

MEETING NOTICE & AGENDA

What: Wisconsin Rapids Area Water Quality Management Plan Policy Committee
When: Wednesday, September 7, 2011, 8:30 a.m.
Where: Rudolph Village Hall

AGENDA

1. Call to order – 8:30 a.m.
2. Approve minutes.
3. Approve amended planning area map.
4. Review draft of Chapter 3. Defining the Planning Area.
5. Review draft of Chapter 5. Existing Facilities.
6. Review draft of Chapter 4. Natural Resource and Environmental Conditions & Constraints (if complete).
7. Begin discussion of 20-year sewer service area.
8. Adjourn.

* The next meeting is scheduled for Wednesday, October 5th at the Grand Rapids Municipal Building. (delineation of 20-year sewer service area will be the major agenda item)

MINUTES

Wisconsin Rapids Area Water Quality Management Plan Policy Committee
Thursday, July 6, 2011, 8:30 a.m.
Biron Municipal Building

Present: Wisconsin Rapids - Mayor Mary Jo Carson, Dave Laspa, Jim Neitzel, Joe Eichsteadt and Adam Tegen
Biron – Rick O’Keefe
Village of Rudolph – President Mark Bade
Town of Grant – Sharon Schwab
Town of Seneca – James Schuerman
Town of Sigel – Tony Ruesch
Town of Plover – Tim Karcheski
Wood County Board – Dennis Polach
Wood County Planning & Zoning Office – Gary Popelka, AICP, EDFP
Wis. DNR – Scott Provost

Not Present: Town of Grand Rapids, Town of Rudolph

1. Call to order. Gary Popelka opened the meeting at 8:35 a.m. Those present introduced themselves and the communities they represent.
2. Minutes. **Motion by Jim Schuerman to approve the minutes of June 9, 2011. Second by Sharon Schwab. Motion carried.**
3. Town of Plover. At the last meeting, it was proposed to invite the Town of Plover to the Policy Committee meeting and add them to the Committee if they wished to participate. Plover Town Chairman Tim Karcheski was present and indicated that the Town would commit to participating as a member of this group. **Motion by Sharon Schwab to accept the Town of Plover as a member of the Policy Committee and allocate one vote to the town. Second by Mayor Carson. Motion carried.**
4. Election of Officers.
 - A. Chair. Town of Seneca Chairman Jim Schuerman was nominated for Chairman on three calls for nominations. **Motion by Sharon Schwab to close nominations and elect Jim Schuerman as Chairman of the Policy Committee. Second by Mark Bade. Motion carried with the City of Wisconsin Rapids voting nay. The weighted vote was 12 ayes and 8 nays.**
 - B. Vice Chair. Chairman Schuerman called three times for nominations for the position of Vice-Chair. Mayor Carson was nominated. **Motion by Sharon Schwab to close nominations and elect Mayor Carson to the position of Vice-Chair of the Policy Committee. Second by Dennis Polach. Motion carried with the City of Wisconsin Rapids and Town of Seneca voting nay. The weighted vote was 11 ayes and 9 nays.**

5. Bylaws. A revised draft of the bylaws was reviewed. In Article IV, Section 3, the wording for a quorum was changed from “five voting members...” to “five voting municipalities...” The Town of Plover was added as a member in Article IV, Section 4 and given one vote. It was suggested that the Town of Saratoga also be invited to participate because of the amount of residential and commercial development that is in the northern tier of the town. They will be invited to participate and Gary Popelka will report their response at the next meeting. If they choose to participate, they will be allocated one vote. An amendment to the bylaws will be made at that time. **Motion by Mayor Carson to accept the bylaws as amended. Second by Mark Bade. Motion carried.**

6. Define the planning area. A map of the proposed planning area was distributed and discussed. At the last meeting, the planning area was amended to include all of Wisconsin Rapids, Biron, Grand Rapids, and the Town and Village of Rudolph; two sections west of Wisconsin Rapids into Seneca and Sigel; and two sections east of Grand Rapids and Biron into the Towns of Grant and Plover. Scott Provost suggested adding that portion of the Village of Port Edwards that lies east of the Wisconsin River because of recent development proposals around NEPCO Lake. David Laspa said the developer had contacted the Wisconsin Rapids Engineering Department in their early stages of planning to inquire about obtaining sanitary sewer from the City. No further discussions have taken place and no commitments have been made by the City. The committee agreed that this area should be in the planning area. Gary Popelka is to contact the Village of Port Edwards to ask their thoughts about having that portion of the village in the 20-year planning area and to invite them to the next meeting. It was agreed that the Village should be allowed to participate in discussions of the Policy Committee, but would not be an official voting member.

It was then suggested that the Town of Saratoga be invited to participate as a voting member (one vote) because of the residential and commercial development in the northern portions of the town. Gary Popelka is to contact the Town to gauge their interest in participating and report back to the committee. He was also directed to suggest areas of Saratoga that should be part of the planning area and bring back his recommendation in the form of a revised planning area map.

7. Goals, objectives and policies. A draft of suggested goals, objectives and policies was discussed in detail, with several changes suggested.

A. At the suggestion of Scott Provost, under the Environmental Resources Goal’s water quality protection objective, the policy statement #3 – “Control construction site erosion and reduce urban storm water runoff” is to be amended to include a recommendation for reducing the amount of storm water that enters storm water sewers. This can be done with grass boulevards and other methods. Dave Laspa said municipalities are required to implement such methods.

B. Under the same goal’s objective to protect environmentally sensitive areas, the following suggestions will be incorporated:

- (1) Scott Provost recommended adding language to encourage connectivity of environmental corridors.
- (2) Sharon Schwab suggested adding threatened and special concern species to the statement, "Endangered and rare species should be preserved and enhanced."
- (3) Sharon Schwab suggested adding language to protect identified grassland areas because of their importance as wildlife habitat and wildlife movement corridors.

8. August meeting. The August 3rd meeting was rescheduled to Monday, August 8th at 8:30 a.m. at the Rudolph Village Hall.

9. Adjourn. **Motion by Mayor Carson to adjourn at 9:45 a.m. Second by Dennis Polach. Motion carried.**

Minutes prepared by Gary Popelka, AICP, EDFP



CHAPTER 3. DEFINING THE PLANNING AREA

Historic Overview

The City of Wisconsin Rapids and vicinity is part of an urbanized area consisting of three villages (Biron, Port Edwards and Rudolph), two cities (Wisconsin Rapids and Nekoosa), and six towns (Saratoga, Grand Rapids, Rudolph, Sigel, Seneca and Port Edwards). The Portage County Town of Grant is also part of the urbanized area, with commercial and residential development, and an elementary school, near its border with Wood County. For purposes of this plan, a small portion of the Town of Plover (Portage County) has is also considered to be part of the urbanized area. The Town of Plover is adjacent to and may be impacted by planned development in the eastern part of Biron. Figure 3-1 shows Wood County’s central location in relation to the State of Wisconsin and Figure 3-2 shows the location of the greater Wisconsin Rapids urbanized area within Wood County.

There are four municipal sewage treatment systems in the Wood County communities that are situated along the Wisconsin River. The largest of these is the Wisconsin Rapids plant that is situated at the north end of the local airport at Pepper Avenue and 3rd Street South. That facility has just completed a substantial update. The Village of Port Edwards, which is located south of Wisconsin Rapids, has a sewage treatment plant on the west bank of the Wisconsin River. That facility has primary and secondary treatment. The City of Nekoosa also has a treatment plant on the west side of the river. Like the others, the Nekoosa plant has primary and secondary treatment. The Village of Rudolph has a municipal system with effluent being treated in a lagoon which is located south of the Village, but plans have been approved

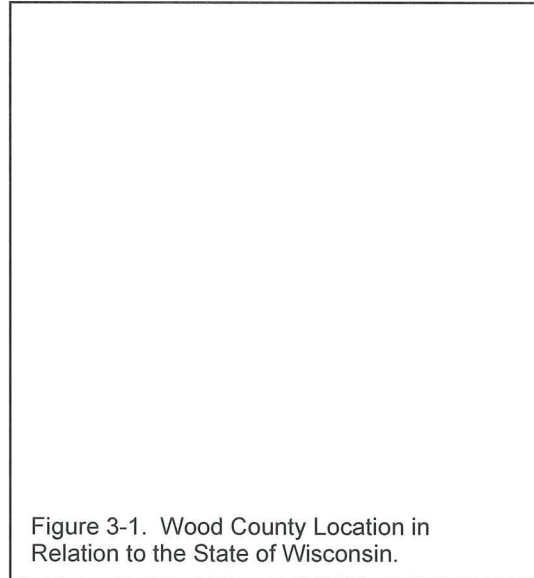
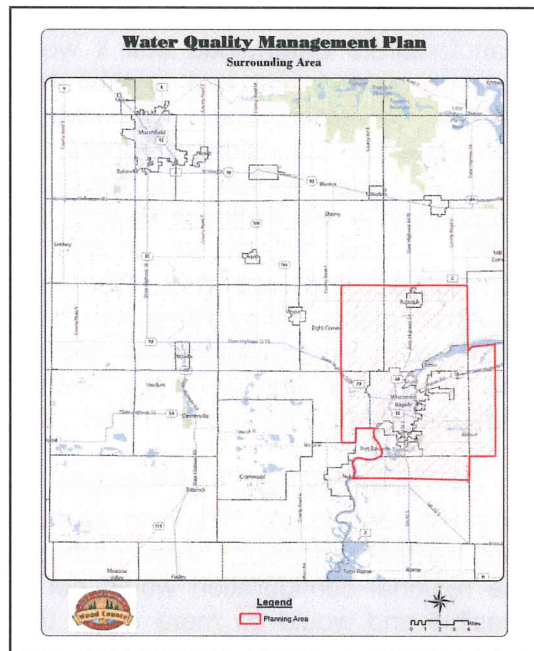


Figure 3-1. Wood County Location in Relation to the State of Wisconsin.



for Rudolph to be served by the Wisconsin Rapids treatment plant. More detail is offered regarding the treatment plants in the “Existing Facilities” chapter of this report.

With very few exceptions, the unincorporated portions of the greater Wisconsin Rapids area use private on-site waste treatment systems (POWTS)

other services and facilities), Lake Wazeecha (for the desire to live near a lake or park), and State Highway 54 (for easy commuting purposes). Nearly all of the many annexations to Wisconsin Rapids over the past several decades has been land formerly in the Town of Grand Rapids. Portions of the Town of Grant were included in the earlier Wisconsin Rapids Water Quality Management Plan because of the density of residential buildings and the close ties with adjacent residential uses in Grand Rapids. Both of those towns are included in the planning area.

For the Village of Rudolph to be served by the Wisconsin Rapids treatment plant, lines have to be installed through several miles of the Town of Rudolph. Past discussions were held regarding servicing an area of the Town near the junction of Highways 34 and 66, known as the Greenfield Avenue area. Also, the Rudolph facilities plan considered future growth of the Village and areas adjacent to the Village that may need sanitary sewer service in the future. The Policy Committee recognizes that sanitary sewer service will not be warranted in most of the Town of Rudolph during the planning period, but felt it was important to include the entire town in the planning area for analysis purposes.

Recent development proposals in Biron for a business park and mixed residential area have triggered concern over traffic that is expected on Highway 54 and County Road U (80th Street). In addition to Biron, Grand Rapids, Grant and Town of Plover officials have held joint meetings regarding this issue. Because of that intergovernmental cooperation, the Policy Committee took action to add that portion of the Town of Plover that abuts Wood County to the planning area and as a member of the Policy Committee.

A proposal for a high-end residential development on the south side of NEPCO Lake moved the Policy Committee to include that portion of the Village of Port Edwards that lies east of the Wisconsin River in the planning area. When the residential development occurs and if municipal sewer service is needed, it may be cost-effective to join the regional treatment plant. Developers and Village representatives have already investigated this idea with Wisconsin Rapids city engineers.

Finally, commercial and residential development that exists in the northern tiers of the Town of Saratoga is at a level that the Policy Committee felt strongly that that area be part of the planning area for analysis purposes. Again, it is likely that Saratoga will not receive sanitary sewers during the planning period, but the density of development and potential for large-scale projects certainly warrants the northern tier of Saratoga to be included in the planning area.

Industrial wastes from paper mills in Wisconsin Rapids and Nekoosa are treated at sites in those two communities. The NewPage facility is on the northwest side of Wisconsin Rapids and the Domtar facility is located along the Wisconsin River in the Town of Saratoga, east of Nekoosa.

Population

An important aspect of any planning program is an analysis of the population of the planning area. For the purposes of this plan, knowledge of the density of the planning area's population and housing – where the people live – helps establish a base for determining sanitary sewer needs that exist today. Projections of future population levels are used to determine how many households may exist at certain points of time in the future. Knowing how many households

change shows that the area held steady, increasing population by only 1.3 percent. We remain in the midst of an economic recession at this time and area officials are optimistic that the number of jobs, ergo the number of people living in the area, will increase as we pull out of the recession.

Population Projections

Official population projections are prepared by the Wisconsin Department of Administration (WDOA). In their 2008 projections for municipalities, the WDOA projected a 2010 population of 41,842 for the area. The official 2010 census was 39,329, slightly more than six percent less than the projections. Because new projections are several months away, it was necessary to modify the WDOA projections to 2030 for this plan. Modified projections suggest that the area will continue to grow albeit only very slowly. Caution should be used when using the population projections for this plan because changes in population of

those towns that are only partially included in the planning area may tend to skew the results. Population projections are listed in Table 3-1. The official WDOA projections from their 2008 release are listed along with projections as modified by the Wood County Planning & Zoning Office for this study. The pre-2010 census WDOA projections would have the area's population increase as a much faster pace than what's been previously experienced for several decades.

A linear regression method of projection was used to modify population projections of the area. Simple regression uses known data (population for 1990, 2000 and 2010) to determine a trend line which can then be used to forecast future data points (population levels). Although this projection method does not account for births, deaths and net migration like more sophisticated methods, the results are adequate for the purposes of this study. As shown in Table 3-2, the difference between

Table 3-2 POPULATION PROJECTIONS WISCONSIN RAPIDS URBAN AREA 2010 - 2030									
COMMUNITY	2010 Census	2015		2020		2025		2030	
		WDOA	WCPZ	WDOA	WCPZ	WDOA	WCPZ	WDOA	WCPZ
C. Wis. Rapids	18,367	18,799	18,419	18,913	18,471	18,947	18,502	18,872	18,532
V. Biron	839	975	867	1,017	894	1,054	906	1,084	917
V. Rudolph	439	427	433	425	426	423	423	418	420
Grand Rapids	7,646	8,171	7,864	8,249	8,081	8,293	8,225	8,287	8,369
Grant	1,906	2,273	2,003	2,369	2,099	2,459	2,158	2,538	2,216
Plover	1,701	2,428	1,646	2,423	1,591	2,413	1,461	2,394	1,330
Rudolph	1,028	1,132	1,000	1,113	971	1,090	933	1,061	895
Saratoga	5,142	5,850	5,305	6,018	5,467	6,161	5,559	6,264	5,651
Seneca	1,120	1,170	1,130	1,146	1,139	1,118	1,136	1,083	1,132
Sigel	1,051	1,127	1,017	1,113	983	1,094	948	1,071	913
Planning Area	39,239	42,352	39,681	42,786	40,122	43,052	40,249	43,072	40,375
WDOA = Wisconsin Department of Administration WCPZ = Wood County Planning & Zoning Office Source: U. S. Census of Population, Wisconsin Department of Administration, and Wood County Planning and Zoning Office.									

area population levels are at low, medium and high levels. These categories were chosen versus an actual number of people per mile or acre because that later method results in some extremely high numbers in the most densely populated areas (i.e., the center of Wisconsin Rapids). The patterns on this map show how the area has grown to the south and east. It also shows a higher density of population in the area that was described earlier as the Greenfield Avenue area of the Town of Rudolph. Reference will be made to this map again as the 20-year sewer service area (SSA) is determined.

Households

The average number of persons occupying a household in a community is calculated by dividing the population by the number of households in the community. Those who are institutionalized in nursing homes, correctional institutions, mental health facilities and similar facilities are not

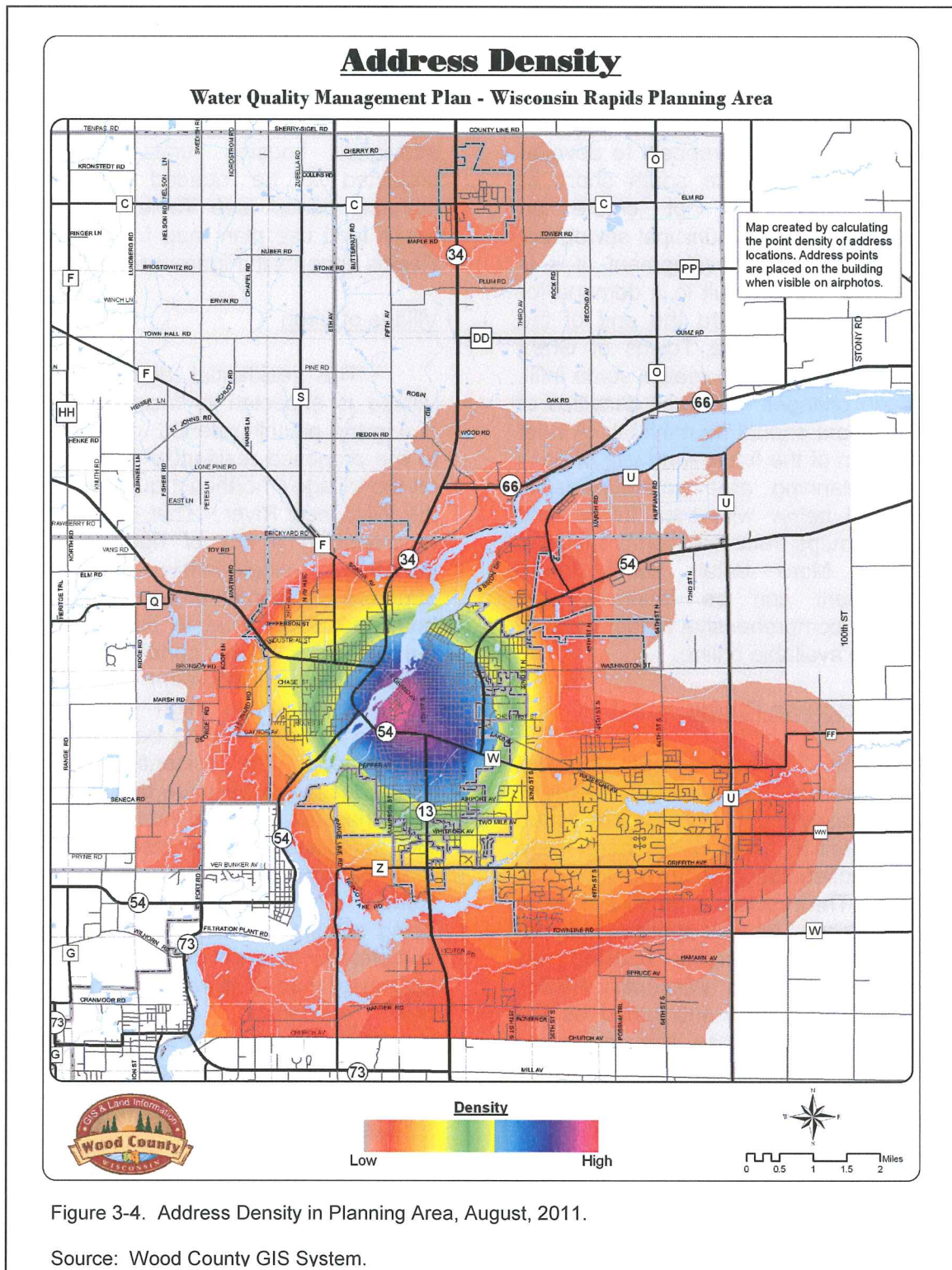
included in the household population. The segment of population that is institutionalized is generally small in relation to the total population.

An estimate of how many households and housing units is necessary for determining the amount of additional land that will be needed for residential purposes during the planning period. One can surmise from the population change and change in number of households that are described in Tables 3-2 and 3-3 that the number of people living in each household is declining. This national trend is the result, in part, to the aging population, smaller families and single-person households.

Household Projections

As with the population projections, the Wisconsin Department of Administration also projects the number of households a community will have in the future. The most current projections

Table 3-3 HOUSEHOLD PROJECTIONS WISCONSIN RAPIDS URBAN AREA 2010 - 2030									
COMMUNITY	2010 Census	2015		2020		2025		2030	
		WDOA	WCPZ	WDOA	WCPZ	WDOA	WCPZ	WDOA	WCPZ
C. Wis. Rapids	8,296	8,812	8,491	8,992	8,685	9,102	8,872	9,151	9,059
V. Biron	366	444	380	469	394	491	403	510	411
V. Rudolph	179	186	182	188	185	189	189	189	192
Grand Rapids	2,978	3,171	3,157	3,247	3,335	3,299	3,493	3,327	3,650
Grant	758	875	821	925	883	969	934	1,004	984
Plover	639	927	643	939	647	944	623	940	598
Rudolph	418	448	431	447	444	442	454	434	463
Saratoga	2,085	2,373	2,230	2,476	2,375	2,562	2,493	2,629	2,611
Seneca	411	431	425	428	438	422	449	413	459
Sigel	423	444	437	445	450	442	462	436	474
Planning Area	16,553	22,737	17,195	18,556	17,836	18,862	18,369	19,033	18,901
WDOA = Wisconsin Department of Administration WCPZ = Wood County Planning & Zoning Office									
Source: U. S. Census of Population, Wisconsin Department of Administration, and Wood County Planning and Zoning Office.									



communities were in place and plans were proceeding for the village's connection, which should be complete in 2012.

The village has an existing treatment system that has been deemed inadequate for the village's needs. Some new development can be expected during the planning period. Rudolph is situated in a convenient location on Highway 34 within easy commuting distance to Wisconsin Rapids. Commuting is also convenient on Highway 66, just south of the village. Highway 13 will be located on the same roadway as Highway 34 as a new U. S. Highway 10 is completed to the north. Even with the changes in the transportation system, Rudolph's growth will not be such to create an issue with the Wisconsin Rapids treatment system.

Town of Grand Rapids

Grand Rapids has many subdivisions with undeveloped lots. Some of those are cases where two lots were purchased; one was developed and the other has been kept for privacy purposes. Nevertheless, there is room for infill in existing subdivisions. The map in Figure 3-4 shows the medium-density development pattern south of County Road W, extending south toward the Grand Rapids – Saratoga town line. High groundwater conditions north of County Road W toward Highway 54 somewhat limit development, so most new residential development can be expected south of the County road. The vast majority of new units will continue to be single-family, with some two-family structures because of the need to utilize septic systems. There is considerable infill that needs to take place in Grand Rapids, according to the comprehensive plan, and it is in those areas that it is expected that new subdivisions will be platted. The comprehensive plan

suggests that retail shops will continue to locate in the Highway 54 corridor, with home-based businesses being established as a result of the status of the economy.

Town of Grant

That part of the Town of Grant that is in the planning area has experienced only a small amount of growth since the 1985 plan was completed. The map in Figure 3-4 shows how rapidly the density of structures drops as it gets further away from Wisconsin Rapids into the Town. Much of the area that is colored in on Figure 3-4 was originally included in the 1985 sewer service area only to be removed as part of the amendment process when other areas closer to Wisconsin Rapids and Biron were added. Because the amount of residential and commercial development in and around the Kellner area of the Town of Grant, including an elementary school, this area can expect more residences during the planning period and should be considered to be added back into the 20-year SSA as part of this plan.

Town of Plover

A very small part of the Town of Plover is included in the planning area. It is undeveloped at this time, but could experience some very low density growth as Biron's new residential and business park developments become reality. Plover has worked with the neighboring communities of Biron, Grand Rapids, Grant and Wood County to monitor growth in the area and its impact on the volume of traffic and safety of Highway 54 and that highway's intersection with County Road U (80th Street).

Town of Rudolph

The Policy Committee included the entire Town of Rudolph in the

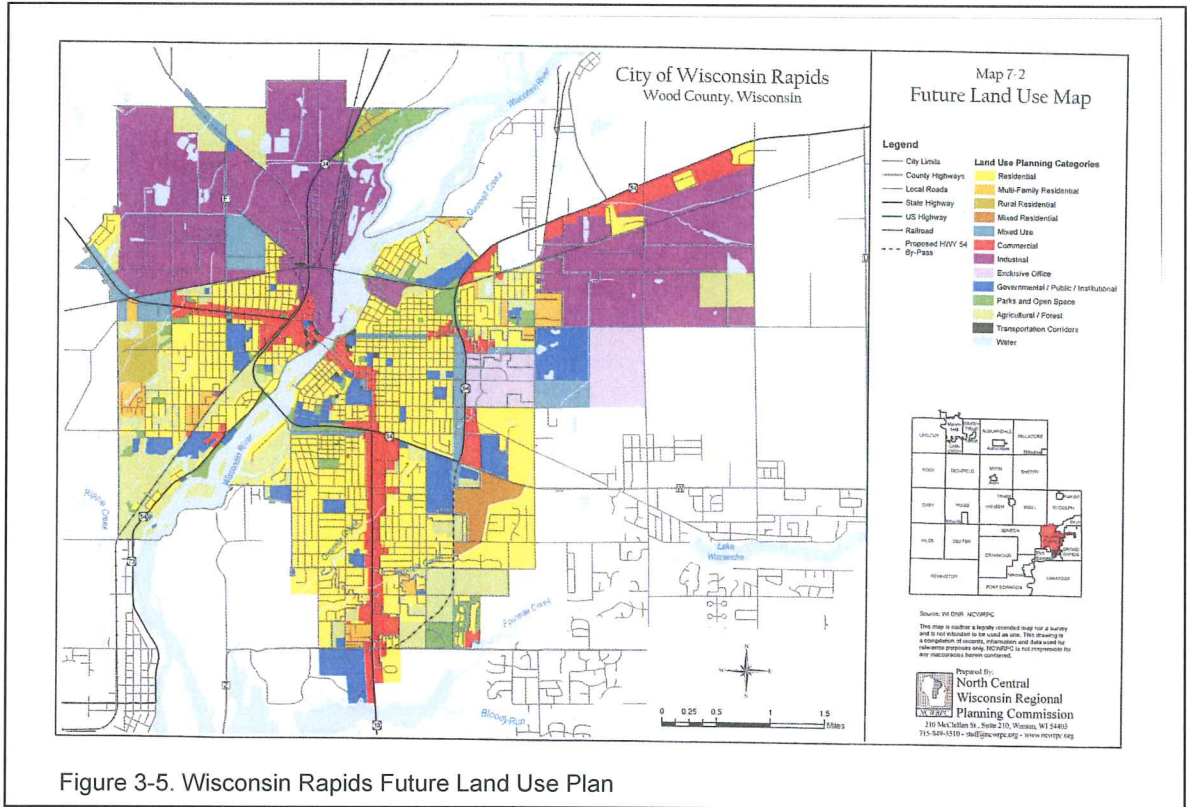


Figure 3-5. Wisconsin Rapids Future Land Use Plan

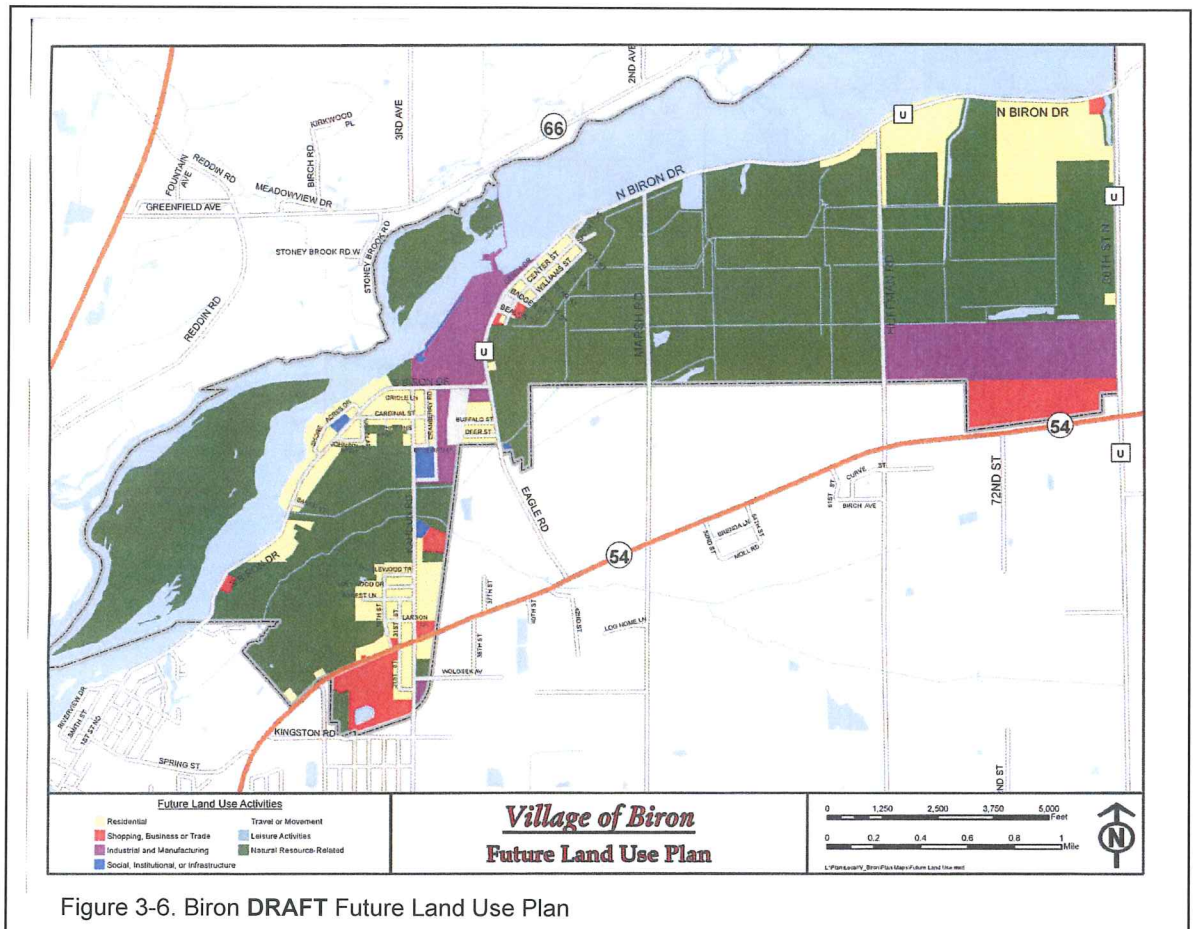


Figure 3-6. Biron DRAFT Future Land Use Plan

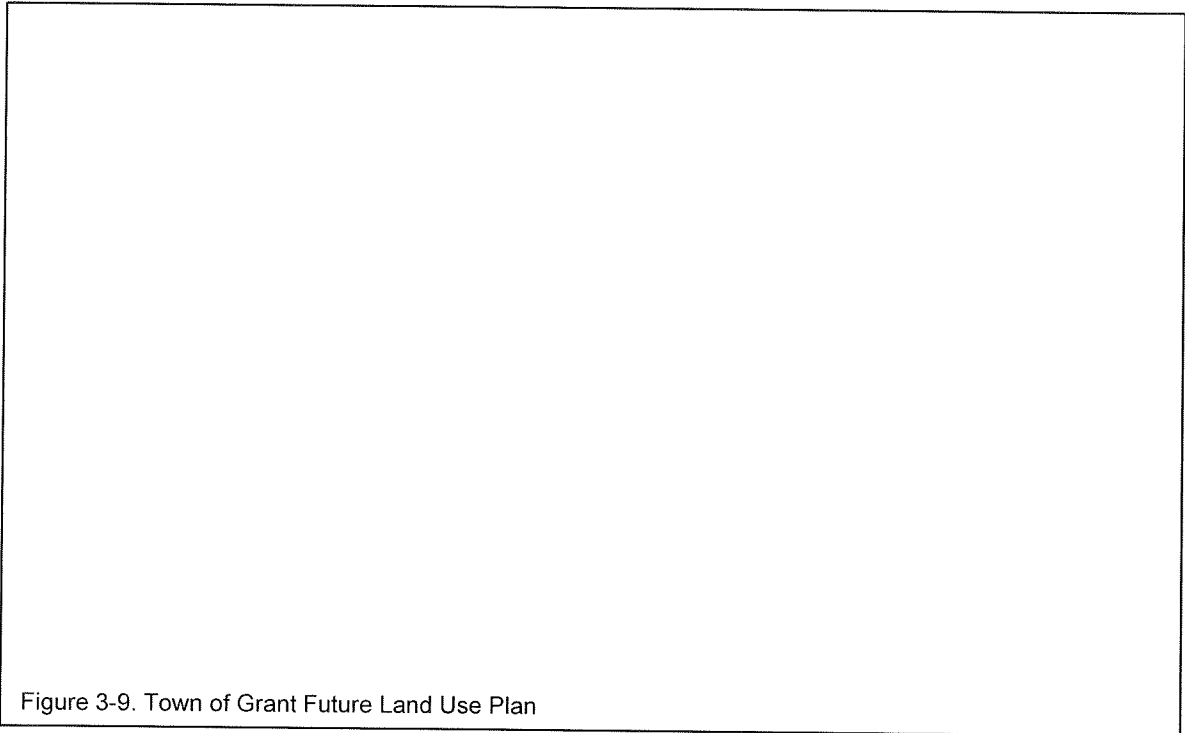


Figure 3-9. Town of Grant Future Land Use Plan

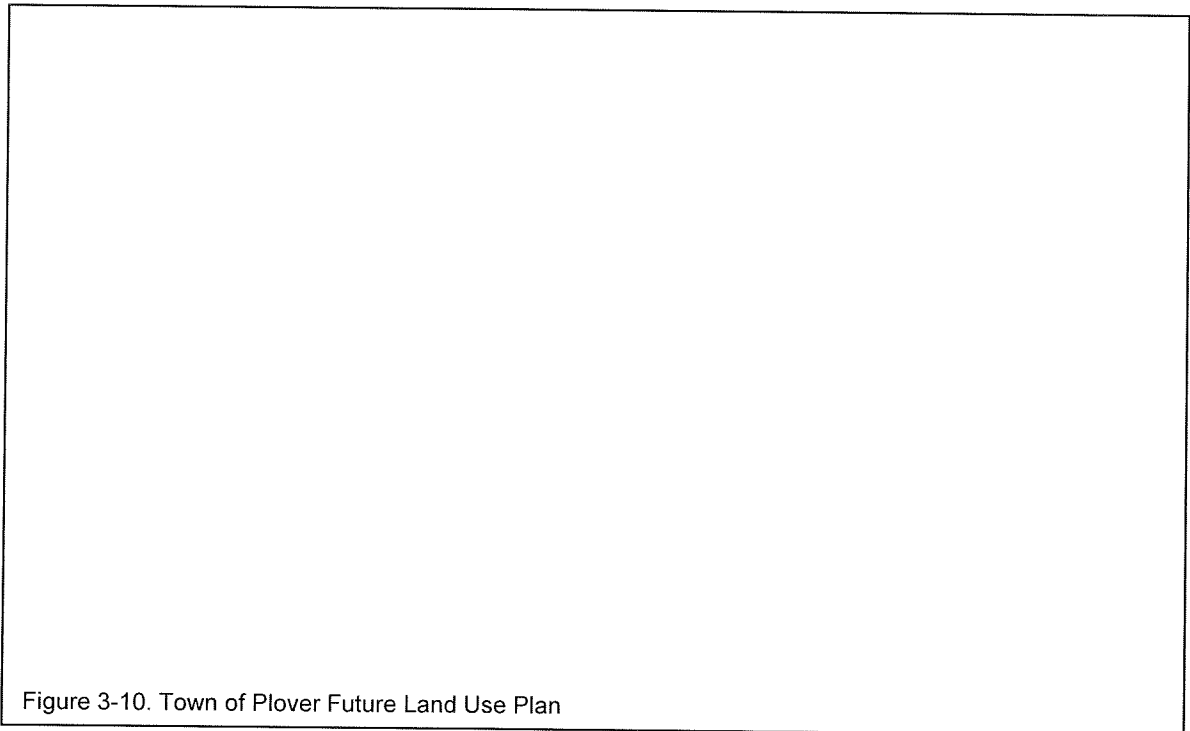
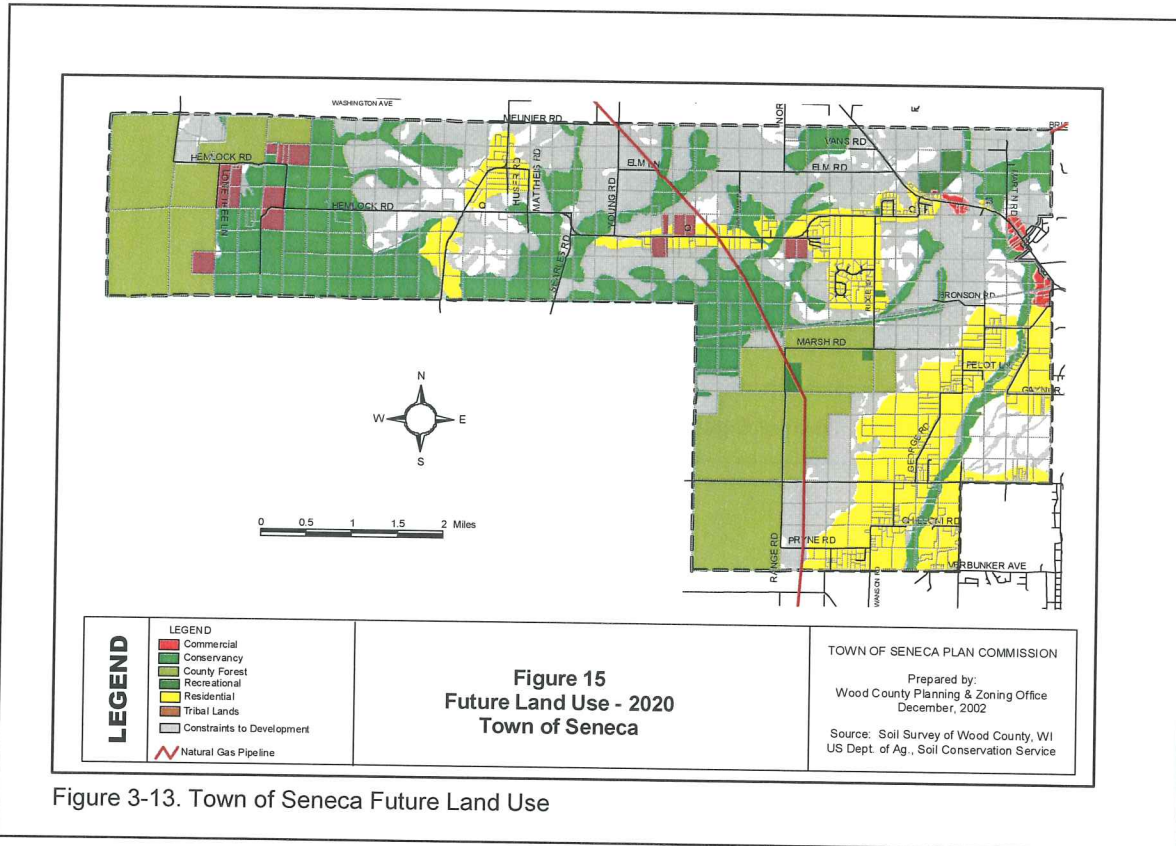
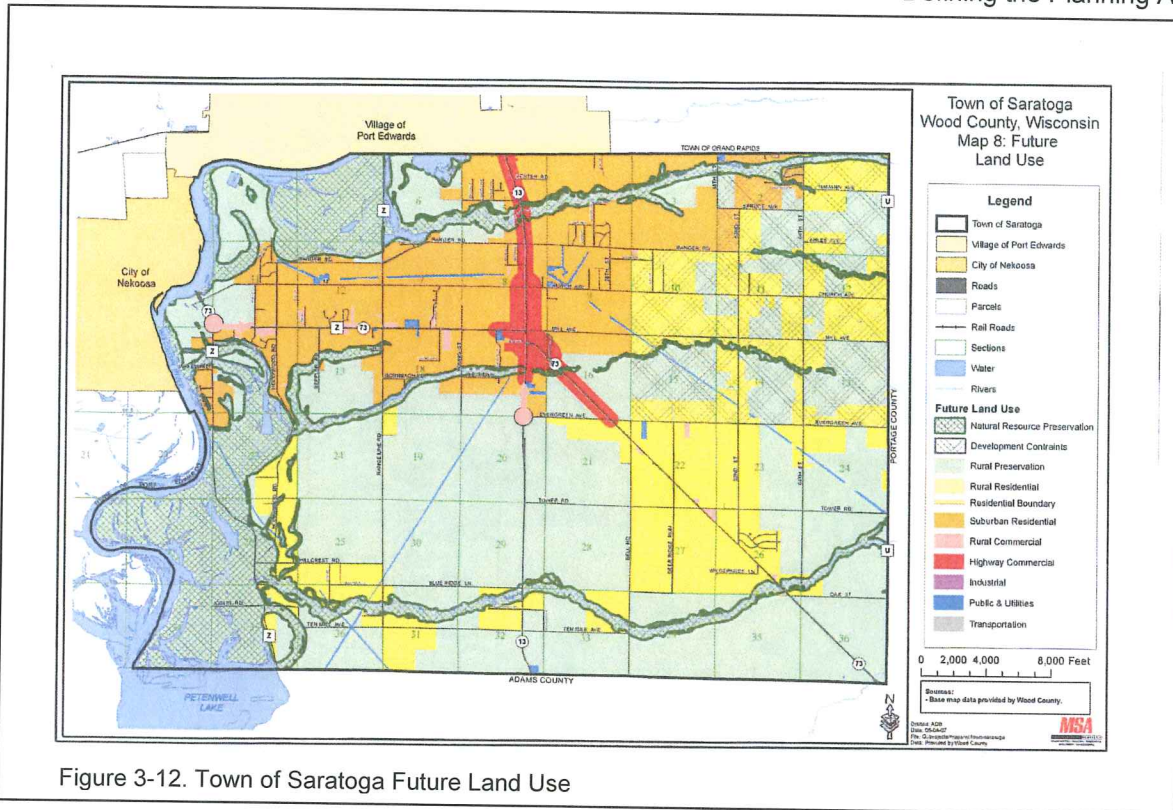


Figure 3-10. Town of Plover Future Land Use Plan



CHAPTER 5. EXISTING FACILITIES

General

Within the planning area that was established at the outset of this report, there are two municipal systems. The service areas of those systems, shown in Map 16, are restricted to the incorporated limits of Wisconsin Rapids and Biron, with few exceptions as discussed below. The balance of the area is dependent upon private on-site disposal systems. The following paragraphs provide detail regarding existing treatment facilities in the 20-year sewer service boundary of the Wisconsin Rapids urban area.

City of Wisconsin Rapids³

Collection System

The City of Wisconsin Rapids sewage system includes a collection system that includes four main lift stations and a wastewater treatment plant. Additional collection of wastewater is provided to recreation vehicles and septic and holding tank wastes from haulers who pump out of tanks that serve residential and some commercial structures and deposit that waste into concrete holding tanks. From those holding tanks, the waste is gradually introduced into the waste stream from the collection system.

The four main lift stations are located on Dewey Street, Pepper Avenue, Two Mile Avenue and on the west side. The combined capacity of the three east side lift stations is 12.28 MGD. They have a combined storage of 77,500

³ The information presented in this section has been extracted from the "Facilities Plan for Wastewater Treatment Plant Modifications" for the City of Wisconsin Rapids. That plan was completed by Foth Infrastructure & Environment, LLC in 2007. Additional detail can be found in that report.

gallons available in wet wells, interceptor sewers and manholes. Over 9,000 feet of force main discharge to these lift stations.

The West Side lift station has a design capacity of 4.32 MGD. It has approximately 22,500 gallons of storage in the wet well, interceptor and manholes. About 5,200 feet of 20-inch diameter force main is discharged to the wastewater treatment plant.

The collection system was described in the 2007 facilities plan as "generally in good condition."

Treatment System

The Wisconsin Rapids Treatment Plant went into operation in 1969. The west side treatment plant, which supplied primary treatment, was connected to the new plant in 1974 with a river crossing across the Wisconsin River.

The treatment plant was designed for a population of **??,???** through the year 2030. The plant is designed for an average of daily flow of 5.16 MGD and a peak day flow of 10.62 MGD. The loading design of the plant was **4,500** pounds of BOD per day. The average flow is 5.16 MGD, with a maximum of **0.7** MGD of infiltration.

Treatment at this plant includes mechanical screening, grit removal, primary clarification, secondary treatment- activated sludge process, final clarification, ultraviolet disinfection, chemical phosphorus removal system, backup polymer feed system, and backup chlorination system. Sludge handling operations consist of gravity belt sludge thickener, anaerobic sludge digestion, methane gas utilization, and liquid sludge storage and land-spreading. Gas that is generated by the anaerobic

decomposition process is burned. Treated effluent is discharged from the plant to the Wisconsin River.

The Wisconsin Rapids treatment plant was built to comply with the Department of Natural Resources minimum requirements of secondary treatment and chemical chlorination of all municipal wastewaters. A detailed description of the treatment system and how it works can be found in Section 2.7.2 (page 11) and Table 2-2 (page 14) of the June, 2007 facilities report.

In the 2007 facilities plan, the treatment plant facilities, including structures and equipment were described as having been “well maintained and, in general, in [are] reasonably good condition.” That plan noted that the facilities that were not rehabilitated in the 1993 modifications are now past their design and useful productivity service life of 20 – 30 years. The 1993 modifications were completed to replace much of the original equipment and refurbish some existing buildings.

The detailed analysis of the facilities plan resulted in several recommendations to upgrade the Wisconsin Rapids treatment and bring it into compliance with current state and federal requirements. [ADD DISCUSSION – WHAT HAS BEEN DONE?]

Village of Biron

The Village of Biron had a primary treatment facility consisting of a primary settling tank with chlorination and an anaerobic digester. Combined sanitary and storm sewers and aging, deteriorating infrastructure throughout Biron allowed a high amount of clearwater infiltration, which created several problems including overloading of the treatment plant, bypassing of raw sewage around the plant and discharging

of inadequately treated sewage into the Wisconsin River. Because of these problems, the Wisconsin Department of Natural Resources ordered secondary treatment facilities to be provided by the Village. Construction plans for a secondary treatment plant were given State approval, but before necessary grants could be obtained, State and Federal funding requirements were revised and the nonproliferation of discharge points policy established.

Because of the changes in requirements and the poor physical condition of the Biron sewage collection and treatment system, the Department of Natural Resources ordered a feasibility plan to be prepared, which would analyze alternate treatment system configurations for Biron, Wisconsin Rapids and Grand Rapids and recommend the configuration that calculated out to be the most cost-effective. The result of that 1972 study, as prepared by the Wood County Planning Office under supervision of the DNR and community engineers and engineering consultants, was that the “cost-effective” system was determined to be a regional system whereby wastes from Biron, Grand Rapids and Wisconsin Rapids would be treated in Wisconsin Rapids treatment plant would be required immediately and that the City should begin planning for orderly expansion to accommodate the additional daily load. That study also recommended the consideration of a metropolitan sewage commission to review sewer extensions and rates. The physical plant has undergone expansion and upgrading on several occasions since that plan was published, but a metropolitan sewage commission was never created. Discussion of the treatment plant is presented in the previous section of this chapter.

Village of Rudolph⁴

Wastewater in the Village of Rudolph is presently treated in a lagoon system that was constructed in 1981. The Village system consists of two aerated lagoons operated in series for treating domestic wastewater generated in the Village. New effluent ammonia limits were enacted in 2005, limits that the existing treatment facility could not meet. A follow-up facilities plan concluded that it is not feasible to upgrade the existing lagoons for inclusion in a new treatment system for the Village. Options were studied for possible upgrades to the system, but it was determined that regionalization with the Wisconsin Rapids treatment system was the best alternative for treatment and disposal from both an environmental and cost perspective.

Improvements to the Village of Rudolph wastewater facilities are being assisted with funding from the USDA Rural Development program. Rudolph and Wisconsin Rapids have an intergovernmental agreement for the transmission and treatment of the Village's sewer effluent. The improvements will include the construction of a new wastewater pump station at the Village's current treatment facilities site, and approximately five miles of sanitary force main along the right-of-way of State Highway 34 between the Village and the City of Wisconsin Rapids. Sewer flows will discharge into the existing Wisconsin Rapids sewer infrastructure for transport and treatment at the Wisconsin Rapids treatment plant.

Mechanical equipment will be removed from the existing mechanical building at the Rudolph site. The lagoons will eventually be converted to

⁴ Material in this section was provided by MSA Professional Services, August 2010.

wetlands. Rudolph will retain ownership of the site on which the existing treatment facilities are located.

Construction of the sewer lines from Rudolph to Wisconsin Rapids is planned to begin in the fall of 2011, with completion early in 2012. The improvements will be online early in 2012.

Village of Port Edwards⁵

The current wastewater treatment in the Village of Port Edwards was designed in 2003 with construction completed in 2006. The oxidation ditch plant is the third plant that has served Port Edwards and replaced a trickling filter plant built in 1969 operating through 2005.

The wastewater plant is designed to service a population of up to 2,168 as well as commercial and industrial loadings in Port Edwards. Average and design loadings are as follows:

	2010 data	Design Capacity	Reserve Capacity
Average Daily Flow (mgd)	.293	.538	.245
BOD (lbs/day)	190	440	250
TSS (lbs/day)	11.4	416	404

Physical features include a headworks building, oxidation ditches, final clarifiers, control building, digester, sludge storage tank, effluent flume, and two storage buildings.

Treatment includes screening and grit removal at the headworks

⁵ Material in this section was provided by the Port Edwards Village Administrator/Engineer, August, 2010.

building, aeration in the oxidation ditches, final settling in the clarifiers, return activated sludge, sludge management, and overall system control in the control building, sludge consolidation in the digester and sludge storage tanks, and ultra-violet disinfection at the effluent flume.

Treated wastewater is discharged to the Wisconsin River and processed sludge is used as soil conditioning.

In 2011, the Port Edwards wastewater treatment plant has reserve capacity for residential, commercial, and industrial development while maintaining a competitive rate structure.

Unincorporated Towns

There are all or portions of seven unincorporated towns in the planning area: Grand Rapids, Rudolph, Saratoga, Seneca, Sigel, Grant, and Plover. With very few exceptions, the only sewage disposal systems are private, on-site systems, primarily conventional septic systems. Holding tanks, pressurized mound systems and area fill systems are also common, mostly in heavier soils and soils that have high groundwater conditions. The few exceptions mentioned are cases where public buildings lie just outside the Wisconsin Rapids city limits and are of such size that public sewer is necessary. The Mid-State Technical College campus is served by public sewer. Lincoln High School and Alexander Field (South Wood County Airport) are other examples. In all cases, the facilities served by public sewer that are in unincorporated areas are public buildings.

Designated Management Agencies

Chapter NR 121.03(8) of the Wisconsin Administrative Code defines a “designated management agency” as “any agency designated in an areawide water quality management plan having responsibility for implementing specific plan recommendations”. The agencies recommended for designation to carry out the provisions for this areawide plan and the services for which they are recommend to be responsible area as follows:

1. City of Wisconsin Rapids is recommended to be responsible for providing sanitary sewer and public water service within the corporate limits of the city and outlying unincorporated areas that are in need of sewer services.
2. Village of Biron is recommended to be responsible for providing sanitary sewer and public water service within the corporate limits of the village. Sanitary sewers are to be part of the areawide system with treatment to be provided by the Wisconsin Rapids treatment plant.
3. Village of Rudolph is recommended to be responsible for providing sanitary sewer and public water service within the corporate limits of the village. Sanitary sewers are to be part of the areawide system with treatment to be provided by the Wisconsin Rapids treatment plant.
4. Grand Rapids Sanitary District is recommended to be responsible for providing sewer and public water within the boundaries of the sanitary district, with sewage treatment to be provided by the Wisconsin Rapids treatment plant whenever feasible.