

## 6. AGRICULTURAL, NATURAL AND CULTURAL RESOURCES

This chapter presents information on resources that impact the quality of life and play an important role in defining the character of Crawford County. Crawford County's rich agricultural, natural and cultural resources base are vital to the county's economy and residents quality of life. Sustaining the resources will be a challenge, but the goals and strategies identified in this chapter will assist in preserving, protecting and enhancing the resources.

### AGRICULTURAL, NATURAL AND CULTURAL RESOURCES EXISTING CONDITIONS AND RESOURCES

#### Western Coulee and Ridges

Crawford County lies within the Western Coulee and Ridges Ecological Landscape. This landscape runs north and south along the Mississippi River from the south in Grant and Iowa County to the north in Dunn, Barron and Chippewa County. Its 9,640 square miles cover 17% of Wisconsin's land area. It is characterized by highly eroded non-glaciated topography. Its steep sided valleys are heavily forested with hardwoods and agricultural activities, primarily dairy and beef farming, are confined to the valley floors and ridge tops. Large and small meandering rivers and streams are also a characteristic. Brown and crook trout are common in the spring fed and coldwater streams. Soils are typically silt loams, and sandy loams in the uplands and alluvial or terrace deposits on the valley floors. Map 6.01 illustrates the elevation changes in the County highlighting the coulees and ridges.

#### Groundwater

The state's groundwater reserves are held in four principal aquifers: the sand and gravel aquifer, the eastern dolomite aquifer, the sandstone and dolomite aquifer, and the crystalline bedrock aquifer. A layer of rock or soil that is capable of storing, transmitting and yielding water to wells is called an aquifer. Crawford County is located in the Cambrian-Ordovician (sandstone) aquifer system. Cambrian and Ordovician rocks form the bedrock surface in the southern two-thirds of Wisconsin. The hydrogeologic unit that serves Crawford County is the St. Peter-Prairie du Chien-Jordan aquifer that serves primarily southeastern Minnesota; northern Iowa; southwestern, southern and eastern Wisconsin; and the Upper Peninsula of Michigan. The three rock units generally are hydraulically connected and function as one aquifer. This information was taken from the Groundwater Atlas of the U.S. for Iowa, Michigan, Minnesota and Wisconsin - Groundwater Atlas of the United States, U.S. Geological Survey.

**<sup>1</sup> In 2005, domestic use was the most prominent use of groundwater in Crawford County followed by industrial, livestock, commercial, public use, irrigation etc. From 1979 to 2005, total water use in Crawford County has fluctuated from 2.9 million to 3.8 million gallons per day.**

Table 6.01 below shows total water use in the County for 1979, 1985, 1990, 1995, 2000 and 2005.

**Table 6.01 Crawford County Water Use by Year (Millions of gallons per day)**

	1979	1985	1990	1995	2000	2005
Surface-water use	0.03	0.04	0.07	0.07	0.06	0.36
Groundwater use	3.29	2.84	3.70	2.72	3.42	3.29
<b>Total Water Use</b>	<b>3.32</b>	<b>2.88</b>	<b>3.77</b>	<b>2.79</b>	<b>3.48</b>	<b>3.65</b>

Source: *Protecting Groundwater in Wisconsin through Comprehensive Planning*, <http://wi.water.usgs.gov/gwcomp/index.html>

Crawford County has 8 municipal water systems: Bridgeport Sanitary District 1, Eastman Waterworks, Gays Mills Waterworks, Mount Sterling waterworks, Prairie du Chien waterworks, Seneca Sanitary District 1, Soldiers Grove waterworks, and Wauzeka waterworks. As of May 2007, two of the eight municipal water systems had wellhead

protection programs (Prairie du Chien and Seneca) and Prairie du Chien also had a wellhead protection ordinance in place. Wellhead protection plans are developed to protect groundwater through pollution prevention measures.

Crawford County has an animal waste management ordinance to protect groundwater and surface water resources. There is one concentrated animal feeding operation (CAFO) in Crawford County. CAFO's have greater than 1,000 animal units. There are also no licensed landfills or Superfund sites in Crawford County.

From 1990-2006 94% or 54 private wells sampled collected in Crawford County met the health based drinking water level for nitrate-nitrogen. In 2002, a study estimated that 43% of private drinking wells in the region of Wisconsin that includes Crawford County contained a detectable level of an herbicide or herbicide metabolite. Crawford County also has 13,198 acres located in the Lower Wisconsin River Valley atrazine prohibition area, an area where all uses of atrazine are prohibited. Atrazine is a corn herbicide used to control weeds in corn fields. As of 2006, there are 102 atrazine prohibition areas in Wisconsin, covering about 1.2 million acres. Eight wells tested in the county in 2007 met health standards for arsenic.

### Forests

**County forests and woodlands provide valuable economic and social resources through the provision of recreation areas for residents and tourists.**

Quality forests also provide materials for wood processing industries. A Crawford County Land and Water Resource Management Plan Summary (2006) reported that over half of Crawford County is wooded. Many woodlots, however, are pastured due to use value assessment giving landowners a tax incentive to graze. These woodlots are classed as agricultural lands on the Department of Revenue Statement of Assessments. Table 6.02 below gives a breakdown Ag/Forest and Forest acres listed in the 2007 Department of Revenue Statement of Assessments.

**Table 6.02 2007 Statement of Assessment - Crawford County Forest & Ag Forest Acres**

	Ag Forest		Forest		Total	
	No. of Acres	% Land Use	No. of Acres	% Land Use	No. of Acres	% Land Use
T. Bridgeport	1,122	2.8	287	1.1	1,409	2.1
T. Clayton	5,636	13.9	3,222	12.6	8,858	13.4
T. Eastman	2,570	6.4	2,095	8.2	4,665	7.1
T. Freeman	5,681	14.0	5,177	20.2	10,858	16.4
T. Haney	2,075	5.1	735	2.9	2,810	4.3
T. Marietta	4,434	11.0	1,504	5.9	5,938	9.0
T. Prairie du Chien	861	2.1	1,957	7.6	2,818	4.3
T. Scott	2,965	7.3	4,049	15.8	7,014	10.6
T. Seneca	6,446	15.9	3,645	14.2	10,091	15.3
T. Utica	5,172	12.8	983	3.8	6,155	9.3
T. Wauzeka	1,122	2.8	491	1.9	1,613	2.4
V. Bell Center	373	0.9	266	1.0	639	1.0
V. Eastman	0	0.0	39	0.2	39	0.1
V. Ferryville	0	0.0	274	1.1	274	0.4
V. Gays Mills	590	1.5	146	0.6	736	1.1
V. Lynxville	71	0.2	67	0.3	138	0.2
V. Mt. Sterling	126	0.3	65	0.3	191	0.3
V. Soldiers Grove	223	0.6	601	2.3	824	1.2
V. Steuben	687	1.7	18	0.1	705	1.1
V. Wauzeka	287	0.7	5	0.0	292	0.4
<b>Crawford County</b>	<b>40,441</b>	<b>100.0</b>	<b>25,626</b>	<b>100.0</b>	<b>66,067</b>	<b>100.0</b>

Source: Wis. Dept. of Revenue, 2007 Statement of Assessments

Of the County's 297,032 acres assessed in 2007, over 66,000 acres or 22.2% were assessed as Forest or Ag/Forest. The Towns of Freeman, Seneca and Clayton recorded the highest percentages of their acreage assessed as either Forest or Forest/Ag, Table 6.02.

**“Productive forest land”** means land that is producing or is capable of producing commercial forest products.

**“Agricultural forest land”** means land that is producing or is capable of producing commercial forest products, if the land satisfies any of the following conditions:

- a. It is contiguous to a parcel that has been classified in whole as agricultural land under this subsection, if the contiguous parcel is owned by the same person that owns the land that is producing or is capable of producing commercial forest products. In this subdivision, “contiguous” includes separated only by a road.
- b. It is located on a parcel that contains land that is classified as agricultural land in the property tax assessment on 1/1/2004, and on January 1 of the year of assessment.
- c. It is located on a parcel at least 50 percent of which, by acreage, was converted to land that is classified as agricultural land in the property tax assessment on 1/1/2005, or thereafter.

Landowners in the county owning forest acres may also be eligible to apply for entry into the state’s managed Forest Law (MFL) Program if their forest acres are: 10 or more contiguous acres; at least 80% of the parcel is capable of producing at least 20 cubic feet of merchantable timber per acre per year; and the land is not developed in a way incompatible with the practice of forestry. Landowners must also follow a forest management plan. More information on the MFL program can be found on the DNR’s website at: <http://dnr.wi.gov/forestry/ftax/>. As of 1/1/08 the County had 4,630 acres enrolled in this program. Table 6.03 gives a breakdown of MFL acreage by municipality.

	No. of Acres
T. Bridgeport	108.00
T. Clayton	337.00
T. Eastman	224.37
T. Freeman	1050.26
T. Marietta	185.65
T. Prairie du Chien	584.24
T. Scott	322.65
T. Seneca	913.12
T. Utica	638.81
T. Wauzeka	176.80
V. Soldiers Grove	90.00
<b>TOTAL</b>	<b>4630.90</b>

*Source: Wis. Dept. of Natural Resources*

There are no state or county forests located within Crawford County, however the County is home to two State wildlife areas open to a full range of recreational activities which could include: hunting, fishing, trapping, hiking, nature study, and berry picking.

1. Kickapoo River Wildlife Area – (Bell Center Unit) is located 2 miles south of Gays Mills along STH 131. This 1,400 acre property consists of upland hardwood forests, marshland, and Kickapoo River bottomlands. Recreation opportunities include hunting, trapping, hiking, cross country skiing, wildlife viewing, fishing, bird watching, and canoeing. 1,100 acres have been converted to DNR ownership. About 300 acres remain under easement. Many croplands have been converted to upland cover. Private lands under easement are for hunting and fishing only.
2. Kickapoo River Wildlife Area – (Wauzeka Unit) is located one half mile north of STH 60 on STH 131. This 5,697 acre property (1,927 acres state-owned and 3,770 acres of private lands under easement for hunting and fishing only) consists of upland hardwood forests, agriculture/grasslands, wetlands, and Kickapoo River bottomlands. Recreation opportunities include: hunting, trapping, fishing, hiking, berry picking, nut and mushroom gathering, cross country skiing, wildlife viewing, bird watching, and canoeing. Notable feature: It is a site of an active University of Wisconsin – Madison, Dept. of Forestry oak management study.

**Productive Agricultural Areas**

**Crawford County has areas of prime agricultural land that produce yields of forage, corn, soybeans, and oats and other crops. In 2002 there were 1,278 farms in Crawford County covering 254,755 acres of prime farmland.**

Over 500 of these farms ranged in size from 50-179 acres and about 400 were from 180-400 acres in size. The land in farms in 2002 was 50.9% cropland, 38.9% woodland, 6.2% pasture and 3.9% other uses. Agricultural land makes up over 70 percent of all land in Crawford County. Map 6.02 summarizes the soils by classes and location.



**Productive agricultural land in southern Crawford County**

**Table 6.04 Agricultural Profile, 1997 and 2002**

	1997	2002	Pct. Chg
Number of Farms in Crawford County	1,140	1,278	12%
Land in Farms (acres)	255,008	254,755	(.01%)
Average Size of Farm	224	199	(11%)
Market Value of Production (Crops/Livestock)	41,015,000	41,725,000	2%
Market Value of Production (Average per Farm)	35,978	32,649	(9%)
Government Payments	1,975,000	3,181,000	61%

Source: 1997 and 2002 Census of Agriculture, USDA, Wis. Agricultural Statistics Service

As Table 6.04 illustrates the number of farms in Crawford County increased by 12% from 1997 to 2002, however acreage in farms decreased slightly, and the average size of farms in the County decreased by 11%.

**In 2002 Crawford County ranked 9<sup>th</sup> in the state for value of sales of fruits, tree nuts, and berries and ranked 11<sup>th</sup> for value of sales of sheep, goats, and their products. In addition, Crawford County ranked 8<sup>th</sup> in the State for it's inventory of goats and ranked, 13<sup>th</sup> for hogs and pigs, 23<sup>rd</sup> for horses and ponies, and 37<sup>th</sup> for cattle and calves.**

Crawford County also has a thriving apple industry around Gays Mills and is also the location of the Mt. Sterling Co-op Creamery a member-owned and operated cooperative that produces quality dairy goat products

Table 6.05 below shows acreage and production amounts selected agricultural crops in the County for 2005 and 2006. Production increased for all crops from 2005 to 2006 with the exception of corn for grain and corn for silage. Forage production increased by almost 16%, and oats and soybean production increased by 2%. Acres planted for all crops decreased with the exception of soybeans from 2005 to 2006.

**Table 6.05 Crawford County Crop Production 2005 and 2006**

	2005		2006		% Chge Acres	% Chge Production
	Acres Harvested	Production tons <sup>(1)</sup> and bushels <sup>(2)</sup>	Acres Harvested	Yield per Acre tons <sup>(1)</sup> and bushels <sup>(2)</sup>		
All Forage <sup>(1)</sup>	39,500	132,100	39,000	153,000	-1.3	15.8
Oats <sup>(2)</sup>	2,300	144,000	2,200	147,000	-4.3	2.1
Soybeans <sup>(2)</sup>	12,800	683,000	14,900	697,000	16.4	2.0
Corn for Grain <sup>(2)</sup>	26,700	4,650,000	25,000	3,950,000	-6.4	-15.1
Corn for Silage <sup>(1)</sup>	4,500	93,000	4,400	84,000	-2.2	-9.7

Source: Wisconsin 2007 Agricultural Statistics

Note: Forage Production includes all forms of harvested hay on a dry equivalent basis. All forage production is the sum of the following dry equivalents: alfalfa hay harvested as dry hay, all other hay harvested as dry hay, alfalfa haylage and greenchop,

Statistics published in 2004 by the UW-Cooperative Extension reported that dairy was the largest part of Crawford County's agriculture sector and contributed 29 million to the county's economy. It was reported that each dairy cow generates more than \$15,000 of economic activity. Wisconsin 2007 Agricultural Statistics Service reported there were 9,500 milk cows in Crawford County in 2006 that produced 150,720,000 pounds of milk. Using the 2004 UW-Extension statistic of \$15,000 of economic activity per milk cow, 9,500 milk cows in 2006 should have generated \$142,500,000 of economic activity in Crawford County.

#### Farmland Tax Credits

The State of Wisconsin provides tax credits to farms through the Farmland Preservation Program (established in 1977) and the Farmland Tax Relief Program (established in 1989). The Farmland Preservation Program seeks to conserve farmland and provide tax relief and the Farmland Tax Relief Program provides additional tax relief to owners of farmland. Farmers may be eligible to claim both credits. Wisconsin Department of Revenue 2007 figures show that 667 farmland tax relief credits were granted in Crawford County totaling \$195,400; and 143 farmland preservation credits were granted at a total of \$139,724. The participation rate in the farmland preservation program for the County during that period was 21.4%. This data was based on number of claims and credit amount for

individual filers for returns processed between July 1, 2006 and June 30, 2007. The data is based on the County in which the claimant lives, which may not be the same as the county in which the farmland is located.

**Environmentally Sensitive Areas**

In 2006 the Wisconsin Department of Natural Resources published the *Wisconsin Land Legacy Report, An Inventory of Places to Meet Future Conservation and Recreation Needs*. This report compiled a list of 229 legacy places in sixteen ecological landscapes in the State of Wisconsin. Table 6.06 provides an inventory of the Legacy Places listed in that report for Crawford County.

**Table 6.06 Legacy Places – Public Conservation Lands in Crawford County**

Name	Location	Acreage	Description	Recreation Uses
<b>Public Conservation Lands</b>				
Rush Creek Natural Area (RU)	Town of Freeman	19,157 acres	This area is made up of dry hillside prairies, oak-hickory forests, and floodplain forest in the valley floor. The prairie complex in the Rush Creek Natural is the largest and most extensive series of goat prairies left in the State of Wisconsin. The large blocks of forest in Rush Creek area provide habitat for forest interior species as well as common games species such as turkey and deer. Many rare species are found throughout the Rush Creek area.	Hunting (deer, turkey and squirrel) fishing, and non-recreational activities such as bird watching and hiking.
Kickapoo River (KR)	Originates in Monroe County, and flows south through Vernon and Richland and Crawford County for about 60 miles to its confluence with the Wisconsin River near Wauzeka.		The Kickapoo is the largest water body that originates in the Driftless Area. The main stem of the Kickapoo is a low gradient, meandering, warm water river with many associated wetlands. Wet meadow, marsh and lowland hardwood forest occur in the Kickapoo River floodplain. The headwater streams are highly productive, cold, spring-fed waters that provide abundant fishing opportunities. The terrain surround the river is rugged with many ridges and valleys. Upland vegetation consists of bluff prairie, oak forest, oak savanna, and mesic forest. Relict pines and hemlock forests, rare natural communities, occur along the cliffs. The valley's forests support breeding populations of many forest-interior species, especially birds. The Kickapoo valley is scenic and is home to significant archeological, cultural and historical sites.	Canoeing, Bird-watching, hiking, biking, cross-country skiing, snowmobiling, camping, horseback riding, fishing, hunting, and sightseeing
Lower Wisconsin River (LW)	Sauk Prairie to Mississippi River	92 miles	Lowland forests and marshes remain largely intact. Valley sides are dominated by mesic to dry forests of oak, maple, and red cedar. Bluff prairies are scattered along the south-facing slopes and harbor many rare species. The riverway encompasses more than 79,000 acres of bluffs, bottomlands, islands and sandbars.	Canoeing, hunting, fishing, trapping and hiking.
<b>Public Conservation Lands in Crawford County Along the Mississippi Corridor</b>				
Upper Mississippi River National Wildlife and Fish Refuge (UM)	Extends 284 miles from Wabasha, MN to Rock Island, IL	194,000 acres	The refuge encompasses most of the floodplain associated with the Mississippi River and is made up of numerous side channels, backwater sloughs, marshes, and extensive tracts of floodplain forest dominated by silver maple, cottonwood and green ash. The refuge supports important populations of freshwater mussels, game and non-game fish, reptiles, amphibians, songbirds, herons, and bald eagles. The refuge is host to significant waterfowl migrations.	Boating, fishing and waterfowl hunting.
Copper Creek to Lynxville Hollows (CZ)	Town of Seneca		This area encompasses a series of small hollows that make up the Mississippi Valley. This area has a wide range of high quality forest to dry prairie habitats. In the bottom of the narrow hollows are blocks of mesic forest comprised of oak, maple, basswood, hickory, and black walnut. Upslope are more open oak woodlands and near the ridgetops they grade into oak savanna. Along the ridgetops some dry prairie remnants occur. Several rare, threatened, and endangered species exist in this area.	
Coulee Coldwater Riparian Resources (CO)			The Coulee Region in Southwest Wisconsin is known for its abundance of springs and high quality trout springs. Protection efforts in Monroe, La Crosse, Vernon and Crawford Counties have resulted in many high quality coldwater streams and trout fisheries.	
North Prairie du Chien Savana (NP)	Town of Prairie du Chien		This area contains many high quality remnants of oak savanna and oak woodland within a working agricultural landscape. Some rare, threatened, and endangered species are present.	

**Threatened and Endangered Wildlife Habitats**

There are five sub watersheds located in Crawford County and each provides good quality habitats for rare plant communities and plant and animal species. The summary below of threatened and special concern species was derived from the basin reports for the Bad Axe-La Crosse and Lower Wisconsin River basin completed in March 2002 and July 2002 by the Wisconsin Department of Natural Resources (DNR). A complete listing of the State of Wisconsin's Natural Heritage Inventory can be found at DNR's website at: <http://dnr.wi.gov/org/land/er/nhi/>.

<b>Lower Kickapoo Watershed</b> has a variety of good quality habitats and rare plant communities listed on the State's Natural Heritage Inventory (NHI). In addition to the special communities listed below, the watershed is also home to a variety of rare plant and animal species including; 5 bird species, 1 species of butterfly, 7 species of dragonflies, 14 species of fish, 1 species of frog, 1 species of leafhopper, 1 species of mammal, 13 species of mussel, 18 plant species, 3 species of snake, 1 species of turtle.			
Dry prairie	Southern dry forest	Southern dry-mesic forest	Southern mesic forest
Emergent aquatic	Floodplain forest	Southern sedge meadow	Wet-mesic prairie
<b>Reads and Tainter Creek Watershed</b> has a variety of good quality habitats and rare plant communities listed on the State's Natural Heritage Inventory (NHI). In addition to the special communities listed below, the watershed is also home to a variety of rare plant and animal species including; 1 bird species, 4 species of fish, 1 type of mammal, 8 plant species, 1 salamander species and 2 species of snails.			
Dry Cliff	Dry prairie	Moist cliff	Pine relict
Southern dry-mesic forest	Southern mesic forest		
<b>Knapp Creek Watershed</b> has a variety of good quality habitats and rare plant communities that are listed on the state's Natural Heritage Inventory (NHI). In addition to these special communities, the watershed is also home for a variety of rare plant and animal species including; 13 species of fish, 5 species of birds, 12 mussel species, 2 species of snakes, 1 species of beetle, 7 different species of dragonflies, 5 species of mayflies, 20 types of plants and 1 mammal species.			
Dry Cliff	Dry prairie	Dry-mesic prairie	Southern dry-mesic forest
Southern mesic forest	Emergent aquatic	Floodplain forest	Shrub-carr
Southern sedge meadow	Wet-Mesic prairie		
<b>Millville Creek Watershed</b> has a variety of good quality habitats and rare plant communities that are listed on the state's Natural Heritage Inventory (NHI). In addition to these special communities, the watershed is also home for a variety of rare plant and animal species including; 7 species of birds, 2 species of butterflies, 7 species of dragonflies, 15 species of fish, 1 species of frog, 1 species of mayfly, 13 species of mussels, 27 plant species, 2 species of snails, 3 species of snakes, and 1 species of turtle.			
Cedar glade	Moist cliff	Oak barrens	Oak opening
Pine relict	Southern dry forest	Southern-dry mesic forest	Southern mesic forest
Emergent aquatic	Floodplain forest	Southern sedge meadow	Springs and Spring runs, hard
Wet-mesic prairie			
<b>Rush Creek Watershed</b> has a variety of good quality habitats and rare plant communities that are listed on the state's Natural Heritage Inventory (NHI). In addition to these special communities, the watershed is also home for a variety of rare plant and animal species including; 3 species of birds, 4 species of butterflies, 2 species of moth, 2 species of fish, 10 plant species, 2 species of snails, 3 species of snakes.			
Bat Hibernaculum	Dry prairie	Floodplain forest	Oak opening
Southern dry forest	Southern dry-mesic forest	Southern mesic forest	

River and Stream Corridors

**Crawford County is rich in river and stream corridors. Crawford County's location is largely influenced by the Mississippi River, its boundary on the west and the Wisconsin River, its boundary on the south, and the Kickapoo River which dissects Crawford County north to south.**

The county is made up of two major River basins and five watersheds located within those basins: 1) Rush Creek Watershed located in the Bad-Axe La Crosse River Basin, and 2) Reads and Tainter Creeks Watershed, 3) Lower Kickapoo River Watershed, 4) Knapp Creek Watershed, 5) Millville Creek Watershed all located in the Lower Wisconsin River Basin. A watershed is the land area that drains into a lake or river. Tables 6.07 through 6.11 list some of the major streams within these watersheds in Crawford County. The information in tables 6.07 to 6.11 and watershed recommendations was derived from The State of the Bad Axe La Crosse River Basin, March 2002, DNR publication WT 5572002 and The State of the Lower Wisconsin River Basin, July 2002, DNR publication WT 559-2002. For more information or to check for revisions to the data below, please go to the DNR's website at: <http://www.dnr.state.wi.us/org/water/watersheds/>.

**Table 6.07 Lower Kickapoo River Watershed**

The Lower Kickapoo River Watershed is located in south central Crawford County and includes all streams that flow to the Kickapoo between Gays Mills and Wauzeka. The entire length of the Kickapoo River in this watershed is flanked by floodplain wetlands. Overall non-point source pollution is considered the primary cause of water quality problems in this watershed. A portion of the watershed is in an atrazine prohibition area.

**Lower Kickapoo River Watershed at a Glance**

Drainage Area (m<sup>2</sup>): 150

Stream Miles: 96.5

Trout Stream Miles: 25.5

Lakes: None

Exceptional/Outstanding Resources Waters: Plum Creek

Concerns: Nonpoint source pollution, Atrazine

Stream Name & Length	Existing Use	Codified Use & Trout Stream Classification	Proposed Codified Use	On 303(d) Impaired Water List	Use Impairment		Trend
					Source	Impact	
Citron Creek: 0-4.6	COLD III	COLD III	COLD III	N	SB	HAB	U
Crow Hollow Creek: 0-4.2	COLD I	DEF	COLD I	N	BDAM, SB	HAB	I
Duffy Creek: 0-2	U	DEF	DEF	N			
Halls Branch: 0-2	COLD III	COLD III	COLD III	N	NPS, FL SB, PSB	HAB	U
Halls Branch: 2-5	COLD II	COLD II	COLD II	Y		FAD	U
Kickapoo River: 0-40	WWSF	WWSF	WWSF	Y			S
Otter Creek: 0-4	U	DEF	DEF	N	NPS	HAB	U
Pine Creek: 0-6.5	COLD II	COLD III	COLD II	N	FL, PSB, BDAM	HAB	I
Plum Creek: 0-5.2	COLD I	COLD III/ERW (1.5) COLD II/ERW (3.7)	COLD I	N	NPS, PSB, BDAM	HAB	S
Sand Creek: 0-5	WWFF	DEF	DEF	Y	FL, SB	HAB	U

**Recommendations for Lower Kickapoo Watershed:**

- A fish and habitat survey should be conducted of Citron Creek, Duffy Creek, Otter Creek, and Sand Creek to document existing conditions.
- Wild trout should be stocked in Crow Hollow Creek and Pine Creek.
- Citron Creek, Crow Hollow Creek, Halls Branch, Pine Creek, Plum Creek and Sand Creek would benefit from in-stream habitat restoration.
- Continuous water temperature monitoring of Otter Creek should be conducted to determine if the stream is capable of supporting a trout population.
- Citron Creek, Crow Hollow Creek, Halls Branch, Pine Creek, Plum Creek and Sand Creek would benefit from the purchase of additional streambank easements from willing sellers.
- Continued fish and habitat surveys of Plum Creek should be conducted to track fishery population changes in response to additional in-stream habitat restoration.
- Halls Branch and the Kickapoo River should be surveyed to determine if rare aquatic elements previously found in the streams are still present.
- The Village of Wauzeka should continue to pay attention to operation and maintenance of its treatment plant.
- A professional evaluation of the plant should be considered to assist the Village of Wauzeka in planning for needed for maintenance.

**Table 6.08 Reads and Tainter Creek Watershed**

The Reads and Tainter Creek Watershed is located in northeast Crawford and southeast Vernon Counties. This watershed includes all streams that flow to the Kickapoo between Readstown and Gays Mills. The entire length of the Kickapoo River in this watershed is flanked by floodplain wetlands. Overall nonpoint source pollution is considered the primary cause of water quality problems in this watershed.

Stream Name & Length	Existing Use	Codified Use & Trout Stream Classification	Proposed Codified Use	On 303(d) Impaired Water List	Use Impairment		
					Source	Impact	Trend
Baker Creek: 0-2.4	COLD II	COLD II	COLD II	N	PSB	HAB	U
Bear Creek: 0-3.6	COLD II	COLD II	COLD II	N	NPS	HAB	U
Kickapoo River: 40-61.1	COLD II	DEF	COLD II	N	SB	HAB	I
Nederlo Creek (Johnstown Creek): 0-2.0	COLD III	COLD III	COLD III	N	NPS	HAB	S
Nederlo Creek (Johnstown Crk): 2.0-4.1	COLD II	COLD II	COLD II	N			
North Branch Nederlo Creek: 0-1.6	COLD II	COLD II	COLD II	N			S
Sheridan Creek: 0-1.0	U	DEF	DEF	N			U
Tainter Creek: 0-2.0	COLD III	COLD III/ERW	COLD III/ERW	N	SB	HAB	S
Tainter Creek: 2.0-6.8	COLD II	COLD II/ERW	COLD II/ERW	N			
Trout Creek: 0-3.8	COLD I	COLD II	COLD I	N	SB	HAB	I

**Reads and Tainter Creek Watershed at a Glance**

Drainage Area (m<sup>2</sup>): 136

Stream Miles: 83.4

Trout Stream Miles: 59.9

Lakes: None

Exceptional/Outstanding Resources Waters: Reads Creek, Tainter Creek, Creek 6-11

Concerns: Nonpoint source pollution

**Recommendations for Reads and Tainter Creek Watershed:**

- Fish and habitat surveys should be conducted on Baker Creek, Bear Creek, Hincks Creek, Sheridan Creek and Tainter Creek to determine the existing conditions.
- The stream conditions of North Branch of Nederlo Creek indicate that experimental wild brook trout stocking may be successful.
- Streambank easements should be purchased from willing sellers who own land bordering Day Creek, Nederlo Creek, Reads Creek, Sherry Creek, Tainter Creek and Trout Creek.
- Restoration of in-stream habitat would benefit the trout fishery of Day Creek, Nederlo Creek, Reads Creek, Sherry Creek, Tainter Creek and Trout Creek.
- If the bridge on North Branch of Nederlo Creek is replaced in the future, the concrete spillway below should be removed to improve fish migration in the stream.
- The Kickapoo River should be surveyed to determine if rare aquatic species previously found in the river are still present.
- Conduct a triennial water quality standards review on the Kickapoo River receiving stream for the Readstown discharge.

**Table 6.09 Knapp Creek Watershed**

The Knapp Creek watershed is located in the driftless area of western Richland and eastern Crawford counties. Most of the streams in the watershed drain to Knapp Creek. Knapp Creek empties into the Wisconsin River above Boscobel.

Stream Name & Length	Existing Use	Codified Use & Trout Stream Classification	Proposed Codified Use	On 303(d) Impaired Water List	Use Impairment		
					Source	Impact	Trend
Boydton Creek: 0-0.7	COLD I	COLD I/ERW	COLD I/ERW	N	NPS	HAB	U
Boydton Creek: 0.7-1.7	COLD II	COLD II	COLD II	N			
Clear Creek: 0-0.7	WWSF	DEF	DEF	N	NPS	HAB, SED	U
Clear Creek: 0.7-3.1	COLD III	COLD III	COLD III	N			
English Run: 0-4.4	COLD II	COLD II	COLD II	N			
Hoover Hollow Creek: 0-1.5	COLD I	COLD I/ERW	COLD I/ERW	N	HM, NPS	HAB	U
Hoover Hollow Creek: 1.5-2.7	COLD I	COLD II	COLD I/ERW	N			
Knapp Creek: 0-11.8	WWSF	DEF		N	NPS, HM	HAB, SED	U
Knapp Creek: 11.8-24.5	COLD I	COLD II	COLD I/ERW	N			
Knapp Creek: 24.5-26.2	COLD I	DEF	COLD I/ERW	N			
Knapp Creek: 26.2-29	U	DEF					
Plum Run: 3.0	COLD	COLD		N			U
Richland Creek: 8.7	COLD II		COLD	N	NPS, HM	HAB	U
W Fork Knapp Creek: 0-1.5	COLD II	COLD II	COLD II	N	NPS, HM	HAB	U
W Fork Knapp Creek: 1.5-6.9	COLD II	COLD III	COLD II	N			

**Knapp Creek Watershed at a Glance**

Drainage Area (m<sup>2</sup>): 154

Stream Miles: 117.5

Trout Stream Miles: 53.6

Lakes: Garner Lake

Exceptional/Outstanding Resources Waters: Boydton Creek, Hoover Hollow Creek

Concerns: Nonpoint source pollution, stream channelization, atrazine

**Recommendations for Knapp Creek Watershed:**

- Collect fish, habitat, and water quality data for Gobin Hollow Creek, O’Conner Branch, East Branch Richland Creek, English Run Creek, Hoover Hollow Creek, Richland Creek, West Fork Knapp Creek, and Dillenburg Spring.
- Conduct stream classification monitoring on Taylor Hollow Creek.
- Hoover Hollow Creek, Richland Creek, the West Fork of Knapp Creek, and Boydtown Creek should be considered for a nonpoint source pollution reduction project such as a Targeted Runoff Management grant (TRM).
- Stock more wild strain brook trout into Boydtown Creek to try to increase the chances of a successful trout fishery.
- Purchase streambank easements on Boydtown Creek to improve in-stream habitat.
- Conduct a fish and habitat survey on Pigeon Run Creek to determine its potential as a trout fishery.

**Table 6.10 Millville Creek Watershed**

The Reads and Tainter Creek Watershed is located in the southwestern corner of Crawford County and the northwestern corner of Grant County. The watershed includes all streams in Crawford and Grant counties that flow into the Wisconsin River from just downstream of Wauzeka. Overall nonpoint source pollution is considered the primary cause of water quality problems in this watershed.

Stream Name & Length	Existing Use	Codified Use & Trout Stream Classification	Proposed Codified Use	On 303(d) Impaired Water List	Use Impairment		
					Source	Impact	Trend
Bush Creek: 4.1	U	DEF	DEF	N	HM, NPS	HAB	U
Gran Grae Creek: 0-1.1	U	DEF	DEF	N	HM, NPS	HAB	U
Gran Grae Creek: 1.1-6	COLD II	COLD II	COLD II	N			
Little Kickapoo Creek: 0-1.0	U	DEF	DEF	N	BDAM	HAB, TEMP	I
Little Kickapoo Creek: 1.0-2.0	COLD II	DEF	COLD II	N			
Little Kickapoo Creek: 2.0-3.5	COLD III	DEF	COLD III	N			

**Millville Creek Watershed at a Glance**

Drainage Area (m<sup>2</sup>): 125

Stream Miles: 49.4

Trout Stream Miles: 20.2

Lakes: None in Crawford County

Exceptional/Outstanding Resources Waters: none

Concerns: Nonpoint source pollution, ditching, atrazine

**Recommendations for Millville Creek Watershed:**

- Conduct baseline monitoring on Bush, Lane, and Warner Creeks.
- Bush, Gran Grae and Millville Creeks should be surveyed to determine if rare aquatic elements previously found in streams are still present.
- Little Kickapoo Creek should be stocked with wild brook trout fingerlings and their progress tracked over time with fishery surveys.
- Pursue a Targeted Runoff Management grant for Gran Grae Creek or some other nonpoint source pollution reduction project.
- A fishery and habitat survey should be conducted on Gran Grae Creek to confirm the stream classification and determine if changes in land management have occurred which may improve the fishery.
- Conduct stream assessment on Millville Creek to determine if it should be upgraded to a Class I trout stream and subsequently an ERW.
- Conduct stream monitoring to see if Warner Creek has naturally reproducing brook trout.

**Table 6.11 Rush Creek Watershed**

The Rush Creek Watershed contains many small to medium sized streams which all flow toward the Mississippi River From Battle Hollow, Creek, on the northern border, south to Prairie du Chien. The ridge on Highway 27 runs is the eastern border of the watershed.

Stream Name & Length	Existing Use	Codified Use & Trout Stream Classification	Proposed Codified Use	On 303(d) Impaired Water List	Use Impairment		Trend
					Source	Impact	
Buck Creek: 4.0	WWFF	DEF					U
Cooley Creek: 2.6	COLD I	ERW/ CODE I			BDAM, SB, PONDS	SED, HAB	U
Cooper Creek: 3.5	COLD III	COLD III			SB	SED, HAB	U
Copper Creek, North Branch: 3.8	COLD II	COLD II			SB, DEV	SED, HAB	U
Copper Creek, South Branch: 2.7	COLD II	ERW/ CODE I			SB	SED, HAB	U
Copper Creek, Upper: 1.6	COLD II	CODE I			SB, DEV	SED, HAB	U
Du Charme Creek: 5.0	WWFF	DEF			SB, FL	SED, HAB	U
Kettle Hollow Creek: 3.0	WWFF	DEF			FL	SED	S
Leitner Creek: 3.0	WWFF	DEF			FL, SB	SED, HAB	S
Mill Coulee Creek: 2.0	WWFF	DEF			PSB, FL	SED, HAB	S
Picatee Creek: 4.0	WWFF	DEF			FL	HAB, FLOW	S
Rush Creek: 7.1	COLD II	COLD, COLDIII			NPS, SB, PSB	SED, HAB	U
Rush Creek: 4.0	COLD III	COLD II					
Sugar Creek: 7.0	COLD II	COLD III			SB	SED, HAB	S
Sugar Creek: 2.5	COLD III	COLD II					
Sugar Creek, South Fork: 2.0					SB	SED, HAB	S

**Rush Creek Watershed at a Glance**

Drainage Area (m<sup>2</sup>): 241

Stream Miles: 105

Trout Stream Miles: 40

Lakes: None

Exceptional/Outstanding Resources Waters: Coulee Creek

Concerns: Agricultural nonpoint source pollution, stormwater runoff volume from rural housing developments

**Recommendations for Rush Creek Watershed:**

Wisconsin DNR should conduct fish and habitat surveys of Buck Creek, Copper Creek and its tributaries, Sugar Creek and its tributaries, and Kettle Hollow Creek.

**Key for Tables 6.07-6.11**

**Stream Length:** Stream length is either total length of stream, or the starting and ending mile of the portion of the stream with a specific classification or biological use. The stream mile at the stream mouth is zero ("0") and increases as one moves upstream.

**Existing Use and Trout Class:** This column indicates the biological use that the stream or stream segment currently supports. A "U" indicates that the existing use is unknown.

This is not a designation or classification; it is based on the current condition of the surface water and the biological community living in that surface water. Information in this column is not designed for, and should not be used for, regulatory purposes.

The existing uses are taken from categories defined in NR102(04)3) under fish and aquatic life uses, and are the same categories used to describe the **stream's codified use**.

**COLD** Cold Water Community; includes surface waters that are capable of supporting a community of cold water fish and other aquatic life or that serve as a spawning area for cold water fish species.

**COLD I** high quality stream where populations are sustained by natural reproduction.

**COLD II** stream has some natural reproduction but may need stocking to maintain a desirable fishery.

**COLD III** stream has not natural reproduction and requires annual stocking of legal-size fish to provide sport fishing.

**WWSE** Warm Water Sport Fish Communities: includes waters capable of supporting a community of warm water sport fish or serving as a spawning area for warm water sport fish.

**WWFF** Warm Water Forage Fish Communities; includes surface waters capable of supporting an abundant, diverse community of forage fish and other aquatic life

**LFF** Limited Forage Fishery (intermediate surface waters) includes surface waters of limited capacity due to low flow, naturally poor water quality or poor habitat. These surface waters are capable of supporting only a limited community of tolerant forage fish and aquatic life.

**LAL** Limited Aquatic Life (marginal surface waters); includes surface waters severely limited because of low flow and naturally poor water quality or poor habitat. These surface waters are capable of supporting only a limited community of aquatic life.

**303 (d) Status:** This column states whether a stream or stream segment is currently on the 303(3) list of impaired bodies or should be added. Streams or segments on this list have failed to meet one or more water quality standards and are considered "impaired".

**Trend Key:** (I) = improving, (S) = stable, (D) declining, (U) = unknown

**Use Impairments (sources and impacts):** This column indicates probable sources of pollution in the stream and types of water quality problems present (impact).

<b>Source key:</b>		
ACC – limited or no access	EX – Introduced Species	PSB – Streambank pasturing
BDAM – Beaver dam	F – Forestry (logging, roads, stream crossings)	PSI – point source, industrial discharge
BY – Barnyard or exercise lot runoff	HM – Hydrological modification (dam, ditching, wetland drainage)	PSM – municipal treatment plant discharge-point
CE – Construction site erosion	LF - Landfill	PWL – Woodlot pasturing
CL – Cropland erosion	MS – Mine wastes and/or roaster piles	RS – Roadside erosion
CM – Cranberry marsh	NMM – Nonmetallic mining	SB – Streambank erosion
DEV – Intense development pressure	EX – Introduced Species	URB – Urban storm runoff
DRDG – Dredging	NPS – unspecified nonpoint sources	

<b>Impact key</b>		
AD – Animal deformity	HAB – Habitat (in-stream sedimentation, scouring, etc.)	PCB – PCB bioaccumulation
BAC – Bacteriological contamination	HM – Heavy metal toxicity	pH – pH (fluctuations or extreme high or low)
CL – Chlorine Toxicity	MAC – Undesirable rooted aquatic plant (macrophyte) or algal growth	PST – pesticide/herbicide toxicity
COM – Competition (encroachment by introduced species)	MIG – Fish migration interference	SC – sediment contamination
DO – Dissolved oxygen	NH <sub>3</sub> - Ammonia toxicity	TEMP – temperature (fluctuations or extreme high or low)
FAD – Fish advisory	NUT – Nutrient enrichment	TOX – general toxicity problems
FLOW – Stream flow fluctuations caused by unnatural cond.	ORG – Organic chemical toxicity/bioaccumulation	TURB - Turbidity

**Metallic and Non Metal Mineral Resources**

Chapter NR 135, Wisconsin Administrative Code, made it mandatory for counties to enact ordinances by June 1, 2001 for the purpose of establishing and administering programs to address the reclamation of nonmetallic mining sites and to ensure that uniform reclamation standards are applied consistently throughout the state. A draft copy of Crawford County's Non-Metallic Mining ordinance can be found on Crawford County's website (Land Conservation Programs and Services) at [http://crawfordcountywi.org/landconservation/programs\\_services.htm](http://crawfordcountywi.org/landconservation/programs_services.htm).

**In 2008, Crawford County had 26 active non-metallic mining sites covering 287 acres (3 sand quarries, 18 limestone quarries, 5 sand and gravel quarries); 5 inactive non-metallic sites; 4 closed non-metallic sites; and one site in Chapter 30.**

The most common examples of nonmetallic mine sites in the State and western Wisconsin are rock quarries and gravel pits. As of September 2008, the State of Wisconsin DNR website stated there were an estimated 2,500 to 3,000 nonmetallic sites in Wisconsin.

**Table 6.12 Crawford County Non-Metallic Active Mining Sites**

Town	Total Acres	Type of deposit	Town	Total Acres	Type of deposit
Bridgeport	4.6	Limestone Quarry	Scott	7.2	Limestone Quarry
Bridgeport	4	Sand Quarry	<b>Subtotal</b>	<b>7.2</b>	
<b>Subtotal</b>	<b>8.6</b>		Seneca	6.5	Limestone Quarry
Clayton	4.4	Limestone Quarry	Seneca	2.5	Limestone Quarry
Clayton	17.1	Limestone Quarry	<b>Subtotal</b>	<b>9</b>	
Clayton	6.7	Sand Quarry	Utica	1	Limestone Quarry
<b>Subtotal</b>	<b>28.2</b>		Utica	10	Limestone Quarry
Eastman	6.2	Limestone Quarry	Utica	11.4	Sand Quarry
Eastman	6	Limestone Quarry	<b>Subtotal</b>	<b>22.4</b>	
Freeman	4.6	Limestone Quarry	Wauzeka	3.6	Limestone Quarry
<b>Subtotal</b>	<b>16.8</b>		Wauzeka	5.1	Limestone Quarry
Freeman	3.5	Limestone Quarry	<b>Subtotal</b>	<b>8.7</b>	
<b>Subtotal</b>	<b>3.5</b>		<b>Total Acres</b>	<b>287.4</b>	
Marietta	9.8	Limestone Quarry			
<b>Subtotal</b>	<b>9.8</b>				
Prairie du Chien	5.9	Limestone Quarry			
Prairie du Chien	8.7	Limestone Quarry			
Prairie du Chien	12.5	Limestone Quarry			
Prairie du Chien	65.3	Sand and Gravel			
Prairie du Chien	45.4	Sand and Gravel			
Prairie du Chien	1	Sand and Gravel			
Prairie du Chien	21.3	Sand and Gravel			
Prairie du Chien	13.1	Sand and Gravel			
<b>Subtotal</b>	<b>173.2</b>				

*This information was obtained from the Crawford County Land Conservation Department in September 2008. The sites listed are all active (fee) sites within the County.*

This information was obtained from the Crawford County Land Conservation Department. Table 6.12 lists all active fee non-metallic quarries in Crawford County by type of quarry and location. Map 6.03 shows the location of non-metallic mine sites.

## U.S. Fish and Wildlife Refuge

The Upper Mississippi River National Wildlife and Fish Refuge was established by an Act of Congress on June 7, 1924, "as a refuge and breeding place for migratory birds, fish, other wildlife, and plants." This refuge has 240,220 acres of wooded islands, marshes, and backwaters and covers 261 miles of Mississippi River Valley from Wabasha, MN to Rock Island, IL. The refuge is divided into four districts: Winona, MN (Pools 4-6), La Crosse, WI (Pools 7-8), McGregor, IA (Pools 9-11), and Savanna, IL (Pools 12-14). The refuge includes land in 19 counties across four states (MN, WI, IA and IL). The refuge extends along the western border of Crawford County from about river mile 667 to river mile 631, all of which is located in the McGregor, Iowa District and includes parts of Lower Pool 9 and 10 and entire Upper Pool 10. The National Scenic Byway runs along side the Upper Mississippi River National Wildlife and Fish Refuge.

The Upper Mississippi River National Wildlife and Fish Refuge is home to more than 600 species of plants, 119 species of fish, 42 species of mussels, 31 species of reptiles (19 snakes, 1 lizard, 11 turtles), and 14 species of amphibians. The refuge provides public use opportunities of hunting and fishing, wildlife observation, wildlife interpretation, and boating and camping. More information on the refuge can be found at:

<http://midwest.fws.gov/uppermississippiriver>. The refuge provides exceptional recreational opportunities for Crawford County residents and tourists.

Table 6.13 lists Refuge access points located in Crawford County.

**Table 6.13 Fish and Wildlife Refuge Access Points**

Name	Available Information
De Soto Landing	Boat landing
Winneshiek Slough Landing	Boat landing
Rush Creek Wayside	Walk-in/Walkdown
Ferryville Landing	Handicapped Accessible Fishing
Cold Springs Landing	Handicapped Accessible Fishing, No Wake Zone, Picnic Area
Lynxville Landing	Boat landing
Blackhawk Boat Harbor	Boat landing
Hootchie II	Boat landing
Gordon's Bay Landing	Hard surface boat landing, picnic area, no water
Frenchman's Landing	Boat landing
Ambrough Slough Landing	No Wake Zone, Canoe area
Gremore-Ambrough Access	No Wake Zone
Lake View Resort	Boat landing
Winneshiek Marina	Boat landing
West Cedar Street Landing	Boat landing
St. Feriole Slough Landing	Boat landing
Villa Louis Landing	Boat landing
Prairie du Chien Marina	Boat landing
Lawler Park	Picnic area, riverfront walks, toilets and water
Campion Landing	Boat landing
Big River Campsite	Boat landing

Mississippi River Lock and Dam 9 is located on River Mile 647.9 in Crawford County near Lynxville. The dam was constructed and placed in operation in July 1937. The dam consists of a concrete structure 811 feet long with five roller gates and eight tainter gates, an earth embankment of 9,800 feet long with a grouted overflow spillway 1,350 feet long. The lock is 110 feet wide by 600 feet long and has a public observation platform and restrooms.



**Mississippi River Lock and Dam 9**

**Lower Wisconsin River**

Along Crawford County’s southern border (Towns of Bridgeport, Wauzeka and Marietta) is the historic Wisconsin River. The river valley is filled with scenic beauty, and in 1989 a project, now known as the Lower Wisconsin State Riverway, was enacted to protect and preserve the scenic beauty and natural character of the Wisconsin River Valley through management of the area’s resources. The project’s intent is to protect and preserve the area. The agency responsible for assuring scenic protection of the valley is the Lower Wisconsin State Riverway Board, a nine person citizen board with headquarters in Muscoda. The Riverway Board administers a system of regulations designed to protect and preserve the aesthetic integrity of the valley. The Riverway Board is made up of local representatives with six of the nine members coming from the affected counties (Dane, Sauk, Iowa, Grant, Richland and Crawford) and three members who represent recreational users and must reside outside of the Riverway counties. The Riverway law was passed by the Legislature and signed by Governor Tommy G. Thompson in August of 1989. There are over 44,000 acres of state owned land within the Lower Wisconsin State Riverway and the vast majority of those lands are available to the public for public uses such as wildlife watching and hunting.

The regulations require permits for construction of new buildings, modification of existing structures, placement of mobile homes, construction of utility facilities as well as walkways or stairways which provide access to the river. Permits also are required for timber harvests conducted on the 80,000 acres within the project boundary. These regulations are designed to control land use and development, while at the same time not prohibiting development. The regulations were set to assure consistency with the objectives of the project. The regulation is to minimize visual impact of an activity when viewed from the river during leaf-on conditions. Performance standards vary depending on the type of activity and visibility of the site from the river. For sites not visible from the river, regulations are minimal. Administration of the riverway, including regulations and protection, is a cooperative effort between the Riverway Board, the Wisconsin DNR, and each county zoning ordinance requiring minimum setbacks for buildings and limitations on removal of woody vegetation.

**The Lower Wisconsin State Riverway Board has worked with local units of government to designate STH 60 from the Interstate near Lodi to the Great River Road near Prairie du Chien as a Wisconsin Scenic Byway. In 2009 STH 60 was designated a Wisconsin Scenic Byway.**

**Historical and Cultural Resources**

The Wisconsin Historical Society National Register of Historic Places identifies 12 historic places in the Crawford County civil townships. The names and a brief description of the sites is included in Table 6.14 below. The majority of properties listed on the National Register are privately owned and are not open to the public.

**Table 6.14 – Wis. National Register Of Historic Places for Crawford County**

<b>Town</b>	<b>Historic Name</b>	<b>Location</b>	<b>Resource Type and Historic Function</b>
Haney	Carved Cave	Address restricted	Site - Recreation and Culture (sculpture, carving, rock art)
Wauzeka	Cipra Wayside Mound Group	STH 60	Site - Religion, Funerary (graves, burials)
Haney	Crow Hollow Site	Address restricted	Site - Domestic (camp)
Seneca	Foley Mound Group	Address restricted	Site - Funerary (graves, burials)
Eastman	Larsen Cave	Address restricted	Site - Domestic, Religion, Recreation and Culture
Seneca	Olson Mound Group	Address restricted	Site - Funerary (graves, burials)
Prairie du Chien	Pedretti III	Address restricted	Site - Funerary (graves, burials)
Bridgeport	Reed, Alfred Mount Group	Address restricted	Site - Funerary (graves, burials)
Clayton	Tainter Cave	Address restricted	Site - Domestic, Religion (single dwelling, ceremonial site)
Marietta	Unpleasant Ridge	Address restricted	Site - Domestic (camp)
Prairie du Chien	VerteFeuille, Francois House	CTH K, .35 mi S jct. with Limery Road	Building - Domestic (single dwelling)
Eastman	Wall-Smethurst Mound Group	Address restricted	Site - Funerary (graves, burials)

### Wisconsin Architecture and History Inventory

Wisconsin's Architecture and History Inventory (AHI) identifies 61 properties in the Crawford County's civil townships. Table 6.15 below lists those historical buildings and sites. The State Historical Society's Division of Historic Preservation assembled this list of properties over the period of more than 25 years. It contains data on buildings, structures, and objects that illustrate Wisconsin's unique history. It documents a wide range of historic properties such as round barns; log houses, metal truss bridges, small town commercial buildings, and Queen Anne houses that make up Wisconsin's distinct cultural landscape. Approximately 120,000 properties in Wisconsin are on this list that is maintained by the Wisconsin Historical Society.



Historic site in northern Crawford County

Table 6.15 – Crawford County Architecture and History Inventory

Township	Historic Name	Location	Style or Form	Resource
Bridgeport	Bridgeport Town Hall	38446 USH 18	Front Gabled	Town Hall
Bridgeport	Bridgeport Cemetery	38446 USH 18	NA	Cemetery
Clayton	Cohar School	CTH X, 1.25 M S of USH 14	Front gabled	One to six room school
Clayton	None given	W Off STH 131	Astylistic Utilitarian Bldg	House
Clayton	Kickapoo River Bridge	Dirt Rd Over Kickapoo River, W Of STH 131, 1 M N of Soldiers Grove	NA	Overhead truss bridge
Clayton	None given	On Dirt Rd, .75 m E of STH 131, E of Soldiers Grove	Astylistic Utilitarian Bldg	Barn
Clayton	None given	Aspin Rd	Astylistic Utilitarian Bldg	Barn
Clayton	None given	N off Johnson Valley Rd	Astylistic Utilitarian Bldg	Barn
Clayton	None given	Dirt Rd off CTH C, 2 M W of Soldiers Grove	Gabled Ell	House
Clayton	None given	Sw Side of CTH H, 1 M S of CTH X	Astylistic Utilitarian Bldg	House
Clayton	None given	STH 171, .5 M W of CTH H	Astylistic Utilitarian Bldg	House
Clayton	None given	Dirt Rd off CTH C, 2 M W Of Soldiers Grove	Astylistic Utilitarian Bldg	Barn
Clayton	None given	Dirt Rd off CTH C, 2 M W Of Soldiers Grove	Astylistic Utilitarian Bldg	Outbuildings
Clayton	Trout Creek Bridge	Phillips Rd	NA	Pony truss bridge
Eastman	None given	Plum Creek Rd, N Side, W of Mill Rd	Astylistic Utilitarian Bldg	House
Eastman	None given	S Off Wall Ridge Rd, 1 M W Of STH 27	Astylistic Utilitarian Bldg	House
Eastman	None given	NE Cnr Of Picatee Creek Rd and STH 35	Side Gabled	House
Freeman	None given	N Side Of CTH B, 1.5 M W of STH 27	Gothic Revival	Church
Freeman	None given	Rush Creek Rd, .25 M E of Gilman Rd	Astylistic Utilitarian Bldg	House
Freeman	None given	CTH B, 2.25 M W of STH 27	Astylistic Utilitarian Bldg	House
Freeman	None given	Rush Creek Rd	Astylistic Utilitarian Bldg	House
Freeman	Freeman Church	N Side of CTH B	Gothic Revival	Church
Freeman	None given	N Side of Rush Creek Rd	Astylistic Utilitarian Bldg	House
Freeman	None given	CTH B, .75 M N of Hwy 35	Astylistic Utilitarian Bldg	House
Freeman	None given	S Side of Boma Rd, .5 M SE off Buck Creek Rd	Astylistic Utilitarian Bldg	House
Freeman	Black Hawk Bridge	STH 82	NA	Overhead truss bridge
Freeman	Farmstead	55310 STH 171	Cross Gabled	Agricultural complex
Freeman	Rush Creek Rd Bridge	Rush Creek Rd	NA	Pony truss bridge
Haney	None given	Button Rd Over Kickapoo River, W of STH 131	NA	None given
Haney	None given	Se Side of CTH W, .175 m E of STH 131	Front Gabled	Church
Haney	None given	CTH W at STH 131	Boomtown	House
Haney	None given	Haney Valley Rd. Over Kickapoo River	NA	Pony truss bridge
Marietta	None given	W Side of Maple Ridge Rd, 1.1 m N Of CTH E	Other Vernacular	Church
Marietta	None given	Hilldale Rd, 1 M SE of STH 131	Gothic Revival	Church
Marietta	Boscobel Bridge	US Hwy 61 over Wisconsin River	NA	Overhead truss bridge
Marietta	Marietta Vly Rd Bridge	Marietta Valley Rd	NA	Pony truss bridge
Prairie du Chien	None given	E Side of STH 35, 1.25 m S of CTH K	Gabled Ell	House
Prairie du Chien	None given	Ambro Rd SW off CTH K	Front Gabled	House

**Crawford County Comprehensive Plan 2009-2029, Agricultural, Natural and Cultural Resources**

**Table 6.15 – Crawford County Architecture and History Inventory**

<b>Township</b>	<b>Historic Name</b>	<b>Location</b>	<b>Style or Form</b>	<b>Resource</b>
Prairie du Chien	Frenchtown School	W Side of CTH K 2 m N of Prairie du Chien	Front Gabled	None Given
Prairie du Chien	Francois Vertefeuille Hse	CTH K	Side Gabled	House
Prairie du Chien	Lawrence Teynor Hse	33196 STH 35	Contemporary	House
Prairie du Chien	Ahrens Dairy Farm	33976 USH 18	Two Story Cube	Hotel/Motel
Scott	None given	W Side of USH 61 at Inters W/ CTH W	Queen Anne	House
Scott	Mt. Zion Church	S Side of CTH W, .175 m E of USH 61	Side Gabled	House
Seneca	Oak Grove School	Kettle Hollow Rd at Oak Ridge Rd	Front Gabled	1 To 6 Room School
Seneca	None given	E off STH 27	Collegiate Gothic	Elementary, Middle, Jr.High, or High
Seneca	St. Patrick's Catholic Church	STH 27, .5 m NE of CTH E	Gothic Revival	Church
Seneca	None given	SW Side of CTH E	Astylistic Utilitarian Bldg	House
Seneca	Farmstead	57361 STH 171	Side Gabled	Agricultural Complex
Utica	Girdler School	Freeman Rd	Front Gabled	1 To 6 Room School
Utica	None given	West River Rd, W off CTH B	None Given	None Given
Utica	James Gay House (Nrq)	West River Rd, Vicinity of Gays Mills	Gabled Ell	House
Utica	Twining Farms		Gabled Ell	House
Utica	Kickapoo River Bridge	CTH B, .25 Mi. NW of STH 131	None Given	Overhead Truss Bridge
Wauzeka	None given	NE Side of CTH N, 3.5 m NW of STH 60	Astylistic Utilitarian Blding	Centric Barn
Wauzeka	None given	SW Cnr of Dutch Ridge & Biderman Hill Rds	Front Gabled	None Given
Wauzeka	None given	N Side of Dutch Ridge Rd, 2 M SE of CTH N	Italianate	House
Wauzeka	None given	Dirt Rd N off STH 60, 2 m W of Wauzeka	None Given	None Given
Wauzeka	None given	N Side of STH 60, 1.25 m W of Wauzeka	Side Gabled	None Given
Wauzeka	Stage Stop	S Side of STH 60, 2 m W of Wauzeka	Side Gabled	None Given
Wauzeka	None given	S Side of Irish Ridge Rd	Astylistic Utilitarian Blding	House
Wauzeka	John Pomerening House	S Side of STH 60 1 m E of STH 131	Gabled Ell	House

## **GOALS, STRATEGIES, POLICIES AND ACTIONS FOR AGRICULTURAL, NATURAL AND CULTURAL RESOURCES**

### **Agricultural, Natural and Cultural Resources Element Goals**

Crawford County developed goals based on public input from surveys, public meeting participation, committee and resident knowledge. As previously described, in the context of this plan goals are broad statements that the Crawford County desires to achieve. Following each goal are definitions, policies, programs/actions, etc. that are recommended to address each goal. In addition, after selected programs/actions an implementation time period has been designated and these items have been included in the plan implementation schedule located in Chapter 9. Items that do not have a designated implementation period represent general policies or programs and are recommended to be utilized when making policy decisions.

#### **Goal A ► Preserve and protect the county's natural resources.**

1. Evaluate local, state, and federal policies and programs to identify opportunities to maintain and preserve the natural resources and natural areas of the county. Crawford County is in the enviable position of having an abundance of pristine natural resources and natural areas and it is imperative for the local economy and quality of life of residents that the resources and natural areas are preserved. The economic opportunities (tourism, agriculture, forestry, etc.) provided by the resources and natural areas is the economic backbone of the county. Possible tools to evaluate include land use regulations, purchase of development rights programs, conservancy organizations, landowner information/education programs, etc.  
*Implementation 2010-2020*
2. Identify conservancy organizations and make information available to landowners regarding land preservation options available through land conservancy organizations.  
*Implementation 2010-2020*
3. Inform/educate landowners on the importance of utilizing the natural resources of the county in a sustainable manner to ensure future generations gain the same benefits and opportunities from the resources.  
*Implementation throughout the planning period*
4. Improve and enhance the natural resources of the county by encouraging landowners to take advantage of the county Tree and Shrub program and Clean Sweep Days. Support river (Mississippi, Kickapoo, and Wisconsin Rivers) cleanup days sponsored by various organizations.

#### **Goal B ► Protect surface and groundwater resources of the Crawford County.**

1. Support the revision and implementation of the Crawford County Land and Water Resources Plan. The Crawford County Land Conservation Department is beginning the process of updating the County Land and Water Resources Plan. During the comprehensive planning process utilize public input opportunities to gain resident input on the revision to the Crawford County Land and Water Resources Plan.  
*Implementation 2010-2012*
2. Continue enforcement and of the county Private Onsite Sanitary Sewer Ordinance and evaluate requirements for privies/portable sanitary facilities to ensure surface and groundwater resources are protected.  
*Implementation 2010-2012*

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3. Explore activities to monitor and protect the surface waters of the County to insure they are safe for whole body contact recreation activities. Such monitoring will assist streams and rivers in meeting their fishing potential.  
*Implementation 2010-2020*
4. Explore policies to protect the groundwater resources of the county from users that could deplete or degrade the resource. Ground water is a valuable resource in Crawford County and it is important to protect the resource for future residents.  
*Implementation 2010-2020*
5. Encourage cooperation among local units of government in the location, service area, and installation of public water, sewer, and stormwater systems. The intended outcome of cooperation will be more locations served by public infrastructure.  
*Implementation throughout the planning period*
6. Continue enforcement of the County's Floodplain, Shoreland and Wetland ordinances. Enforcement of such ordinance protects surface and groundwater resources in the County.
7. Promote the use of Agricultural Best Management Practices (BMP'S) by landowners and agricultural producers in Crawford County.
8. Increase resident knowledge regarding the "karst" geology of the county and associated environmental impacts. "Karst" is the term to describe areas where the bedrock, usually limestone or dolomite, has been (or has the potential to be) easily dissolved by surface water or groundwater. Karst landscapes may have deep bedrock fractures, caves, disappearing streams, springs, or sinkholes. Karst features can act as direct conduits for pollutants to enter groundwater, wells, springs, and streams. Crawford County is located in an area of Wisconsin where there is shallow karst potential (5 feet or less). (Source: Wisconsin Geological and Natural History Survey)
9. Encourage collaboration between groups and organizations working on watershed issues.
10. Encourage preservation and protection of environmental corridors for habitat, wildlife, and water quality.

**Goal C | ► Preserve land for agricultural use.**

1. Explore the development of a regional purchase of development rights program in order to leverage state and federal funding for the preservation of agricultural land. This would include working with neighboring counties to create a program that would benefit local landowners and assist in meeting the preservation goal of the comprehensive plan.  
*Implementation 2010-2012*
2. In terms of Crawford County agricultural use is defined as uses of the land for services, the production of goods, consumptive products, and the keeping or maintenance, sale, lease or personal use of plants/trees and animals. In order to preserve land for agricultural use, it is important that the term is defined for Crawford County.
3. Update Crawford County's Farmland Preservation Plan by 2016. As part of Wisconsin's Working Lands Initiative (modification to Wisconsin's Farmland Preservation Law) Crawford County is required to update its Farmland Preservation Plan by the year 2016. Updating the Farmland Preservation Plan will provide landowners the opportunity to receive tax incentives to maintain land in agriculture.

**Goal D** ► **Preserve forested lands to maintain and enhance their economic value (recreation, timber harvest, biomass, etc.)**

1. Inform/educate elected officials, business owners and landowners of the importance of preserving and maintaining the County's forests in a sustainable manner. Public and private forested lands throughout the county are a vital part of Crawford County's rural landscape, local economy, and recreational opportunities. It is important that the value of forests is recognized. The economic value of forests encompasses a wide range of activities/interests including but not limited to timber value, biomass production, ginseng production, wildlife, recreation, and tourism all of which are key components of the local economy and vital to the County's economic future.  
*Implementation throughout the planning period*
2. Encourage landowners to use Forest Best Management Practices in maintaining the County's forests and woodlots. Woodlots and forested slopes enhance the County's natural beauty and provide excellent habitat for wildlife. In addition, the hardwood forests support the local economy by providing valuable forest products. Forest BMP's will enhance woodlots and forested lands and ensure they remain a valuable natural resource. BMP's will also reduce erosion on the County's forested hillsides.
3. Support activities of the Wisconsin Woodland Owner's Bad Axe Chapter to enhance and preserve forests with the county.

**Goal E** ► **Promote and preserve the County's unique cultural resource base including historic, and cultural sites in Crawford County.**

1. Work in conjunction with County historical societies/committees in identifying and preserving historic and cultural sites throughout the County. The sites/structures (Villa Louis, Black Hawk Trail, etc.) are an important component of Crawford County's unique rural landscape and play a vital part in attracting visitors and tourists to the area. Encourage policies, programs and/or ordinances (historic preservation districts, historic structure ordinances, etc.) that will preserve/restore historic and cultural sites/structures in the County.  
*Implementation 2010-2020*
2. Increase the number of historic sites listed on the national Register of Historic Places and or the State Register of Historic Places.  
*Implementation 2010-2020*
3. Work with the Wisconsin Department of Transportation and Wisconsin Department of Tourism to maintain historic markers and visitor facilities along state and federal highways throughout the County.  
*Implementation throughout the planning period*
4. Explore tourism opportunities that focus on preserving and enhancing the historic and cultural resources of the County such as the Fox-Wisconsin Heritage Parkway project.
5. Preserve when possible historic buildings (barns, one room schools, mills, etc.) in the county that are an integral part to the cultural history of Crawford County.

**Goal F** ► **Increase public lands to enhance recreation and tourism opportunities when determined to be in the best interest of Crawford County.**

1. Work to incorporate existing scenic areas, public recreational areas, river corridors, etc. in Crawford County into an integrated recreation/park system. This is not meant as a means to acquire private property to create a large connected park/recreation system of publicly held property. It is intended to promote the connection of existing park and recreational areas by a multi-use trail system, scenic drive designation, a water trail, etc.  
*Implementation 2010-2020*
2. Support opportunities to maintain or increase public land holdings throughout the County and conservation/access easements to the County's water resources. The intent of this recommendation is to enhance the quality of life of residents and increase recreation and tourism opportunities. The planning committee is sensitive to private property owner rights and the need to maintain taxable property. Therefore, it is recommended that the following be considered when evaluating local, state or federal land acquisition/easement projects. Preferred projects are those that would:
  - be voluntary purchases
  - provide public access to public water resources
  - be lands adjacent to existing public lands
  - be flood plains, wetlands, blufflands, etc
  - maintain or increase public recreational opportunities (parks, trails, etc.)*Implementation throughout the planning period*

**Consistency with Local Comprehensive Planning Goals as described in s. 16.965(4) Wis. Stats.**

Listed below are the Comprehensive Planning Goals described in State Statute that are related to the Agricultural, Natural & Cultural Resources Element. Following each goal is a discussion how they were addressed during the planning process.

- *Protection of natural areas, including wetlands, wildlife habitats, lakes, woodlands, open spaces, and groundwater resources.*  
This goal is addressed in the plan by recommendations that support state and local regulations and programs aimed at preserving natural resources.
- *Preservation of cultural, historic and archaeological sites.*  
This goal is addressed by plan recommendations aimed at identifying and preserving historic and cultural sites throughout the County and an effort to increase the number of historic sites listed on the National Register of Historic Places and or the State Register of Historic Places.