishable and swimmable waters that is to be accomplished through a national comprehensive program of water quality planning, construction financing for municipal wastewater treatment facilities and a national discharge permit program for municipal and industrial discharges. The Sewer Service Area Plan is this area's response to the water quality planning requirements of this Federal Act. Benefits derived from this planning are: Protection of our resources, cost effective methods in providing sewer service, protection of environmentally sensitive areas, and reduction of urban sprawl through planned growth.

How the Sewer Service Area Plan Meets Federal and State Requirements

The plan identifies environmentally sensitive areas where sewer development should be prohibited or more carefully planned for. Steep slopes of 20% or more, wetlands, and floodplains are examples of environmentally sensitive areas. Development of these areas result in a higher degree of surface and ground water contamination caused mostly through runoff. Increased chances of flooding also can occur when these areas are developed since water is not absorbed naturally into the earth but instead runs off of the rooftops and pavement and into streams.

The plan establishes a sewer service area boundary line that is based on the location of environmentally sensitive areas and on land development needs over a 20 year period. Keeping sewer development within this boundary and prohibiting or mitigating impacts on environmentally sensitive areas results in both an environmentally sound and a cost-effective sewer system.

All sewer extension requests are reviewed locally for their conformance with the standards in the plan. Extensions are denied if they violate any of the standards. Sewer extension requests that are approved are also subject to adherence to an erosion control plan to further ensure water quality protection. Further information on the conformance review process and the standards with which sewer extensions are to conform are described in detail in Chapter 6.

Municipalities Impacted

The municipalities most directly impacted by the Sewer Service Area Plan are those that contribute sewage to the La Crosse Wastewater Treatment Plant, including the Cities of

La Crosse, La Crescent and Onalaska, and the Towns of Campbell and Town of Shelby. The Towns of Onalaska, Medary, and Hamilton are also impacted by this plan since parts of these towns are included within the La Crosse Sewer Service Area Boundary.

Plan Content

This plan is comprised of eight sections which include (1) Introduction; (2) Regional Wastewater Treatment Facility and Sewer System; (3) Environmentally Sensitive Areas; (4) Sewer Service Area Characteristics; (5) Population and Household Projections; (6) Sewer Service Conformance Review Process; 7) Sewer Service Area Plan Amendment Procedures; and, 8) Sewer Service Area Policies and Goals.

Chapter 2: REGIONAL WASTEWATER TREATMENT FACILITY AND SEWER SYSTEM

Sewer Service Area and Operating Characteristics

The City of La Crosse owns and operates the La Crosse municipal wastewater treatment system that serves a regional population of approximately 90,000 residents. The Cities of Onalaska and La Crescent, (in Minnesota), and the Towns of Shelby and Campbell, through local ordinances and intermunicipal agreements with the City of La Crosse also discharge to this treatment system. Septage and holding tank wastes are also accepted by the treatment facility.

The sewer service area established in 1991, with a 2009 amendment, covers a total geographic area of roughly 74 square miles. The wastewater treatment facility that accepts waste from this service area is located on Isle La Plume in the City of La Crosse. The facility is currently permitted by the state to discharge effluent into the Mississippi River and land spread digested biosolids onto agricultural fields.

These treatment facilities are governed by the La Crosse Common Council through the Board of Public Works which serves as the Wastewater Utility Board. The Board of Public Works is staffed by the Mayor, two council persons and three department heads. The day to day management of the treatment plant is conducted by a certified operator, who reports to the Director of Public Works.

La Crosse Municipal Wastewater Treatment Facility History

The original Isle La Plume wastewater treatment facility was constructed in 1936 and provided primary treatment for the City of La Crosse. Alterations completed in the early 1970's upgraded the facility to secondary treatment standards and significantly increased plant capacity. These improvements were a direct result of the need to meet the new Federal Water Pollution Control Standards and eligibility requirements for federal funding that was made available to assist communities in meeting these standards. The following is a list of improvements and changes that occurred since the facility was first constructed:

- 1937 - The Isle La Plume plant became operational and provided primary treatment for the City of La Crosse.
- Early 1970's - The facility was upgraded to secondary treatment standards and plant capacity was significantly increased.
- 1981 - Installation of new sludge heater and related equipment.

- 1982-1985 - The *La Crosse Sewer Service Area Plan* was prepared, accepted by Governor Earl and certified to the Environmental Protection Agency as being in conformance with the Clean Water Act. This plan also established this facility to serve a regional area.
- 1983 - The City of La Crosse implemented an industrial pretreatment program to monitor significant industrial users.
- Mid 1980's - G. Heileman Brewing Company commissioned a private pretreatment system to handle flows from their brewery. This pretreatment system alone effectively reduced organic loading to the Isle La Plume facility by more than one-half.
- 1983-1985 - Several permitted industrial users installed pretreatment systems which had a combined effect of reducing organic and heavy metals loading to the Isle La Plume facility.
- 1986 - A fine bubble aeration system was installed.
- 1987 - Centrifuges were installed.
- 1988 - A second sludge heater was installed.
- 1988 - The sewer service conformance review policies were amended to improve and clarify plan implementation procedures and the sewer service conformance review function authority was delegated from the DNR-Eau Claire District Water Resources Planner to the La Crosse Office of City Engineer. The Mississippi River Regional Planning Commission also prepared a more detailed Sewer Service Area Map to assist in conformance reviews.
- 1991 - The city implemented a wastewater utility. Revenues generated by the new user fees as opposed to the general property tax caused many industrial and commercial businesses to reduce the volume of water discharged to the sanitary sewer.
- 1993 - An ultraviolet disinfection system was installed.
- 1994 - Cooperative agreements between the La Crosse County Department of Land Conservation and the Cities of La Crosse and Onalaska were signed to improve construction erosion control practices where slopes of 20% or greater are present.
- 1996-1997 - New agreement for sewer service conveyance and treatment was approved and signed between the City of La Crosse and the City of Onalaska.
- 1997 - A biological nutrient removal system was installed.
- 1998 - A new sludge gravity belt thickener, facility-wide SCADA system, pretreatment office, restrooms, two tanks that total 180-day liquid sludge storage

units, polymer sludge conditioning system, and a gravity belt filter press were constructed or installed.

- 1997-1999 - The La Crosse Area Planning Committee (LAPC) with assistance from the Mississippi River Regional Planning Commission and the Department of Natural Resources prepared an update to the 1985 La Crosse Sewer Service Area Plan which was adopted by the LAPC on May 19, 1999.
- 2001 - New headworks building and equipment installed including step screen and grit removal and washing system.
- 2004 – New agreements for sewer service conveyance and treatment were approved and signed between the City of La Crosse and the Town of Shelby Sanitary District #2, and the Town of Campbell Utility District No. 1.
- 2004 – Fully rehabilitated two primary clarifiers & four final clarifiers.
- 2004 – Replaced ultraviolet disinfection system.
- 2006 – The La Crosse Area Sewer Committee approved the addition of the City of La Crescent area to the La Crosse Sewer Service Area. (See Appendix A: LASC Minutes, October 2006).
- 2008 – Added third channel to ultraviolet disinfection system.
- 2010 – Completed full facility plan for wastewater treatment plant.
- 2011 – Fully rehabilitated two gravity thickeners.
- 2012 – The La Crosse Area Planning Committee prepared an update to the 1999 La Crosse Sewer Service Area Plan.
- 2012 – Replaced aeration system including controls, blowers, air distribution system and diffusers.

Wastewater Treatment Facility Components

The following components make up the treatment facility on Isle La Plume:

- Five flow monitoring devices - three are used to determine flow
- Septage/holding tank waste receiving station
- One step screen
- Two comminutors
- Two grit removal/washing systems.
- Five primary clarifiers
- A 20 million gallon per day biological nutrient removal system with two trains each consisting of an anaerobic, anoxic, and aeration basin
- Backup chemical phosphorus removal system using ferric chloride
- Four secondary clarifiers

- Two gravity sludge thickeners
- Four anaerobic digesters
- Sludge gravity belt thickener
- Facility-wide Supervisory Control and Data Acquisition (SCADA) System
- Two 3.1 –million gallons liquid sludge180-day liquid storage units
- Polymer sludge conditioning system
- Gravity belt filter press
- Sludge cake storage building
- A state authorized pretreatment program - established in 1983,
- A certified lab
- Three stationary generators for emergency operations

Treatment Facility Design Flow Capacity vs. Actual Flow

The treatment facility has excess capacity that can almost handle twice the loading and approximately twice the population that it presently serves. This excess capacity is attributed to industries pre-treating their wastes, the transition to a wastewater utility that collects fees based on load generated, and the planned over-sizing of the plant to accommodate a growing urban area.

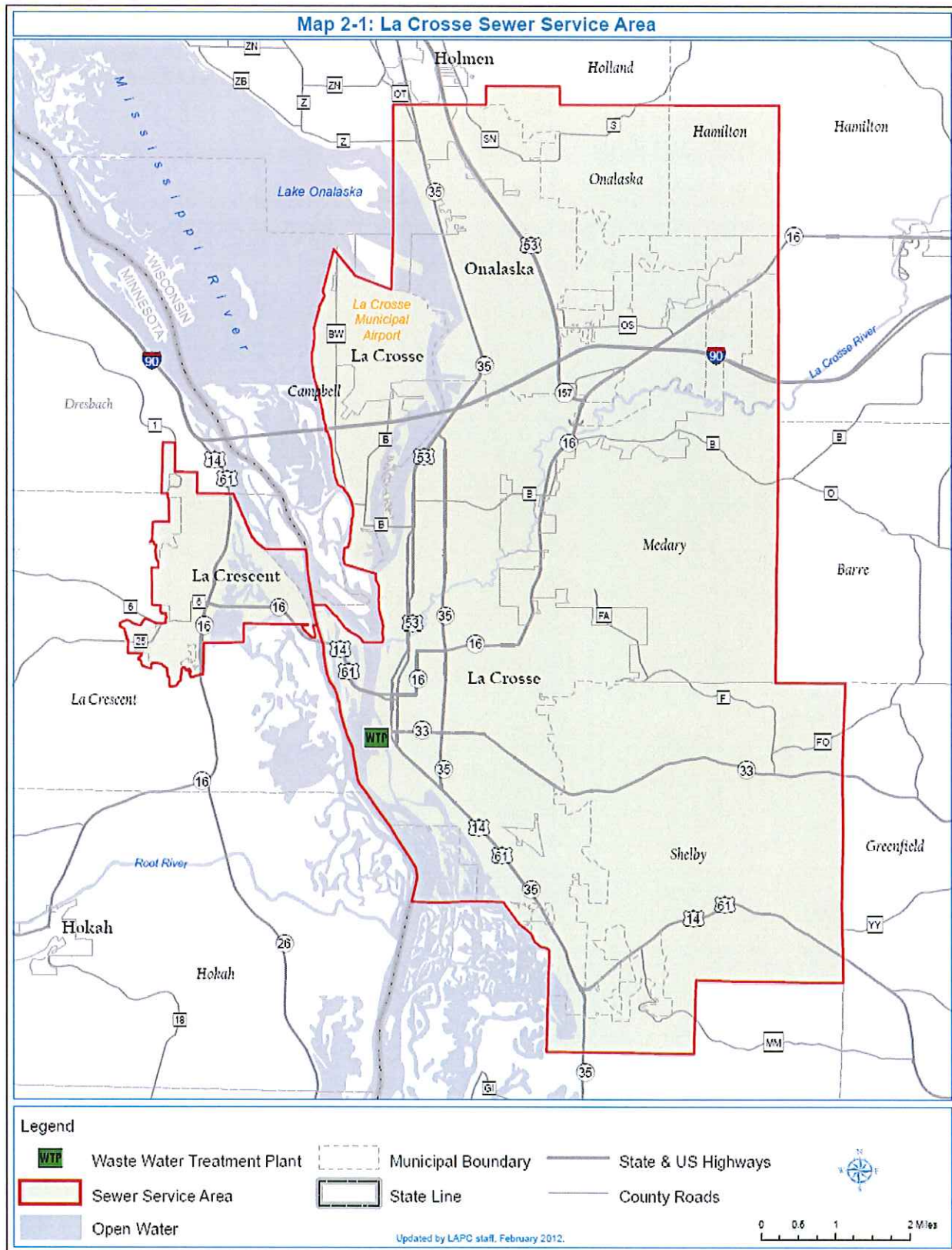
Table 2-1 compares the design flow of the facility with actual flow in million gallons per day (MGD) and pounds of Biological Oxygen Demand per day (#/BOD/D).

TABLE 2-1: LA CROSSE MUNICIPAL TREATMENT FACILITY

Characteristics	Million Gallons Per Day (MGD)	# Biological Oxygen Demand Per Day (#/BOD/D)
Design Flow	20.0	29,773
2011 Daily Flow	10.95	21,900
Excess Capacity	9.05	7,873
Percent Remaining Design Capacity	45.3%	26.4%

Source: La Crosse Public Works Department

The average daily flow of 10.95 million gallons to this facility in 2011 results in a per capita contribution rate of 127 gallons per day for each of the approximately 86,200 residents (2010 Census) of the Sewer Service Area, Map 2-1. This figure is in line with other communities similar to La Crosse that serve as a regional trade center with a higher concentration of commercial, industrial, and institutional wastewater generators. The large excess capacity of this facility also serves as an economic development asset for the area.



MAP 2-1: La Crosse Sewer Service Area.

Sewer Collection System

The sewer piping network, lift stations, and flow monitoring stations are located across five local government jurisdictions. The sewer system within each local municipality is managed, operated and maintained by that particular municipality. The breakdown of the infrastructure in each of these municipalities is provided in Table 2-2.

TABLE 2-2: CHARACTERISTICS OF MUNICIPAL SYSTEMS

Jurisdiction	Sewer Lines (inch-miles ¹)	Lift Stations	Monitoring Station Location
City of La Crosse	2,380	26	Treatment facility on Isle La Plume
City of Onalaska	687	5	W. George Meter Pit
City of La Crescent	⁽²⁾ 28.7	3	Old Wastewater Treatment Facility
Shelby Sanitary District	⁽³⁾ 94	4	None
Campbell Sanitary District	⁽³⁾ 210	10	Nakomis Avenue
TOTAL	3,305	47	

¹Inch miles are units of surface area. Two miles of a 16-inch collection line is 32-inch miles.

²Miles (Inch-miles estimate unavailable for La Crescent).

³Estimate.

Source: La Crosse Public Works Department

Collection of Septage and Holding Tank Wastes. The treatment facility also serves as a receiving station for hauled wastes from licensed, private haulers. The station is open during business hours and is locked during non-business hours. A manifest system is used to track this waste stream. The character of this waste is tested annually.

Sewer Service Agreement and Policies

The City of La Crosse has entered into separate sewer service agreements with the City of Onalaska, the City of La Crescent, the Town of Campbell, and the Town of Shelby. These separate agreements describe the operating requirements and responsibilities of each party. In some situations, particularly when delineating areas that can be served by sewer, the requirements within these agreements are more restrictive than the requirements and regulations of this Plan. The following is a summary of these sewer service area agreements and policies that each municipality.

City of La Crosse. The City of La Crosse in most circumstances requires annexation of property prior to public sewer being provided. The City funds its sewer facility and system through a user charge system that started in 1991. Since about 1998, the City's

Sewer Utility has funded sewer and wastewater using exclusively Utility reserve funds. Any debt service is included as an expense in the Utility's operating budget and paid off through the user charge system. Different rates are established for residential, high strength users and hauled wastes. The City has entered into agreements for sanitary sewer conveyance and treatment with the City of Onalaska, the City of La Crescent, the Town of Campbell, and the Town of Shelby.

City of Onalaska. The City of Onalaska in most circumstances requires annexation of property prior to public sewer being provided. The City administers its sewer system through a user charge. The City's, *Agreement for Sewer Conveyance and Treatment*, with the City of La Crosse (executed in March 1997) calls for the City of Onalaska to pay La Crosse a user fee based on flow. This agreement also identifies areas that each city is to serve near its boundaries when development in these areas is deemed practical.

City of La Crescent. The City of La Crescent in most circumstances requires annexation of property prior to public sewer being provided. The City administers its sewer system through a user charge. The City's, *Agreement for Sewer Conveyance and Treatment*, with the City of La Crosse (executed in January 2007) calls for the City of La Crescent to pay La Crosse a user fee based on flow.

Town of Campbell. The entire Town of Campbell is included within the Town of Campbell Utility District One. The *Agreement for Sanitary Sewer Conveyance and Treatment*, executed in January 1996 between the Town Utility District and City of La Crosse, allows the Town to decide the practicality of providing sewer service to a given property. The Town utility district pays a user fee based on flow to La Crosse.

Town of Shelby. Sewer service is provided within Sanitary District One and within portions of Sanitary District Two within the Town of Shelby. Over 80% of Sanitary District One has been annexed to the City of La Crosse since District One was created. The remaining 20% is currently served by sewer but the property is within the Town of Shelby. The administration, maintenance, and billing service for District One have been transferred to the City of La Crosse. Future sewer service expansion is limited within this District due to the already built-up character that includes two town islands surrounded by the City of La Crosse and property along Cliffside Drive.

Sewer service within Sanitary District Two is limited to the "Sanitary Sewer Service Area" as described in the *Agreement for Sanitary Sewer Conveyance, Treatment and Disposal* executed between the Town Sanitary District Two and the City of La Crosse in January 1996. Flow conveyance limitations and providing service in a cost effective manner are reasons for limiting sewer service to the "Sanitary Sewer Service Area."

Chapter 3: ENVIRONMENTALLY SENSITIVE AREAS

Protecting water resources for ourselves and future generations is the primary reason for the preparation of the Sewer Service Area Plan and thousands of others like it across the nation. To accomplish this, identification of "environmentally sensitive areas" or areas where development would have a more adverse impact on water quality are identified. Unchecked development within these environmentally sensitive areas would lead to serious degradation of coastal and inland waters. By limiting development within these areas the quality of our water resources can be maintained. Providing sewer service to or through environmentally sensitive areas is either prohibited or requires mitigation measures to protect water quality. Map 3-1 identifies the location of these environmentally sensitive areas.

Floodplains. Floodplains are environmentally sensitive from a water quality perspective because nature has always been able to extract a price for the use of floodplains. This price is in the form of damaged buildings and structures, sewer backups, exposing hazardous materials and increased stormwater runoff, all of which contribute to degradation of water quality. The nation's annual flood recovery costs are excessive and the human hardship beyond this is immeasurable. It is for this reason that the federal, state, and local governments encourage hazard mitigation planning that discourages floodplain development. Counties, cities and villages are responsible for administering floodplain zoning in accordance with regulatory standards of Chapter NR 116 of the Wisconsin Administrative Code and the standards of the National Flood Insurance Program. Areas regulated by floodplain zoning include all areas that would be covered by the regional flood and include floodplain islands designated on the official map where emergency rescue and relief routes would be inundated by the regional flood. The purpose for regulating floodplains is to protect life, health, and property from flooding. The following are key terms that are used in regulating floodplains.

Floodplains are land areas which have been or may be covered by floodwater during the "regional flood." The regional flood is a flood determined to be representative of large floods known to have occurred in Wisconsin or which may be expected to occur on a particular lake, river or stream. The regional flood is based upon a statistical analysis of lake level or stream flow records available for the watershed or an analysis of rainfall and runoff characteristics in the watershed or both. In any given year, there is a 1% chance that the regional flood may occur or be exceeded. During a typical 30-year mortgage period, the regional flood has a 26% chance of occurring.

The floodplain is made up of the floodway and flood fringe areas. The floodway is the channel of a river or stream and those portions of the floodplain adjoining the channel required to carry the regional flood discharge. The flood fringe is that portion of the floodplain outside of the floodway, which is covered by floodwater during the regional flood. The term flood fringe is generally associated with standing water rather than flowing water. Prohibiting further development in the floodway, buyouts and relocation, and using flood-proofing techniques in conjunction with flood insurance for buildings in the flood fringe are typical ways of mitigating flood damages.

Steep Slopes. Steep slopes are environmentally sensitive from a water quality perspective due to increased amounts of erosion and stormwater runoff that occurs when steep slopes are developed. The detrimental effect of stormwater runoff from impervious surfaces such as rooftops and driveways increases greatly when such surfaces are constructed on steep slopes. This causes increased runoff volume, and debris and sediment deposits in streams and rivers. Sand Lake Creek, Ebner Coulee Creek, the Mississippi River, the La Crosse River, the Black River, Mormon Coulee Creek, Pammel Creek, and Smith Coulee Creek all are waterways that are recipients of this runoff from development on steep slopes. These rivers and creeks provide both recreational and aesthetic benefits that are an integral part of our quality of life. Smith (Valley) Coulee Creek and Mormon Coulee Creek are in fact classified trout streams, which makes handling of runoff from development in these valleys especially critical if these sensitive aquatic environments are to be maintained.

To protect the area's rivers, lakes and streams from excessive stormwater runoff the City of La Crosse and City of Onalaska engineers are to review and approve erosion and sedimentation control plans for an entire developing site and/or plat when slopes of 20% or greater exist. In addition, no land disturbance activities are allowed within the La Crosse Sewer Service Area on slopes of 30% or greater except for access roads or installation of utilities to building sites of less than 30% slope or where slopes of 30% or more are less than 4,000 noncontiguous square feet. The City of La Crosse and the City of Onalaska are responsible for enforcing the erosion control plans that have been approved by their engineers.

For clarification purposes, a slope of 20% has a vertical rise of 2 units for every 10 units of horizontal distance. The use of a tangent table shows that an angle or slope of 11.31 degrees is equal to the angle of the tangent of a 20% slope. This correlation results in a 100% slope equaling a 45 degree slope.

Wetlands. Wetlands are environmentally sensitive due to the many values and functions they provide. Wetlands filter and replenish groundwater that is used for

drinking and bathing, wetlands provide flood protection; they act like sponges, storing and slowly releasing rainfall and runoff which reduces flood peaks and flood recovery costs. Wetlands act as filters for certain kinds of wastes and soluble contaminants generated from runoff which protects lakes and streams. Wetlands provide food and habitat for all sorts of plant and animal wildlife which benefits hunting, fishing, sightseeing and other recreational or tourism interests. Wetlands also protect shorelines from erosive wave action and enhance the quality of life by providing spacious and scenic open spaces.

The development of wetlands destroys the life giving productive capacity of the ecosystem. Additionally, development costs are much higher in wetlands or areas with wet soils. Maintenance costs for sewer collection systems in wet areas can lead to increased treatment and cleanup costs to system customers.

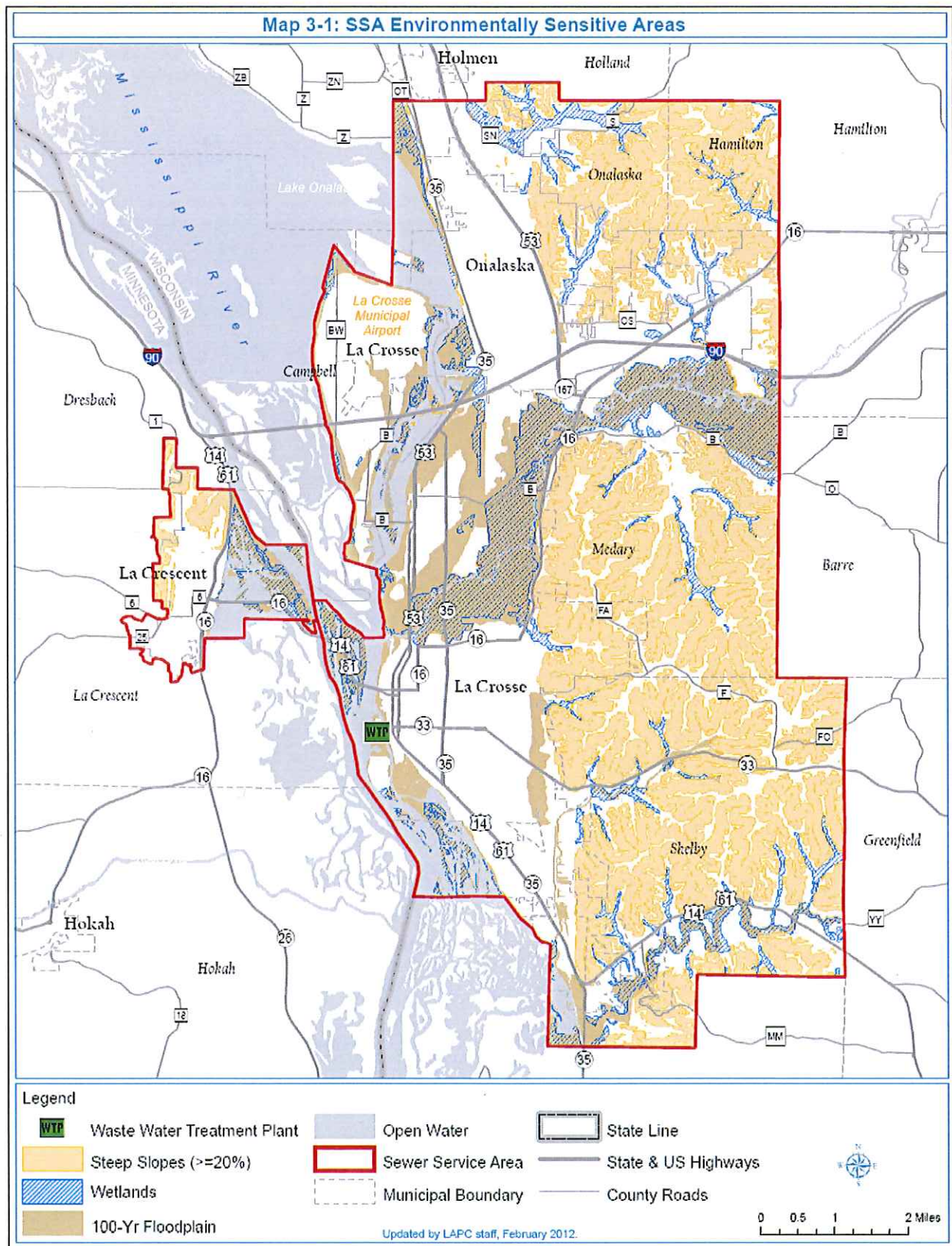
Wetlands are defined in Wisconsin Statutes 23.32 as areas where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and which has soils indicative of wet conditions.

Nearly half of Wisconsin's 10 million wetland acres present in the 1880s were filled in or drained for farms, road, factories, and cities. Wetlands in Wisconsin now receive special protections under two regulatory authorities; local shoreland-wetland zoning and under Section 404 for all Federal and State regulated wetlands.

Shoreland-wetland zoning is required by the state and administered by the counties under Wisconsin Administrative Code NR 115 and 117 and regulates all wetlands five acres or larger in size identified on the Wisconsin Wetland Inventory map. Shoreland-wetland zoning sets minimum standards for permitted and prohibited uses in shoreland wetlands. The shoreland zone is the land located within 1,000 feet of the ordinary high water mark (OHWM) of a lake, or within 300 feet of the OHWM of a river or stream. These regulations are unique in that they regulate additional uses detrimental to shoreland-wetland areas and preserve the shore cover and natural beauty by restricting the removal of natural shoreland cover and controlling the shoreland-wetland excavation, filling, and other earth moving activity.

Wisconsin law requires authorization by the Wisconsin Department of Natural Resources (WDNR) for all wetland fill activities, regardless of wetland size or location. Federal law requires permits from the U.S. Army Corps of Engineers (Corps) for construction activities in wetlands adjacent or hydrologically connected to lakes, rivers, and streams. Section 404 of the Clean Water Act is administered by the Corps with

guidance and oversight by the U.S. Environmental Protection Agency. Permits are required for the discharge of "dredged or fill" material into a wetland and for major wetland disturbance, such as a pipeline or sewer construction. Fill includes materials such as asphalt, concrete, soil, sand, gravel, and even wood chips. Under both state and federal law, permits may only be granted for unavoidable wetland impacts that will not cause a significant adverse impact to wetland functions.



MAP 3-1: SSA Environmentally Sensitive Areas.

Chapter 4: SEWER SERVICE AREA CHARACTERISTICS

Due to the La Crosse Municipal Wastewater Treatment Facility's capacity to accommodate considerably more than its existing flow, the area the plant can serve is influenced more by environmental features and sewer extension economics. Projected flow from within the Sewer Service Area is, therefore, well within the capacity of the existing wastewater treatment plant. The Sewer Service Area Boundary illustrated in Map 2-1 is to be used for sewer service technical conformance review purposes.

Air photo and onsite analysis coupled with Geographic Information System analysis techniques indicate that there were approximately 8,050 acres or 13 square miles of vacant developable land in 2009 within the Sewer Service Area. Vacant and developable means that the land was undeveloped, not in a floodplain or wetland; and not on slopes greater than 20%. Table 4-1 and Map 4-1 illustrate the existing land use in the Sewer Service Area.

TABLE 4-1: LA CROSSE SEWER SERVICE AREA LAND USE PROFILE

Land Use*	Acres	SqMi
Sewer Service Area	47,311	74
Open Water	3,576	6
Flood Plain (100-yr Flood)	10,374	16
Wetlands	6,419	10
Land Area with Slopes of 20% or more	13,730	21
Undevelopable Land	34,098	53
Vacant Developable Land	8,050	13
Percent of SSA with Vacant Developable Land	17%	17%

*Please note that the total acreages for the individual uses will not equal the area of the sewer service area. Flood plain overlaps with open water and wetlands, and some land with slopes greater than 20% is already developed.

Source: University of Wisconsin-La Crosse 2005 Land Use Study updated in 2009.

With 86,200 people and 37,600 households in 2010, the existing densities of the SSA are 1.8 persons per acre and 0.8 households per acre.

Public Sewer Service in the Rugged Ridge and Valley Landscape of the Coulee Region Can Be a Mixed Blessing for Water Quality

Vacant developable land within the boundary of the Cities of La Crosse, La Crescent and Onalaska is limited. Annexation therefore is the primary way for these communities to grow. One of the problems with growth through annexation is its unpredictability. The communities don't know if a given annexation is the beginning of many more annexations to come in the next several years or their last chance to grow in many years to come. This uncertainty about future tax base growth or "a last chance to grow perspective" calls for the need to maximize return on private and public expenditures on road, water, and sewer service on each incremental annexation. For residential annexations this often results in a development density of four dwelling units per acre or more. This development density coupled with service roads and driveways on valley walls and on sloping valley floors can create excessive stormwater runoff and sometimes flooding, both which cause serious water quality and public infrastructure problems.

The first residential subdivision within a valley may not cause stormwater problems but subsequent compact subdivision development moving incrementally up or down a valley may compound the stormwater problem until it becomes harmful. Ironically while the public sewer is protecting ground and surface water through efficient removal of sewage it is also causing a higher density form of development which if not managed correctly through adequate green space areas will result in harmful affects to surface waters from excessive stormwater runoff and can lead to increased public expenditures on flood control structures.

To address this issue, the DNR has issued a Municipal Separate Storm Sewer System (MS4) permit to the City of La Crosse, City of Onalaska, the Town of Shelby, the Town of Medary and the County of La Crosse. This permit requires that a post-construction stormwater ordinance be developed, adopted and enforced. This ordinance would ensure that areas of new and redevelopment will include structural measures to control pollutants, control peak flow, maintain infiltration, and establish vegetated protective areas adjacent to waterways and wetlands.

Chapter 5: POPULATION AND HOUSEHOLD PROJECTIONS FOR THE YEAR 2035

Population and dwelling unit projections for the year 2035 have been prepared for the Sewer Service Area. These projections are based on the *Population, Employment, and Dwelling Unit Projections* report prepared for the La Crosse Area Planning Committee (LAPC) in 2005, and reviewed and updated in 2009. These projections were prepared to develop the 2010 Metropolitan Transportation Plan for the La Crosse area to meet the federal requirements of the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* federal legislation of 2005.

To prepare these projections, the metropolitan planning area was divided into a series of small geographic areas called Traffic Analysis Zones (TAZs), Map 5-1. TAZs are defined by their geographic, transportation, social, and economic patterns or activities. The activities within each TAZ are reasonably homogeneous and at a similar level. This means that TAZs are smaller in higher population density areas and larger in areas of lower population density. The geographic boundaries for the TAZs were determined by the Census Bureau.

The 2005 projections were prepared by the UW-La Crosse with assistance from the LAPC staff and LAPC Technical Advisory Committee (TAC) including the La Crosse City Planning Department, the Wisconsin Department of Transportation, the Mississippi River Regional Planning Commission and other municipal and agency representatives. These projections were adopted by the La Crosse Area Planning Committee and accepted by the Wisconsin Department of Transportation and the Federal Highway Administration for use in transportation planning in the La Crosse area.

The steps involved to develop these projections included:

1. Initial population and household projections were generated for five-year intervals, using 2000 baseline figures and Wisconsin Department of Administration (DOA) growth rate projections.
2. TAZ units were "clustered" using existing land use. TAZ clusters were expected to behave similarly in terms of population, economic, and household growth. The research team placed each TAZ unit in the region into a unique cluster. There was expected to be less variance within a cluster and greater variance across clusters.
3. Local knowledge of the LAPC staff and research team as well as data such as developable acreage were used to review each cluster and assign weights for expected growth along a three-dimensional system: type of growth, size of

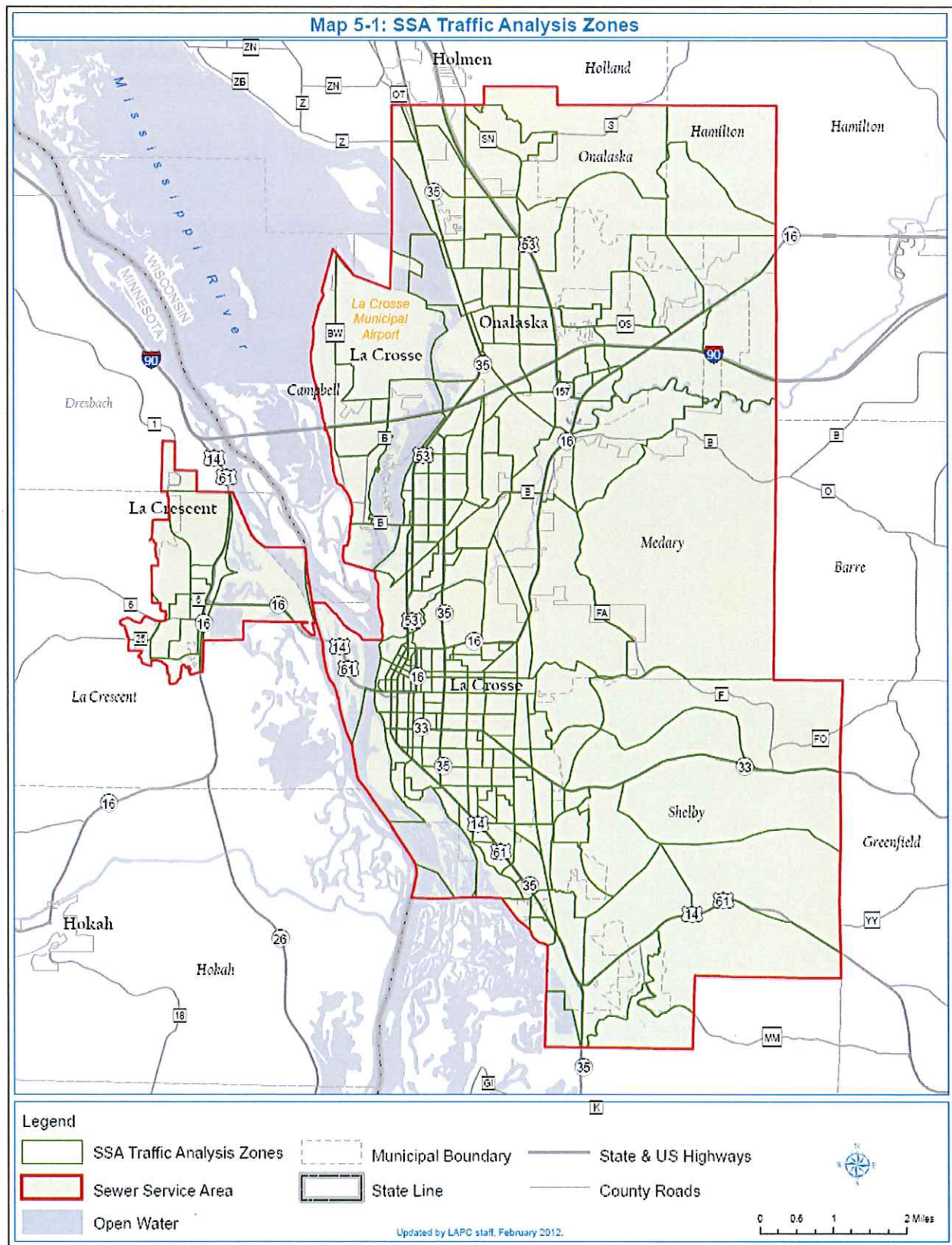
growth, and time of expected growth. These weights of relative rates of growth ranged from -1 to +3.

4. The initial flat projections were adjusted using the cluster weights, resulting in a second iteration of the master TAZ forecasts.
5. Next the team sought expert opinion. In-depth interviews were conducted with TAC members for their expert knowledge. The level of local knowledge of growth and development was very high, as municipalities were working on comprehensive plans. The planners were asked to assess the team's growth assumptions. When the research team's estimates differed from the local experts' estimates, the team deferred to the local expert.
6. A third iteration of the projections followed, using "adjustment factors" determined by the difference between the planner's expectations and the team's second iteration. The adjustments were applied universally throughout the planning area.
7. A summary of the projections for population and employment was presented to the LAPC and the TAC. Recommended changes and corrections were incorporated in the final (fourth) iteration.
8. A master spreadsheet was created reflecting the stepped adjustments to the initial projections.
9. The 2005 projections were reviewed and updated in 2009 based on existing and anticipated changes in development patterns.

This process and some additional analyses to apply the projections to the geography of the SSA conclude that 99,400 persons and 41,370 households are anticipated to reside in the SSA in 2035. With 8,050 acres of vacant developable land available and an anticipated growth of 13,200 people and 3,770 households (2010 to 2035), the projected densities of the SSA in 2035 are 2.1 persons and 1.1 households per acre and are well within the limits to accommodate future growth to 2035.

Consideration of Two La Crosse Sewer Service Area (SSA) Boundary Alternatives

During the preparation of the 1999 sewer service area plan, two sewer service area alternatives were considered. One alternative ("Boundary Alternative 1") was selected as the Sewer Service Area. The La Crescent area was added to this alternative in 2006 to form the sewer service area boundary included in this plan.



MAP 5-1: SSA Traffic Analysis Zones

Chapter 6: SEWER SERVICE CONFORMANCE REVIEW PROCESS

This Sewer Service Area Plan is a regulatory document prepared to ensure cost-effective and environmentally sound wastewater treatment to protect water quality. The plan is therefore to be used in reviewing sewer extensions and hookups in the La Crosse Sewer Service Area. The City of La Crosse has been delegated the responsibility by the Wisconsin Department of Natural Resources (DNR) to conduct technical sewer extension and hookup conformance reviews. For a proposed sewer extension to be in conformance with the plan, the sewer extension or hookup technical conformance review conducted by the Office of the City Engineer must confirm that it is: 1) within the Sewer Service Area; 2) not in conflict with any regulations pertaining to the protection of environmentally sensitive areas i.e. slopes, wetlands and floodplains; and, 3) not in conflict with any intermunicipal agreements.

Developments Requiring Technical Conformance Reviews. Prior to any developer submitting plans to the Wisconsin Department of Natural Resources or the Wisconsin Department of Safety and Professional Services for state-needed approvals, the following types of development need a sewer service technical conformance review approval:

- 1) All municipal "sewer extensions" as defined in NR110.05 (2) e
- 2) All commercial and industrial buildings which will discharge to the La Crosse wastewater treatment facility
- 3) All residential buildings containing three or more dwelling units that discharge to the La Crosse wastewater treatment facility.

Technical Conformance Review Criteria. Proposed sewer extensions or hookups must conform to the Sewer Service Area Plan by not violating development regulations pertaining to any of the following:

- 1) Intermunicipal Agreements - The City of La Crosse has entered into sewer service contracts with the City of Onalaska, City of La Crescent and the Towns of Campbell and Shelby. These agreements identify areas where sewer is to be provided.
- 2) Wetlands - It is a violation of Section 404 of the Federal Clean Water Act to physically alter any wetland no matter its size without regulatory approval from the U.S. Army Corps of Engineers. Permits are also required from the local unit of government to alter wetlands within the shoreland zone of a lake or stream.

- 3) Floodplains - Prohibiting most forms of development in the floodway and using flood proofing techniques in conjunction with flood insurance for building in the flood fringe are common regulatory practices in floodplains.
- 4) Slopes - In the Sewer Service Area no land disturbance activities shall occur on slopes of 30% or greater except for access roads or installation of utilities to building sites of less than 30% slope, or where slopes 30% and greater are less than 4,000 noncontiguous square feet. In addition, development on slopes shall conform to the regulatory provisions of any local government ordinance.
- 5) Within Sewer Service Area Boundary - The proposed development must be within the La Crosse Sewer Service Area boundary.

Site Visit Evidence Takes Precedence When Conducting Technical Conformance Review. Flood Insurance Rate Maps, Wisconsin Wetland Inventory Maps, and the maps within this Sewer Service Area Plan are to be used as guides in conducting a sewer service technical conformance review but are not always to be considered the final determining factor of whether a sewer extension is or is not disturbing an environmentally sensitive area. If information gained from a site visit shows conclusive evidence that is contrary to the information shown on these maps, the site visit evidence shall take precedence and serve as the determining factor of whether environmentally sensitive areas are being disturbed.

Information Required to Conduct a Sewer Service Technical Conformance Review. The following information is to be provided in order to initiate a sewer service technical conformance review by the La Crosse City Engineer Office.

- 1) Cover Letter and Project Description - The name, address, and telephone number of the applicant and a general description of the project is to be provided including type of land use to be serviced and construction activities needed to be undertaken.
- 2) Site Map - A site location map is to be provided indicating location and length of sewers and the entire area to be serviced.
- 3) Curb Height Elevation If In Or Near A Floodplain -The site map shall provide curb height elevations if the site is within 50 feet of a floodplain.
- 4) Permits - For sewer extensions that alter a wetland a Section 404 Clean Water Act Permit is required. This permit is administered by the Wisconsin DNR in accordance with NR103 of the Wisconsin Administrative Code. Sewer extensions into navigable waters also require a permit under Chapter 30 of Wisconsin Statutes.

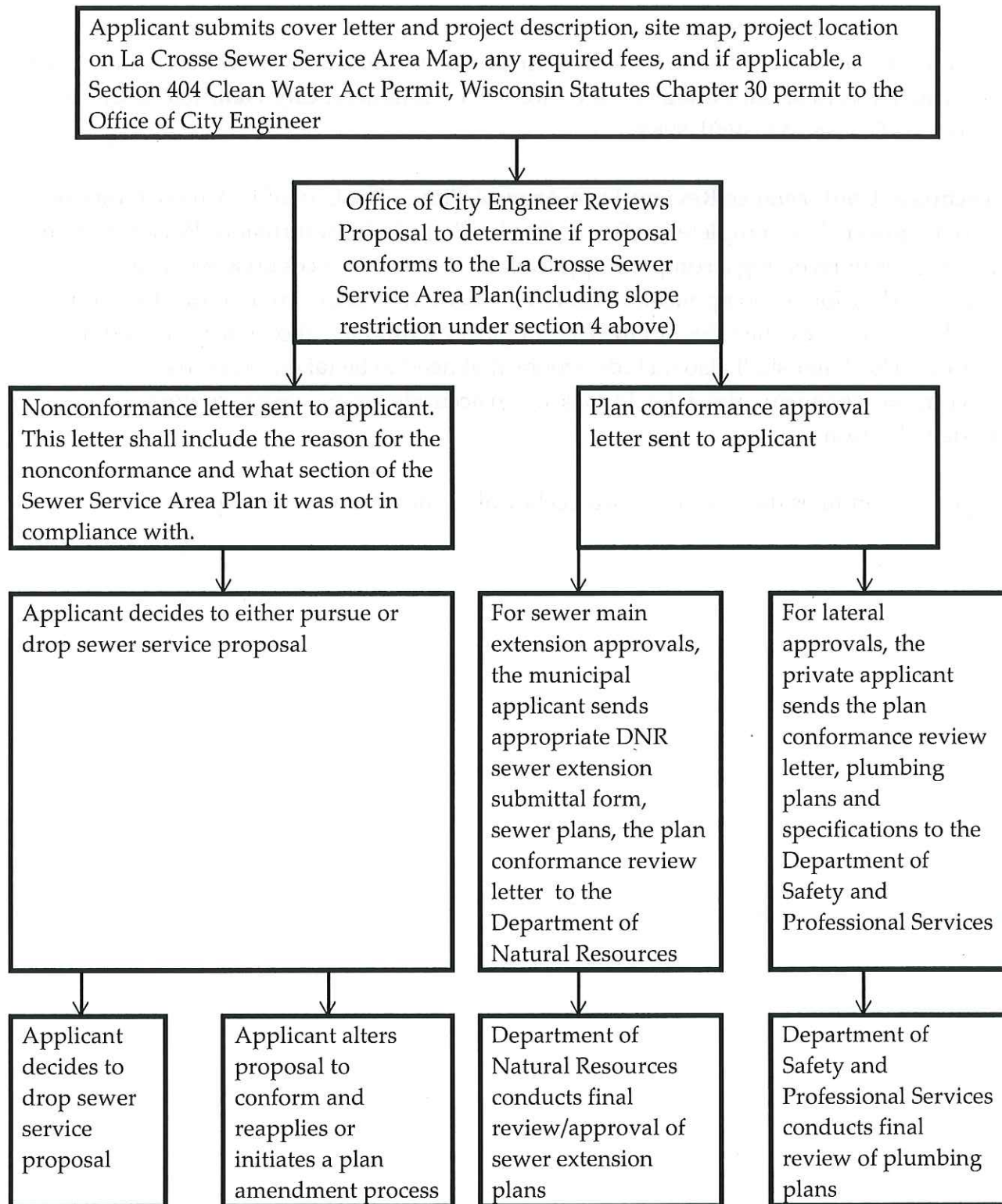
- 5) Sewer Service Area Map - A copy of the La Crosse Sewer Service Area Map is to be provided showing the proposed location of the sewer extension or lateral.
- 6) Any required fees to conduct Sewer Service Technical Conformance Review.

Where Technical Conformance Review Information should be submitted. The above information is to be submitted to the Office of City Engineer, City Hall, 400 La Crosse Street, La Crosse, WI 54601-9988.

Technical Conformance Review Turn Around Time. The City of La Crosse Office of City Engineer shall complete the Sewer Service Technical Conformance Review within seven days of receiving a complete application. If circumstances arise where an accurate decision on an application cannot be made within this time frame the applicant shall be notified by the Office of the City Engineer within the above mentioned time period. This letter shall also include actions that need to be taken to resolve circumstances causing the delay in making an accurate sewer service conformance review decision.

Figure 6-1 outlines the Sewer Service Technical Conformance Review procedure.

FIGURE 6-1
SEWER SERVICE TECHNICAL CONFORMANCE REVIEW PROCEDURE FLOW CHART



Erosion Control Requirements for Extending Sewer Lines into Areas with Slopes of 20% to less than 30% or when land areas of 5 acres or more are disturbed

The need to extend sewer lines indicates impending development of land. Naturally, the exposure of soils during the excavation and building process soon follows. The potential for these exposed soils to reach either a surface water or storm sewers leading to surface waters increases without adequate construction site erosion controls. Soil loss rates increase exponentially as slope increases, therefore greater damage to surface waters may result from development on steeper slopes without properly installed and maintained construction site erosion controls. Lack of proper erosion controls can cause harmful sedimentation of surface waters which can be a serious problem in developing areas and can result in reduced habitat for fish, aquatic insects and other wildlife as well as reduce recreational use of the streams and rivers.

Dealing with steep slopes is a common occurrence in the Sewer Service Area due to its location within a unique geologic region of the United States called the Driftless Area. This area is characterized by rugged ridges and valleys that were created by glacial melt-water from retreating continental glaciers that surrounded Southwestern Wisconsin and Southeast Minnesota approximately 11,000 years ago. This geologic event, while creating an attractive scenic landscape has also created unique urban growth constraints. To allow for environmentally sound development on these slopes construction site erosion control measures and agreements have been developed and are summarized below.

Enforcement of the Erosion Control Provisions of the Uniform Dwelling Code.

The Wisconsin Department of Safety and Professional Services (WSPSPS) currently requires municipalities of 2,500 or greater to conduct inspections in order to determine compliance with the Wisconsin Uniform Dwelling Code (ILHR 20-25). The Uniform Dwelling Code (UDC) applies to all 1 and 2 family homes, manufactured buildings for dwellings or newly constructed community-based residential facilities providing care, treatment and services for 3 to 8 unrelated adults constructed after June 1, 1980. The UDC contains many provisions, one being containment of soils on the developing site with erosion control measures.

The City of La Crosse and the City of Onalaska have staff that inspect new development for compliance with this code and have enforcement authority to correct problems. The towns within the La Crosse Sewer Service Area have erosion control agreements with the La Crosse County Land Conservation Department to carry out UDC inspections and enforcement.

As determined by the WSPSPS, if enforcement of the construction site erosion control provisions of the UDC is inadequate on individual developing sites in any of the municipalities where sewer service is provided, all sewer extensions into areas from 20% to less than 30% slope will not be approved in the respective municipality. Once adequate enforcement is achieved, as determined by the WSPSPS, sewer extensions can then be approved in areas of 20% to less than 30% slope.

The procedure for the actions outlined above begin with the WSPSPS informing the Department of Natural Resources that inadequate enforcement exists. The Department of Natural Resources will send a letter to the affected municipality and the sewer service area plan conformance reviewer to inform them that extensions into areas of 20% to less than 30% slope will not be approved until further notice. The municipality will then work with the WSPSPS to improve their enforcement. When the WSPSPS is satisfied with the level of UDC compliance regarding erosion control, they will notify the Department of Natural Resources. A letter will be sent to the affected municipality and the sewer service area plan conformance reviewer to approve extensions into areas of 20% to less than 30% slope, if all other conditions of the sewer service area plan are satisfied.

Enforcement of Local Erosion Control Ordinances. Beyond the scope of the UDC erosion control requirements, La Crosse County, City of La Crosse and the City of Onalaska have their own erosion control ordinances which require an erosion control plan for land disturbance activity and contain enforcement authority. These ordinances require that an erosion control plan be approved before land disturbance activities can occur. The City of La Crosse requires a 10 foot setback from the beginning of the 30% slope.

Proper enforcement of these ordinances will reduce movement of soils off-site during construction activities. If these ordinances are not adequately implemented or enforced, as determined by the Department of Natural Resources, all sewer extensions into areas with 20% to less than 30% slopes will not be approved in the respective municipality. Once adequate enforcement is achieved, as determined by the Department of Natural Resources, sewer extensions will be approved in areas of 20% to less than 30% slope. Review of enforcement of these erosion control ordinances will be conducted by the Department of Natural Resources. If inadequate enforcement is documented, a letter will be sent to the affected municipality and the sewer service area plan compliance reviewer stating that extensions into areas of 20% to less than 30% slope will not be approved.

The Department of Natural Resources will work with the municipality to improve

enforcement of their ordinance. Once satisfactory compliance is reached, the municipality and sewer service area plan compliance reviewer will be notified that extensions into areas of 20% to less than 30% slope can be approved, if all other conditions of the sewer service area plan are satisfied.

Each municipality is responsible for proper implementation and enforcement of the UDC and their respective erosion control ordinances. Failure to do so will impact sewer extensions only within the municipality where enforcement improvements must be achieved.

Local Excavation and Grading Ordinances. The City of La Crosse and the Towns of Shelby, Onalaska, and Medary have each adopted excavation and grading ordinances, which also assist in managing erosion and protecting water quality.

Land Disturbance of One Acre or More Involves Application and Approval of a Construction Site Storm Water Discharge Permit as Required by NR 216. Any land disturbance including disturbance from sewer extensions of 1 or more acres throughout all phases of construction require a DNR permit as required by NR 216. Prior to commencing land disturbing activities on a 5 acre-or-greater site, a Notice of Intent (NOI) and the permit fee must be submitted via certified or registered mail to Department of Natural Resources, Stormwater Permits, 1300 West Clairemont Avenue, Eau Claire, WI 54702. NOI forms can be obtained from the same address. The permittee shall develop a construction site erosion control plan and shall maintain compliance with that plan. The plan must address pollution caused by soil erosion and sedimentation during construction up to final stabilization of the site. Specific permit application requirements are outlined in NR 216.46.

Local Sewer Service Agreements, Erosion Control Agreements and Ordinances and Excavation and Grading Ordinances. The following is a listing of the various local agreements and ordinances that come into use when sewer lines are extended and/or when land disturbance from construction activity occurs:

- City of La Crosse and City of Onalaska's, *Agreement for Sewer Conveyance and Treatment, La Crosse-Onalaska 1997-2016*, adopted March 28, 1997.
- City of La Crosse and Town of Campbell's, *Agreement for Sanitary Sewer Conveyance and Treatment, Town of Campbell Utility District*, adopted January 11, 1996.
- City of La Crosse and Town of Shelby's, *Agreement for Sanitary Sewer Conveyance, treatment and disposal, City of La Crosse - Sanitary District 2 - Town of Shelby*, adopted January 11, 1996.

- City of La Crosse's, *Construction Site Erosion Control*, Section 15-2-1 through 15-2-11 of the City Code of Ordinances, adopted April 18, 1995, amended July 11, 1995.
- City of Onalaska's ordinance, *Construction Site Erosion Control*, adopted February 14, 1995.
- Town of Onalaska's ordinance, *Excavation and Grading*, amended in 1990.
- Town of Shelby's ordinance, *Excavation and Grading*, adopted June 28, 1990.
- Town of Medary's ordinance, *Excavation and Grading*, adopted June 11, 1987.

Chapter 7: SEWER SERVICE AREA PLAN AMENDMENT PROCEDURES

Unanticipated factors such as a robust economy, economic stagnation, new environmental concerns, new on site sewer construction technology, new technical data, changes in land use plans and regulations, or unforeseen community needs, make it imperative that amendments to the *La Crosse Sewer Service Area Plan* can be made. To accomplish this, the following amendment procedures have been established:

- 1) **Municipality Prepares Required Information.** The municipality requesting the amendment shall prepare the following required information prior to proceeding with an amendment request.
 - A. Narrative description and reason for the amendment request. If a change of wording to the Sewer Service Area Plan is being proposed, the exact wording shall be provided as part of the description.
 - B. Legal description and exact acreage of land area(s) proposed to add and/or subtract from the sewer service area, if applicable.
 - C. Description of the proposed land uses (*i.e. residential, commercial, industrial, open space, parks*) and public services (*i.e. water, sewer, roads*) to be provided to areas identified in "B" above.
 - D. A detailed map showing topography and buildings and the proposed areas being added to and/or subtracted from the sewer service area.
 - E. The amount of developable land and development density (*persons per acre*) in any areas being proposed to add to and/or subtract from the sewer service area and the net change in the development density of the sewer service area as a result of the proposed amendment.
 - F. Identify any water quality impacts to the extent possible from the proposed amendment.
 - G. Verification that there is capacity for the sewer system and treatment facility to serve proposed new areas and their projected flows.
- 2) **Municipality Reviews Required Information, Endorses and Forwards Amendment Request.** After reviewing the required information above, the standards set forth in the Sewer Service Area Plan and NR 121 of the Wisconsin Administrative Code, the governing body of the municipality shall formally vote to endorse the amendment. If approved, that municipality shall forward the required information in "1" above to the office of the La Crosse Area Planning Committee (LAPC), and the La Crosse-Department of Natural Resources office.
- 3) **Hold Public Meeting.** Within 60 days of receipt of an amendment request the Chair of the LAPC shall call and hold a public meeting of the LAPC for the purpose of the

municipality to formally present their amendment request and to answer questions and hear comments from the members of the LAPC and general public. The public meeting will occur during a properly noticed meeting of the LAPC.

- 4) **La Crosse Area Sewer Committee (LASC) Action.** After consideration of comments made during the public meetings, the standards and procedures in the La Crosse Sewer Service Area Plan and NR 121 of the Wisconsin Administrative Code, the LASC shall act on the amendment request by voting. The LASC vote will take place at the LAPC meeting which includes the public meeting, or at a subsequent LAPC meeting.
- 5) **Opportunity for Filing Written Comments on Actions Taken By LASC.** Written comments in favor of, objecting to, or providing information on actions taken by the LASC by any person, organization or government body are to be submitted to the LAPC and La Crosse-Department of Natural Resources office within 30 days after the public meeting.
- 6) **Provide Documentation of Public Meeting Comments and Actions Taken by the La Crosse Area Sewer Committee.** Within 30 days after the public meeting, the Executive Director of the LAPC shall prepare and provide a copy of the minutes of the public meeting, recording public comments made and the results of any votes taken to the La Crosse-Department of Natural Resources office and to the policy board of the LAPC.
- 7) **Final Decision on Amendment Request.** The Wisconsin Department of Natural Resources will make the final and official determination on all plan amendments based on consideration of public comments, written comments, official action taken by the La Crosse Area Sewer Committee, standards and procedures of the Sewer Service Area Plan and NR 121 of the Wisconsin Administrative Code. The Department of Natural Resources will inform the LAPC of its decision on amendment requests within 60 days of the public meeting.

The Wisconsin Department of Natural Resources desires to make an informed sewer service amendment decision and therefore recommends and values the local public input process provided by the local municipalities and the LAPC as described in steps one through seven above. The Wisconsin Department of Natural Resources has the authority to affirm, reverse, amend or refer any amendment vote or action taken by the LASC.

The La Crosse Area Planning Committee (LAPC) and the La Crosse Area Sewer Committee (LASC)

The plan amendment procedures outlined above call for the LAPC to hold the public meeting and be the official body to organize and coordinate sewer service area planning as it does for transportation planning in the La Crosse and La Crescent metropolitan planning area.

However, when official action is to be taken on Sewer Service Area planning issues, only the City of La Crosse and municipalities that have sewer service conveyance and treatment contracts with the City of La Crosse are to vote. The chief elected officials of these municipalities make up the La Crosse Area Sewer Committee (LASC). The LASC meets to discuss and vote on sewer service issues at regularly noticed LAPC meetings. The LASC discussion and action will be led by the Mayor of La Crosse, acting as the LASC Chair.

Policy board members of the LAPC that are not members of the LASC will have an interest in the sewer service area planning process since growth and development and sewer service area boundary changes may eventually impact them. They can provide important planning information on local and regional development concepts from their own community perspective. This inclusion of all members of the LAPC in the sewer service area planning process facilitates better understanding, coordination and cooperation for all planning activity.

Table 7-1 illustrates the municipalities that comprise the LAPC and the LASC and their respective voting structure based on the 2000 Decennial Census for the LAPC and on the 2005 population estimates from the Minnesota State Demographic Center, Wisconsin Department of Administration, for the LASC.

TABLE 7-1
LA CROSSE AREA PLANNING COMMITTEE (LAPC) AND LA CROSSE AREA SEWER
COMMITTEE (LASC) WEIGHTED VOTE STRUCTURE

Municipality	2010 Population	LAPC Weighted Vote for Transportation Area Planning	LASC Weighted Vote for SSA Planning
City of La Crosse	51,320	26	7
City of Onalaska	17,736	16	2
City of La Crescent	4,830	10	1
Village of West Salem	4,799	10	N/A ¹
Village of Holmen	9,005	10	N/A
Town of Onalaska	5,623	8	N/A
Town of Shelby	4,715	8	1
Town of Campbell	4,314	8	1
Town of Medary	1,461	4	N/A
Town of Hamilton	2,436	N/A	N/A
TOTAL	106,239	100	12

¹Communities that are not within a service area have no weighted vote and are categorized as "not applicable" (N/A).

Weighted Voting and its Repercussions

The concept of weighted voting is based on the premise that the heavier users and investors in a given enterprise should have a greater say in its operation. Transferring this concept to sewer service area planning it is readily apparent who the local users and investors are, namely, the City of La Crosse, the City of Onalaska, the City of La Crescent, and the Towns of Campbell and Shelby. The Environmental Protection Agency and the Wisconsin Department of Natural Resources are also investors in this sewer system.

The weighted voting structure shown in the table above awards votes based on population of the municipalities that use and invest in the Sewer Service Area system. This implies that the higher the population the greater the usage and the amount a given municipality will pay towards maintaining the sewer system. The disadvantage to this concept is that it doesn't truly reflect sewer usage. If a voting structure was

based on actual loading the voting would be even more heavily weighted in the City of La Crosse's favor, due to industrial and commercial loadings and the fact that not all of the Town of Shelby's population is served by public sewer.

The repercussion from this form of weighted voting results in the City of La Crosse carrying over a two-thirds majority on any vote. If you take into consideration that in 1997 the City of La Crosse provided 83% of the loading and generated 80% of the total revenue their proportion of the weighted vote becomes more understandable.

The context for which a vote is taken also needs to be considered. A voting action by the LASC is conducted to advise the Wisconsin Department of Natural Resources on what the chief elected officials of the LASC believe to be in the municipality's and the sewer service area's best interest. In making their decision the Department of Natural Resources will consider the weighted voting situation and the results that can occur. This vote will be just one of the important factors that they will consider in making their decision. Other factors will be the policies, standards and procedures in the Sewer Service Area Plan, N.R. 121 of the Wisconsin Administrative Code, citizen comments made at public meetings and written comments provided to them regarding voting actions taken by the LASC.

Sewer Service Area Plan Amendment Evaluation Standards

The following Sewer Service Area Plan evaluation standards have been established for analyzing the merits of proposed plan amendments:

- a) Such sewerage service can be provided in a cost-effective manner.
- b) There will be no significant adverse water quality and/or environmental impacts associated with providing sewer service to the area.
- c) The proposed amendment is in compliance with the other policies and goals of this plan not under amendment consideration.
- d) Existing or planned sewerage systems have sufficient capacity to treat projected flows.
- e) Additional land with sewer service is needed to accommodate unanticipated population growth or the resulting sewer service area density is acceptable to the LASC.

If the LASC determines that additional land with sewer service is not needed to accommodate unanticipated population growth or the resulting sewer service area density is not acceptable, acreage can only be added to the service area if a

corresponding number of acres is subtracted, keeping the population density stable. The exception to this swap requirement is a case where a density range has been established for the service area and the addition of land to the service area does not violate either the upper or lower limit of the range.

Requests for inclusion of existing developments where on-site systems are failing, outside of the sewer service area, will be approved by the Department of Natural Resources provided the failure of the system(s) is documented by the County Environmental Health Manager and provided it can be shown that:

- a) Sewer service can be provided in a cost effective manner compared with alternative solutions, including replacement or upgrading of the existing failing septic systems. The cost-effective determination shall be made by the applicant using EPA and DNR guidelines for cost-effective analysis.
- b) There will be no significant adverse water quality impacts associated with providing sewer service to the area.
- c) Existing or planned sewerage facilities have sufficient capacity to treat projected flows.

Chapter 8: SEWER SERVICE AREA PLAN POLICIES AND GOALS

In addition to the water quality policies and goals of regulating sewer development within environmentally sensitive areas and within a defined sewer service growth boundary, the following policies and goals will further assist in protecting the water resource of the La Crosse area.

GOAL 1 - Continue Nonproliferation Policy of Treatment Facilities - Based on recommendations of the La Crosse Treatment Facility Plan and the 1999 *La Crosse Sewer Service Area Water Quality Management Plan*, continue to maintain the nonproliferation of additional treatment facilities policy as defined by Chapter 281 of the Wisconsin Statutes with the exception of certain circumstances. Those circumstances recognize that connection to an existing treatment facility is not always cost-effective or environmentally sound and that there may be instances where a small sewage treatment facility is the most effective solution. To accommodate this possibility the following is a summary of the special alternatives that are possible so long as they meet the requirements defined by Chapter 281 of Wisconsin Statutes, and Natural Resource Administrative Code 110.

- A. Treatment Facilities To Serve Existing Residential Developments
- B. Interim Treatment Facilities
- C. Treatment Facilities Serving Isolated Nonresidential Development
- D. Treatment Facilities To Serve New Residential Development
- E. Treatment Facilities To Serve Existing Mobile Home Parks and Condominium Developments

GOAL 2 - Practice Pollution Prevention (P2) - The U.S. Environmental Protection Agency, in the last few years, has endorsed and is now encouraging States to take the lead in implementing pollution prevention (commonly referred to as P2) practices. The Department of Natural Resources (DNR) recognizes the value of P2 and encourages P2 activities at the local and facility level. P2 initiatives at the State level are primarily through partnerships with local municipalities, and industrial and commercial establishments. The DNR has also made an effort to incorporate P2 practices while implementing its programs.

At the local level, each community and discharger has an unspoken and inherent responsibility to examine the process and sources of each discharge on a periodic basis to determine whether the discharge can be eliminated, reduced, or converted to a more environmentally inert material prior to being discharged to the treatment facility. This is called pollution prevention. The practice of pollution prevention would also apply to

construction and developing property. The objective of pollution prevention is to eliminate pollution at its source (or to lessen its impact on the environment). It is much easier and sometimes more economical to eliminate/recycle/reduce pollution at its source through good pollution prevention practices than it is to unravel and treat it once it is mixed with other contaminants. A side benefit of P2 is the reduction in the cost to treat and dispose of the material. This may mean a reduction in user fees.

P2 practices can easily be implemented at any governmental/facility level by routinely asking the following questions.

1. Can this waste-stream (or the possibility of a waste stream) be eliminated?
2. Can this waste-stream be recycled?
3. Can this waste-stream be reduced in quantity and pollution strength/toxics?

Implementing a quality P2 program at the local facility and governmental level can best be accomplished by incorporating P2 measures into current workflow, approval, operation practices. By asking the three pollution prevention questions above and by eliminating/recycling/reducing pollution at its source, all facilities discharging to the cities treatment facility can experience the benefits of this good environmental and business practice.

GOAL 3 - Encourage Development to Recognize the Importance of Protecting Groundwater - Our primary source of drinking water by proposing land uses and activities that will not contaminate wells or well recharge areas and will adhere to well head protection plans and ordinances.

GOAL 4 - Prior to Approval of Municipal Sewer Extensions for a Given Residential Subdivision Development, Require a Site Plan and Density Threshold (dwelling units per acre) for that development and for possible future subdivision additions that show evidence that the development is sustainable and major water quality, stormwater runoff, and public infrastructure problems and costs will not be passed on to future generations due to development in a wrong place or too much development in a given area. Adequate open space with pervious surface areas should be provided in order to handle storm water in an environmentally sound and natural manner to avoid future costs associated with manmade structural solutions.

GOAL 5 - Investigate the Feasibility of Preparing a Sustainable Development Plan For the Land Areas Within or Adjacent To the Existing Sewer Service Area Boundary. Some of the issues this sustainable development plan (*see description of a sustainable development plan below*) could address are:

- Recommendations on how additional dwelling units projected by the year 2035 should be distributed or clustered throughout the sewer service area. These recommendations should be based on handling of stormwater runoff in the most natural way practical by minimizing man made structural solutions but still allowing for economical sewer development. Minimizing changes to the natural landscape, road capacities, employment centers, and park and recreation needs should also be taken into consideration in determining the distribution pattern for dwelling units.
- Recommendations on how to make sewer urban areas as affordable and economical to develop as agricultural and rural land areas. To assist in abating urban sprawl and keeping our urban centers vibrant and rural areas productive for farming and wildlife habitat.
- Recommendations on how to assist farmers and large landowners in getting relief or compensated for not developing their land so they can afford to keep it undeveloped or to keep farming and not have to sell it for development to make a living.
- Recommendations and maps showing sewer line locations on how to serve the dwelling unit distribution pattern.
- A three dimensional birds-eye view sketch or altered photo showing how the dwelling distribution pattern would look on the landscape.
- Estimates in phases on the costs involved in providing sewer service to the dwelling unit distribution pattern.
- Financing plan on how all local governments with assistance from state and federal grants can equitably pay for the sewer lines and related infrastructure.
- A sewer service revenue sharing plan that equitably compensates all cities and towns in the sewer service area for their past, present and future investments in the sewer system.

Sustainable Development

Sustainable development is a concept based on a long standing ethic involving people's relationship with the environment and the current generation's responsibilities to future generations. For a community to be truly sustainable, it must adopt a three pronged approach that considers economic, environmental, and cultural resources.

Communities must consider these needs not only in the short term but also in the long term.

Carrying the sustainable development concept to sewer service area planning would involve innovative approaches to urban settlement patterns and waste treatment servicing systems. These approaches would involve developments that can be economically and environmentally sustained for both today's and future generations. These development patterns and systems would respect the natural environment and not treat it as an inconvenient obstacle to be ignored or controlled. These patterns and systems would also not burden future generations with high maintenance costs based on short sighted cost-benefit analysis of each incremental development. Instead, the entire sewer service area would be looked at from a big picture perspective with human settlement patterns and their accompanying sewer systems located in the most environmentally sound and economical places based on their ability to sustain themselves over the long term.

Sustainable Development Resources

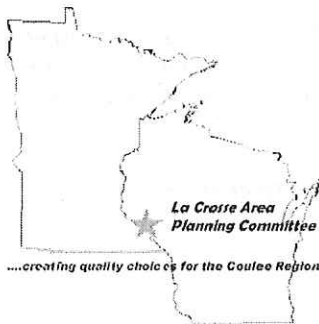
Several federal agencies, the National Association of Counties (NACO) and numerous other organizations are promoting and providing assistance to communities interested in pursuing sustainable development. The Environmental Protection Agency (EPA) has established a challenge grant program and numerous other funding programs to assist businesses and communities with sustainable development initiatives.

The Department of Energy (DOE) has established a Center of Excellence for Sustainable Development that provides funding and technical assistance. This center is established to assist DOE in its core mission to make sure the Nation has ample supplies of clean, affordable energy. Each neighborhood that is designed across the country that utilizes sustainable development concepts will help in the attendant impacts on transportation, building efficiency, industrial productivity and so on - which affects national energy security and the Nation's economic and environmental health.

The NACO is also championing sustainable development. NACO has worked with the U.S. Conference of Mayors to form the joint center for sustainable communities. The mission of the center is to provide a forum for cities and counties to work together to develop long-term policies and programs that lead to sustainable communities. The center will help local officials build sustainable communities by promoting community leadership initiatives, providing technical assistance and training and conducting policy and educational forums.

The DOE, the EPA, and the NACO each have very informative web sites on their sustainable development programs and grant opportunities.

APPENDIX A: LASC Minutes, October 2006



La Crosse Area Planning Committee **Metropolitan Planning Organization** **Serving the La Crosse/La Crescent Urbanized Area**

Tom Faella, Director Jackie Eastwood, Transportation Planner
La Crosse County Administrative Center

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Minutes of LASC Meeting, October 11, 2006

Minutes of the meeting of the La Crosse Area Sewer Committee held on Wednesday, October 11, 2006 at 11:00 a.m. in Room 3220, La Crosse County Administrative Center, 400 4th St N, La Crosse, WI.

Members Present: Jim Bialecki, City of Onalaska; Lynnetta Kopp, Town of Shelby; Mark Johnsrud, City of La Crosse. **Members Absent:** Scott Johnson, Town of Campbell. **Others Present:** Brad Williams, Tom Faella, and Jackie Eastwood.

1) La Crosse and La Crescent Sewer Service Area Plan Amendment:

Ms. Kopp asked if La Crosse has a policy of requiring annexation before the provision of sewer service and how this would relate to La Crescent. Mr. Johnsrud stated that 66.023 of the state statutes regulates service provision and that an agreement is needed to provide service without annexation. Because La Crescent is in Minnesota, La Crosse has no power to annex. A service agreement containing aspects of the agreements with Onalaska, Campbell, and Shelby will be drafted for La Crescent.

Mr. Johnsrud stated that he is very open to discussing a boundary agreement between La Crosse and Shelby to help ease issues of annexation and service provision.

Mr. Hexom estimated the cost of the service main between Barron Island and Riverside Park to be \$200,000 to \$225,000. La Crosse will estimate what share of that cost will be charged to La Crescent. Adding La Crescent as a wholesale customer will spread out fixed rates that are charged to customers for cost such as maintenance and capital improvements. The rates would be the same for everyone.

Mr. Johnsrud added that the improvements to Barron Island are a win-win for the City and County because the island would become more marketable for development, which would result in an increased tax base for both the City and County.

Mr. Bialecki motioned to approve the Sewer Service Plan amendment to include La Crescent, MN and to add La Crescent as a member to the La Crosse Area Sewer Committee. Ms. Kopp seconded. All were in favor.

2) La Crosse Area Sewer Committee Weighted Vote Structure:

Mr. Faella noted that the cited weighted vote structure (La Crosse, 7 votes; Onalaska, 2 votes; Shelby, 1 vote; and Campbell, 1 vote) were based on population and were derived from the existing SSA plan. Mr. Johnsrud stated he felt La Crosse should continue to have a greater weight than the

other communities because of the potential impact on the City budget. Mr. Bialecki asked Mr. Faella to re-calculate the weighted vote structure with La Crescent included. Until then, all agreed to give La Crescent 1 vote.

Mr. Faella stated that the plan should be updated to reflect current conditions. Mr. Bialecki suggested the committee wait a couple of years to consider the anticipated needs of West Salem and Holmen. If the plan is updated now, the committee would just have to update it again in a couple of years.

3) Other Business, Adjourn, Next meeting to be announced:

Mr. Bialecki motioned to adjourn at 11:30 a.m. Ms. Kopp seconded. All were in favor.