WATER QUALITY MANAGEMENT PROGRAMS AND PLANS IN THE RED CEDAR RIVER WATERSHED





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Report Purpose

In 2011, West Central Wisconsin Regional Planning Commission coordinated and prepared a grant application to Xcel Energy for an annual Red Cedar River Watershed conference similar in scope to the annual conference for the St. Croix River Watershed. While WCWRPC facilitated preparation of the grant proposal, we worked closely with Karl Hakanson, River Country RC&D, and Dick Lamers, Tainter/Menomin Lake Improvement Association, for their vision and guidance, with additional input from county land and water conservation offices. Xcel Energy agreed to fund the grant proposal which provided the needed initial financial support for the 2012 watershed conference, with additional support for conferences in 2013 and 2014.

As part of that grant application, and as an in-kind contribution, WCWRPC agreed to prepare this brief report summarizing the key programs and plans in the Red Cedar River Watershed. It is our hope that this document will be helpful in recognizing the many positive efforts already in place within the watershed and offers a strong foundation upon which we all can work together towards our common vision for a healthy watershed.

WCWRPC is proud of our small role in making the 2012 *The Red Cedar: Land, Water and People Coming Together* Conference a reality and hopes that the conference will be successful for many years to come.

I. INTRODUCTION

The current state of water quality on the lower Red Cedar River is unacceptable. The lower Red Cedar River continues to be one of the most impaired surface waters in the State of Wisconsin due to phosphorus loading, which results in the toxic blue-green algae. Water quality on the lower Red Cedar has become a hazard to the health of persons and animals and has significant negative economic, recreational, and wildlife habitat impacts. Localized efforts to address this problem are important and needed but the problem will not be solved until stakeholders within the entire watershed work together towards a shared vision and approach.

Many different initiatives and policies have been implemented throughout the Red Cedar River watershed to address these water quality woes. It is important to understand existing conditions before future strategies are determined. This report provides an overview of key programs and plans in the watershed; it is not meant to be all inclusive.

The West Central Wisconsin Regional Planning Commission (WCWRPC) is a multi-county planning agency created under Wisconsin Statute 66.0309 and established in 1971 by executive order of the Governor after petition from Barron, Chippewa, Clark, Dunn, Eau Claire, Polk, and St. Croix counties. WCWRPC is statutorily charged with planning for the physical, social, and economic development of the region. WCWRPC is not a state agency and has no regulatory authority. Skilled and experienced WCWRPC staff complements local government functions when additional expertise and cost effective capacity is needed. Because of WCWRPC's defined region, this report will tend to focus on the counties of Barron, Chippewa, Dunn, Polk and St. Croix counties. However, an effort was made to include the counties of Washburn, Sawyer and Rusk when possible.

II. THE RED CEDAR RIVER WATERSHED

The Red Cedar River Watershed is 1,893 square miles, or over 1.2 million acres, in size and encompasses parts of ten different counties in west central Wisconsin, with the greatest portions located in Dunn and Barron counties. See Map 1. According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service's (NRCS) *Rapid Watershed Assessment Red Cedar River Watershed* report released in September 2008, the watershed begins at Long Lake in Washburn County and Lake Chetac in Sawyer County. From Washburn and Sawyer counties, the stream flows southwest until it enters the Chippewa River south of the City of Menomonie. Major tributaries are the Hay River, Chetek River, Yellow River, and Brill River.



Map 1: Red Cedar River Watershed

source: UW-Extension

The NRCS's 2008 report identifies the two largest land uses in the watershed as agriculture and forestland, at 58 percent and 35 percent, respectively. The remaining seven percent of the watershed is comprised of wetlands, open water, and urban areas. Main agricultural operations consist of dairy, beef, poultry, and cash grain crops. Largest municipalities include the cities of Menomonie (16,264), Rice Lake (8,438), Barron (3,423), Chetek (2,221), Cameron (1,783), and Colfax (1,158) in Dunn and Barron counties. Since about 1970, Barron and Dunn counties have mostly been growing at a fairly slow, but constant rate. Map 2shows the population change in the watershed from 1970 to 2010. Between 1970 and 2008, growth in towns outpaced that of cities and villages in the counties of Barron and Dunn, as seen in Figure 1.

Farm population in the towns decreased from 1970 to 2000 in both Barron and Dunn counties. In 1970 in Barron County, 26 percent of the population that lived in the towns resided on farms; in 2000, only 6.9 percent of the town residents resided on farms. Similarly in Dunn County, 27.1 percent of the population that resided in the county's towns lived on a farm, but in 2000, it was only 7.3 percent. However, each county saw an increase in town residents that did not farm, resulting in a modest change to the ratio of total population in the towns compared to the cities and villages since 1970.

County	1970	2008	% change		
	Population	Population	(1970-2008)		
Barron					
Towns	17,887	26,354	47.3		
Cities & Villages	16,068	21,373	33.0		
Dunn					
Towns	14,595	22,986	57.5		
Cities & Villages	14,396	20,306	41.1		
U.C. C					

Figure 1: Population Change for Cities, Villages & Towns Barron and Dunn counties

source: U.S. Census



Map 2: Population Change 1970 to 2010—Red Cedar River Watershed

III. FEDERAL PROGRAMS

U.S. Department of Agriculture (USDA)

The USDA has a strong presence in west central Wisconsin. The USDA's Farm Service Agency (FSA) is tasked with implementing federal farm conservation programs to improve the economic stability of the agricultural industry, maintain a steady price range of agricultural commodities, and help farmers adjust to changes in demand. These goals are achieved through a range of farm commodity, credit, conservation, loan, and disaster programs, including Federal Crop Insurance.

Also part of the USDA is the Natural Resources Conservation Services (NRCS), which was formerly known as the Soil Conservation Service. The NRCS provides data, maps, technical expertise, and training in soils, conservation techniques, ecological sciences, and other such activities.

The USDA has service centers located in most counties in the watershed, which include the FSA and NRCS offices. Local USDA staff typically work very closely with local UW-Extension Agriculture Agents and county conservation staff to assist farmers and municipalities in their respective counties.

Barron County USDA Service Center

330 E. LaSalle Avenue Barron, WI 54812 715-537-5645

Chippewa County USDA Service Center

1160 Weatherridge Road Chippewa Falls, WI 54729 715-723-8556

Dunn County USDA Service Center

390 Red Cedar Street Menomonie, WI 54751 715-232-2614

Polk County USDA Service Center

941 Mallard Lane Balsam Lake, WI 54810 715-485-3138

St. Croix County USDA Service Center 1960 8th Avenue

Baldwin, WI 54002 715-684-2874

Rusk County USDA Service Center (also serves Sawyer County) 1120 Lake Avenue West Ladysmith, WI 54848 715-532-3786

Washburn County USDA Service Center

800 N. Front Street Spooner, WI 54801 715-635-8228

U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service maintains the St. Croix Wetland Management District, which is one of only two such districts in the state. The St. Croix District was established in 1974 and consists of 41 waterfowl production areas totaling 7,700 acres as well as 15 easements protecting wildlife habitat on private land in Barron, Burnett, Dunn, Pepin, Pierce, Polk, St. Croix, and Washburn counties.

USFWS St. Croix Wetland Management District

1764 95th Street New Richmond, WI 54017 715-246-7784 <u>www.fws.gov/midwest/StCroix/</u>

U.S. Army Corps of Engineers (USACE)

Within the watershed, the USACE has an important role in the planning and management of water resources, such as permits for work in wetlands and navigable waters, flood mitigation projects, restoration programs to improve fish and wildlife habitat, emergency response operations, special studies, and recreation at Corps facilities. The watershed falls within the USACE St. Paul District.

U.S. Army Corps of Engineers – St. Paul District

Sibley Square at Mears Park 190 5th Street East, Suite 401 St. Paul, MN 55101 651-290-5807 www.mvp.usace.army.mil

U.S. Environmental Protection Agency (EPA)

The U.S. EPA's mission is to protect human health and the environment. The EPA is the federal entity responsible for regulating water quality and setting national standards. Since 1974, the Wisconsin Department of Natural Resources (WDNR) has had the authority to administer EPA's clean water regulations. Wisconsin is part of EPA Region 5.

IV. STATE OF WISCONSIN PROGRAMS & PLANS

Wisconsin Department of Natural Resources (WDNR)

The WDNR's primary responsibility is to manage and monitor water quality in the State of Wisconsin. The WNDR develops, maintains, implements, and enforces a wide variety of programs, plans, and permitting for the watershed. This includes work with local governments that is important to water quality such as:

- facility planning for municipal wastewater facilities
- financial assistance for outdoor recreation or environmental remediation
- floodplain management
- forest or woodlot management plans which include erosion and runoff control
- environmental contamination cleanup and redevelopment

- permitting as it relates to:
 - o utilities
 - o mining
 - o burning
 - o wetlands
 - o water discharges

More information and contact information for WDNR programs and plans can be found at their website: <u>www.dnr.state.wi.us</u>.

WDNR Division of Water and Watershed Management

The Division of Water promotes the balanced use of Wisconsin's waters to protect, maintain, and enhance them in full partnership with the public. WDNR has the

Map 3 – State of the Basin Report Areas



source: Wisconsin Department of Natural Resources

authority to issue permits affecting navigable waters of the state. These include bulkhead line ordinance establishment, bridge or culvert placement, dam construction, stream realignment, retaining wall construction, water diversion and pond construction.

The Bureau of Watershed Management administers programs on dam safety, floodplain mapping and management, impaired waters, shoreland management, wetland regulation, runoff management, the priority watershed program, and a variety of water-related permits. These topics are also discussed in other sections of this document.

The Bureau also conducts basin planning or "water quality management planning" for the state, of which local sewer service area plans are part. Beginning in 1999, the water quality management program worked with state lands and fisheries programs to develop integrated basic plans statewide. As shown in Map 3, the Red Cedar River Watershed falls within two watershed basins for which a "State of the Basin" report has been developed, the Upper Chippewa and the Lower Chippewa. Each report includes information and recommendations on each watershed basins. Report names, if available, and WDNR contact information for each basin are provided below.

The State of the Lower Chippewa Basin, 2001 Lower Chippewa Watershed Basin Supervisor: John Paddock P.O. Box 4001 Eau Claire, WI 54702 715-839-3727

Upper Chippewa Watershed Basin Supervisor: Tom Aartila P.O. Box 220 Park Falls, WI 715-762-4684, ext. 116

Wisconsin Fund Program

Administered locally by the county, this program provides grants to replace or rehabilitate failing private sewer systems, if certain income eligibility requirements are met. The overall grant program is managed by the Wisconsin Department of Safety and Professional Services at the state level. For more information, contact the county zoning or health department or visit the Wisconsin Fund webpage at: <u>http://dsps.wi.gov/sb/sb-wisconsinfundprogram.html</u>.

Wisconsin Working Lands Initiative

The Wisconsin Working Land Initiative was signed into law in 2009 to assist in efforts to preserve Wisconsin's working lands. The Wisconsin Working Land Initiative is comprised of three programs:

- Farmland Preservation Program
- Agricultural Enterprise Area Program
- Purchase of Agricultural Conservation Easement Program

For more information, see http://datcp.wi.gov/Environment/Working_Lands_Intiative/.

The Farmland Preservation Program was established in 1977 and provides tax credits to eligible landowners and varies depending on the level of participation and local zoning. County contact information is provided later in this report.

University of Wisconsin-Extension

UW-Extension offices provides a variety of educational and support programming in the areas of agribusiness, land use, and soil management. To assist farmers and local governments, a UW-Extension Agricultural Agent is located in each county in the watershed with county support:

Barron County - UW Extension 330 E. LaSalle Avenue, Room 2206 Barron, WI 54812-1540 715-537-6250

Chippewa County - UW Extension

711 N Bridge St. Chippewa Falls, WI 54729 715-726-7954

Dunn County - UW Extension

Dunn County Government Center 800 Wilson Ave. Suite 330 Menomonie, WI 54751-2265 715-232-1636

Polk County - UW Extension Agricultural Center 100 Polk County Plaza, Suite 210 Balsam Lake, WI 54810-0160 715-485-8600

Rusk County – UW Extension

Courthouse 311 Miner Avenue East Ladysmith, WI 54848-1895 715-532-2151

St. Croix County - UW Extension Agricultural Service and Education Center 1960 8th Avenue, Suite 140 Baldwin, WI 54002 715-684-3301 Ext 5

> Sawyer County – UW Extension Courthouse 10610 Main Street, Suite 194 Hayward, WI 54843 715-634-4839

Washburn County - UW Extension Spooner Agricultural Research Station W6646 Hwy 70 Spooner WI 54801

715-635-3735

Additionally, UW-Extension's Regional Natural Resources Program includes a team of Natural Resource Educators located across the state. The educators provide local and statewide education, training, and technical support for environmental and natural resource issues. There are two educators located within the watershed.

UW-Extension Daniel Zerr Basin Educator for Natural Resources Lower Chippewa River Basin 715-836-5513 http://naturalresources.uwex.edu/

UW-Extension John Haack Basin Educator for Natural Resources 715 635-7406 <u>http://naturalresources.uwex.edu/</u>

University of Wisconsin Extension Lakes

The University of Wisconsin - Extension Lakes (UWEX-Lakes) is a team of education professionals dedicated to preserving the Wisconsin Legacy of lakes through education, communication and bringing people together. UWEX-Lakes works with the 766 lake organizations in Wisconsin and coordinates a number of programs and projects to assist those concerned with the future of lakes. Citizens and professionals work to learn more about lake science through the Citizen Lake Monitoring Network. Watercraft inspectors who are members of UWEX-Lakes' Clean Boats Clean Waters effort assist in sharing information on aquatic invasive species. UWEX-Lakes also hosts the Lake Leaders Institute.

Wisconsin Phosphorus Water Quality Standards

Wisconsin revised its phosphorus water quality standards in late 2010 in two separate chapters of the Wisconsin Administrative Code. Chapter NR 102 covers water quality criteria for the protection of aquatic life and human health; different numerical levels are set for five categories of lakes and reservoirs, for rivers and streams, and for the Great Lakes. Chapter NR 217 covers the establishment of water quality based effluent limitations for point source discharges, limiting total phosphorus to 1 mg/L as a monthly average.

In 2011, there was a revision to Wisconsin Administrative Code Chapter NR 151 setting agricultural performance standards and prohibitions to minimize phosphorus sources from nonpoint sources. In general the average P-Index during an accounting period should be less than six; and in an individual year within the accounting period, it should be less than 12. For more information, see http://dnr.wi.gov/org/water/wm/ wqs/phosphorus/. UW Extension Lakes UWSP College of Natural Resources 800 Reserve Street Stevens Point, WI 54481 715-346-2116 http://www4.uwsp.edu/cnr/uwexlakes/

Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP)

DATCP provides assistance to counties in the development of their land and water resource management plans. The Wisconsin Land and Conservation Board. which Water is administratively supported by DATCP, reviews these plans and recommends action on final approval by DATCP. County land and water resource management plans must be updated within the last five years in order to be eligible for the soil and water resource management grant funding through DATCP.

DATCP also has a large variety of regulatory roles and oversees local regulations pertaining to manure storage facilities, livestock regulations that exceed certain state standards, and the siting of large livestock operations. DATCP also has permitting systems or standards for food processing, animal movement, and whey disposal. Other notable DATCP programs of interest to local governments include Clean Sweep and hazardous waste collection, nutrient management planning, agrichemical safety, farmland preservation program, siting livestock operations, and the Wisconsin Working Lands Initiative. Visit the DATCP website for more programmatic and contact information on specific programs: http://datcp.state.wi.us/core/agriculture/agriculture .jsp.

Sewer Service Area Plans

As required under Section 204 of the Federal Water Pollution Control Act Amendment, sewer service area planning is a water quality protection

process designed to anticipate the future needs for wastewater treatment systems in developing areas.

Sewer service area plans are a formal element of state areawide water quality management plans (basin plans) as defined under state administrative rules (NR 121), and thus, require WDNR review and approval. Sewer service area plans identify a sewer service area boundary in which growth could <u>potentially</u> be provided municipal sewer within a twenty-year planning horizon, while protecting environmentally sensitive areas. Special review and approvals may be needed or sewer connections, sewer extensions, and holding tanks within the sewer service area, especially if a project potentially encroaches upon an environmentally sensitive area. West central Wisconsin is a non-designated sewer service planning area where planning is only required for the Chippewa Falls-Eau Claire urban area and for areas exceeding 10,000. The Dunn County Land Conservation agency is the planning agency for the *Menomonie Area Sewer Service Area Plan* which serves the Towns of Menomonie, Red Cedar, Tainter and the City of Menomonie.

Phosphorus Total Maximum Daily Load (TMDL) Tainter Lake and Lake Menomin

A Total Maximum Daily Load (TMDL) is the maximum amount of a pollutant a water body can receive and still meet water quality standards. The TMDL makes recommendations for necessary phosphorus load reductions from both point and non-point sources.

The TMDL for Tainter and Menomin Lakes was released as a draft in July 2011 and goals currently include a 65 percent reduction in non-point source phosphorus loads upstream of Tainter Lake, and a 45 percent non-point source phosphorus load reduction from the watershed contributing to Lake Menomin.

Point sources are capped to no more than 10 percent of the total annual load. Point sources include municipal, stormwater and industrial discharges and large livestock operations. The Wisconsin Pollution Discharge Elimination System (WPDES) program will be used to structure permits that are consistent with the goals of the Tainer/Menomin TMDL.

Cropland runoff was identified as contributing a significant portion of the phosphorus load to the lakes. There are many proven, highly effective best management practices that can be utilized to reduce phosphorus loss from cropland including conservation tillage; eliminate winter manure spreading by use of storage; phosphorus based nutrient management; remove winter manure application from critical acres; milk house waste treatment; traditional conservation practices; barnyard runoff controls; install stream buffers ; control of urban stormwater phosphorus delivery; wetland restoration; replace failing, critically located septic systems; and control of stormwater on rural, riparian, residential properties.

To put things in perspective however, these point and nonpoint reductions are the equivalent of several hundred thousand pounds of phosphorus flowing to Tainter and Menomin Lakes each year in order to reach these water quality goals.



Information from: http://naturalresources.uwex.edu/redcedar/.

Water Quality Management Programs and Plans in the Red Cedar River Watershed

V. COUNTY AND LOCAL REGULATIONS

While State and Federal agencies have primary water quality enforcement responsibilities, a variety of county and local regulations may also contribute to water quality protections, a few of the more common of which are noted here.

Land and Water Conservation Departments

Each county in the watershed has a land/soil and water conservation department. Though exact responsibilities and department names do vary by county, these departments are generally responsible for a variety of educational and enforcement activities to protect the farmlands, waters, and natural resources of their respective counties. Each department develops and maintains a Land and Water Resource Management Plan which identifies their resource management goals and activities. Activities often include, potentially in concert with other departments or agencies: stormwater, run-off, and erosion management, soil and nutrient management, animal waste controls, water quality programs, county farmland preservation programs, non-metallic mining regulations, recycling programs, waterway/wetland permitting, and



environmental education. These departments also provide assistance to the lake districts and lake associations in their counties. Some of these departments also manage dams, dikes, and surface water improvements on behalf of the county.

Barron County Soil and Water Conservation Department

330 E. LaSalle Avenue Barron, WI 54812 715-537-6315 www.co.barron.wi.us/conserv.htm

Dunn County Land Conservation Division

Agriculture Service Center 390 Red Cedar Street, Suite C Menomonie, WI 54751 715-232-1496 <u>dunncountywi.govoffice2.com</u>

Polk County Land and Water Resource Department 100 Polk Plaza # 120 Balsam Lake, WI 54810 715-485-8699 www.co.polk.wi.us/landwater/

Rusk County Land and Water Conservation Department 311 East Miner Avenue, Suite S115 Ladysmith, WI 54848 715-532-2162 http://www.ruskcounty.org/departments/land-conservation/

City of Cumberland Phosphorus Trading Program

The City of Cumberland's Phosphorus Trading Program reduces phosphorus pollution in the Hay River watershed in lieu of removing it at its treatment plant. Its Wastewater Wisconsin Pollutant Discharge Elimination System (WPDES) permit requires removal of 4,400 pounds of phosphorus within the Hay River watershed each year.

Cumberland removed 9,500 pounds of phosphorus at a cost of \$17,700 in 2004. Two practices were used: no-till planting and conservation tillage. 31,500 pounds have been removed from 2000 to 2004 at a cost to Cumberland of \$58,000. St. Croix County Land and Water Conservation Department Agriculture Service & Education Building 1960 8th Avenue, Suite 141 Baldwin WI 54002 715.684.2874 www.co.saint-croix.wi.us/Departments/LandWater

Sawyer County Land and Water Conservation Department 10610 Main St, Suite 49 Hayward, WI 54843 715-638-3259 www.sawyercountygov.org

Washburn County Land and Water Conservation Department 10 Fourth Avenue, PO Box 486 Shell Lake, WI 54871 715-468-4654

http://www.co.washburn.wi.us/departments/landwatercons/

Stormwater Management Plans and Utilities

A stormwater management plan describes communitywide surface water management needs. This local tool is useful in determining actions to improve surface water quality and stormwater detention storage needs.

County and local jurisdictions often incorporate stormwater management requirements as part of subdivision regulations and building codes, in part to ensure consistency with state construction site erosion controls. State law (NR 216) also requires landowners to develop an erosion control plan and obtain necessary WDNR erosion control and stormwater discharge permits for all construction sites where one or more acres of land will be disturbed. The exceptions to this are for public buildings and WisDOT projects which have special regulations.

Currently, municipalities in Census-defined urbanized areas and municipalities with more than 10,000 population are required by state and federal law¹ to develop a stormwater programs with measurable goals, required permitting, and educational efforts for municipal-owned stormwater conveyances which discharge to public waters.

¹ Rules applicable to stormwater management can be found in the Federal Clean Water Act and Chapter NR 216, Wis. Admin. Code and are regulated through the EPA's National Pollutant Discharge Elimination System (NPDES) and permitted under the Wisconsin Pollutant Discharge Elimination System (WPDES). More information can be found at: http://www.dnr.state.wi.us/runoff/stormwater.htm.

Cities, villages, and towns with village powers may create a stormwater utility that is responsible for maintaining and managing the surface water management system. Stormwater utilities have the ability to charge fees to generate revenue to support these activities, and fee structures are often based on the amount of impervious surface area of a parcel or equivalent residential unit size. According to the Wisconsin Chapter of the American Public Works Association, the following communities have stormwater utilities or user charges in the Red Cedar River Watershed as of August 2008:

- City of Barron (adopted 2005)
- City of Chetek (2005)
- City of Menomonie (2008)

Outdoor Recreation Plans (ORPs)

Outdoor recreation plans inventory a community's parks and outdoor recreation facilities, identify related needs, and establish goals for the acquisition, development, and improvement of such facilities. ORPs can play an important role in protecting water quality.

By adopting an outdoor recreation plan which is reviewed and accepted by WDNR, a community becomes eligible to participate in the Land and Water Conservation Fund Program (LAWCON), the Stewardship Local Assistance Programs, and other related funding programs.

Comprehensive Planning

Comprehensive plans are important tools for establishing community goals and guiding municipal decision-making. Beginning on January 1, 2010, if a town, village, city, or county enacts or amends an official mapping, subdivision regulation, or zoning ordinance, the enactment or amendment ordinance must be consistent with that community's comprehensive plan.

Comprehensive plans must encompass nine elements and water quality issues, goals, and strategies are often addressed as part of a community's agricultural, natural, and cultural resources element. All counties in the watershed have adopted a comprehensive plan, except Washburn County. Surface and groundwater quality

consistently ranked highest among the natural resources most important to residents during planning surveys. Map 4 shows the municipal comprehensive plans that have been adopted, and submitted to the Wisconsin Department of Administration, within the watershed.







Zoning Ordinances

Zoning creates districts (or zones) within a community in which certain land uses are permitted outright, while other uses may be permitted with conditions. Guiding certain uses away from environmentally sensitive areas or requiring certain setbacks are two ways in which zoning may contribute to water quality protection.

Any county, city, or village may establish a zoning ordinance to promote public health, safety and general welfare. All counties in the watershed have adopted a zoning ordinance, though many towns do not participate in county zoning. Most cities and villages in the watershed have adopted their own zoning ordinance. No towns in the watershed have their own zoning regulations.

County Shoreland Zoning

Each county is required to zone by ordinance all shorelands in its unincorporated areas. Shorelands include areas within 1,000 feet of a lake or 300 feet of a navigable stream. Shoreland zoning ordinances may be more restrictive than minimum state standards, but not less. Counties may permit only certain uses in wetlands of five acres or more within the shoreland zone.

City and Village Shoreland/Wetland Zoning Wis. Stats. §61.351 & 62.231 Cities and villages are required to zone by ordinance all unfilled wetlands of five acres or more which are shown on WDNR's final wetland inventory maps located within shorelands and within the incorporated area. Ordinances adopted under Wisconsin Statutes §62.23 or §61.35 may be more restrictive than wetland protection ordinances, but not less restrictive.

Shoreland Management Ordinances

Counties, cities, villages, and towns may enact shoreland management ordinances for the purpose of maintaining and improving surface water quality. Such ordinances cannot be enforced unless the county has a land conservation committee with an approved land and water resource management plan and the county receives state funding for land and water conservation activities. This tool is not commonly used and municipalities regulate shorelands through county or local shoreland-wetland zoning ordinances, instead of having a separate shoreland management ordinance.

Floodplain Ordinances

Counties, cities, and villages are required to adopt reasonable and effective floodplain zoning ordinances within one year after hydraulic and engineering data adequate to formulate the ordinance becomes available. All counties in the watershed have adopted a floodplain ordinance which applies to all unincorporated areas in their respective county. However, not all local floodplain ordinances in the region have been updated for consistency with the latest WDNR model based on FEMA guidelines.

Sanitary Ordinances

As required by state statute, all counties in the watershed have adopted sanitary ordinances governing private sewage systems which apply to the entire county. The counties issue sanitary

Wis. Stats. §92.17

Wis. Stats. §59.692

Wis. Stats. §87.30 & NR116

Wis. Stats. §59.065

Wis. Stats. §59.69, 60.61,62.23, & 61.35

Rapid Watershed Assessment Red Cedar River Watershed

Rapid watershed assessments provide initial estimates of where conservation investments would best address local concerns and help landowners, communities and organizations set priorities and determine the best actions to achieve their goals. The USDA Natural Resources Conservation Service released the Rapid Watershed Assessment Red Cedar River Watershed in September 2008. The report assesses a watershed's agricultural nonpoint pollution potential by using watershed assessment scores relative to other watersheds in the state. Scores range from 0.0 (lowest conservation need) to 24.2 (highest conservation need). The report identified the Red Cedar River Watershed's assessment score to be 12.0 which may be useful in determining funding allocations for agricultural nonpoint pollution control initiatives. For more information, see http://basineducation.uwex.e du/lowerchip/pdf/RWAs/Red CedarRWA.pdf.

permits for the siting, design, installation, and/or repair, reconnection, or rejuvenation of private sewage systems and non-plumbing sanitation systems. Landowners must also sign a maintenance agreement to ensure proper upkeep and periodic inspections of their system. Sanitary ordinances may be part of a zoning ordinance or larger code of ordinances in some communities.

*Solid Waste Management Wis. Stats. §*59.70(2), 59.07(135)(*a*), *and* 144.437(1)

Counties may establish a solid waste management board which is authorized to develop plans for a solid waste management system and operate a solid waste system. Such plans must be consistent with applicable state rules and must be reviewed by the WDNR.

Recycling Ordinance Wis. Stats. §144.449(3), 59.07(133) & (135),159.17, and NR 502.05

Counties, towns, villages, and cities may enact ordinances to manage the storage of waste materials, recycling, and disposal of tires. These may be part of a larger solid waste management ordinance. Communities must meet state recycling requirements and some communities may have additional recycling programs.

Manure Storage and Management Ordinances Wis. Stats. §92.16 & NR 151

All counties in the watershed have adopted and administer a manure storage or animal waste management ordinance under Wisconsin Statutes §92.16 and DATCP rules. Such ordinances may be part of a larger zoning ordinance or code of ordinances. Generally, these ordinances require all new or altered manure storage facilities be liquid tight and meet NRCS standards. Under NR 151 and ATCP 50, WDNR also enforces performance standards and prohibitions related to manure management (e.g. storage facilities, runoff, and fertilizer application) which have been integrated into many county ordinances.

Water Quality Management Programs and Plans in the Red Cedar River Watershed

Livestock Facility Siting Ordinances

The role of local governments in the regulation of the siting of new and expanded livestock operations changed significantly in 2006 with the adoption of Wisconsin Statutes §93.90 and Administrative Rule ATCP 51. Effective May 1, 2006, local ordinances which require permits for livestock facilities must follow state siting rules. The siting standards only apply to new and expanding livestock facilities in areas that require local permits, and then only (in most communities) if they will have 500 animal units (AU) or more and expand by at least 20 percent. For more information, refer to http://datcp.state.wi.us/arm/agriculture/landwater/livestock siting/siting.jsp.

Mining Regulations

Mining regulations are in flux as of early 2012, so be aware that this sub-section may be outdated. There are many environmental and water quality concerns associated with the more recent interest in frac sand mining and processing. The WDNR is the primary state agency regulating these environmental impacts of sand mining and processing plants. See http://dnr.wi.gov/org/aw/wm/mining/nonmetallic/ for more information.

Wisconsin Statutes §295.13 requires all counties to enact a nonmetallic mining reclamation ordinance that complies with state rules (NR 135). This approach establishes statewide uniform reclamation standards with permitting administered locally. County non-metallic mining ordinances apply to the entire area of the county, except for cities, villages, and towns that enact their own such ordinance which complies with state rules.

Metallic mining (e.g., copper, gold, silver, iron, lead) is regulated by Wisconsin DNR under state statutes and administrative codes. As stated within the Guide to Community Planning in Wisconsin, if a metallic mining operation complies with all applicable laws, meets all protection standards, complies with local zoning regulations, and minimizes impacts to wetlands, WDNR must issue a mining permit.²

Drainage Districts

Wisconsin Statutes allow for the creation of drainage districts for the draining of land for agricultural use. A board is established for the district with the power to plan, purchase, repair, and construct drains. Only one drainage district exists in west Central Wisconsin-the Little Missouri Drainage District which covers five sections of the Town of Eau Galle in Dunn County.

Erosion Controls

Wis. Stats. §59.974, 61.354. 62.234, & 144.266 In addition to the state regulations previously mentioned, counties are authorized to enact ordinances to control construction site erosion applicable to all its unincorporated areas. Cities and villages are authorized to enact similar ordinances. Within the watershed, such regulations are typically included as part of subdivision ordinances.

Wis. Stats. §93.90 & ATCP 51

Wis. Stats. §88

Wis. Stats. §295.13, 295.20, & NR 135

² Ohm, Brian. Guide to Community Planning in Wisconsin. Board of Regents of the University of Wisconsin System. 1999. Available on-line at: www.lic.wisc.edu/shapingdane/resources/planning/library/book/other/title.htm

VI. OTHER KEY PARTNERS, INDIVIDUALS, LANDOWNERS, AND PRIVATE INDUSTRY

Private Individuals and Landowners

Many private individuals and landowners have been intimately involved with clean-up efforts within the watershed. These people have a vested interest in the watershed and have been integral players in monitoring activities, utilizing best farming practices, reducing urban runoff, and communicating on behalf of the watershed and its residents. These people deserve recognition for the role they've played in the clean-up efforts yet everyone has a responsibility to do their part in protecting the watershed.

Lake Districts and Associations

Public Inland Lake Protection and Rehabilitation Districts (lake districts) are incorporated entities with formal structures and powers defined under Wisconsin Statutes §33, Subchapter IV. These powers include the right to make contracts, acquire/sell property, contract debt, taxation, maintain a water safety patrol, and do any other acts necessary to carry out a program of lake protection and rehabilitation. Lake districts have the authority to levy taxes or charge user fees for the management of the lake, as well as to pursue financial assistance such as the Lake Planning and Lake Protection Grants administered by WDNR.

Lake associations are less formal, without formal powers to act as a unit of government, and can vary greatly in terms of activity level. If a lake association meets certain standards set out in Wisconsin Statutes §281.68 and incorporates under Wisconsin Statutes §181, it may be recognized as a "qualified lake association" by WDNR. Qualified lake associations are eligible for State Lake Management Planning Grants for the lake planning, protection, and recreational boating facilities. Map 4 displays the lake districts and associations in the watershed as maintained by the UW-Extension Lakes Program.

Lake districts and associations are important stakeholders in local land-use and planning decisions and local communities are encouraged to involve these organizations in their local planning efforts. The level of involvement in such issues varies by organization and issue, but most have a strong working relationship with their county land and water conservation department.

Many of the lake associations and/or districts in the watershed maintain comprehensive lake plans; coordinate Aquatic Invasive Species (AIS) Management; and Aquatic Plant Management. Comprehensive lake plans include baseline lake data; lake management expectations, goals and strategies; and implementation. AIS management and aquatic plant management involves gathering information; restoring native vegetation; and monitoring, educating, and treating both invasive animal and plant species.

Further, in early 2011 many of the lake associations and districts began meeting to discuss the watershed as a whole and to coordinate clean-up efforts. The Tainter/Menomin Lake Improvement Association played a role in setting up the 2012 Red Cedar River Watershed Conference.

Red Cedar Phosphorus Reduction Program

The Red Cedar Phosphorus Reduction Program (PRP) is a cooperative project involving input from the Red Cedar Total Maximum Daily Load (TMDL) Coordination Team and local farmers, and is implemented by Conservation Specialists from both Dunn County Land **Conservation Department and** River Country RC&D. The overall goal of the program is to work with local farmers to provide technical and educational assistance. Specifically, the program works to increase the implementation of specific conservation practices that were identified as being key to reducing sediment and phosphorus delivery to the Red Cedar River and its tributaries.

In 2009, the PRP was piloted in the Town of Grant in Dunn County with 21 landowners representing 2,315 cropland acres. Some farmers planted no-till corn and soybeans while others tested their soil, at no cost to the farmers. In 2010, the effort continued with more participation. In 2011, the project expanded 3 miles beyond the Town of Grant. For more information, see <u>http://naturalresources.uwex.</u> edu/redcedar/projects.html.

Educational Institutions

Schools, colleges, and universities often become very involved in conservation and educational efforts, by providing volunteers, technical assistance, educational forums, and other resources which communities may not otherwise have available.

Land Trust Organizations

A land trust organization works with landowners, conservation organizations, and government agencies to protect natural areas, wildlife habitat, working forests, agricultural lands, cultural sites, or other unique areas. Typically, a land trust organization will be granted or sold the development rights to a property in the form of a conservation easement in order to prevent development. In some cases, the development right may be held by a local government entity, while the land trust organization holds a third-party enforcement right. Regardless of the approach, landowners often continue to use the property in a land trust as they had in the past, while gaining certain tax benefits. Some land trust organizations focus on specific types of ecosystems or properties (e.g., The Prairie Enthusiasts). The following are the current land trusts organizations active in the watershed.

Couderay Waters Regional Land Trust, Inc. current area of operation: Sawyer and Washburn counties P.O. Box 13097 Hayward, WI 54843 715-634-5336

> Kinnickinnic River Land Trust current area of operation: St. Croix County P.O. Box 87 River Falls, WI 54022 715-425-5738

The Prairie Enthusiasts current area of operation: Barron, Dunn, Eau Claire, Polk, & St. Croix counties P.O. Box 1148 Madison, WI 53701 715-381-1291

> Star Prairie Land Preservation Trust current area of operation: Polk & St. Croix counties P.O. Box 88 Star Prairie, WI 54026 715-248-3829

West Wisconsin Land Trust current area of operation: Barron, Chippewa, Dunn, Eau Claire, Polk, St. Croix, and Washburn counties 500 Main Street, Suite 307 Menomonie, WI 54751 715-235-8850

Resource Conservation and Development Councils (RC&D Councils)

RC&D Councils are non-profit entities established under the Federal Resource Conservation and Development Program established in 1962. Each council establishes its own programs, membership, and governing policies, with a full-time coordinator provided by USDA-NRCS. The councils bring people and resources together to plan for and conserve the natural resources, provide sustainability, and improve the quality of life of their respective areas. The watershed falls under the River Country and Pri-Ru-Ta RC&D service areas.

River Country RC&D Council

2000 Oxford Avenue, Mailbox #9 Building 1, Suite 4 Eau Claire, WI 54703 715-579-5229 www.rivercountryrcd.org

Pri-Ru-Ta RC&D Council

925 Donald Street, Room 102 Medford, WI 54451 715-748-2008

Agricultural Organizations

Wisconsin Farmers Union

As stated in its mission, the Wisconsin Farmers Union (WFU) is a member-driven organization committed to enhancing the quality of life for family farmers, rural communities, and all people through educational opportunities, cooperative endeavors, and civic engagement. WFU encourages rural economic and cooperative development by supporting agricultural co-ops and other rural businesses.

Wisconsin Farmers Union 117 West Spring Street Chippewa Falls, WI 54729 715-723-5561 www.wisconsinfarmersunion.com

Wisconsin Farm Bureau Federation

The mission of the Wisconsin Farm Bureau Federation (WFBF) is to lead the farm and rural community through legislative representation, education, public relations, and leadership development. WFBF is a membership-based organization where members can support legislative and public relations efforts and support Wisconsin's farm families. There are 61 county Farm Bureaus in Wisconsin covering 66 counties organized and run by farmers to provide local representation and promotion.

Wisconsin Farm Bureau Federation—Barron County Karyn Schauf 715-537-9376 <u>http://wfbf.com/</u>

Wisconsin Farm Bureau Federation—Chippewa County

Glen Sikorski 8340 Commerce Parkway Chippewa Falls, WI 54729 715-289-4825 http://wfbf.com/

Wisconsin Farm Bureau Federation—Dunn County Geri Wolfe E9461 945th Avenue Colfax, WI 54730 715-962-3809 <u>http://wfbf.com/</u>

Wisconsin Farm Bureau Federation—Polk County Brad Mabry 105 Second Ave East PO Box 490 Balsam Lake, WI 54810 715-485-3844 http://wfbf.com/

Wisconsin Farm Bureau Federation—St. Croix County David Kruschke 715-246-6461 <u>http://wfbf.com/</u>

Wisconsin Farm Bureau Federation—Sawyer County Dale Beissel 715-266-3414 <u>http://wfbf.com/</u>

Wisconsin Farm Bureau Federation—Rusk County Paul Hetke 715-532-7707 <u>http://wfbf.com/</u>

Local Agricultural Cooperatives

Cooperatives are businesses that are owned and managed by the people who use their services. There are numerous agricultural cooperatives located in the Red Cedar River Watershed that farmers and others use to purchase goods like feed and fuel. Cooperatives are also used by farmers to dry and store crops like corn and soybeans. These cooperatives are an important conduit for communication with the farmers and others who use them.

Non-Profit and Conservation Organizations

The number of non-profit and collaborative conservation organizations which are or could potentially be partners with local communities in the watershed is so numerous that they cannot all be included in this brief report. This section lists a few of the nonprofits that had a presence at the 2012 Red Cedar River Watershed Conference. The Red Cedar River Watershed website, <u>http://naturalresources.uwex.edu/redcedar/</u> provides a host of information regarding the watershed including history, issues, projects, news, events, and more. The website provides a list of the organizations most directly associated with the Red Cedar River Watershed.

Outdoor sporting organizations, such as local rod and gun clubs, Wisconsin Waterfowl Association, Pheasants Forever, Ducks Unlimited and 1,000 Friends of Wisconsin play important roles in the conservation of wildlife habitat and environmentally sensitive areas.

Wisconsin Lakes

Wisconsin Lakes is the statewide non-profit organization working to protect and enhance the quality of Wisconsin's lakes. Wisconsin Lakes works toward statewide solutions for challenges faced by many lakes while supporting strong local protection efforts. Wisconsin Lakes represent citizens and lake groups and works to protect the natural wonder of Wisconsin's lakes, and preserves citizens collective right to boat, fish, hunt, ice skate, swim and enjoy the scenic beauty of public waters.

Wisconsin Lakes 4513 Vernon Blvd, Suite 101 Madison, WI 53705 (800) 542-5253 www.wisconsinlakes.org

Clean Wisconsin

Clean Wisconsin's mission is to protect and preserve Wisconsin's air and water and to create a cleaner environment by being the leading voice for environmental protection. Clean Wisconsin has thousands of members and advocates for important environmental progress by lobbying, litigating, and facilitating citizen action.

Clean Wisconsin 634 W. Main St. #300 Madison, WI 53703 Phone: 608-251-7020 www.cleanwisconsin.org

Red Cedar Basin Monitoring Group, Inc.

The Red Cedar Basin Monitoring Group, Inc. (RCBMG) is a nonprofit whose purpose is:

- To promote the improvement of the waters of the Red Cedar River Basin.
- To actively engage in citizen monitoring of the waters within the Red Cedar Basin, including its lakes and flowing waters.
- To educate and provide information on the status of the watershed to the residents of the basin.
- To encourage and assist educational institutions and public organizations to participate and develop programs to further the effort to improve the quality of the waters within the basin.

Approximately 20 volunteers assist in RCBMG's efforts and more volunteers are always needed.

Red Cedar Basin Monitoring Group, Inc. Ted Ludwig E6341 County Road D Colfax, WI 54730 715-962-3953

BMP Challenge

Best Management Practices (BMPs) are designed to save farmers money while maintaining optimal yields. The BMP Challenge programs work to give farmers an opportunity to test reduced nutrient and tillage rates on their fields, without worrying about loss to their income. BMP Challenge can work directly with farmers, through watershed/conservation districts or through other organizations, to reduce nutrient and sediment outputs to local waterways and to educate farmers on BMPs. Currently, these programs can be implemented in 19 states, including Wisconsin.

BMP Challenge Rebecca Ressl, Project Coordinator 4510 Regent Street Madison, WI 53705 (608) 232-1425 www.bmpchallenge.org

Private Industry

Private industry has an important role to play from decreasing runoff from parking lots and operations to supporting residents, communities, and organizations in their water quality management efforts. Support can vary from grants and sponsorship to technical assistance, consulting, and engineering.

Xcel Energy

Xcel Energy maintains the Red Cedar River Enhancement Fund (RCREF). The RCREF provides funding for projects and studies along the lower Red Cedar River. In August 2011, Xcel Energy awarded \$16,312 to the River Country RC&D Council, Inc. to continue its no-till efforts within the Red Cedar River Watershed and to host three yearly conferences. 2012's Red Cedar River Watershed Conference is the first of the three conferences.

West Central Wisconsin Regional Planning Commission

It is the mission of the WCWRPC to be an innovative leader in the responsible planning and development of the region through coordination, partnerships, advocacy, and service. To accomplish this mission, WCWRPC conducts area-wide planning and provides technical assistance to counties and local governments, offers advice and services to local governments and agencies within the region, and coordinates local programs and activities to advance regional objectives. WCWRPC assists communities with comprehensive plans, sewer service plans, outdoor recreation plans, hazard mitigation plans, code development and other efforts previously mentioned in this report which have water quality management elements. Regional planning commissions must also maintain an advisory regional comprehensive plan consistent with the Wisconsin Comprehensive Planning law. WCWRPC took the lead role in the development of the grant application that was submitted to Xcel Energy which provided funding to the River Country RC&D Council, Inc. for the 2012 Red Cedar River Watershed Conference.



Mission Statement

The mission of the West Central Wisconsin Regional Planning Commission (WCWRPC) is to be an innovative leader in the responsible planning and development of the region through coordination, partnerships, advocacy, and service.

WCWRPC is:

- a multi-county planning agency covering Barron, Chippewa, Clark, Dunn, Eau Claire, Polk, and St. Croix counties.
- statutorily charged with planning for the physical, social, and economic development of the region.
- not a state agency and has no regulatory authority.
- a local partner and actively provides support to local governments when additional expertise and cost-effective assistance is needed.





A few of WCWRPC's efforts related to water quality management include:

- comprehensive planning, farmland preservation planning, and land use code development support to counties and local municipalities.
- facilitating the development of hazard and flood mitigation plans for our counties and communities.
- outdoor recreation, capital improvements, transportation, and environmental review planning assistance to counties and communities.
- sewer service area planning support for the Menomonie, Hudson, and Chippewa/Eau Claire urban areas.
- assisting communities and local organizations with grantswriting, grants administration, statistical research, and G.I.S. mapping.
- leveraging local resources to obtain State and Federal funding.
- educating and advocating for collaboration and best practices, such as the strategies found in our Regional Comprehensive Plan and our Plan Implementation Guide.
- development of the grant proposal to Xcel Energy which led to today's Red Cedar River Watershed conference!

800 Wisconsin StreetMail Box 9Eau ClaireWI 54703Fax: (715) 836-2886wcwrpc@wcwrpc.org