

ROCK COUNTY, WISCONSIN



Planning, Economic & Community
Development Agency
51 South Main Street
Janesville, WI 53545
Phone: 608-757-5587
Fax: 608-757-5586
Website: www.co.rock.wi.us

RECEIVED

JAN 22 2014

WY
108

January 20, 2014

WT/3 - WY/3 - OGL/3

Ryan Raab
Department of Natural Resources
Bureau of Watershed Management - WT/3
P.O. Box 7921
Madison, WI 53707

Rock County is submitting a request for payment for the 2013 Beloit area water quality management plan. Enclosed is material pertaining to the Rock County grant from DNR to provide water quality management planning in the Beloit area. This report is for the period of January 1, 2013, to December 30, 2013 for the total amount of \$15,000.00.

Currently the 2030 Beloit Area Water Quality Management Plan is in the final stages of completion. This includes a final draft sent to Fran Keally at Department of Natural Resources.

Attached to this letter is an expense reimbursement summary sheet. If you have any questions, please do not hesitate to call me at 608-757-5583.

Yours very sincerely,

Colin Byrnes
Colin Byrnes - Acting Director
Rock County Planning, Economic & Community Development Agency

APPROVED:

Fran Keally 1/29/2014 - Final-Closeout
[Signature] 1/30/14

ROCK COUNTY PLANNING, ECONOMIC, & COMMUNITY DEVELOPMENT AGENCY

CITY OF БЕЛОIT AND TOWN OF БЕЛОIT WATER QUALITY MANAGEMENT PLAN UPDATE: 2013

EXPENSE REIMBURSEMENT SUMMARY

Period: January 1, 2013 through December 31, 2013

<u>ROCK COUNTY STAFF</u>	<u>Hrly Wage + Fringe</u>	<u>1 Meetings</u>	<u>2 Analysis & Mapping</u>	<u>3 Report & Map Production</u>	<u>4 County Brd. Presentation</u>	<u>5 Project Expense</u>	<u>TOTAL EXPENSE</u>
Planning & Dev. Director	\$ 69.02	12.00		40.00		\$ 66.67	\$ 3,655.71
Engineer	\$ 37.36	15.00		32.00		\$ 104.53	\$ 1,860.45
Planner II	\$ 40.04	18.00	15.00	89.00		\$ 106.11	\$ 4,990.99
Consultant / Planner						\$ 5,000.00	\$ 5,000.00
GIS Manager	\$ 49.25		50.00				\$ 2,462.50
							\$ -
							\$ -
							\$ -
							\$ -
TOTAL REIMBURSEMENT REQUEST							\$ 17,969.65

Amount requested for January 1, 2013 through December 31, 2013:

\$ 17,969.65

<u>GRANT EXPENSE REIMBURSEMENT ALLOCATION</u>	
FY13 Federal Funds	\$ 10,885.00
FY13 State Funds	\$ 4,115.00
	<u>\$ 15,000.00</u>

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Planning, Economic & Community
Development Agency



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Website: www.co.rock.wi.us

December 30th 2013

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JAN - 3 2014

Fran Keally
Wisconsin Department of Natural Resources
101 South Webster Street
PO Box 7921 WQ/3
Madison, WI 53703

WT/3 - WY/3 - OGL/3

Dear Ms. Keally:

Enclosed with this letter is a copy of the Beloit Area Water Quality Management Plan (draft). The Technical Advisory Committee (TAC) has the following project timeline for completing this Water Quality Management Plan.

A meeting will be held on February 5th at 9:00 AM at the City of Beloit's Engineering and Water Resources Facility. At the meeting we will discuss the following issues:

- All amendments to the 1998 Beloit Area Water Quality Management Plan will be discussed and added to the appendix for the 2030 Beloit Area Water Quality Management Plan.
- Additional BOD numbers will be presented by the Town of Beloit for analysis for the Town of Beloit's Wastewater Treatment Facility.
- An area located in the northern portion of the Town of Beloit Wastewater Treatment Facility Sewer Service Area has been annexed to the City of Janesville (see enclosed map). A meeting on January 8th at 2:00 PM with the City of Janesville and Town of Beloit officials will be held to rectify this service issue.

The Technical Advisory Committee will then establish the next meeting date where it will vote on the 2030 Beloit Area Water Quality Management Plan.

The Plan will then go to Rock County Planning and Development Committee no later than March 27th for consideration for forwarding it to Wisconsin Department of Natural Resources.

If you have any questions please feel free to contact me at (608) 757-5587.

Thank you for your consideration.
Sincerely,

Christine Munz-Pritchard
Planner II
Rock County Planning and Development Agency

**2030
BELOIT AREA
WATER QUALITY
MANAGEMENT
PLAN**



DECEMBER 2013

Prepared by the Rock County Planning,
Economic and Community Development
Agency in cooperation with the City of
Beloit, Beloit Township, Turtle Township
and Rock Township

Beloit Area Water Quality Management Plan

Prepared by:

Rock County Planning, Economic and Community Development Agency
51 S. main Street, Janesville, WI 53545
Phone: 608.757.5587 Fax: 608.757.5586

Rock County Planning and Development Committee

Alan Sweeney – Chair
Mary Mawhinney – Vice Chair
Wayne Gustina
Marilynn Jensen
Phillip Owens

Water Quality Management Plan Technical Advisory Committee & Support

City of Beloit

Gregory P. Boysen Public Works Director
Mike Flesh- City Engineer
Harry Mathos-Director of Water Resources
Bill Frisbee- Storm Water Engineer

Town of Beloit

Brian Wilson – Town Administrator
Howard Hemmer- Director of Public Works
Frank McKearn - Batterman Engineering

Town of Turtle

Roger Anclam- Town Board Chair

Town of LaParirie

Alan Arndt-Town Board Chair

Town of Rock

Mark Gunn- Town Board Chair

DNR

Amy Schmidt, W/DNR Madison
Fran Keally, WQ3

*Storm Engineer South
Central
Region
Under Review Specialist
Madison*

Rock County Health Department

Tim Banwell - Environmental Protection
Director
Matt Wesson- Sanitarian II
Adam Elmer – Sanitarian II

Rock County Planning & Development

Colin Byrnes – Senior Planner
Adam Pritchard – County Engineer
Chris Munz-Pritchard – Planner II
Jennifer Borlick-Geographic Information
System Manager

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List of Abbreviations

- BOD – Biochemical oxygen demand
- CMAR – Compliance Maintenance Annual Report
- DATCP – Wisconsin Department of Agriculture, Trade & Consumer Protection
- ~~W~~DNR – Wisconsin Department of Natural Resources
- DOA – Wisconsin Department of Administration
- DOT – Wisconsin Department of Transportation
- EO – Element Occurrence
- EPA – United States Environmental Protection Agency
- ESA – Environmentally Sensitive Area
- FEMA – United States Federal Emergency Management Agency
- GIS – Geographic Information System
- HUD – United States Housing and Urban Development Agency
- LWRMP – Rock County Land and Water Resources Management Plan
- NHI – Wisconsin Natural Heritage Inventory
- NRCS – United States Natural Resources Conservation Service
- POWTS – Private Onsite Wastewater Treatment System
- SIU – Significant Industrial Users
- SSA – Sewer Service Area
- TAC – Technical Advisory Committee
- USDA – United States Department of Agriculture
- USFW – United States Fish and Wildlife Service
- WWTF – Wastewater Treatment Facility

Chapter 1 Introduction

A comprehensive water quality planning process was established in the Federal Water Pollution Control Act Amendments of 1972 (Section 208 of PL92-500) and the Federal Clean Water Act of 1977. The Sewer Service Area (SSA) Plan is an important part of this process. The State of Wisconsin Administrative Code NR 121 establishes the regulations specifying policies, procedures, and requirements for Wisconsin's area-wide water quality planning process.

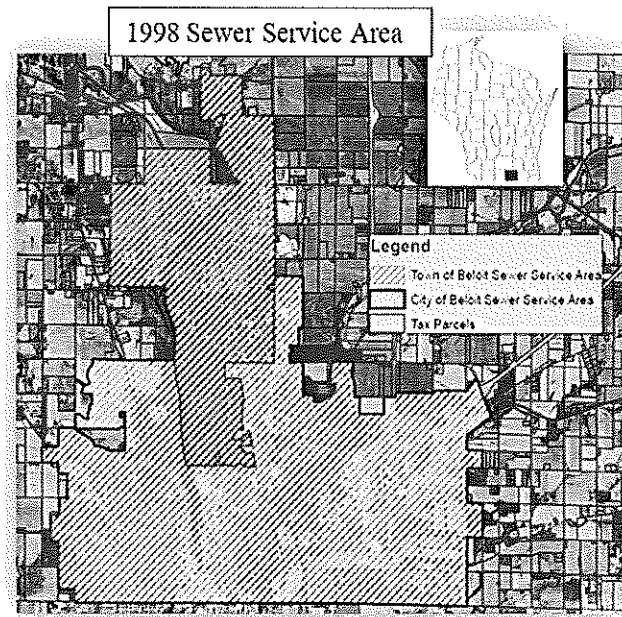
A Sewer Service Area (SSA) Plan, known as the Beloit Area Point Source Water Quality Management Plan was originally prepared for the Beloit Area in 1986, updated in January 1998 in the Beloit-Clinton Area Water Quality Management Plan and was approved by the Wisconsin Department of Natural Resources on March 3, 1998.

The purpose of the current plan update, the Beloit Area Sewer Service Plan Update 2030 is to provide a policy framework and set of guidelines to enforce the federal, state and local water quality programs in the City of Beloit and the surrounding area. The SSA plan inventories land use and environmental conditions, projects future land use and proposes boundaries to guide the development of public sewer facilities. SSA plans are part of the comprehensive long range planning completed by the county, cities, villages and townships. The plan identifies areas that can be developed to provide municipal services to communities in a way that protects public health, environmentally sensitive areas, and the water resources of the state.



Location of Plan

The planning area is located on the south central border of Wisconsin and Illinois in Rock County Wisconsin. The current Sewer Service Area (SSA) boundary incorporates parts of the City of Beloit, Town of Beloit, Town of Rock and Town of Turtle. The Sewer Service Area is divided into two districts which are referred to as the City of Beloit Sewer Service Area and the Town of Beloit Sewer Service Area (1998 map shown on the right). Each district contains one wastewater treatment facility. The proposed Sewer Service Area (2030) will be located under Chapter 5 Plan Implementation. This will include a description of how the new SSA boundary is established.



Goals, Objectives and Policies

The planning process establishes goals and objectives to provide a framework for the development of policies. The diversity of the local government interests requires that common goals are established for the Sewer Service Area Plan. Without common goals, the beneficial achievements of one community's action may be offset by the action of another community. The objectives and policies are designed to address the issues and concerns of the local government, county staff, and state agencies that should be met by the Sewer Service Area Plan. Goals, Objectives and Policies are defined as follows:

- **Goals** are broad statements that express general public priorities. Goals are formulated based on the identification of key issues, opportunities, and problems.
- **Objectives** are more specific than goals and are usually attainable through strategic planning and implementation activities. Implementation of an objective contributes to the fulfillment of a goal.
- **Policies** are rules and courses of action used to ensure plan implementation. Policies often accomplish a number of objectives.

The goals, objectives and policies stated below are based on the respective City and Town Comprehensive Plans. Each goal, objective and policy is divided into three areas of concern: Health, Environment and Land Use.

Health

Goals

1. To promote the provision of Water Quality services in an efficient, environmentally sound and socially responsible manner.
2. Eliminate health hazards associated with failing private onsite wastewater treatment systems (POWTS) and protect the quality of the water and land resources in the planning area.

Objectives

1. Provide safe and efficient sanitary sewer service throughout the plan area..
2. Correct inadequate sewage collection and treatment facilities which result in potential threats to the health and welfare of the public.

Policies

1. Protect groundwater resources by maximizing infiltration of clean water in known groundwater recharge areas, supporting the clean-up of environmentally contaminated sites, and minimizing potential future sources of contamination, particularly in wellhead protection areas.
2. Eliminate failing on-site sewage systems within the 20-year sewer service boundary.
3. All public and private sewage collection and treatment facilities shall be designed and constructed employing current engineering standards and be consistent with the federal, state and local water quality, public health and environmental criteria.



Environmental

Goals

1. Protect natural resource features within the SSA.
2. Encourage the location of future development in areas suitable for development where environmental impact can be minimized and sufficiently mitigated.

Objectives

1. Identify and map unique environmental features, areas and corridors within the boundaries and require these features to be depicted on all site plans, certified survey maps and preliminary and final plats.
2. Direct development away from natural areas, drainage ways, critical infiltration areas and floodplains to prevent potential future problems.
3. Encourage patterns and practices of land use and development that do not disrupt the natural hydrologic system, including the balance between ground and surface water.
4. Manage development of areas where environmental problems indicate that the development should not take place; areas with shorelands, wetlands flood plain, flood fringe, steep slopes, areas with soil limitations, hydric soils and areas with unique and protected flora and fauna.

Policies

1. Preserve environmental corridors by prohibiting new buildings in wetlands, stream banks, floodplains, and on slopes greater than 20 percent. Also, strongly discourage placement of new buildings on hydric soils outside of wetlands and on slopes between 12 percent and 20 percent where other more appropriate sites are available.
2. Protect the water quality of the Rock River, Turtle Creek, and their tributaries by Encouraging low impact development strategies.
3. Sewer extensions to environmental corridors should conform to applicable rules and regulations and should be reviewed on a case by case basis.

Land Use

Goals

1. Manage growth through a process involving all governmental units by guiding development to areas of sufficient physical characteristics and supporting infrastructure.
2. Promote a future development by following approved comprehensive plans.

Objectives

1. Promote development within the SSA.
2. Prepare for future growth opportunities in such a way as to protect farmland, natural resources and open spaces by combating disconnected, "leapfrog" development.
3. Manage growth by clearly designating transition areas where access to cost-effective public sewer service and other public services are available to support future urban development.

Policies

1. Actively promote development and redevelopment where opportunities exist as a means to improve neighborhood conditions, increase local economic and retail opportunities, and make use of existing infrastructure investments.
2. Prioritize development in areas with existing utilities or SSA designation.
3. Maximize the use of existing utilities (such as public water, sanitary sewer, solid waste disposal, and power lines) and facilities within the SSA, and plan for an orderly extension of municipal utilities and facilities within the areas identified for future growth.
4. Ensure that utility system have adequate capacity to accommodate projected future growth; avoid overbuilding that would require present residents to carry the costs of unutilized capacity.
5. Ensure the ongoing maintenance of existing on-site wastewater treatment systems in the SSA and continue to work with property owners to connect to sanitary sewer when appropriate.
6. Planned sewer extensions located outside the approved sewer service area will not be approved until the area is amended into the plan.

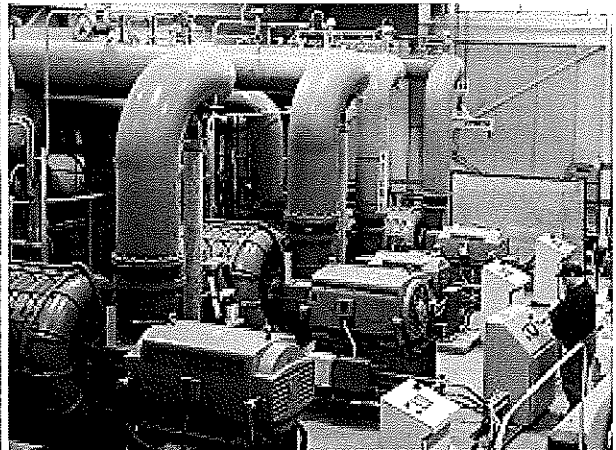
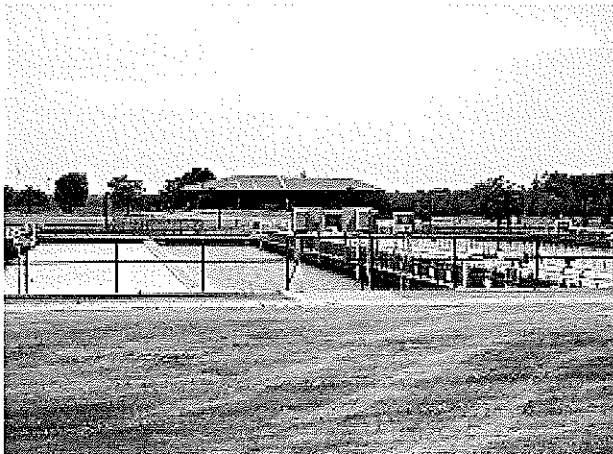
7. Sewer service should be adequately sized to handle projected sewage and water volumes. Sizing is based on code specifications.

Chapter 2 Existing Facilities

The Sewer Service Area (SSA) includes Wastewater Treatment Facility (WWTF), a number of Private Onsite Wastewater Treatment Systems (POWTS), public water systems and wells in the SSA.

Wastewater Treatment Facilities

The Sewer Service Area is divided into two districts. Each district has its own Wastewater Treatment Facilities (WWTF), which are referred to as the City of Beloit's Wastewater Treatment Facility and the Town of Beloit's wastewater Treatment Facility. A centralized wastewater treatment system, according to the U.S. Environmental Protection Agency (EPA), is a managed infrastructure consisting of a collection of sewers and a single treatment facility used to treat wastewater from an entire service area. Traditionally, such a system has been called Publicly Owned Treatment Works (POTWs). There are two WWTF districts within the plan area; both the City of Beloit and the Town of Beloit have managed infrastructure to treat wastewater.



The City of Beloit Wastewater Treatment Facility

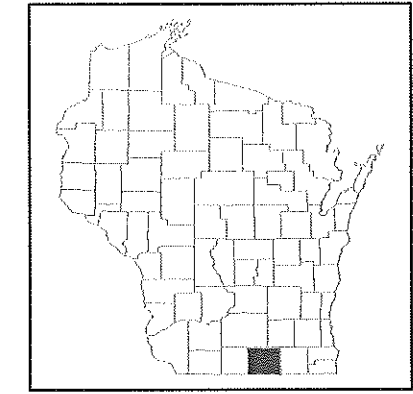
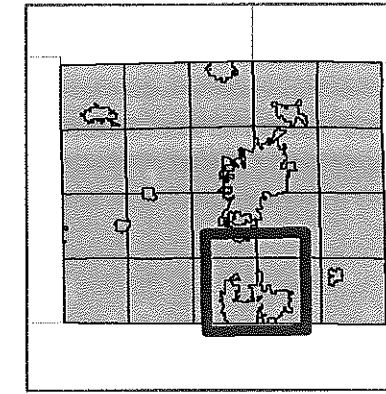
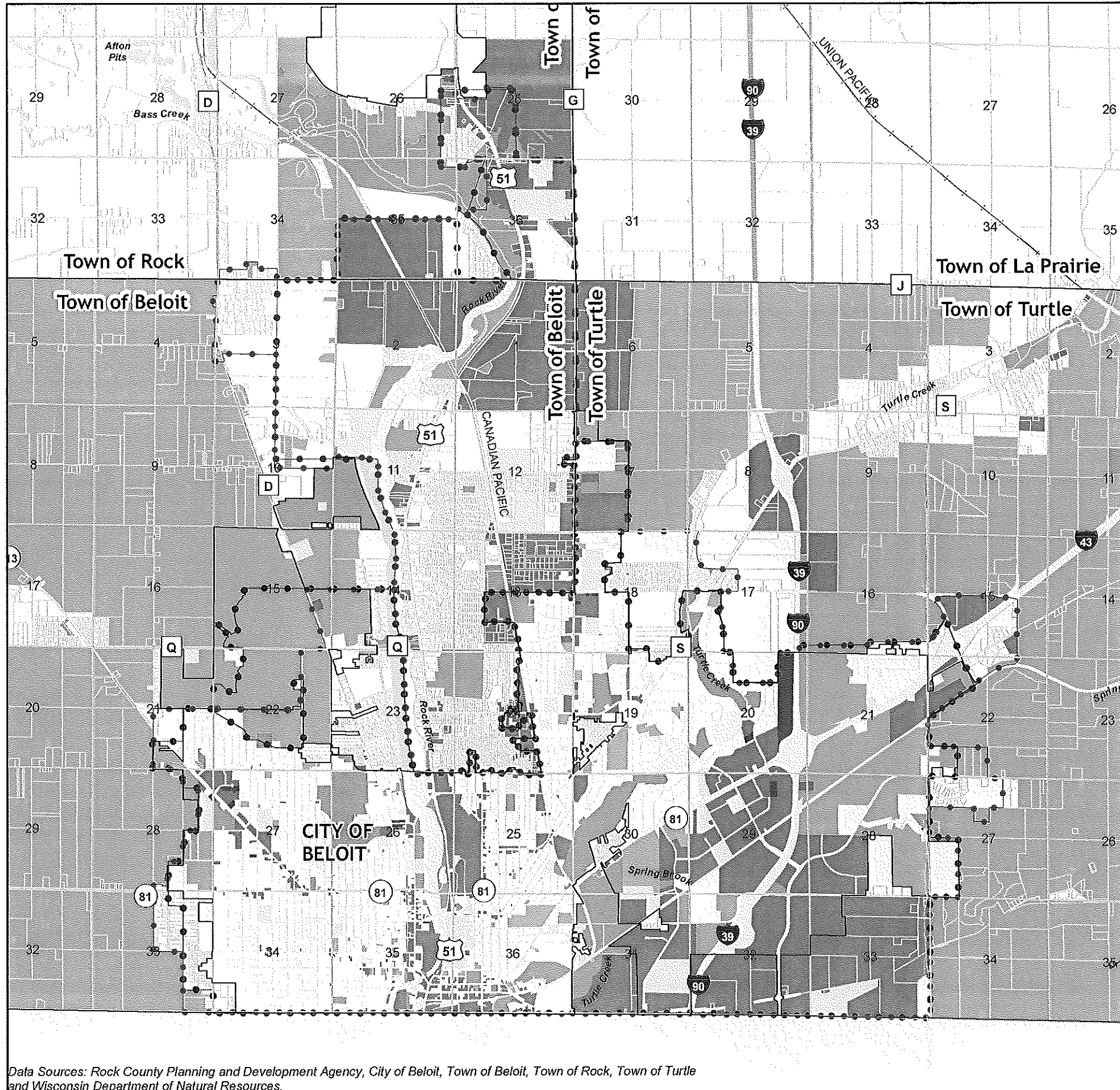
The City of Beloit's current facility opened in 1991. The WWTF accepts waste from customers within the city and also accepts wastes from the surrounding areas. The 2012 Compliance Maintenance Annual Report (CMAR) shows that the facility is operating within its design capacities. Required by the Department of Natural Resources (DNR), a CMAR is a self-evaluation tool that promotes the owner's awareness and responsibility for wastewater collection and treatment needs, measures the performance of wastewater treatment during a calendar year, and assesses its level of compliance with permit requirements. Design capacity is calculated using Biochemical oxygen demand (BOD);

ok!

Future Land Use

- MAP #

DRAFT

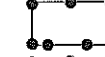


Sewer Service Areas
 Town of Beloit and City of Beloit
 Rock County, Wisconsin
 Date: 9/7/2013

Proposed Sewer Service Area



1998 Sewer Service Areas



City of Beloit Sewer Service Area



Town of Beloit Sewer Service Area

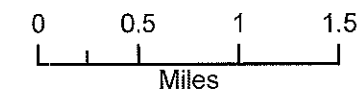
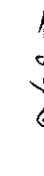
Future Land Use

- Residential
- Commercial/Industrial/Mining/Logging
- Communications/Utilities/Institutional/Governmental
- Recreational
- Agricultural Lands and Structures
- Open Space and Vacant
- Religion and Cemeteries
- Transportation and Water

- Parcels
- Section Line
- Township Boundaries
- Rivers and Streams
- Lakes and Rivers
- Railroad

Roads

- Local Road
- County Highway
- State Highway
- Interstate



Data Sources: Rock County Planning and Development Agency, City of Beloit, Town of Beloit, Town of Rock, Town of Turtle and Wisconsin Department of Natural Resources.

Duplication of this map is prohibited without written consent of the Rock County Planning, Economic and Community Development Agency. The data in this map was compiled using the Rock County Coordinate System. All graphic and attribute information is based on the Rock County Coordinate system. This map is not intended to be a substitute for an actual field survey and is an advisory reference only.

Rock County Geographic Information Systems (GIS)
 Planning, Economic and Community Development Agency
 51 S Main St, Janesville, WI 53545
 (TEL) 608-757-5587, (FAX) 608-757-5586
 email: Planning@co.rock.wi.us



The 2011 DNR Compliance Maintenance Annual Report (CMAR) shows that the facility is operating within its designed capacity. The design parameters for the facility include the following:

	<u>Influent</u>	<u>Design Limit</u>	<u>Actual Range</u> <u>(Average)</u>
Monthly Average Flow, MGD		1.00	0.447
Monthly Average BOD Pounds per Day		1,677.00	890.58

	<u>Effluent</u>	<u>Design Limit</u>	<u>Actual Range</u> <u>(Average)</u>
Monthly Average BOD Limit (mg/L)		30	10.91
Monthly Average TSS Limit (mg/L)		30	8.91
Monthly Average Phosphorus (mg/L)		1	.86

Miles of Sanitary Sewer:	25
Number of Lift Stations:	11

The influent Monthly Average Flow is running at approximately 45% capacity, with the effluent running at about 36% capacity. The overall grade for the 2012 Compliance Maintenance Facility was A-B, with a grade point average of 3.25. The A-B grade means that treatment facility meets voluntary range and is in good standing over all.

Private Onsite Wastewater Treatment System (POWTS)

A Private Onsite Wastewater Treatment System (POWTS) is an onsite treatment system that collects, treats and disposes of wastewater from a single source in the same location. These are used in areas which are not served by a WWTF or centralized sewage system. These are primarily located in rural areas or areas where the housing density is too low to justify a centralized sewer system. In these areas, residential or commercial development requires the use of a POWTS, also known as septic systems. These are required to be inspected every three years and the tank pumped as recommended. POWTS inspection and permits are administered through Rock County Health Department by the septic system program. The goal of is to ensure that all Private Onsite Wastewater Treatment Systems are properly installed, repaired and maintained. All sanitary permits must be obtained in accordance with State of Wisconsin and Rock County regulations.

In Wisconsin, public water systems are regulated by the Wisconsin Department of Natural Resources (DNR) under the authority of the United States Environmental Protection Agency (USEPA).

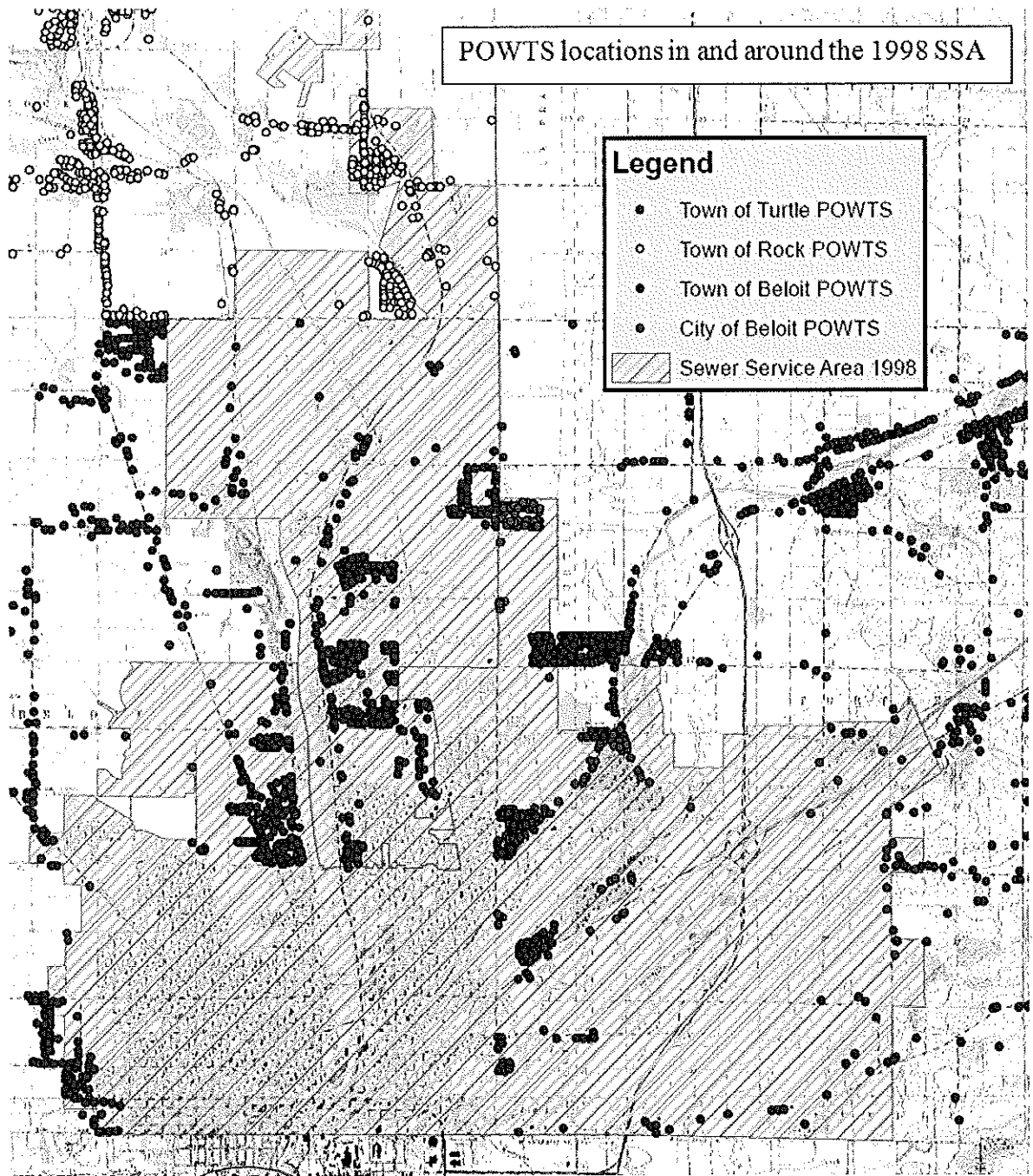


Figure: C2 1998 SSA POWTS Location Source: Rock County Health Department

Public Water System (Beloit Water Utility)

and domestic use

A public water system provides water for human consumption in addition to commercial and industrial use. This means the water is treated then pumped to homes and businesses within the plan area. Regulated by the United States Environmental Protection Agency (EPA) and Wisconsin Department of Natural Resources (DNR) the public water system in the plan area is provided by the City of Beloit Water Utility. The Utility has

At Beloit, water is pumped from wells, treated as necessary and distributed through a water main distribution system

approximately 200 miles of water distribution and transmission mains. Currently there are eight wells, with four booster stations and four elevated storage tanks. This system serves an estimated 37,110 people inside the municipality and 12,753 people outside of the municipality. There are service area agreements between the City and surrounding areas to provide water.



Private Onsite Well Water

Private
In Wisconsin, about 66% of the population drinks water drawn from over 750,000 private wells. Wells are safe, dependable sources of water if sited wisely, built correctly and maintained.

WDNR & US

are not enforceable for
EPA regulations that protect public drinking water systems ~~do not apply to~~ privately owned wells. As a result, owners of private wells are responsible for ensuring that their water is safe from contaminants. ~~Regular maintenance of a well is required to ensure the continued safety of the water and to monitor for the presence of any contaminants.~~

The Rock County Health Department conducts programs that protect groundwater for drinking and other uses. The County Health Department offers lab services for private well owners to test their water for nitrates and bacteria. Water specialists distribute well water information, provide testing bottles and explain test results to well owners.

Chapter 3 Population, Land Use and Housing

Projecting the future population within the planning area will help determine the extent of the Sewer Service Area (SSA) boundary. Population size and housing may indicate how much land will be needed for future development. These trends and forecasts provide the basis for recommendations in this plan. Projections are based on data generated by the Wisconsin Department of Administration (DOA) as required by the Wisconsin Department of Natural Resources ~~(DNR)~~.

Population

The population growth rate for the City of Beloit has shown to be slow in the past 30 years. U.S. Census figures show from 1980 to 2010 the City of Beloit experienced an estimated 1.25% population increase every 10 years (Figure A3). (3A)

	Census Population				Number Change	Percent Change
	1980	1990	2000	2010	2010-2030	
City of Beloit	35,207	35,573	35,775	36,966	1,759	5%
Town of Beloit	8,382	6,778	7,038	7,662	-720	-9%
Town of Turtle	2,703	2,458	2,444	2,388	-315	-12%
Town of Rock	3,399	3,172	3,338	3,196	-203	-6%

Figure A3 Source: Census Population Source U.S. Census 2010

While the City experienced slow population growth, the surrounding townships in the planning area experienced a net decline in population of 1,238 people. The bulk of the population loss in the surrounding townships occurred between 1980 and 1990. This 10-year period shows a drop of 2,076 people. Factors that attributed to this decline are Aging of Township Population, City of Beloit Annexations and Limited Residential Development.

changes?

After the population drop between 1980 and 1990, the combined Towns population begins to slowly increase over the next 20 years. However, this increase still does not replace the population lost during the 1980s.

Population Projections

The DOA population projections between 2010 and 2015 show a slight population decline in both the City and Towns (Figure B3). The only town to increase during this time frame is the Town of Rock. The Town of Rock will increase slightly from the year

2015 to 2025, where it will level off at a population of 3,450. The City of Beloit's population projection beginning in 2020 will continue to increase, collectively only showing a population increase of 2% from 2010 to 2030. The population projections should be revisited every 5 years to insure that the projections are accurate.

	WDOA Population Projections					2010-2030	
	2010*	2015	2020	2025	2030	Number Change	Percent Change
City of Beloit	37,000	36,957	37,355	37,619	37,729	729	2%
Town of Beloit	7,522	7,364	7,386	7,383	7,349	-173	-2%
Town of Turtle	2,444	2,396	2,370	2,333	2,288	-156	-6%
Town of Rock	3,265	3,408	3,436	3,450	3,450	185	6%

Figure B3 WDOA Population Projections

Source: Wisconsin Department of Administration (DOA) Demographic Service Center: 2012

*2010 is to show the consistency between the Census population number and the DOA projection numbers.

Housing

In addition to population projections, people per household and housing densities are required to determine residential land needs.

	Housing Units				1980-2010	
	1980	1990	2000	2010	Number Change	Percent Change
City of Beloit	13,415	14,033	14,253	15,177	1762	13%
Town of Beloit	3,057	2,613	2,938	3,307	250	8%
Town of Turtle	912	916	1,010	1,002	90	10%
Town of Rock	1,050	1,155	1,360	1,346	296	28%

Figure C3 Housing Source: US Census 2010

The household size represents a typical dwelling unit that can be used in conjunction with population projections for estimating future dwelling units. According to the U.S. Census, a housing unit is defined as a house, apartment, mobile home, group of rooms, or a single room that is occupied as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall.



The housing units increased in both the Towns and the City between 1980 and 2010 (Figure C3). This is in contrast to the housing units projection found in the Rock County Comprehensive Plan, which shows the housing market slowing down from 2015 to 2030 (Figure D3) *except for the Town of Beloit*

However the R.C. C-Plan projects the housing market will slow down except in the Town of Beloit from 2015-2030

	Housing Projections				2010-2030	
	2015	2020	2025	2030	Number Change	Percent Change
City of Beloit	15,269	15,454	15,601	15,954	827	6%
Town of Beloit	3,451	3,570	3,689	3,792	585	18%
Town of Turtle	1,061	1,066	1,068	1,073	22	2%
Town of Rock	1,508	1,532	1,554	1,580	123	8%

Figure: D3 Housing Projection Source: Rock County Comprehensive Plan 2035

Current Land use

The current land use data provides a snapshot of existing uses of land in 2013. The SSA boundary incorporates the City of Beloit and parts of the Town of Beloit, Town of Turtle and Town of Rock. The SSA is also divided into two districts containing the Wastewater Treatment Facilities operated by the City of Beloit and the Town of Beloit. Rock County Land Use Inventory categories were used to classify uses within the boundary and district areas. To create a normalized set of land use terms (City of Beloit terms differed from the Towns), data was constructed using land use maps from the respective communities and 2011 air photos to complete the process. The existing land use within the SSA includes a mixture of residential, commercial, industrial, and institutional. Each District's Land Use inventory reflects the 1998 SSA Boundary and the proposed 2030 SSA Boundary (for more information on the 2030 SSA Boundary please see Chapter 5).

City of Beloit Land Use Inventory				
Category	2030 SSA Boundary		1998 SSA Boundary	
	Acres	%	Acres	%
Residential	3,761.32	28.58%	3,499.86	27.66%
Commercial & Industrial	1,450.53	11.02%	1,422.43	11.24%
Transportation & Water	2,492.20	18.94%	2,404.90	19.01%
Communication, Utilities, Institutional & Governmental	307.89	2.34%	306.483	2.42%
Recreational	708.97	5.39%	700.927	5.54%
Agricultural Lands & Usages	2,751.27	20.90%	2,766.77	21.87%
Open Space & Vacant	1,412.56	10.73%	1,276.86	10.09%
Religion & Cemeteries	276.34	2.10%	275.413	2.18%
Total:	13,161.06		12,653.65	

Figure E3 Land Use Inventory City of Beloit (2030 SSA & 1998 SSA)
Source: Rock County Planning and Development Department GIS

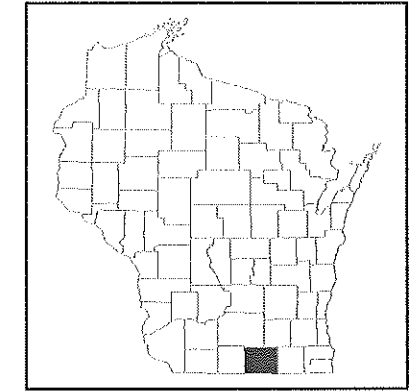
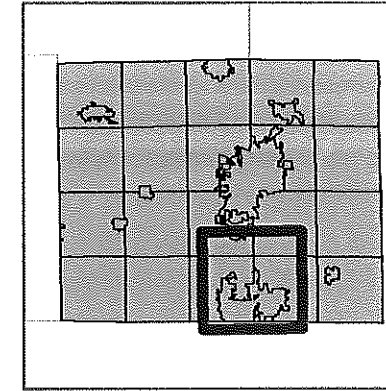
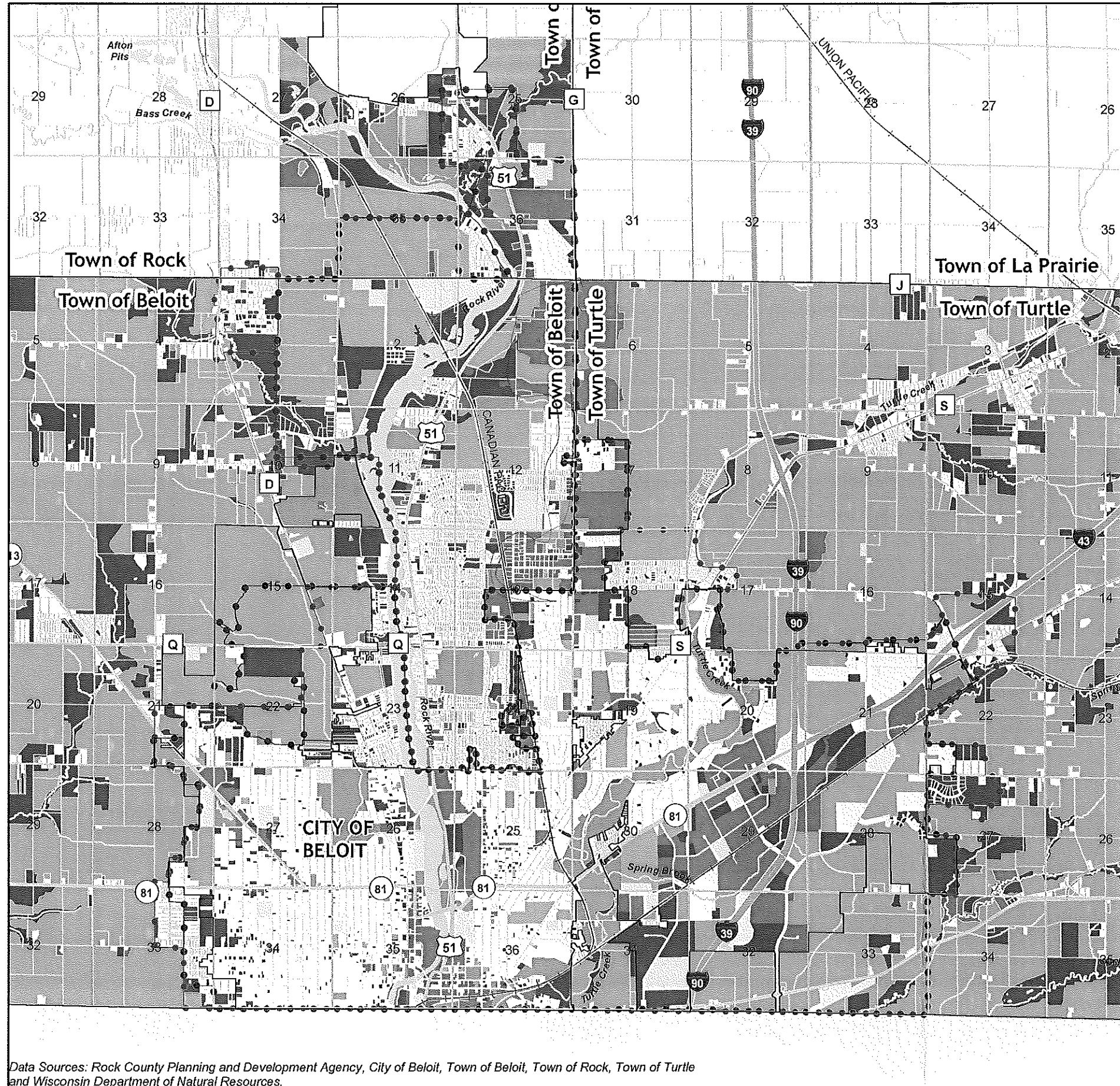
Town of Beloit Land Use Inventory				
Category	2030 SSA Boundary		1998 SSA Boundary	
	Acres	%	Acres	%
Residential	1,312.86	22.74%	1,171.03	21.50%
Commercial & Industrial	572.21	9.91%	572.645	10.51%
Transportation & Water	864.47	14.97%	826.541	15.17%
Communication, Utilities, Institutional & Governmental	218.43	3.78%	218.291	4.01%
Recreational	268.19	4.64%	266.288	4.89%
Agricultural Lands & Usages	1,442.82	24.99%	1,409.94	25.88%
Open Space & Vacant	1,072.42	18.57%	961.677	17.65%
Religion & Cemeteries	22.90	0.40%	21.057	0.39%
Total:	5,774.29		5,447.48	

Figure E3 Land Use Inventory Town of Beloit (2030 SSA & 1998 SSA)
Source: Rock County Planning and Development Department GIS

Land Use Inventory

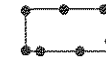
MAG 7

DRAFT



Sewer Service Areas
 Town of Beloit and City of Beloit
 Rock County, Wisconsin
 Date: 9/7/2013

Proposed Sewer Service Area



1998 Sewer Service Areas



City of Beloit Sewer Service Area



Town of Beloit Sewer Service Area

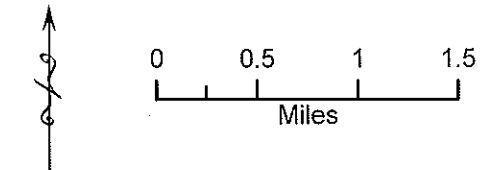
Land Use Inventory

- Residential
- Commercial/Industrial/Mining/Logging
- Communications/Utilities/Institutional/Governmental
- Recreational
- Agricultural Lands and Structures
- Open Space and Vacant
- Religion and Cemeteries
- Transportation and Water

- Parcels
- Section Line
- Township Boundaries
- Rivers and Streams
- Lakes and Rivers
- Railroad

Roads

- Local Road
- County Highway
- State Highway
- Interstate



Data Sources: Rock County Planning and Development Agency, City of Beloit, Town of Beloit, Town of Rock, Town of Turtle and Wisconsin Department of Natural Resources.

Duplication of this map is prohibited without written consent of the Rock County Planning, Economic and Community Development Agency. The data in this map was compiled using the Rock County Coordinate System. All graphic and attribute information is based on the Rock County Coordinate system. This map is not intended to be a substitute for an actual field survey and is an advisory reference only.

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Future Land Use

Future Land Use data is used to guide the physical development of a community. This data is combined with community values that describe how and where to build, rebuild or preserve land. The data below shows those land use projections within the current 1998 Sewer Service Area boundary and the proposed 2030 Sewer Service boundary

The Future Land Use column in Figure I3 below shows potential use changes from current uses in the Sewer Service Area 1998. Figure J3 and K3 show the potential use changes for the proposed 2030 SSA Boundary (1998 area plus proposed additional acreage). This was accomplished by taking the Future Land Use maps from the City and Towns Comprehensive Plans to arrive at the projections. If the land fell within the 1998 SSA district, then Town or City future land use maps from their respective Comprehensive Plan is used to develop the projection data. Additionally, if the land is outside of the 1998 SSA, then said Town's future land use map from their respective Comprehensive Plan is used to develop the data.

Problematically, the land use categories in each plan are not identical. Therefore, it was necessary to combine some categories to create information that could be compared. For example, wetlands are included in the Transportation and Water category since this is a non-developable category.

The greatest shift between the Land Use Inventory column and Future Land Use column in Figure I3 occurs in the Residential, Commercial and Industrial categories, which together increase by approximately 25% to account for 61% of the land use within the 1998 SSA. Agricultural lands and open space uses together decrease by 25% to account for only 10% of land use by 2030.

Sewer Service Area 1998 Category	Land Use Inventory		Future Land Use	
	Acres	%	Acres	%
Residential	4,670.894	25.80%	6,543.686	36.17%
Commercial & Industrial	1,995.076	11.02%	4,561.562	25.21%
Transportation & Water	3,231.443	17.85%	3,217.365	17.78%
Communication, Utilities, Institutional & Governmental	524.774	2.90%	754.849	4.17%
Recreational	967.216	5.34%	903.104	4.99%
Agricultural Lands & Usages	4,176.711	23.07%	1,742.870	9.63%
Open Space & Vacant	2,238.536	12.37%	82.555	0.46%
Religion & Cemeteries	296.471	1.64%	285.260	1.58%
Total	18,101.120		18,091.25	

Figure I3 SSA 2013 Source: Rock County Planning and Development Department GIS

The City of Beloit's Future Land Use (Figure J3) within their Wastewater Treatment Facility District is showing the highest potential uses in the Residential, followed by Commercial and Industrial category within the proposed 2030 SSA Boundary.

Projections for Town of Beloit Wastewater Treatment Facility shows the majority future land use will be Residential.

?

City of Beloit District Future Land Use Map using 2030 SSA Boundary		
Category	Acres	%
Residential	4,923.60	37.346%
Commercial & Industrial	2,817.90	21.374%
Transportation & Water	2,402.00	18.220%
Communication, Utilities, Institutional & Governmental	492.10	3.733%
Recreational	787.34	5.972%
Agricultural Lands & Usages	1,394.06	10.574%
Open Space & Vacant	81.29	0.617%
Religion & Cemeteries	285.32	2.164%
Total:	13,183.61	

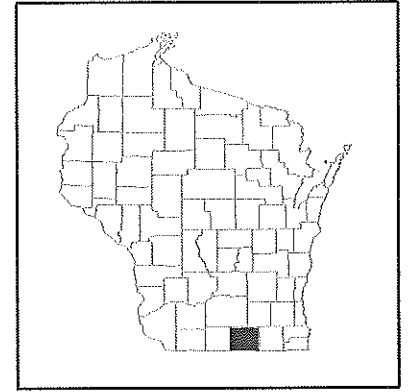
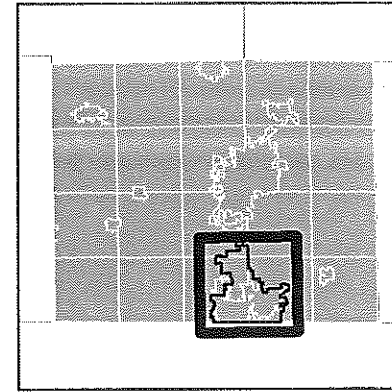
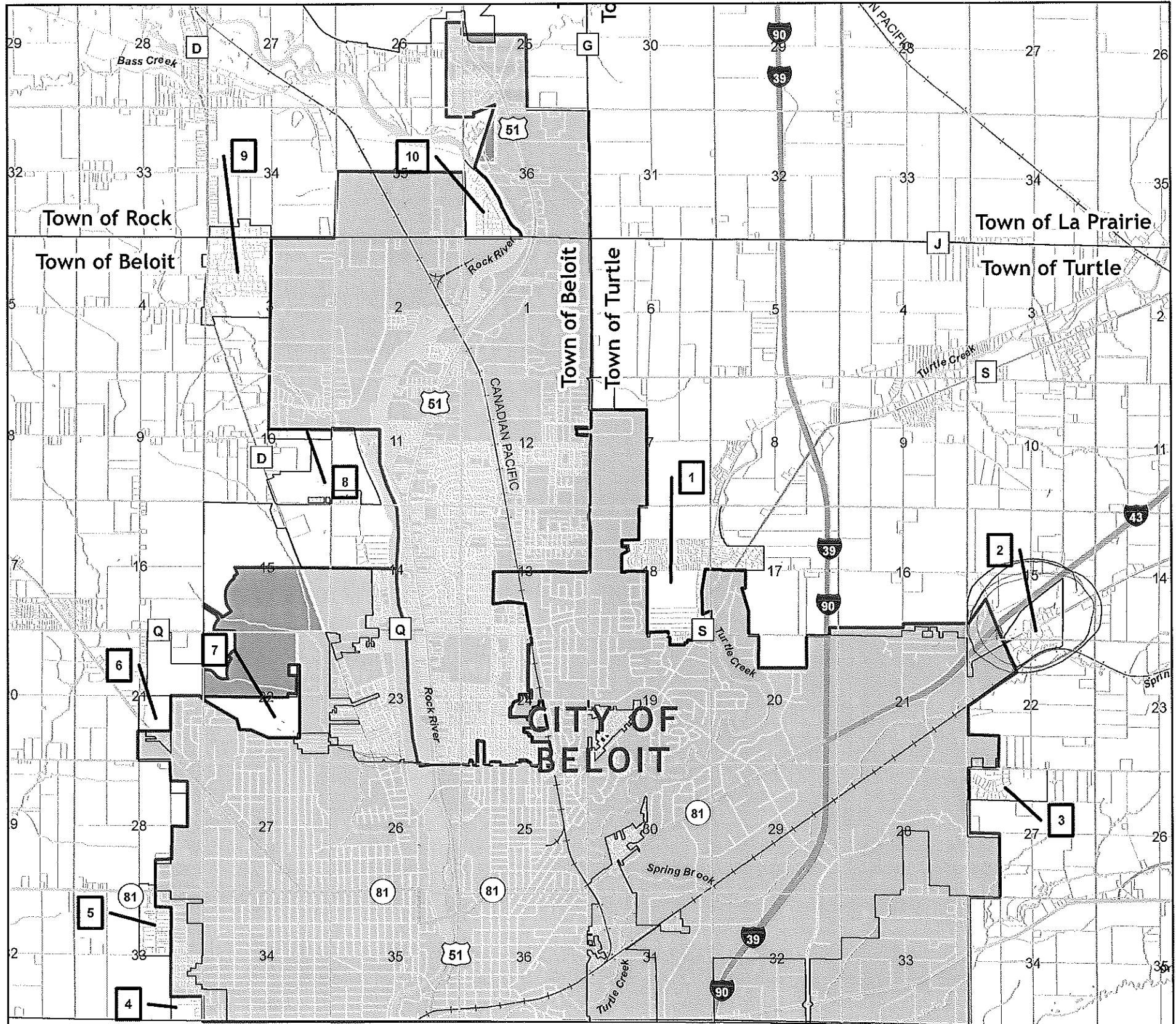
Figure: J3 City of Beloit Future Land Use Plan 2030 SSA Boundary
 Source: Rock County Planning and Development Department GIS

Town of Beloit District Future Land Use Map using 2030 Boundary		
Category	Acres	%
Residential	2,696.1700	46.55%
Commercial & Industrial	1,852.2500	31.98%
Transportation & Water	464.0400	8.01%
Communication, Utilities, Institutional & Governmental	272.1920	4.70%
Recreational	355.0580	6.13%
Agricultural Lands & Usages	152.2100	2.63%
Open Space & Vacant	0.5336	0.01%
Religion & Cemeteries	0.0028	0.00%
Total:	5,792.4564	

Figure: K3 Town of Beloit Future Land Use Plan 2030 SSA Boundary
 Source: Rock County Planning and Development Department GIS

1998 and 2030 Sewer Service Areas DRAFT

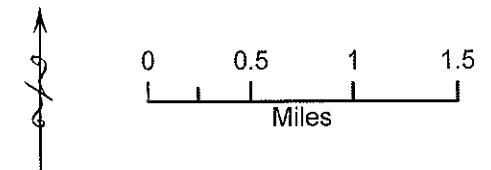
MAP #



Beloit Area Water Quality Plan
 City of Beloit, Town of Beloit,
 Town of Rock, Town of Turtle
 Rock County, Wisconsin
 Date: 11/7/2013

- 1998 and Proposed Sewer Service Areas (No Change)
- Proposed Sewer Service Area (Added)
- 1998 Sewer Service Areas (Removed *from 1998 plan*)
- 1998 Sewer Service Area Boundary
- 2030 SSA Boundary
- Parcels
- Section Line
- Township Boundaries
- Rivers and Streams
- Lakes and Rivers
- Railroad
- Roads**
 - Local Road
 - County Highway
 - State Highway
 - Interstate

*or
 make
 final 2030
 map - outline in
 black.*



Data Sources: Rock County Planning and Development Agency, City of Beloit, Town of Beloit, Town of Rock and Town of Turtle.

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Chapter 4 Environmental Land Characteristic

Examining the existing environmental land characteristics within the planning area will assist in defining future development patterns. The DNR has established minimum criteria that should be evaluated when examining plan areas. The guidelines established are as follows:

Surface and Groundwater

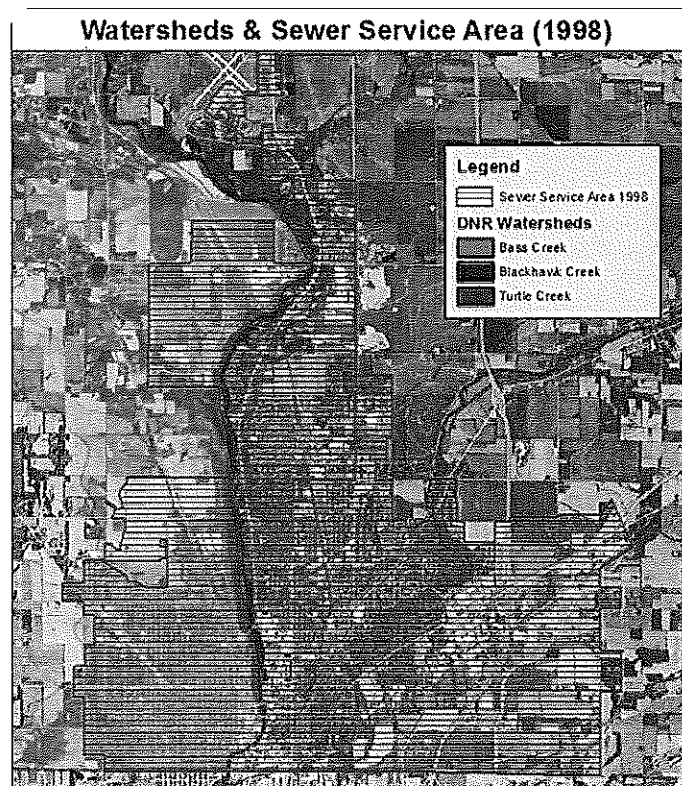
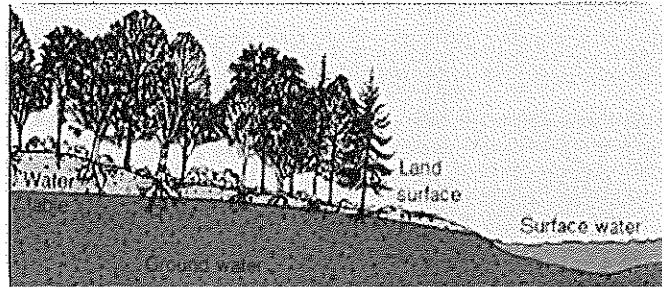
Surface water means all natural and artificial named and unnamed lakes and all naturally flowing streams within the boundaries of the state, not including cooling ponds, farm ponds and facilities constructed for the treatment of wastewater. Groundwater recharge is the process where water moves down from the surface water to ground water. Groundwater is the part of the precipitation that infiltrates the soil to the water table. There are three watersheds (Groundwater) within the SSA;

Blackhawk Creek, Bass Creek, and Turtle Creek.

Blackhawk Creek watershed drains 106 square miles of Rock County east of the Rock River. It is primarily agricultural, but does have some highly urbanized areas including sections of the Cities of Janesville and Beloit. This watershed has a medium susceptibility for groundwater contamination based on DNR mapping.

Bass Creek is a 109-square miles watershed that lies within Rock County west of and adjacent to the Rock River, and stretching from the state line at Beloit to just north of Janesville. While predominately agricultural, there are significant urban areas at the City of Janesville and Beloit.

Turtle Creek watershed is 288 square miles located in eastern Walworth County (62%) and Rock County (38%). Land use is primarily cash crop and dairy agriculture throughout



the headwater tributaries and main stem of Turtle Creek. Turtle Creek flows into the east side of the City of Beloit to join the Rock River just below the Illinois border. Cropland in the headwater areas and urban land use near the City of Beloit contribute the two highest erosion rates in the watershed. Also, stream bank erosion is a concern. A 1982 inventory showed that 10 percent of stream banks in the watershed were eroding (see Rock County Erosion Control Plan). In 1986, this watershed experienced an estimated average soil loss of eight tons/acre/year.

Shoreland and Floodplains

Shorelands represent environmental features that should be given high priority for protection from development, particularly those shorelands that coincide with wetlands, as identified in the Wisconsin Wetlands Inventory Maps. A floodplain commonly called a 100-year flood, is based on historical data and describes a flood that is expected to have a 1% chance of occurring in any given year. Development in shoreland and floodplain areas is strictly regulated, and in some instances, is not permitted. The authority to enact and enforce these types of zoning provision is set forth in Chapter 59.692* and Chapter 87.30 of the Wisconsin Statutes, and Wisconsin Administrative Codes NR 115 and NR 116.

cf flood

*7
chc2*

Wetlands

Wetlands are 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. [s. 23.32(1), Wis. Stats.].

Wetlands play an important role since they serve as a filter system of pollutants, and are invaluable in controlling flood waters, recharging groundwater, and retaining water during drought. These also provide valuable habitat for waterfowl and other wildlife, excellent cover and migration corridors for wildlife, and may support spawning and nursery habitat for fish and sanctuaries for rare and endangered species. Wetlands also offer education, recreational, and aesthetic benefits and opportunities.

Wisconsin Administrative Codes NR 115 and NR 117 mandate that wetlands be protected in both the rural and urban areas of the state. In the unincorporated areas, NR 115 protects wetlands or portions of wetlands within the shoreland zone that are designated on Wisconsin Wetland Inventory maps prepared by DNR. To protect wetlands in incorporated areas, NR 117 was enacted in 1983 and requires that all wetlands and portions of five acres or more in size located in the shoreland zone be protected, and outlines minimum shoreland zoning standards for Wisconsin cities and villages. In addition to NR 115 and 117, NR 103 outlines water quality standards for wetlands and requires that all practicable alternatives be considered to avoid and minimize wetland disturbance and to ensure preservation, protection, restoration, and management of wetlands.

Any alterations that are to be made to any wetland, regardless of size, need to be reviewed and approved by the U.S. Army Corps of Engineers and the DNR.

Steep Slopes

Steep slopes, defined as being a grade of 12% or more, have been identified as developmentally limited areas. Construction activities on steep slopes can result in severe erosion and sedimentation issues. This erosion deteriorates the water quality and can result in increased property damage downstream. Elements in the area that may account for steep slopes are kettle or depressions.

Soils

Soils are composed of varying proportions of sand, gravel, silt, clay, voids and organic material. Under the soils layer is bedrock which is the solid rock beneath the loose materials. The compositions of a soil affect the specific properties of that soil in determining the capacity for supporting on-site wastewater treatment facilities.

Natural Heritage Inventory review

The Wisconsin Natural Heritage Inventory (NHI) is a part of the Wisconsin DNR's Bureau of Endangered Resources. This program shares standardized methods for collecting, processing and managing data for rare species and natural communities. The NHI will check for Element Occurrence (EO) in the area. EO is a population of a species or an example of a natural community or feature naturally occurring at a specific, ecologically appropriate location. Labeled Natural Areas on the Environmentally Sensitive Areas Map, NHI are shown in quarter sections for the protection of the endangered resource. The following township level area table represents a general overview on Endangered Resources in the Sewer Service Area Plan area. Projects located in the areas with listed endangered resources may be required to request additional information from the Wisconsin DNR prior to plat approval. Endangered resources data on the township-level for Rock County can be found here:

http://dnr.wi.gov/topic/NHI/documents/Rock_County.pdf

MAR #7

- 4A

Environmental Land Characteristics Map

Chapter 5 Sewer Service Area (2030) and Plan Implementation

Sewer Service Area Boundary Determination (2030)

The SSA boundary will be determined using four factors:

- 1) Wellhead Protection Overlay District
- 2) High Density of Private Onsite Wastewater Treatment Systems (POWTS)
- 3) Future Commercial, Industrial and Residential Growth
- 4) Parcel Lines

Wellhead Protection Overlay District

The wellhead protection overlay district is based on Substitute Amendment No. 2 Ordinance No. 3483 filed on April 1st, 2013 by the City of Beloit. The purpose of the Wellhead Protection Ordinance is to institute land use regulation and restrictions to protect the area water supply and to promote the public health, safety and general welfare of the residents. By limiting the number of POWTS in these areas, it reduces the risk of contaminates reaching the groundwater. *wrote out (POWTS)*

High Density of Private Onsite Wastewater Treatment Systems (POWTS)

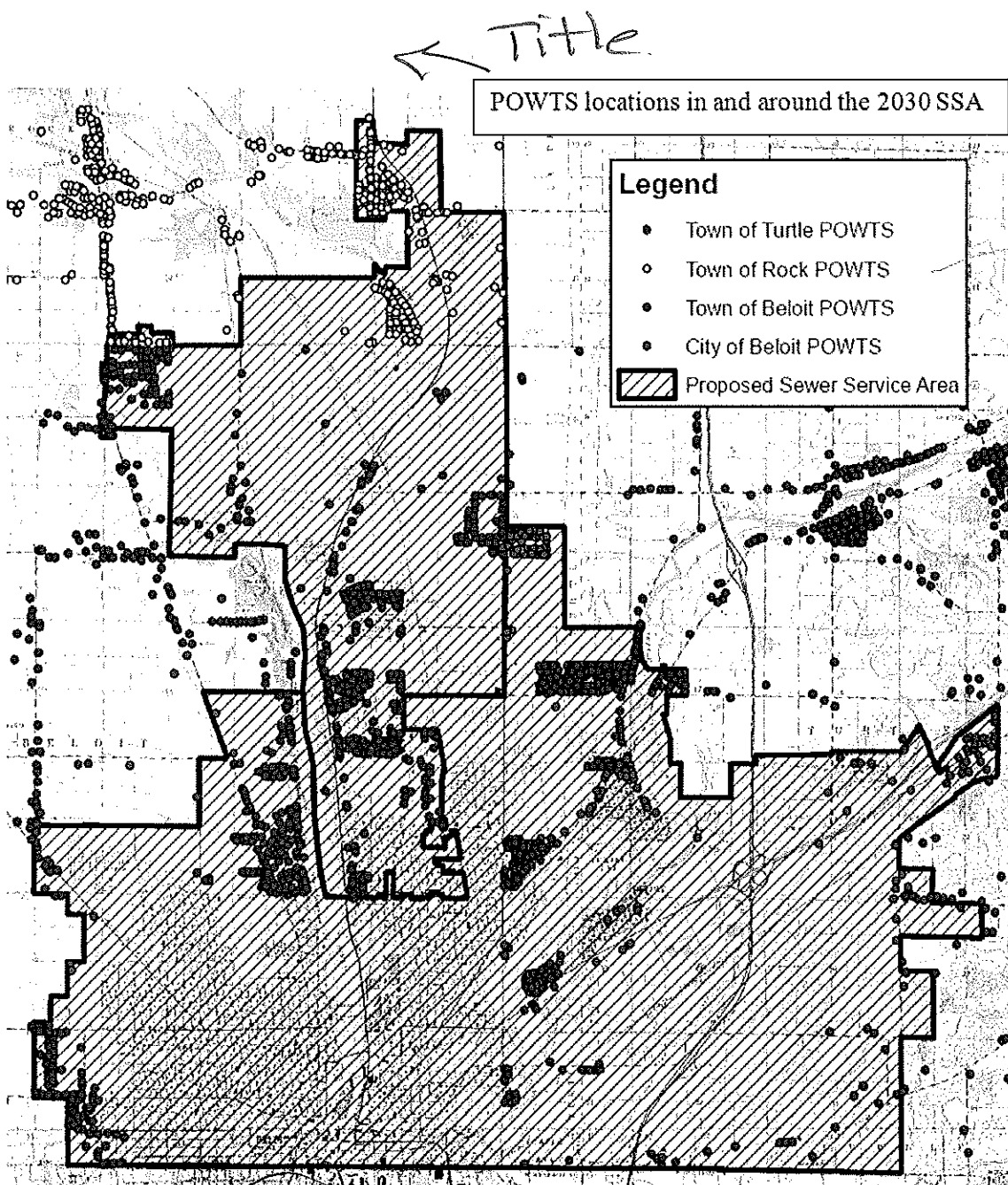
The number of POWTS in a limited area can impact groundwater quality. In this Plan, an effort is made to quantify what is defined as "limited area". The Wisconsin Department of Safety and Professional Services regulates installation and maintenance of POWTS. *and what does P&S do?*

Under Subchapter VII – Department Performance Monitoring SPS 383.71(6a) the initial performance monitoring shall emphasize the monitoring of areas where there is a high density of POWTS. The focus is on subdivisions with lots of 1.5 acres or less. Therefore, the Plan uses this lot size as a "Unit of Analysis" for further calculations for areas of potential inclusion in the SSA boundary.

According to Wisconsin State Statutes s.236.02(12), "Subdivision is a division of a lot, parcel or tract of land by the owner thereof or the owner's agent for the purpose of sale or of building development, where: (a) The act of division creates five or more parcels or building sites of 1.5 acres each or less in area; or (b) Five or more parcels or building sites of 1.5 acres each or less in area are created by successive divisions within a period of five years". Therefore, the ^{new} plan will look at subdivisions contiguous or near the existing SSA boundary, *boundaries include*

which contain a high # of onsite systems

See Figure 5A



?

?

Full page?

Border around map?

5A Figure: A2 2030 SSA POWTS Location Source: Rock County Health Department

Future Commercial, Industrial and Residential Growth

City of Beloit

Wastewater treatment capacity data for the City of Beloit SSA District indicates future planned growth in industrial, commercial and residential development can be accommodated. Additionally, it is the City of Beloit’s policy to manage rural edge development and focus on development within the City. “The future land use category defined several areas that may be appropriate for long-term City development beyond the present 20-year planning period. Premature exurban development and premature utility extension should not be promoted in these areas. Limiting premature rural “edge”

development allows a more energy-efficient and sustainable future urban development pattern” (City Beloit Comprehensive Plan, Page 114).

Town of Beloit

The Town of Beloit’s *Comprehensive Plan’s* recommendations for the Town’s future land use decisions encourages community growth that minimizes rural and agricultural fragmentation and concentrates new growth towards areas with existing infrastructure and services. The Town of Beloit’s wastewater facility has been well maintained and updated regularly. The basic system infrastructure, such as trunk sewer mains and lift stations, are in place to serve the Town Utility’s service area. Wastewater treatment capacity data for the Town of Beloit SSA District indicates future planned growth in residential development can be accommodated.

Parcel Lines

The SSA boundary will be following tax parcel lines generated by the Rock County Real Property Lister’s Office. Changes in accuracy of parcel mapping over the years may result in minor changes from the 1998 boundary lines to the 2030 boundary lines.

Sewer Service Area Map (2030)

The 2030 Sewer Service Area (SSA) boundary incorporates all of the City of Beloit and parts of the Town of Beloit, Town of Rock and Town of Turtle. The Sewer Service Area is divided into two districts which are referred to as the City of Beloit Sewer Service Area and the Town of Beloit Sewer Service Area. Using the Land Use Inventory maps on GIS the 2030 Sewer Service Area is a total of approximately 18,935 acres, of which 1255 acres (Yellow) is being added since the 1998 SSA boundary and 420 acres (Red) have been removed leaving a total of 834 acres.

	2030 SSA Boundary	1998 SSA Boundary	Proposed Additional Acres
Land Use Inventory	18,935	18,101	834

Figure: B5 2030 SSA Acres Source: Rock County Planning and Development Department GIS

The majority of additional acreage is residential, however due to changes in the precision of parcel mapping over the years some added acreage is due to the boundary following parcel lines more accurately.

Areas added have been broken down into groups and numbered 1 through 10. The monthly average Biochemical oxygen demand (BOD) per acre was calculated to determine the additional acreages impact on the plant capacity using the City of Beloit's SSA Capacity (2012 BOD lbs.). While the SSA has residential, commercial and industrial uses, the only additional acreage being added by this plan is residential.

residential?

x lbs per day

SSA(?)

Currently the City of Beloit has allocated 6,000 BOD for residential which is 16% of the overall plant allocated capacity (see page 13). The plant is currently running a monthly total average of 19,321.00 BOD. 16% of the 19,321.00 BOD is a monthly average of 3,056.64 BOD for residential. The City of Beloit has 3,499.861 residential acres, resulting in the monthly average BOD per acre for residential in the City of Beloit of 0.87.

as animal

$$0.16 \times 19,321.00 = 3,056.64 \text{ Monthly Average BOD in Residential}$$

?

$$\frac{3,056.64 \text{ Monthly Average BOD in Residential}}{3,499.861 \text{ Residential Acre}} = 0.87 \text{ Monthly Average BOD per Acre}$$

Area	POWTS Acres	BOD	flow	Current Location
1	416.76	362.58		Town of Turtle
2	118.62	103.20		Town of Turtle
3	98.68	85.85		Town of Turtle
4	29.84	25.96		Town of Beloit
5	75.21	65.44		Town of Beloit
6	43.15	37.54		Town of Beloit
7	111.17	96.71		Town of Beloit
8	23.48	20.43		Town of Beloit
9	239.31	208.20		Town of Rock & Beloit
10	98.63	85.81		Town of Rock

Figure: C5 BOD Acres Source: Rock County Planning and Development Department GIS number. Note: numbers have been trunked to the hundredth

Of the areas added for the 2030 SSA, three areas are completely in the Town of Turtle, five are located entirely within the Town of Beloit, one is currently within both the Town of Beloit and Town of Rock and one area is entirely within in the Town of Rock. The majority have been added due to a high density of POWTS. However, Areas 8 and 7 have been added to follow tax parcel lines. Area 1 has been added for two reasons; First, because of the high density of Residential POWTS, Secondly, due to the location of an existing wastewater treatment line.

Technical Advisory Committee (TAC)

Committee Function

Oversee the Plan Updates process (Staff from the Rock County Planning, Economic & Community Development Agency and Environmental Health Department will serve in the role of facilitator and coordinator), including, but not limited to, the following activities:

- Gather, review, and analyze data
- Prepare alternatives and options
- Select desired alternatives/options
- Prepare, approve, and recommend deliverables (Plan updates containing desired alternatives/options) to applicable government units

Major decisions and recommendations shall require Committee action and a vote for approval or denial, in accordance with the parameters outlined in the committee structure section below.

Committee Structure

Comprised of all local units of government affected by the Plan updates, including:

- City of Beloit (Operator)
- Town of Beloit (Operator)
- Town of Turtle (Neighboring municipality)
- Town of Rock (Neighboring municipality)
- Rock County (Advisory)

Procedure for Sewer Extension Review

The municipality or consulting engineer shall submit a letter, plan map of the proposed sewer extension and DNR Form 3400-102 "Sanitary Sewer Extension Submittal" to the Rock County Planning and Development Agency.

The Rock County Planning and Development Agency will review the submission and notify the applicant of the findings in writing within 15 working days of receiving the plan map. If the proposed sewer extension is in conformance with the Water Quality Plan, the agent's notification should be attached to the sewer extension plans that are submitted to the DNR with the application.

Sewer Extension Policies

- Extensions will not be approved beyond the 20-year SSA unless the plan is amended.
- Public sewer services will be extended to a developed area in a cost effective manner.

- Sewer extension will not be approved for development in environmental corridors.

are these clearly defined?

Private Onsite Wastewater Treatment Systems (POWTS) within the SSA

When properly operating, a POWTS safely treats wastewater by storing sludge and solids in a treatment tank and discharging wastewater to a dispersal component. A POWTS may be installed for new structures as well as a replacement system for an existing structure. A failing system does not properly treat wastewater in the following ways:

- Discharging sewage to surface water, groundwater, drain tiles, bedrock or zones of seasonally saturated soils.
- Discharging sewage to the surface of the ground.
- By causing the backup of sewage into the structure served.

If a POWTS failure at an existing structure, or a sanitary permit application for a new structure occurs within the SSA, the property will connect to Wastewater Treatment Facility (WWTF) if the property meets two criteria:

1. If the property is located in a residential cluster with lots of 1.5 acres or less.
2. Is located within reasonable distance to a public sewer or in a block through which the systems extend, to be connected with either or both in the manner prescribed.
 - a. A reasonable distance for the purposes of this section shall be deemed to be not greater than 400 feet to a single-family residential property line and not greater than 1000 feet to a multi-family residential (housing with three or more units) or to a nonresidential property line.
 - b. The sewer infrastructure will be available for connection within a reasonable time period.
 - i. Reasonable time period for the purposes of this section shall be considered within six months of the initial availability inquiry.
 - ii. The six month time period may be extended if reasonable extenuating circumstances will delay the availability.

If the property does not meet either two criteria, a letter from the SSA District plant operating municipality will need to be provided to the Rock County Health Department stating that the property may be issued a Sanitary Permit.

Determination of Non-Developable Areas

Within the planning area there are a variety of conditions that act as control mechanisms on development. Conditions range from legal restrictions that direct specific

requirements, to minor influences that have little effect. In order to direct community expansion, some of these conditions can also be applied as policies by the governing agencies.

- Growth prohibited areas due to regulation restrictions or physical limitations.
- Areas where growth is controlled through existing local and state laws.
- Areas where growth should be discouraged due to construction difficulties and result in substantial additional costs, or physical problems.
- Areas where growth should be encouraged due to cost effectiveness and present acceptability
- Environmentally Sensitive Areas.

Sewer Service Amendments

Two types of amendments are possible. The first involves no change in the total service area; for every acre added, an acre is taken out of the plan area. The second type involves an increase in the total service area. Criterion for review of a proposed plan amendment includes the following information:

- Sewer service can be provided in a cost effective manner
- The receiving, collection and treatment Facility can adequately transport and treat the wastewater from the area.
- Amendment is consistent with the policies and goals of this plan
- Conformance with local and county plans and zoning
- No significant adverse water quality and/or environmental impact associated with providing sewer service to the area.

The procedure for amending the plan should be similar for all the above cases. If the request is initiated by a property owner, step 1 below will be necessary. If the request is initiated by the Technical Advisory Committee (TAC), the process will begin with step 2. The steps required for plan amendment are outlined as follows:

1. The property owner(s) may apply to the appropriate agency expected to provide wastewater service to request the plan amendment area and the applicant shall provide information showing that the proposal is consistent with the criteria for review found above.
2. The request is reviewed and approved by the municipality with jurisdiction, the application will be forwarded to the Technical Advisory Committee (TAC). The

application should be accompanied by:

- A map of the proposed area to be serviced;
 - Existing and anticipated population and wastewater generation of the area;
 - A description of the type of development that is expected to occur.
3. The Technical Advisory Committee (TAC), shall evaluate the application at a public meeting within 60 days of submitted application. The TAC will use the Plan criteria and any other relevant factors when determining the recommendation.
 4. The TAC shall forward its recommendation to the Wisconsin Department of Natural Resources (DNR).
 5. If approved by DNR, the requested amendment will be adopted and become part of the existing plan.
 6. All involved parties will be notified when the amendment is completed.

Updating Plan

A comprehensive review and update of the sewer service plan should be completed every five years. The plan should be updated whenever there is an obvious change in community needs. Updates to the plan area are intended to address the following components:

1. A revision of the population and demographic projection shall be reviewed by the Department of Administration (DOA).
2. A review of housing starts, population densities, household size changes, and urban development trends within the planning area.
3. An assessment of the impact of major land use changes in the planning area.
4. An examination of the significant environment changes.
5. A review and revision of the goals and objectives of the plan based on present concept and needs.

6. A discussion of any social or economic impacts on the area that may affect the area wide water quality planning efforts.
7. A list and explanation of any interim amendment to the plan that occurred since the last update to the plan.
8. A revised SSA boundary based on 20-year projection.
9. A review of any affective changes in the constitutional or implementation structure of the plan.
10. An update of citizen participation efforts.

The plan update will be controlled and directed by the TAC committee.

Appendix

Agenda September 13, 2011 208 Water Quality Planning Group

1. **Conversation with Lisa Helmuth**
 - a. **Project phases**
 - b. **Application form**
 - c. **November application**
 - d. **January startup**
2. **Timeline for production of application**
3. **Strategy of project**
4. **TAC participants and meetings**
5. **Other items.**
6. **Adjourn**

208 Group
September 28, 2011 Meeting Agenda

1. Technical Advisory Committee (TAC);
 - a. Wade, further thoughts on staff and policy functions.
 - b. Develop and agree on committee list.
 - c. Identify specific date in last two weeks of October for TAC meeting.
 - i. Week beginning Monday, October 17 through Friday October 21st.
 - ii. Week beginning Monday October 24th through Friday October 28th.
2. New Public Works Director – Harry Mathus; Do we have a meeting with him.
3. Gantt Chart, or some other device to chart our planning progress and monitor our progress; Wade and Rich.
4. Application. We should have a draft by the TAC meeting date.
5. Other items.
6. Set next meeting date.
7. Adjourn



AGENDA

**Rock County Planning, Economic & Community Development Agency –
Technical Advisory Committee Meeting - City of Beloit and Town of Beloit
Areawide Water Quality Management Plans Update**

March 21, 2012 – 2:00 p.m.

Room N-1, 5th Floor – Rock County Courthouse

51 S. Main Street, Janesville

THIS IS NOT A PUBLIC HEARING

- 1) Introductions
- 2) Plans Update Goals, Timeline, and Deliverables
- 3) Plans Update Processes and Methodologies
- 4) Technical Advisory Committee Structure and Function
- 5) General Comment and Discussion
- 6) Wrap Up and Next Steps

NOTE: It is possible that members of and possibly a quorum of other governmental bodies of Rock County may be in attendance at the above-stated meeting to gather information; any governmental body at the above-stated meeting will take no formal action.

City of Beloit and Town of Beloit
Areawide Water Quality Management Plan Updates
(Meeting Minutes from March 21st, 2012)

The kickoff meeting for the Technical Advisory Committee (TAC) of the City of Beloit and Town of Beloit Area Wide Water Quality Management Plans Update effort was called to order at 2:00 PM on Wednesday March 21st, 2012.

Paul Benjamin made the opening remarks. He asked that all present introduce themselves for the benefit of all in attendance. Introductions were made.

Those present included:

Roger Anclam – Town of Turtle
Tim Kopp – Town of Turtle

Brian Wilson – Town of Beloit
Howard Hemmer – Town of Beloit
Frank McKearn – Batterman Engineering (for Town of Beloit)
Mike Flesch – City of Beloit
Tim Banwell – Rock County Health Department
Matt Wesson – Rock County Health Department
Duane Cherek – City of Janesville
Phil Owens – Rock County Board of Supervisors
Wade Thompson – Rock County Planning
Paul Benjamin – Rock County Planning
Rich Cannon – Rock County Planning

Paul Benjamin discussed the general intent of the plan update effort, the formation of the (TAC), and how certain portions of the existing plan such as many of the maps within the current document are outdated. He mentioned the current State of Wisconsin legislation that sets for the plan update process and said it is the intent of the TAC to develop a plan that recognizes the current situation as well as the planned future land use trends and natural resources found in the Beloit area.

Wade Thompson made a brief slide presentation that touched on the plan update's overall goals, timeline, and expected work products. He stressed that among other important community and natural resources this type of plan must remain focus on (1) maintaining water quality; (2) provision of sewer service; and, (3) regional land use.

This discussion included the project timeline where he presented a two-phase approach. It is envisioned that the majority of the data collection and research activities will take place in Phase I, which will be conducted in 2012. One of the major deliverables in Phase I will be a revised and more "user-friendly" Town of Beloit sewer system service coverage map.

Phase II will extend into mid or possibly late 2013 and is expected to revise current sewer service area boundaries and set future area wide policy.

Wade Thompson mentioned that Rock County together with other TAC members have been working with the Wisconsin Department of Natural Resources (DNR) to secure study funds in the form of a \$15,000 grant made available by the DNR and that a similar effort will be made to secure funds for Phase II.

Frank McKearn asked if TAC members could receive a copy of the grant application materials so each member has an understanding of the things the DNR will require with respect to their funding terms. He also mentioned that the Town of Beloit has certain map electronic data and information that should be examined prior to any mapping effort so it can be made compatible.

Tim Banwell reviewed several slides depicting the nature of the current data the Rock County Health Department has access to that can be incorporated into the research and decision making aspects of this plan update. Data includes but is not limited to well locations and casings, location of on-site septic systems, and a number of pertinent aspects of ground water such as where municipal pumping takes place and where certain contaminants can be found to occur.

Howard Hemmer asked how far back in time does the Rock County data extend. Tim Banwell suggested depending on the specifics, certain data sets date back to the 1980s.

Wade Thompson introduced the make-up of TAC in terms of membership responsibilities and voting interest. Even though the Wisconsin portion of the Beloit Urban Area is made up of the City of Beloit and several surrounding towns, not all surrounding municipalities are directly adjacent to the two metropolitan sewer service area (SSA) boundaries. Therefore it is not practical for each town to have a direct voting interest in both plan updates. More specifically the two surrounding municipalities directly influenced by the City of Beloit's SSA are the Town of Turtle, and the Town of Beloit. Likewise the two municipalities influenced by the Town of Beloit's SSA are The City of Beloit and the Town of Rock.

To gain approval of procedural matters and key decisions throughout the course of the plan update period, optimally it would be advantageous to have all three municipalities of record influenced by the SSA in question to vote similarly. It is unrealistic to expect that in every instance each voting member will vote the same. Therefore the suggested voting interests for making critical decisions during the plan update process is as follows:

- Municipal sewer system owner/operators 50%
- Surrounding adjacent municipality 25% each

Mike Flesch asked what the procedure would be in the event of a 50%-50% tie. In the event of a tie there would be an amount of additional analysis and/or fact finding performed by the study team in an effort to ensure subsequent votes are not tied.

Mike Flesch asked about the DNR's role in the TAC. In previous discussions with the the DNR, Rock County Planning was informed that the DNR would remain neutral throughout the planning process. It is understood they will however provide an amount of project funding (as previously mentioned) and guidance in interpreting state statutes. It was also Rock County Planning's understanding that the DNR would not have a voting share or regular presence at the TAC meetings. Rock County Planning offered to once again contact DNR to ensure this is indeed the intention of the agency.

Tim Kopp asked why the Town and Village of Clinton were not part of this process. Frank McKearn mentioned that in the late 1990s the town and village decided to withdraw from the City of Beloit SSA and have not entertained re-joining the Beloit utility since.

Prior to any "official" action being taken by the TAC, Roger Anclam informed the TAC that it would be necessary for him to present this suggested study format and voting procedure, etc., to the rest of the Turtle Town board. Mike Flesch agreed that he would present this same information to the Beloit city administration.

A motion was made by Mike Flesch to postpone taking any "official" votes, i.e., those that would have a direct bearing on the plan or planning process such as the percent voting framework suggested by Wade Thompson until such time the respective agencies and/or municipalities can examine the procedure and agree to it. Roger Anclam seconded the motion. A vote was taken and passed with no opposition. It was decided that prior to the next TAC meeting each TAC member would present the voting procedure to his or her respective agency and/or municipality in order to get approval (and report back to TAC)

Although no "official" action was taken at this meeting, a meeting chairperson was selected. Roger Anclam made a motion that Paul Benjamin act as the meeting chairperson since Rock County Planning is going to be coordinating both plan updates. Howard Hemmer made a second to the motion. The motion was carried and Paul will serve as the meeting chairperson.

Duane Cherek was asked how the City of Janesville conducted their most recent Water Quality Plan Update, and how they went about adjusting SSA boundaries. Mr. Cherek mentioned that Janesville does not directly share borders with any other municipal treatment plant operators like The City of Beloit and Town of Beloit do, but they still had to deal with all of the surrounding towns in a similar fashion as required in both Beloit area plan updates.

Roger Anclam inquired about the Town of LaPrairie's involvement in the process. Wade Thompson mentioned he had discussions with members of the LaPrairie Town Board and at this time they indicated the town is not going to be an active participant.

Caution was raised by a number of TAC members suggesting that even if LaPrairie is not interested in participating in the plan update process, portions of The Town of LaPrairie could possibly be encroached by future SSA boundary adjustments or even included into an SSA should a thorough examination of all things considered indicate it is prudent to do so. This is the case particularly in the extreme southwest corner of the town adjacent to the Rock County Highway G intersection with Town Line Road.

Paul Benjamin asked that TAC members forward any agenda items that might be pertinent for the next TAC meeting. Paul also announced there would be a discussion relative to a recent City of Beloit SSA Amendment at the next TAC meeting. Mike Flesch will present the details and expects that action be taken on the matter. Rock County Planning will forward a copy of the Amendment document to TAC members for their review prior to the meeting.

The next two TAC meetings were tentatively scheduled. The next meeting will be held on April 25th, 2012 at 2:00 and the following meeting will take place on May 16th, 2012.

Frank McKearn made a motion to adjourn the meeting and Brian Wilson seconded the motion. The motion was passed and the meeting ended at 3:15 PM.

These meeting minutes reflect the discussion and activity that took place at the first Technical Advisory Committee meeting for the City of Beloit and Town of Beloit Area Wide Water Quality Management Plan Updates held on Wednesday March 21st, 2012.

Respectfully submitted by Rich Cannon, Rock County Planning on March 23rd, 2012.



AGENDA

**Rock County Planning, Economic & Community Development Agency –
Technical Advisory Committee Meeting - City of Beloit and Town of Beloit
Areawide Water Quality Management Plans Update**

April 25, 2012 – 2:00 p.m.

Courthouse Conference Center (Room 250) – Rock County Courthouse
51 S. Main Street, Janesville

THIS IS NOT A PUBLIC HEARING

- 1) Approval of Agenda
- 2) Approval of Minutes from April 4, 2012 Meeting
- 3) Citizen Participation and Committee Communications and Announcements
- 4) ACTION ITEM: City of Beloit Amendment to Existing Plan
- 5) ACTION ITEM: Approval of Technical Advisory Committee Structure and Function and Goal Statement
- 6) INFORMATION ITEM: Data Inventory
 - a. Growth and Development
 - b. Natural Resources and Water Quality
 - c. Wastewater Treatment
- 7) General Comment and Discussion
- 8) Wrap Up and Next Steps

NOTE: It is possible that members of and possibly a quorum of other governmental bodies of Rock County may be in attendance at the above-stated meeting to gather information: any governmental body at the above-stated meeting will take no formal action.



AGENDA

**Rock County Planning, Economic & Community Development Agency –
Technical Advisory Committee Meeting - City of Beloit and Town of Beloit
Areawide Water Quality Management Plans Update**

May 23, 2012 – 4:00 p.m.

Room N-1/N-2 (5th Floor) – Rock County Courthouse
51 S. Main Street, Janesville

THIS IS NOT A PUBLIC HEARING

- 1) Approval of Agenda
- 2) Approval of Minutes from April 25, 2012 Meeting
- 3) Citizen Participation and Committee Communications and Announcements
- 4) INFORMATION ITEM: Data Inventory
 - a. Growth and Development
 - b. Future Land Use
- 5) General Comment and Discussion
- 6) Wrap Up and Next Steps
- 7) Adjournment

NOTE: It is possible that members of and possibly a quorum of other governmental bodies of Rock County may be in attendance at the above-stated meeting to gather information; any governmental body at the above-stated meeting will take no formal action.



AGENDA

**Rock County Planning, Economic & Community Development Agency –
Technical Advisory Committee Meeting - City of Beloit and Town of Beloit
Areawide Water Quality Management Plans Update**

August 22, 2012 – 2:30 p.m.

Rock County Courthouse – 2nd Floor Conference Center
51 S. Main Street, Janesville

THIS IS NOT A PUBLIC HEARING

- 1) Approval of Agenda
- 2) Approval of Minutes from May 23, 2012 Meeting
- 3) Citizen Participation and Committee Communications and Announcements
- 4) INFORMATION ITEM: Committee Bylaws and Tasks and Timeline Update
- 5) INFORMATION ITEM: Beloit Area Water Quality Management Plan Wastewater Treatment and Collection Study Update
- 6) DISCUSSION ITEM: Potential Sewer Service Area Amendment Areas – Examination and Discussion of “Homework” Assignment
- 7) General Comment and Discussion
- 8) Wrap Up and Next Steps (Schedule Upcoming Meeting)
- 9) Adjournment

NOTE: It is possible that members of and possibly a quorum of other governmental bodies of Rock County may be in attendance at the above-stated meeting to gather information; any governmental body at the above-stated meeting will take no formal action.

**ROCK COUNTY TECHNICAL COMMITTEE MEETING MINUTES
WEDNESDAY, MARCH 27, 2013
CCC CONFERENCE ROOM
ROCK COUNTY COURTHOUSE
JANESVILLE, WISCONSIN**

Chair Benjamin called the March 27, 2013 meeting to order at 2:29 p.m. in the Courthouse Conference Center, Rock County Courthouse, Janesville, Wisconsin.

Staff in attendance: Chris Munz-Pritchard, Colin Byrnes, and Steve Schraufnagel, Adam Pritchard, (County Planning Department); Matt Wesson, Rick Wietersen, Adam Elmer, (Health Department).

Members in attendance: Amy Schmidt (DNR), Brian Wilson (Town of Beloit Administrator), Frank McKearn – Batterman Engineering (Town of Beloit), Mike Flesch and Harry Mathos (City of Beloit), Mike Birkholz and Tim Kopp (Town of Turtle).

1. ADOPTION OF AGENDA: Motion by Mike Flesch and seconded by Harry Mathos to approve the agenda as provided. Motion adopted unanimously.

2. CITIZEN PARTICIPATION & COMMITTEE COMMUNICATIONS & ANNOUNCEMENTS. Chair Benjamin handed out CMOM booklet received from DNR to any members who are interested.

Also distributed a news release depicting the status of Rock County's overall healthy compared to other State of Wisconsin counties.

3. NEW COUNTY ENGINEER INTRODUCTION:

Chair Benjamin introduced County Engineer Adam Pritchard.

4. INFORMATION ITEM: DRAFT OUTLINE & SCHEDULE OF БЕЛОIT AREAWIDE WATER QUALITY MANAGEMENT PLAN UPDATE.

Staff member Chris Munz-Pritchard handed out the draft outline of the 208 Water Quality Plan. Frank McKearn inquired as to the staff's goal of when the plan will be complete. Chair Benjamin stated that the plan should be complete no later than December 2013. Meetings are currently being held between Town of Turtle and City of Beloit leaders concerning the differences between the two communities.

5. INFORMATION ITEM: DRINKING WATER TEST RESULTS FOR THE БЕЛОIT AREA.

Rick W



AGENDA

**Rock County Planning, Economic & Community Development Agency –
Technical Advisory Committee Meeting - City of Beloit and Town of Beloit
Areawide Water Quality Management Plans Update**

June 5th, 2013 – 3:00 p.m.

City of Beloit's Engineering and Water Resources Facility

THIS IS NOT A PUBLIC HEARING

- 1) Approval of Agenda
- 2) Approval of Minutes from March 27th 2013
- 3) INFORMATION ITEM:
 - a. Wastewater Treatment Plants
 - b. Land Use & Future Land Use
 - c. Plan Implementation
- 4) General Comment and Discussion
- 5) Wrap Up and Next Steps
- 6) Adjournment

NOTE: It is possible that members of and possibly a quorum of other governmental bodies of Rock County may be in attendance at the above-stated meeting to gather information: any governmental body at the above-stated meeting will take no formal action.

**ROCK COUNTY 208 WATER QUALITY PLAN TECHNICAL COMMITTEE
MEETING MINUTES
WEDNESDAY, JUNE 5th, 2013
CITY OF БЕЛОIT ENGINEERING AND WATER RESOURCE FACILITY
BELOIT, WISCONSIN**

Chair Benjamin called the June 5th, 2013 meeting to order at 3:00 p.m. in the City of Beloit's Engineering and Water Conference Facility, Beloit, Wisconsin.

Staff in attendance: Paul Benjamin, Chris Munz-Pritchard, Colin Byrnes, and Adam Pritchard, (County Planning Department); Tim Banwell and Matt Wesson, (Health Department).

Members in attendance: Amy Schmidt (DNR), Brian Wilson (Town of Beloit Administrator), Frank McKearn – Batterman Engineering (Town of Beloit), Howard Hemmer (Town of Beloit), Mike Flesch (City of Beloit) Greg Boysen (City of Beloit) Harry Mathos (City of Beloit), Roger Anclam (Town of Turtle), Mark Gunn (Town of Rock).

1. **ADOPTION OF AGENDA:** Motion by Mike Flesch and seconded by Harry Mathos to approve the agenda as provided. Motion adopted unanimously.

2. **Approval of Minutes from March 27th 2013:** Motion by Mark Gunn and seconded by Harry Mathos to approve the agenda as provided. Motion adopted unanimously.

3. **ITEMS OF DISCUSSION:**

- a. Wastewater Treatment Plants
 - Discussion of the City of Beloit wastewater treatment plant CMAR & Town of Beloit wastewater treatment plan CMAR
 - COD needs to be changed to BOD in 208 Plan
 - Town of Beloit needs to provide data concerning allowable capacity - residential & non-residential
- b. Land Use & Future Land Use
 - Both Land Use & Future Land Use Maps are constructed using the 1998 amended SSA boundary
 - Add text about how water and transportation land uses are not developable.
 - Check into the Recreational Land Use data category in Town of Turtle (light purple)
- c. Plan Implementation
 - Some of this section is verbatim from the 1998 Plan so it is not going to be discussed in depth
 - SSA will be determined by using 3 factors
 1. Well head protection overlay district
 - a. Ordinance No. 3483 City of Beloit

2. High Density of POWTS
 - a. Subdivisions with POWTS (Lots of 1.5 acres or less with 5 or more lots) will be used as a unit of analysis
 - b. Lots contiguous to current SSA Boundary
3. Future Commercial, Industrial and Residential Growth Data
 - a. Need to add this information for the Town of Beloit
- Procedure for Sewer Extension Review
 1. Committee recommends change 30 Days to 15 working days
- Evaluation of Cost Benefit Analysis
 1. This will be discussed in a sub-TAC committee meeting that will occur between now (June 5, 2013) and the July TAC meeting. The sub-TAC committee will then present the information at the July TAC meeting

4. General Comment and Discussion: Annexation discussion between the Town of Turtle and the City of Beloit. Currently the two municipalities are holding closed door meetings, which are separate from the 208 Water Quality Plan.

5. Wrap Up and Next Steps: A reoccurring meeting for the TAC Committee is to be held on the 3rd Wednesday of every month at the City of Beloit's Engineering and Water Resources Facility. The next Meeting will be July 17th at 3:00 PM



AGENDA

**Rock County Planning, Economic & Community Development Agency –
Technical Advisory Committee Meeting - City of Beloit and Town of Beloit
Areawide Water Quality Management Plans Update**

July 17th, 2013 – 3:00 p.m.

City of Beloit's Engineering and Water Resources Facility

THIS IS NOT A PUBLIC HEARING

- 1) Approval of Agenda
- 2) Approval of Minutes from June 5th 2013
- 3) Items of Discussion:
 - a. Goals, Objectives and Policies
 - b. Sub-TAC meeting discussion
 - c. Changes on Information items from June 5th Meeting
- 4) Wrap Up and Next Steps
- 5) Adjournment

NOTE: It is possible that members of and possibly a quorum of other governmental bodies of Rock County may be in attendance at the above-stated meeting to gather information: any governmental body at the above-stated meeting will take no formal action.

**ROCK COUNTY TECHNICAL COMMITTEE MEETING MINUTES
WEDNESDAY, JULY 17th, 2013
CITY OF БЕЛОIT ENGINEERING AND WATER RESOURCE FACILITY
BELOIT, WISCONSIN**

Colin Byrnes called the July 17th, 2013 meeting to order at 3:00 p.m. in the City of Beloit's Engineering and Water conference facility, Beloit, Wisconsin.

Staff in attendance: Chris Munz-Pritchard, Colin Byrnes, and Adam Pritchard, (Rock County Planning Department); Tim Banwell and Matt Wesson, (Health Department).

Members in attendance: Amy Schmidt (DNR), Brian Wilson (Town of Beloit Administrator), Frank McKearn – Batterman Engineering (Town of Beloit), Howard Hemmer (Town of Beloit), Mike Flesch (City of Beloit) Harry Mathos (City of Beloit), Mark Gunn (Town of Rock).

1. **ADOPTION OF AGENDA:** Motion by Mark Gunn and seconded by Tim Banwell to approve the agenda as provided. Motion adopted unanimously.
2. **Approval of Minutes from June 5th 2013:** Motion by Frank McKearn and second by Tim Banwell to approve the agenda as provided. Motion adopted unanimously.

3. INFORMATION ITEM:

- a. Goals, Objectives and Policies were discussed. Small changes will need to be made.
- b. Sub-TAC meeting discussion: Under Failing Private Onsite Wastewater Treatment Systems within the SSA a distance needs to be put in to systematically determine when sewage will be constructed.
 - a. A reasonable distance for the purpose of this section shall be deemed to be not greater than 400 feet to a single-family residential property line and not greater than 1,000 feet to a multi-family residence or to a nonresidential property line.
 - b. In addition "a reasonable time period" is requested by the Health Department. After some discussion, 6 months of the initial availability inquiry is added to the document. If the infrastructure is not available within this time a permit maybe issued.
- c. Changes on Information items from the June 5th Meeting:

- a. COD being changed to BOD and the CMAR in the City of Beloit is being updated to 2012
- b. Under Future Land Use the text: *Water and transportation land is placed in one land use because these are considered no developable areas.* Has been added
- c. Under the Future Commercial Industrial and Residential Growth, (Chapter 4) section a description of the Town of Beloit's ability to service these land uses.
- d. The word Adjacent is replaced with Contiguous throughout the document

4. General Comment and Discussion: The Sub-TAC committee will meet and craft a rough draft of the 2013 SSA boundary. A full text will be prepared and a process for editing was discussed.

5. Wrap Up and Next Steps: A reoccurring meeting for the TAC Committee is to be held on the 3rd Wednesday of every month at the City of Beloit's Engineering and Water Resources Facility. The next Meeting will be August 21st at 3:00 PM at the City of Beloit's Engineering and Water conference facility. The Sub-TAC will meet on August 20th at 9:00 AM in same location as TAC Committee.



AGENDA

**Rock County Planning, Economic & Community Development Agency –
Technical Advisory Committee Meeting - City of Beloit and Town of Beloit
Areawide Water Quality Management Plans Update**

August 21th – 3:00 p.m.

City of Beloit's Engineering and Water Resources Facility

THIS IS NOT A PUBLIC HEARING

- 1) Approval of Agenda
- 2) Approval of Minutes from July 7th 2013
- 3) Items of Discussion:
 - a. August 20th Sub-TAC meeting discussion of the 2013 SSA Boundary
- 4) Wrap Up and Next Steps
- 5) Adjournment

NOTE: It is possible that members of and possibly a quorum of other governmental bodies of Rock County may be in attendance at the above-stated meeting to gather information: any governmental body at the above-stated meeting will take no formal action.

**ROCK COUNTY TECHNICAL COMMITTEE MEETING MINUTES
WEDNESDAY, AUGUST 21th, 2013
CITY OF БЕЛОIT ENGINEERING AND WATER RESOURCE FACILITY
BELOIT, WISCONSIN**

Adam Pritchard called the August 21st, 2013 meeting to order at 3:00 p.m. in the City of Beloit's Engineering and Water conference facility, Beloit, Wisconsin.

Staff in attendance: Chris Munz-Pritchard and Adam Pritchard, (Rock County Planning Department).

Members in attendance: Brian Wilson (Town of Beloit Administrator), Frank McKearn – Batterman Engineering (Town of Beloit), Howard Hemmer (Town of Beloit), Greg Boysen (City of Beloit) Harry Mathos (City of Beloit), Roger Anclam (Town of Turtle).

1. ADOPTION OF AGENDA: Motion by Frank McKearn and seconded by Harry Mathos to approve the agenda as provided. Motion adopted unanimously.

2. Approval of Minutes from June 5th 2013: Motion by Harry Mathos and second by Frank McKearn to approve the minutes as provided. Motion adopted unanimously.

3. INFORMATION ITEM:

- a. The 208 Water Quality Text is handed out to each member present at the committee. If the member is not present then it will be mailed to the member.
- b. 2013 SSA Boundary is presented to the TAC committee.
 - i. Roger Anclam is concerned with their future land use map.

4. General Comment and Discussion:

- a. Frank McKearn inquired about the calculations that are in the 1998 Beloit-Clinton Area Water Quality Management Plan and not in the new text.
- b. Chris Munz-Pritchard asked that the text be reviewed and returned with comments by September 6th.

5. Wrap Up and Next Steps: Vote to send the Map and Text to the DNR for review and Approval. The next meeting will be September 18th at 3:00 PM.



AGENDA

**Rock County Planning, Economic & Community Development Agency –
Technical Advisory Committee Meeting - City of Beloit and Town of Beloit
Areawide Water Quality Management Plans Update**

September 18th, 2013 – 3:00 p.m.

City of Beloit's Engineering and Water Resources Facility

THIS IS NOT A PUBLIC HEARING

- 1) Approval of Agenda
- 2) Approval of Minutes from August 21st 2013
- 3) INFORMATION ITEM:
 - a. Review of Text
 - b. Review of Maps
- 4) Vote to submit text to DNR for Approval
- 5) General Comment and Discussion
- 6) Wrap Up and Next Steps
- 7) Adjournment

NOTE: It is possible that members of and possibly a quorum of other governmental bodies of Rock County may be in attendance at the above-stated meeting to gather information: any governmental body at the above-stated meeting will take no formal action.



AGENDA

**Rock County Planning, Economic & Community Development Agency –
Technical Advisory Committee Meeting - City of Beloit and Town of Beloit
Areawide Water Quality Management Plans Update**

October 16th, 2013 – 3:00 p.m.

City of Beloit's Engineering and Water Resources Facility

THIS IS NOT A PUBLIC HEARING

- 1) Approval of Agenda
- 2) Approval of Minutes from September 18th 2013
- 3) INFORMATION ITEM:
 - a. Review of Text
 - b. Review of Maps
- 4) Vote to submit text to DNR for Approval
- 5) General Comment and Discussion
- 6) Wrap Up and Next Steps
- 7) Adjournment

NOTE: It is possible that members of and possibly a quorum of other governmental bodies of Rock County may be in attendance at the above-stated meeting to gather information: any governmental body at the above-stated meeting will take no formal action.



AGENDA

**Rock County Planning, Economic & Community Development Agency –
Technical Advisory Committee Meeting - City of Beloit and Town of Beloit
Areawide Water Quality Management Plans Update**

December 18th, 2013 – 9:00 a.m.

City of Beloit's Engineering and Water Resources Facility

THIS IS NOT A PUBLIC HEARING

- 1) Approval of Agenda
- 2) INFORMATION ITEM
 - a. Review of Changes on Text
 - i. Meeting with Town and City of Beloit on November 1st
- 3) Process of Approval
 - a. TAC
 - b. P & D County
 - c. DNR
 - d. County Board
- 4) Vote to submit text to DNR for Approval
- 5) General Comment and Discussion
- 6) Adjournment

NOTE: It is possible that members of and possibly a quorum of other governmental bodies of Rock County may be in attendance at the above-stated meeting to gather information: any governmental

ROCK COUNTY, WISCONSIN



Planning, Economic & Community
Development Agency

51 South Main Street
Janesville, WI 53545
Phone: 608-757-5587
Fax: 608-757-5586

Website: www.co.rock.wi.us

February 27, 2012

To: Prospective Committee Member

Subject: Formation of City of Beloit – Town of Beloit Areawide Water Quality Management (208) Plans
Update - Technical Advisory Committee

Wisconsin Administrative Code Chapter NR 121 – Areawide Water Quality Management Plan stipulates municipal sewer systems that serve populations over 10,000 create and adhere to Areawide Water Quality Management Plan ("208 Plans"), with said Plans identifying areas in which municipal sewer service is feasible given existing and potential infrastructure, topography, and other conditions.

The City of Beloit and Town of Beloit municipal sewer systems are both required to have 208 Plans, per NR 121, and the City and Town both desire to update their 208 Plans.

The Rock County Planning, Economic & Community Development Agency ("Agency") has been in discussions with the various local government units that may be affected by the update to these 208 Plans. In fulfilling our Agency's mission of promoting inter-governmental communication and cooperation, encouraging a regional land use and community planning and development vision, and enhancing community character, in these discussions the Agency has offered to serve in the role of facilitator in the 208 Plans update process. The aforementioned local government units have been receptive to this offer. As such, Agency and Rock County Environmental Health Department ("Department") staff have recently convened a City of Beloit – Town of Beloit 208 Plans Update Workgroup, composed of staff from the Agency and Department to serve in the aforementioned facilitator role.

As an initial step in the 208 Plans update process, the Workgroup has proposed formation of a City of Beloit – Town of Beloit Areawide Water Quality Management (208) Plans Update – Technical Advisory Committee ("Committee"), comprised of staff from the City of Beloit, Town of Beloit, Town of Turtle, and Town of Rock, and Rock County and the City of Janesville, to oversee the process of updating the 208 Plans. The proposed Committee structure is enclosed.

As such, this correspondence serves as a request for your, or your relevant staff, participation on the Committee (If applicable, please forward this correspondence onto your relevant staff). The Workgroup is proposing the initial Committee meeting take place during the week of March 19 – 23 at the Rock County Courthouse in Janesville. If you are identified on the enclosed proposed Committee structure document, please respond to me via phone (608.757.5587) or email (benjamin@co.rock.wi.us) by March 8 to confirm your willingness to serve on the Committee and your availability during the week of March 19 - 23. I will then follow-up with you to confirm the Committee meeting time and location.

I thank you for your time and effort and look forward to hearing from you.

Sincerely,

Paul Benjamin, Director
Rock County Planning, Economic & Community Development Agency

ROCK COUNTY, WISCONSIN
Planning, Economic & Community
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February 1, 2012

Susan Sylvester
Director, Bureau of Water Quality
Wisconsin Department of Natural Resources
101 S. Webster Street
Box 7921
Madison, Wisconsin 53707

**RE: Grant Funding Request for City of Beloit and Town of Beloit Area-wide Water
Quality Management Plan Update: Phase I (January 1, 2012 – December 31, 2012)**

Dear Ms. Sylvester:

Please accept the information provided herein as an application for Wisconsin Department of Natural Resources (DNR) grant funding to update the City of Beloit and Town of Beloit Area-wide Water Quality Management Plan ("Plan"). The application consists of this correspondence, which includes a discussion of the current Plan, Plan update project scope, and Plan update project budget. Additional application information includes a more detailed explanation of all other Plan update project aspects (including project budget and timeline) and a project area basemap.

Rock County is requesting grant funding for Phase I of the Plan update (January 1, 2012 – December 31, 2012) in the amount of \$15,000.00. Because the Plan will include two treatment plants and four local government units, we feel the Plan update is a two-year planning effort and as such we plan to seek an additional \$25,000 in funding for Phase II (January 1, 2013 – December 31, 2013).

The following provides background information on the Plan, Plan update project scope, and Plan update project budget.

Plan Background Information

The original Plan consisted of a 20-year planning horizon and was completed in the late 1980s. In the interim, there has not been an update to the Plan to keep pace with recent planning efforts such as the City of Beloit, Town of Beloit, and Rock County comprehensive plans, completed and adopted in 2008, 2009, and 2009 respectively. Those plans depict an amount of future growth and development which is not consistent with the current Plan. In addition, there are portions of adjacent developed areas not included in the current Plan where several on-site private septic systems have experienced problems. We feel those areas are worthy of study in the Plan update as well.

To date, the current Plan has been amended twice, with a third amendment currently pending. This, together with other significant departures from the original Plan, such as the Village of Clinton's withdrawal from the Sewer Service Area (SSA) and the City of Beloit's Water Pollution Control Facility upgrade, necessitate the need to update the Plan.

Plan Update Project Scope

The Plan update project scope includes a comprehensive review of the current Water Quality Management planning guidelines and requirements for developing a Plan update through the year 2035. The Plan update process will consist of two phases, identified as follows:

Phase I (January 1, 2012 - December 31, 2012) major tasks will include:

1. Equitably consider all interests that each community located within the Beloit Metropolitan Area has as they relate to the provision of municipal sewer service, to include the formation of two Committees, Policy Advisory (tentative) and Technical Advisory, to oversee the Plan update process;
2. Review and update the original Plan goals, ensuring consistency with each participating community's comprehensive plan;
3. Review and inventory the water quality impact of the area treatment facilities existing loadings, including industrial and commercial waste;
4. Inventory and identify (map) environmentally sensitive areas, existing private on-site treatment systems, existing private and public wells, and wellhead protection zones in the planning area;
5. Analyze the natural resources and environmental conditions and constraints with respect to development suitability in the planning area (i.e. wetlands, flood hazards, steep slopes, soil geology, depth to groundwater and shallow bedrock, etc.);
6. Produce a spatial data layer identifying the locations of the Town of Beloit's existing sewer mains, manholes, and service lateral hook up to properties located within the SSA;
7. Redefine the planning area for each system (City of Beloit and Town of Beloit) using the most current population and housing data and information;

Phase II (January 1, 2013 – December 31 2013) major tasks will include:

1. Produce an updated Plan for both the City of Beloit and the Town of Beloit, to include a map delineating future SSA boundaries for each municipality, as well as policy recommendations to assure compliance with required and desired water quality standards;
2. Assure Plan compliance with applicable DNR water quality standards and adoption by required local government units;

Plan Update Project Budget

The budget projection for Phase I of the Plan update project is estimated to be approximately \$15,000.00. This projection does not include in-kind contributions of staff time provided by the City of Beloit or the Town of Beloit. The City and Town will also provide additional technical resources and pertinent information (i.e. access to staff, plant loadings, plant capacity, and collection system information).

The Plan update process will be coordinated by the Rock County Planning, Economic & Community Development Agency, with assistance from the Rock County Environmental Health Department. Qualified City of Beloit and Town of Beloit staff representatives will review all technical work tasks. Additionally, the Policy Advisory (tentative) and Technical Advisory Committees will review all project findings and recommendations.

I trust this information satisfies the DNR criteria for requesting grant funds for the update of the City of Beloit and Town of Beloit Area-wide Water Quality Management Plan. If you should have any questions, do not hesitate to contact me. Thank you very much.

Sincerely,

Richard G. Cannon, P.E.
Rock County Planning, Economic & Community Development Agency

cc: Lisa Helmuth, Wisconsin Department of Natural Resources
Fran Keally, Wisconsin Department of Natural Resources

Enclosure

**City of Beloit and Town of Beloit Area-wide Water
Quality Management Plan Update:
Request For Incremental Funding 2012-2013**

Date: February 1, 2012

Proposal Prepared By: Rock County Planning, Economic & Community Development Agency
51 South Main Street
Janesville, Wisconsin 53545
(608) 757-5587 – phone
(608) 757-5586 – fax
planning@co.rock.wi.us
www@co.rock.wi.us

Grant Period: 2012 - 2013

Amount Requested: \$15,000 For Phase I (January 1, 2012 – December 31, 2012)
\$25,000 For Phase II (January 1, 2013 – December 31, 2013)

Lead Agency: Rock County Planning, Economic & Community Development Agency
51 South Main Street
Janesville, Wisconsin 53545
(608) 757-5587 – phone
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Project Description:

1. PLAN OVERVIEW

The original Beloit Metropolitan Sewer Service Plan, covering the City of Beloit and the surrounding urbanized area, was produced in 1986 and subsequently updated in the late 1990s. Due to a number of significant changes to the area's overall urbanized landscape, the Plan has become outdated. Because the previous Plan update was conducted over a decade ago, the two urban area sewer service providers in the area, the City of Beloit and the Town of Beloit, together with Rock County, have concluded that it is necessary to update the Plan at this time.

It is the intention of the Rock County Planning, Economic & Community Development Agency and the Rock County Environmental Health Department to work cooperatively with both Beloit urbanized area sewer service providers and each of the area's affected units of government in order to produce this Plan update. Therefore this request is made so that Wisconsin Department of Natural Resources (DNR) funds can be made available through their application process.

2. PLAN AMENDMENT HISTORY

The first Beloit Metropolitan Sewer Service Plan amendment was performed in 1996. This amendment adjusted the City of Beloit's Sewer Service Area boundaries by taking into consideration the addition of a residential subdivision development, proposed for the City of Beloit's northwest side. The second Plan amendment performed in 2007, made slight modifications to the actual sewer service provided to a number of Town of Beloit and City residents in a limited geographic area adjacent to the Rock River. Lift station operations within the current Plan boundaries were also addressed in the second amendment.

3. PARTICIPATING LOCAL UNITS of GOVERNMENT

The City of Beloit, along with the Town of Beloit, Town of Turtle, and Town of Rock are the local units of government that will be directly affected by the Plan updates. Because the Rock County Planning, Economic & Community Development Agency has been Rock County's overall urbanized sewer service area review agency, the Agency will coordinate the Plan update process. When applicable, the aforementioned local units of government previously will provide pertinent data and technical assistance throughout the process.

4. WASTEWATER TREATMENT FACILITIES AND SANITARY DISTRICTS

Two sanitary sewer system providers comprise the project area, the City of Beloit and Town of Beloit. This Plan update will address both systems.

The City of Beloit operates its Water Pollution Control Facility at 555 Willowbrook Road, located in the City. According to the City, this facility was commissioned in November of 1991 and uses advanced activated sludge technology. The system is capable of processing up to 11 million gallons of wastewater per day, however it currently treats an average of approximately 3.5 million gallons a day. This facility is required to meet several National Pollution Discharge Elimination System (NPDES) permit criteria including:

- Biochemical Oxygen Demand
- Total Suspended Solids
- Phosphorus
- Ammonia
- Chlorine Residual
- Fecal Coliform

The Town of Beloit's Wastewater Treatment Plant Facility is located at 3629 S. Walters Road. This facility was built in 1969 and processes wastewater from the Town of Beloit and portions of the Town of Rock. This facility has operators certified by the State of Wisconsin in wastewater treatment activities.

Initially, this facility had a treatment capacity of 350,000-gallons of wastewater per day. In 1979, the Town more than doubled this facility's processing capability by adding a 650,000-gallon per day unit, making the total facility capacity 1,000,000-gallons per day. In 2003, a 750,000-gallon sludge storage tank along with a radio telemetry alarm system and new pre-treatment equipment were added.

5. GEOGRAPHIC INFORMATION SYSTEM (GIS) PERSONNEL

- a. Matthew Wesson - Rock County Environmental Health Department
- b. Adam Elmer – Rock County Environmental Health Department
- c. Wade Thompson – Rock County Planning, Economic & Community Development Agency

6. PROPOSED PROJECT POLICY ADVISORY AND TECHNICAL ADVISORY COMMITTEE

The Rock County Planning, Economic & Community Development Agency is currently in the process of formulating two committees to oversee the plan updates. A Policy Advisory Committee (tentative), predominately comprised of elected/appointed officials from the participating local governmental units will establish the appropriateness of the system service boundaries and any necessary changes to existing service coverage limits. In addition a Technical Advisory Committee, comprised of staff from these same local governmental units will coordinate and review all data collection and analytical activities needed to perform the updates. Committee membership is proposed as follows and subject to approval by the participating local units of government:

<u>Policy Advisory Committee (tentative)</u>	<u>Technical Advisory Committee</u>
<p style="text-align: center;"><u>City of Beloit (Both Plan Updates)</u></p> <ul style="list-style-type: none"> 1. City Council President 2. City Manager 3. Community Development Director 4. Public Works Director/City Engineer <p style="text-align: center;"><u>Town of Beloit (Both Plan Updates)</u></p> <ul style="list-style-type: none"> 1. Board Chair 2. Administrator 3. Planning Commission Chair 4. Public Works Director <p style="text-align: center;"><u>Town of Turtle (City of Beloit Plan Update only)</u></p> <ul style="list-style-type: none"> 1. Board Chair 2. Planning Commission Chair <p style="text-align: center;"><u>Town of Rock (Town of Beloit Plan Update only)</u></p> <ul style="list-style-type: none"> 1. Board Chair 2. Planning Commission Chair <p style="text-align: center;"><u>Rock County (Both Plan updates)</u></p> <ul style="list-style-type: none"> 1. Board Supervisor 2. Board Supervisor 	<p style="text-align: center;"><u>City of Beloit (Both Plan updates)</u></p> <ul style="list-style-type: none"> 1. Public Works Director/City Engineer 2. Wastewater Treatment Facility Supervisor 3. Project Engineer <p style="text-align: center;"><u>Town of Beloit (Both Plan updates)</u></p> <ul style="list-style-type: none"> 1. Public Works Director 2. Wastewater Treatment Facility Supervisor 3. Project Engineer <p style="text-align: center;"><u>Town of Turtle (City of Beloit Plan update only)</u></p> <ul style="list-style-type: none"> 1. Technical Representative <p style="text-align: center;"><u>Town of Rock (Town of Beloit Plan update only)</u></p> <ul style="list-style-type: none"> 1. Technical Representative <p style="text-align: center;"><u>Rock County (Both Plan updates)</u></p> <ul style="list-style-type: none"> 1. <u>Planning, Economic & Community Development Agency</u> <ul style="list-style-type: none"> a. Director b. Engineer c. Planner 2. <u>Environmental Health Department</u> <ul style="list-style-type: none"> a. Director b. Sanitarian

7. PROJECT TIMELINE

The Plan update process, as proposed, will have two separate phases, Phase I and Phase II. Phase I will concentrate on fact-finding, data collection, a thorough review of the existing service areas and capabilities, and creation of a data layer for the Town of Beloit Sewer System, detailing sanitary service main, manhole and lateral locations. Phase II will consist of determining the need for making any pertinent adjustments to the current sewer system boundaries in order to necessitate water quality protection, public health, and safety.

The Thinking Behind the Structure and Functioning of the Policy and Technical Advisory Committees

Wade Thompson
Tim Banwell
Rich Cannon
Paul Benjamin

Rock County Planning and Development Agency
November 30, 2011

We are beginning to plan for water quality in an area that is divided among three towns and one city, and two sewer service areas, the greater Beloit area in southern Rock County. While we recognize that all participants are people of good will and committed to their communities, we are also aware of the divergent interests, perspectives, and even rivalries among the four municipalities. We are attempting to design the effort from a regional perspective, since water does not recognize political boundaries, but also one that recognizes the individual integrity and interests of each participant. We are trying to find ways where the interests of the individual communities will be served in a structure that attends to the needs of a high standard of regional water quality.

We also recognize there is a history, even a legacy, of county involvement in water quality planning in Rock County. At the outset, we would like to affirm that we view this new process as a collaborative and cooperative venture that depends on each of the municipalities for their participation, and their expert and local knowledge.

Our goals in this effort are as follows:

1. to provide the opportunity for each community to have a voice and be fairly represented in the process.
2. to build a structure that encourages consensus and even unanimity.
3. to plan for water quality for the regional public interest.

The Structure of the Beloit Area Water Quality Planning Committees

The proposed structure of the two committees was largely developed by Wade Thompson but also with input from other Rock County staff, including the Administrator's office, and also from supervisors on the Rock County Board. Please see Attachment "A." The basic idea is that there will be two committees: a technical advisory and a policy committee. The technical advisory committee will be composed of people from each municipality who are involved with the technical and operational details of a sewer system, public works, planning, and health. Staff of the Rock County Planning and Development Agency and the Rock County Health Department will be on the Technical Advisory Committee, along with technical representatives from the towns of Turtle and Rock, the Public Works Directors of the Town of Beloit and the City of Beloit. The policy committee will be composed of elected officials from each municipality as well as two representatives from the Rock County Board of Supervisors.

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Chapter NR 121

AREAWIDE WATER QUALITY MANAGEMENT PLANS

NR 121.01	Purpose.	NR 121.07	Procedures for approval of areawide water quality management plans and plan revisions for designated areas of the state.
NR 121.02	Applicability.	NR 121.08	Procedures for adoption and revision of areawide water quality management plans for nondesignated areas of the state.
NR 121.03	Definitions.	NR 121.09	Statewide water quality advisory committee.
NR 121.04	Structure of the state water quality management plan.		
NR 121.05	Content of areawide water quality management plans.		
NR 121.06	Designation of areawide water quality planning areas and agencies.		

NR 121.01 Purpose. Under the authority of ss. 281.11, 281.12, 281.13, 281.15, 281.17 to 281.20, and 283.83, Stats., this chapter establishes regulations specifying policies, procedures, and requirements for Wisconsin's areawide water quality planning process. This process will result in the preparation throughout the state of areawide plans for managing the quality of waters of the state, ground and surface, public and private, including consideration of the relationship of water quality to land and water resources and uses. Under the above state statutory authority, the department of natural resources has the responsibility for the general supervision of this continuing water pollution control planning process. In areas of the state designated by the governor, the preparation of areawide water quality management plans is the responsibility of designated areawide water quality planning agencies. In the remaining areas of the state, the department will prepare areawide water quality management plans. The purpose of this planning process is to systematically evaluate alternative means of achieving state and federal water quality goals and related standards. This planning process integrates consideration of both the technical measures for water pollution abatement and the management arrangements necessary for implementing abatement measures. Public participation will be provided for throughout plan development.

History: Cr. Register, January, 1979, No. 277, eff. 2-1-79; am. Register, August, 1981, No. 308, eff. 9-1-81; correction made under s. 13.92 (6) (b) 7, Stats., Register March 2011 No. 663.

NR 121.02 Applicability. This chapter is applicable to areawide water quality management plans as prepared by both the state and designated areawide water quality planning agencies.

History: Cr. Register, January, 1979, No. 277, eff. 2-1-79.

NR 121.03 Definitions. (1) "Areawide water quality management plan" or areawide waste treatment management plan means a plan for managing, protecting and enhancing groundwater and surface water quality which considers the interrelationship of water quality and land and water resources on an areawide basis (hydrologic, political, or other).

(2) "Areawide water quality management plans for designated areas" means areawide water quality management plans prepared by agencies designated by the governor in areas of the state similarly designated.

(3) "Areawide water quality management plans for nondesignated areas" means areawide water quality management plans prepared by the department for all areas of the state not designated by the governor.

(4) "Best management practices" as defined in s. 281.65 (2) (a), Stats., means practices, techniques or measures, identified in areawide water quality management plans, which are determined to be the most effective, practicable means of preventing or reducing pollutants generated from nonpoint sources to a level compatible with water quality goals.

(5) "Cost-effectiveness analysis" means a systematic comparison of alternative means of meeting state water quality standards, effluent limitations or other treatment standards in order to

identify the alternative which will minimize the total resources costs over the planning period. These resources costs include monetary costs and environmental as well as other non-monetary costs.

(6) "Critical water quality conditions" means those ambient water conditions upon which the most stringent water quality effluent requirements are based.

(7) "Department" means the department of natural resources.

(8) "Designated management agency" means any agency designated in an areawide water quality management plan having responsibility for implementing specific plan recommendations. This may be done through direct activities of the designated management agency or through delegation to other agencies or units of government.

(9) "Effluent limitation" as defined in s. 283.01 (6), Stats., means any restriction established by the department, including schedules of compliance, on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into the waters of this state.

(10) "Point source", as defined in s. 283.01 (12), Stats., means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft from which pollutants may be discharged either into the waters of this state or into a publicly owned treatment works. Point source shall not include diffused surface drainage or any ditch or channel which serves only to intermittently drain excess surface water from rain or melting snow and is not used as a means of conveying pollutants into waters of the state. Point source shall not include uncontrolled discharges composed entirely of storm runoff when these discharges are uncontaminated by any industrial or commercial activity, unless the particular storm runoff discharge has been identified by the department as a significant contributor of pollution.

(11) "Priority watershed" means a watershed of manageable size, delineated in the areawide water quality management plan and selected according to the procedures specified in s. NR 121.07.

(12) "Public participation process" means those activities developed for involving individual members of the public, local governmental officials, and interest groups in the areawide water quality management planning process. These activities may include: the dissemination of information to the public including plan documents and summaries in lay terms, outreach activities to identify interested members of the public, the actual involvement of the public in the decision-making process which leads to the preparation and implementation of an areawide water quality management plan, and response to the public on how their input was used. This process normally includes both public meetings and public informational hearings.

(13) "Nonpoint source" as set forth in s. 281.65 (2) (b), Stats., means a land management or use activity contributing to runoff,

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seepage or percolation; and are sources which are not defined as a point source under s. 283.01 (12), Stats.

(14) "Residual wastes" means waste materials resulting from the treatment of wastes or wastewater.

(15) "Sewer service area" means that area presently served and anticipated to be served by a sewage collection system.

(16) "Total maximum daily load" means the amount of pollutants specified as a function of one or more water quality parameters, that can be discharged per day into a water quality limited segment and still insure attainment of the applicable water quality standard. There are 4 components to the total maximum daily load: point source allocation, nonpoint source allocation, reserve capacity and margin of safety.

(17) "Waste load allocation" means the assignment of a portion of the total maximum daily load to each of the discharges to a water quality limited segment, such that the summation of these individual loadings does not exceed the total maximum daily load.

(18) "Water pollution", as defined in s. 283.01 (14), Stats., means man-made or man-induced alteration of the chemical, physical, biological or radiological integrity of water.

(19) "Water quality standards" means standards established by the department pursuant to s. 281.15, Stats., of the physical, chemical or biological characteristics or both of a water which must be maintained to make it suitable for specified uses.

(20) "Water quality limited segment" means any area or portion of a stream which will not meet the established water quality standard with application of only categorical effluent limitations to all point sources.

(21) "Watershed" means a hydrologically related land unit delineated for the purpose of instituting water quality management activities. Generally, the maximum size of a watershed should not exceed 200,000 acres.

History: Cr. Register, January, 1979, No. 277, eff. 2-1-79; am. (1), (19) and (20), c. and rec. (6), r. (10), renum. (11) and (12) to be (16) and (11), renum. (13) to be (12) and am. c. (13), Register, August, 1981, No. 308, eff. 9-1-81; corrections in (4), (9), (10), (11), (13), (15), (19) made under s. 13.92 (4) (b) 7., Stats., Register March 2011 No. 663.

NR 121.04 Structure of the state water quality management plan. (1) The state continuing process required under s. 283.83, Stats., consists of the development of, and regular review and revision of the state water quality management plan.

(2) The state water quality management plan consists of:

(a) Areawide water quality management plans for areas designated by the governor and prepared by agencies similarly designated.

(b) Areawide water quality management plans for nondesignated areas prepared by the department for the remainder of the state.

(c) A document describing the state's areawide water quality management planning process. This document shall describe the interrelationship among the various elements in the planning process. These elements include:

1. Areawide water quality management plans for designated and nondesignated areas of the state.

2. Topical studies which analyze water quality policies or issues of statewide concern.

3. Procedures for intergovernmental cooperation.

4. Procedures and mechanisms for plan implementation including:

a. Water quality standards and procedures for their revision.

b. Effluent limitations and waste load allocations required to meet water quality standards.

c. An inventory and priority ranking of wastewater treatment plant construction needs for the purpose of distributing state and federal grant funds.

d. Controls for the disposition of residual wastes from wastewater treatment processes.

e. Best management practices for nonpoint sources of water pollution.

5. Procedures for plan revision.

6. Procedures for public participation.

History: Cr. Register, January, 1979, No. 277, eff. 2-1-79; am. (2) (c) 1., Register, August, 1981, No. 308, eff. 9-1-81; correction in (1) made under s. 13.92 (4) (b), Stats., Register March 2011 No. 663.

NR 121.05 Content of areawide water quality management plans. (1) Subject to sub. (2), the following elements shall be included in each areawide water quality management plan prepared or approved by the department.

(a) *Planning area boundaries.* The delineation in map form of the area for which the plan is being prepared.

(b) *Water quality assessment.* An assessment of existing and potential water quality problems within the planning area including a general assessment of both point and nonpoint sources of pollution contributing to the problems.

(c) *Inventories and forecasts.* 1. An inventory of municipal and industrial source of pollutants.

2. Current demographic and economic growth data.

3. Population forecasts for 20 years in 5-year increments developed in the following manner:

a. The state population forecast for the state water quality management plan shall be consistent with that generated by the Wisconsin department of administration (DOA) and with the forecast provided by the U.S. department of commerce, bureau of economic analysis (BEA).

b. Single county forecasts prepared by multi-county regional planning agencies (established in s. 66.0309, Stats.) for the purpose of areawide water quality management planning shall be consistent with the range of the regional forecast generated by DOA. Single county forecasts prepared by single county planning agencies shall be expressed within the range of the county forecast generated by DOA. Single county forecasts inconsistent with the range of DOA regional forecasts and single family [county] forecasts falling outside of the range provided by DOA may be used if special approval is obtained from the natural resources board.

Note: Due to an apparent error, "family" was substituted for "county" in Natural Resources Board Order No. WQ-55-80, which amended subd. 1. b.

c. The population forecasting methodology used by designated regional or county planning agencies to apportion county forecasts to minor civil divisions (MCD) and individual sewer service areas shall be consistent with standards developed by DOA. If these agencies do not prepare MCD forecasts, the department will request that DOA do so. If DOA chooses not to prepare MCD forecasts, the department will do so.

4. Existing and projected land use patterns including the delineation of sewer service areas as described in par. (g).

(d) *Water quality standards.* Applicable state water quality standards and any suggested revision of such water quality standards.

(e) *Total maximum daily loads.* For each water quality limited segment, the total allowable maximum daily load of pollutants during critical water quality conditions for each specific water quality criterion being violated or expected to be violated.

(f) *Waste load allocations.* For each water quality limited segment, the individual load allocation for point sources of pollutants for the 5-year period following plan preparation.

(g) *Nonindustrial wastewater treatment and collection system plan.* 1. 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

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110.09, and shall include a cost-effectiveness analysis of regional versus individual treatment plants for the culling areas including subsurface waste disposal systems. Water quality and other environmental impacts shall be considered.

2. Sewage collection system needs shall be identified through the delineation of a sewer service area for existing and proposed treatment systems for the 20-year planning period such that:

a. The sewer service area is determined in such a fashion as to promote cost-effective and environmentally sound waste collection and treatment.

b. The sewer service areas are delineated based on a 20-year population forecast approved by the department, and municipally approved population density standards.

c. 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 nonpoint sources of pollution include but are not limited to wetlands, shorelands, floodways and floodplains, steep slopes, highly erodible soils and other limiting soil types, groundwater recharge areas, and other such physical constraints.

d. Ten-year service area boundaries may also be included in addition to the 20-year sewer service boundaries.

3. The plan shall include criteria for the construction of future treatment systems within the areawide planning area. These criteria shall be consistent with, but may be more specific or restrictive than those contained in s. NR 110.08 (5), if warranted by regional and local considerations.

4. For nondesignated areas of the state, a detailed identification of the regional waste treatment system, including the delineation of sewer service areas will be carried out for selected urban areas within standard metropolitan statistical areas and for urban areas with a population of over 10,000.

a. The preparation of the plan will be carried out if possible by a local planning agency under contract with the department.

b. 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.

(h) *Industrial waste treatment system needs.* The anticipated industrial point source waste load reductions required to attain and maintain applicable water quality standards and effluent limitations for at least a 20-year planning period.

(i) *Nonpoint source control needs.* 1. The best management practices needed to produce a basic level of control of nonpoint source of pollutants throughout the planning area shall be identified and evaluated. Watersheds will be identified in the plan and the general water quality problems for each assessed.

2. Priority watershed plans shall be prepared for [on] a priority basis by the department and applicable designated agencies. The contents of priority watershed plans are described in s. NR 120.08.

Note: Due to an apparent error "for" was substituted for "on" in Natural Resources Board Order No. WQ-55-80, which amended subd. 2.

(j) *Residual waste control needs.* An identification of the necessary controls to be established over the disposition of residual wastes.

(k) *Land disposal needs.* An identification of the necessary controls to be established for the disposal of pollutants on land or in a subsurface excavation site.

(l) *Target abatement dates.* Target abatement dates or schedules of compliance for all significant dischargers, nonpoint source control measures, residual and land disposal controls and storm-water system needs.

(m) *Recommended regulatory programs.* Recommended regulatory programs needed to implement the state water quality management plan.

(n) *Designated management agencies.* The identification of those agencies recommended for designation to carry out the provisions of the areawide plan.

(o) *Environmental, social, economic impact.* An assessment of the environmental, social and economic impacts of carrying out specific significant recommendations of the plan.

(2) The department may waive inclusion of any of these elements upon a determination by the department that special conditions exist in the planning area which preclude their inclusion or that financial resources are not adequate to allow their inclusion.

History: Cr. Register, January, 1979, No. 271, eff. 2-1-79; am. (1) (intro.) (a), (c) 3.b, and 4., (c), (f) 2., (g) and (2); r. and rec. (1) (g), Register, August, 1981, No. 308, eff. 9-1-81; correction in (1) (c) 3. b, made under s. 13.92 (4) (b) 7., Stats., Register March 2011 No. 663.

NR 121.06 Designation of areawide water quality planning areas and agencies. (1) As the need arises, the department shall recommend that the governor designate areawide planning areas which as a result of urban and industrial concentrations or other factors have substantial and complex water quality control problems.

(2) Within each of these planning areas the department shall recommend to the governor for designation a single agency capable of developing effective areawide water quality management plans. Each recommended planning agency shall:

(a) Be either a regional planning commission established under s. 66.0309, Stats., or be a representative organization whose membership shall include elected officials of local governments or their designees, having jurisdiction in a designated areawide water quality management planning area.

(b) Demonstrate substantial local support for designation through resolutions from local units of government deemed by the department to be critical to the successful preparation and implementation of an areawide water quality management plan.

(c) Demonstrate the technical capability to complete the plan in a timely manner.

(3) The department may recommend that the governor withdraw or modify the designation of a designated agency or designated area or both when a compelling need for such change has been demonstrated. Prior to making such a recommendation to the governor, the department shall, conduct a public participation process, including at a minimum a public hearing in the affected area.

History: Cr. Register, January, 1979, No. 277, eff. 2-1-79; am. (2) (intro.) and (a) and (3), Register, August, 1981, No. 308, eff. 9-1-81; correction in (2) (a) made under s. 13.92 (4) (b) 7., Stats., Register March 2011 No. 663.

NR 121.07 Procedures for approval of areawide water quality management plans and plan revisions for designated areas of the state. (1) Review and approval of areawide water quality management plans for designated areas:

(a) The department shall review and approve or disapprove each areawide water quality management plan and shall make recommendations to the governor as to the certification of all or parts of each plan.

(b) To receive departmental approval areawide water quality management plans for designated areas must have been subject to a public participation process, approved by the department including at a minimum, a public hearing.

(2) Review and approval of 5-year updates to areawide water quality management plans for designated areas:

(a) The department shall reevaluate the approval status of each areawide water quality management plan for designated areas at least every 5 years.

1. The first such reevaluation will be completed no later than December 31, 1987.

Unofficial Text (See Printed Volume). Current through date and Register shown on Title Page.

2. Continued or renewed approval shall be granted only to plans, or portions thereof, upon a determination by the department that the plan continues to meet the requirements of this chapter.

(b) Upon reevaluation of the approval status of the plans as described in par. (a), the department shall approve the plan subject to the approval procedures described in sub. (1) (a) and (b).

(3) Review and approval of revisions to areawide water quality management plans for designated areas:

(a) The department may approve on an annual basis, or where expressed procedures are established between the department and a designated planning agency, revisions which incorporate new information or amendments to an approved areawide water quality management plan.

(b) Approval of plan revisions may be subject to a public participation process.

(4) Disapproval of previously approved areawide water quality management plans or plan elements:

(a) The department may disapprove or otherwise modify any previously approved areawide water quality management plan or plan element if such action is deemed necessary to reflect state law or rules or changes therein; or where the department finds the plan or plan element conflicts with the department's responsibility to protect, maintain, and improve the quality and management of the waters of the state, ground or surface, public and private; or where the plan or plan element is found otherwise not to be in the public interest.

(b) Any disapproval or modification of a previously approved areawide water quality management plan or plan element by the department shall include a public participation process including at minimum a public hearing.

History: Cr. Register, January, 1979, No. 277, eff. 2-1-79; am. (1) and (2), cr. (3) and (4), Register, August, 1981, No. 308, eff. 9-1-81.

NR 121.08 Procedures for adoption and revision of areawide water quality management plans for nondesignated areas of the state. (1) Adoption of areawide water quality management plans for nondesignated areas:

(a) During development and prior to formal adoption, areawide water quality management plans for nondesignated areas or portions thereof shall be subject to a public participation process including, at a minimum public hearing.

(b) Each areawide water quality management plan for a nondesignated area, or portion thereof, shall be submitted to the governor for certification as the adopted areawide water quality management plan for that portion of the state.

(2) Review and approval of 5-year updates to areawide water quality management plans for nondesignated areas:

(a) Areawide water quality management plans for each nondesignated area shall be subject to a major review and update at least every 5 years. The first such review and update of areawide water quality management plans for all nondesignated areas will be completed no later than December 31, 1987.

(b) Five year plan updates shall be subject to the public participation process and adoption procedures as described in sub. (1).

(3) Revisions to areawide water quality management plans for nondesignated areas:

(a) The department may revise, as is necessary, areawide water quality management plans for nondesignated areas.

(b) Plan revisions by the department may be subject to a public participation process.

History: Cr. Register, January, 1979, No. 277, eff. 2-1-79; am. (1) and (2), cr. (3), Register, August, 1981, No. 308, eff. 9-1-81.

NR 121.09 Statewide water quality advisory committee. (1) The department shall form a statewide water quality advisory committee composed of representatives of federal, state and regional organizations, agencies and units of government, public interest groups, groups with a special economic interest and private citizens.

(2) The department shall inform the committee of ongoing and proposed water quality planning and management activities and policy issues of statewide concern.

(3) The committee shall advise the department on water quality management issues of statewide concern.

(4) The statewide water quality advisory committee shall include, at a minimum, representatives of the following:

- (a) U.S. environmental protection agency
- (b) U.S. department of agriculture
- (c) U.S. geological survey
- (d) U.S. army corps of engineers
- (e) Wisconsin assembly environmental resources committee
- (f) Wisconsin senate agriculture and natural resources committee
- (g) Wisconsin department of agriculture, trade and consumer protection
- (h) Wisconsin department of transportation
- (i) Wisconsin department of administration
- (j) Wisconsin board of soil and water conservation districts
- (k) University of Wisconsin-extension
- (l) Wisconsin department of natural resources
- (m) Wisconsin department of development
- (n) Wisconsin department of health and social services
- (o) Southeastern Wisconsin regional planning commission
- (p) Dane county regional planning commission
- (q) Fox valley water quality planning agency
- (r) Rock river task force
- (s) Upper Wisconsin river task force
- (t) Lake Michigan policy advisory committee
- (u) Southwest Wisconsin policy advisory committee
- (v) Northwest Wisconsin policy advisory committee
- (w) Public interest groups
- (x) Groups with a special economic interest
- (y) Private citizens
- (z) East central Wisconsin regional planning commission
- (za) Brown county planning commission
- (zb) Wisconsin department of industry, labor and human relations
- (zc) Agricultural producer groups

History: Cr. Register, January, 1979, No. 277, eff. 2-1-79; am. (1) and (4), Register, August, 1981, No. 308, eff. 9-1-81.

Keally, Fran - DNR

From: CHRISTINE MUNZ-PRITCHARD <MUNZ@co.rock.wi.us>
Sent: Monday, January 20, 2014 3:13 PM
To: gerry.norothy@wisconsin.gov
Cc: Keally, Fran - DNR; PRITCHARD, ADAM
Subject: Beloit WQ 208

Hi Gerry,

Here is the BOD per Cap per day. Please look over them and let me know if it works or not. If i get the okay from you I will divide them into each plant.

Areas added have been broken down into groups and numbered 1 though 10. The daily average Biochemical oxygen demand (BOD) per household was calculated to determine the additional acreages impact on the plant capacity. According to NR110.15(4)2: When actual operating data is not available, the design loading shall be based on a contribution of 0.08 kilograms (0.17 pounds) of biochemical oxygen demand per capita per day and 0.09 kilograms (0.20 pounds) of suspended solids per capita per day. The quick facts censer date from the U.S. Department of Commerce estimates that in the City of Beloit, Wisconsin there are 2.56 person per household (2008-2012). In sections that have no household units 1.61 is used to come up with Acres per house.



Thanks,
Chris Munz-Pritchard
Planner II
Rock County 608-757-5585

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