

Natural, Agricultural, and Cultural Resources

5.1 Introduction

This element will look at the natural, agricultural and cultural resources in the Town of Trempealeau such as topography, slopes, soils, land cover, agricultural areas, water resources, cultural town resources and more. Knowing these issues makes land decisions more appropriate and efficient.

5.2 Natural Resources

Importance of the Community Natural Resource Base

The natural resource base is connected to the land use of the Town of Trempealeau. The natural resource base effects everyday life such as farming. Even the development of housing is affected by the natural areas. Maintaining the resource quality will keep a strong future for various land use activities.

Background

The Town of Trempealeau is approximately 36,000 acres. According to record, the Town of Trempealeau was organized as Town of Monteville, meaning Mountain Ville, by the county supervisors of La Crosse County on December 9, 1852. The first election of town offices was held the first Tuesday in April, 1853.

Trempealeau is a corrupted form of the French phrase, La Montagne Qui Trempe Dans L'Eau, meaning the Mountain that is Steeped in Water. The Hochunkra (Ho-Chunk) Indians version of Trempealeau is Hay-nee-ah-chah, the Soaking Mountain. The Sioux version of Trempealeau was Pah-hah-dah, the Moved Mountain.

Centerville is the home of the town offices for the Town of Trempealeau. Centerville is named for its geographical location on the Trempealeau Prairie. It was originally called Martin's Corners from an early settler.

The Mississippi River which borders the Town on its southwestern edge played an important part in the development of the Town. The history of the Town is rooted in agriculture, which to this day continues to be an important economic engine for the area.

The Town of Trempealeau is located in the southwestern corner of Trempealeau County, Wisconsin. The Town is surrounded by the Town of Arcadia to the north, Town of Dodge to the northwest, Town of Gale and Town of Caledonia to the east, Village of Trempealeau and the Mississippi River on the southwestern corner and La Crosse County on the very southern edge. The natural landscape of this region helps to define the Town. Trempealeau enjoys a diverse range of topography and natural features, including the coulees, prairies and access to various water sources.

Topography

The Town of Trempealeau is in the unglaciated (driftless) region of Wisconsin. Narrow tree-covered and broad, rolling valleys are characteristic landscape features. The

elevations range from a low of approximately 647 feet to a high of approximately 1,296 feet using the USGS topographic maps.

Slopes

Steep slopes are common in Trempealeau County. The Town of Trempealeau has slopes from 0% to 90% slope. Approximately 12% of the total acres in the Town of Trempealeau that have slopes between 46% and 90% slope. The County's current Zoning Ordinance provides that construction on slopes of 20% to 30% shall require a conditional use permit and construction on slopes greater than 30% is prohibited. The slope map of the Town of Trempealeau can be found on page 31.

Soils

A soil evaluation for the Town of Trempealeau was prepared for the 1981 Trempealeau County Farmland Preservation Plan. The soil evaluation follows:

The soils of the Town of Trempealeau are quite varied. North of Highway 35, the predominant soils are of the stony and rocky land – Seaton–Palsgrove, clayey subsoil variant, association on the uplands. These soils are excessively drained to well-drained soils that have a subsoil of loam, silt loam, silty clay loam or clay, shallow and deep over limestone and sandstone.

The valley bottom and drainage ways are of the Houghton–Palms association. These soils are very poorly drained organic soils over organic and loamy sediment.

South of Highway 35, the predominant soil is of the Dickenson-Gotham-Sparta association. These soils are excessively drained to well-drained soils that have a subsoil of loamy sand to fine sandy loam over fine to coarse sand. These soils are found on river terraces.

The soils that lie along the Mississippi River and Black River are of the wet alluvial land-marsh association. These soils are poorly drained and very poorly drained soils under shallow water in places. These soils are found on bottomlands and flood plains along rivers and streams.

With the exception of the first ½ mile, all of the upland soils north of Highway 35 have scattered pockets of soils which, according to the Soil Conservation Service, have slight to moderate limitations for on-site septic disposal systems. These same soils, however, have a very high rating for crop productivity which would make these soils best suited for continued agricultural production.

Within the first ½ mile north of Highway 35, virtually all of the soils have slight limitations for on-site septic disposal systems. These same soils have a moderate to high rating for crop productivity, which would make it necessary to plan for any development which may occur due to the expanding unincorporated population of Centerville, so as to convert as little farmland as possible away from agricultural production.

On the river terrace soils south of Highway 35, approximately 90-95% of all soils, according to the Soil Conservation Service, have slight to moderate limitations for on-site septic disposal systems. These same soils vary from a very high to low rating for crop productivity. With the exception of the planned transition zones provided for the Village of Trempealeau, the most appropriate land use for the remaining soils of the Town of Trempealeau would be that of agricultural production.

The wet alluvial soils adjacent to the Mississippi and Trempealeau Rivers have very severe limitations for on-site septic disposal systems. The most appropriate land use for these areas would be for open space as well as a plant life genetics reserve.

The soil map for the Town of Trempealeau can be found on page 33.

Forest Resources

According to the 1992 WISCLAND data 27 % of Trempealeau County is covered by forest. There are 127,807 acres of forested land. The majority of forest land in Trempealeau County is privately owned.

County-Owned Forest Lands

There is no county-owned forested land in the Town of Trempealeau.

State-Owned Forest Lands

There are approximately 1,130 plus acres of forested state-owned land in the Town of Trempealeau. These acres are found in Perrot State Park, Tamarack Creek Wildlife Area. The land is managed by the Wisconsin Department of Natural Resources.

Federally-Owned Forest Lands

There are federally owned acres in the Town of Trempealeau located in the Trempealeau National Wildlife Refuge.

Mineral Resources

There are currently no active mineral mining operations in the Town of Trempealeau.

Surface Water Resources

Nonpoint source population Priority Watershed Project implementation has occurred in the Elk Creek, Beaver Creek, Lower Black River/Hardies Creek, Middle Trempealeau and Upper Trempealeau River Watersheds. (Refer to Watershed Map on page 34) The surface water quality assessments within all of these plans were remarkably similar. DNR maintains surface water quality assessments and updates them as needed. A compilation of all of the surface water quality assessments contained within these plans, as well as the Black-Buffer-Trempealeau River Basin Plans form the basis for this county wide surface water quality assessment.

Nonpoint source pollutants are the primary cause of surface water quality problems in the county. Pollutants such as sediment, bacteria, organic material, and animal wastes contribute to the existing surface water quality problems associated with all of the surface water resources of the county. In addition to the pollutants that flow into surface water resources, degradation and erosion of stream banks is a major source of sedimentation to the streambeds as well as the impoundments located at the down stream end of many of the county watersheds.

Erosion and instability of stream banks is a common problem throughout the county which results in increased sedimentation and removal of important habitat for aquatic life, especially trout. Sedimentation of pools and filling in of spawning substrate in riffle areas are results of both upland erosion (Ag and Non-Ag) and stream bank erosion. The filling in of riffle areas reduces reproduction success of trout by reducing oxygen levels in streams and destroying spawning habitat. Sedimentation of stream bottoms also reduces the abundance of invertebrates that constitute a valuable fish food resource.

Agriculture and to a lesser extent, urban land disturbing activities are the primary sources of pollutants to the county's surface water resources. Sources of surface water pollutants include: barnyard runoff, nutrient and sediment runoff from cropped fields, manure runoff from improperly stacked/stored animal waste, concentrated flow erosion from cropped fields and logging trails, ephemeral erosion from cropped fields, and runoff from construction projects.

Water Quality

Surface water resources are evaluated by the Wisconsin Department of Natural Resources on water quality, wildlife, fish, and aesthetic values. In Chapter NR 102 of the Wisconsin Administrative Code water bodies were assigned as Outstanding Resource Waters (ORW) or Exceptional Resource Waters (ERW). ORW's rate higher for the values listed above while the ERW's have a high rating but not as high as ORW's. The ORW's are protected under NR 102. Trempealeau County only has ERW's. Below is a list of those with names; however there are many that are assigned ERW's that are not named or listed below.

Water Resource	Status	Municipality
Abraham Coulee Creek	ERW	Gale
Bear Creek	ERW	Ettrick
Buffalo Creek	ERW	Sumner – Unity
Dutch Creek	ERW	Gale
Joe Coulee Creek	ERW	Ettrick
Johnson Valley Creek	ERW	Unity
Vosse Coulee Creek	ERW	Preston
Washington Coulee Creek	ERW	Ettrick

Watersheds

A watershed is a land area that drains to a particular body of water. There are two watersheds located in the Town of Trempealeau. The northern watershed is known as the Lower Trempealeau River Watershed. The other is the Lower Black River Watershed which is located on the southeastern edge of Trempealeau along the Black River.

Town of Trempealeau Lake Characteristics

There are four lakes in the Town of Trempealeau. First Lake has a depth of maximum depth of 3 feet, Second Lake a maximum depth of 7 feet along with Round Lake, Round Lake is approximately 35 acres while Second Lake is approximately 29 acres. Third Lake has a maximum depth of 8 feet, approximately 35 acres.

Perennial and Intermittent Rivers, Creeks, and Streams

There are two kinds of streams; perennial and intermittent. Perennial streams have water flowing through them most of the year. The intermittent streams are dry most of the year but have water flowing during snowmelt or after rainstorms. Even though intermittent streams do not have water flowing through them constantly there is a need to protect them because they flow into the perennial streams.

Floodplains

Floodplains are lands adjacent to rivers or streams that are naturally subject to flooding. Development in these areas is strongly discouraged because of the flooding. Leaving these areas in their natural state is appropriate.

Flood Hazard Assessment

The Federal Emergency Management Agency (FEMA) has provided maps of flood areas to Trempealeau County.

Groundwater

Water, especially groundwater, is an important resource for residents in Trempealeau County. According to the Wisconsin Department of Natural Resources 70 percent of Wisconsin's residents and 97 percent of Wisconsin communities rely on groundwater for their drinking and other water needs. The quantity of groundwater depends on the recharging, (precipitation), and the discharging of the water. The quality of groundwater is directly related to the activities of the land. Those spreading fertilizers and chemicals either for their residential home or agricultural fields can affect the quality of groundwater.

Environmental Corridors

There are no environmental corridors located in the Town of Trempealeau but the Trempealeau Wildlife Area and land along the Mississippi River are designated as environmentally significant.

Wetlands

A wetland is a low-lying area of land that is saturated with moisture. Examples of wetlands are bogs, swamps, and marsh lands. The Town of Trempealeau has wetlands along some of the streams. Wetlands are classified into 8 classes. Those located in Trempealeau County are aquatic beds, emergent/wet meadows, scrub/shrub/ and forested. There are an approximate 1,247 acres of emergent wetlands, 149 acres of scrub/shrub, 732 acres of forested and 255 aquatic bed.

5.3 Agricultural Lands

Productive Agricultural Lands

Agricultural lands are very important for Trempealeau County. Dairy farming is the number one agricultural product in the county so farmers need land that can produce the food they need to feed their herd. The most productive land can be classified by soils

Class I and Class II. Classes III and IV are classified as productive and the Classes V – VIII are non-productive.

County Agricultural History

Trempealeau County's main agricultural crop was wheat in the 1860's and 1870's. In the 1880's wheat production drastically declined and dairy became the number one agricultural product and is still to this day. Poultry is secondary.

The County overall has seen a 5.5% increase in the total farm acres from 1992 through 2002. The number of farms increased 22.5% from 1992 to 2002. Corn and Soybean acres increased also, while harvested cropland and hay-alfalfa decreased. The Land Use Element has further detail on this issue.

Prime Farmland

Trempealeau County has implemented some Farmland Preservation policies under Wisconsin State Statute 91. The Farmland Preservation program was established in 1977, while in 1989 the Farmland Tax Relief Credit was created. These programs provide relieve to farmland owners, who may be eligible to claim both credits.

5.4 Cultural Resources

Introduction

Culture is what defines a community. Culture is shown in a variety of ways such as the people, festivals, buildings, or gatherings. In the Town of Trempealeau a cultural heritage is the Annual Catfish Days.

Archaeological Sites Inventory

The Town of Trempealeau is home to Perrot State Park. Remnants of a French post were excavated on that property in the early nineteen hundreds. Relics were collected and are on display in the museum of the Wisconsin Historical Society in Madison. The spot where the fort was is identified within the limits of the Perrot Park.

Other archaeology interests are scattered. On the higher grounds near the creeks where bands of Indians settled, arrowheads can be found in tilled fields following a rain.

5.5 Natural, Agricultural, and Cultural Resources, Goals, Objectives, and Actions

Natural Resources

Goal: Preserve, protect, manage, and enhance the town's natural resources.

Objective 1: Protect stream banks from harmful land uses.

Action: Maintain shoreland buffers with the county and DNR.

Objective 2: Protect surface and groundwater quality.

Action: Educate people about the importance of recognizing exotics and invasive species.

Action: Bring septic systems to code.

Action: Promote programs and regulations that manage and reduce pollution to ground water and surface water.

Action: Support best management programs.

Objective 3: Protect and preserve wetlands, wildlife habitat, and woodlands.

Action: Zone wetlands as environmentally significant.

Action: Support the U.S. Fish and Wildlife Service in the town.

Agricultural Resources

Goal: Preservation of valuable and productive farmland for existing and future agricultural activity.

Objective 1: Continue to support family farming and agricultural activities and discourage non-compatible land uses near farming.

Action: Work with county zoning department to maintain two-homes per 40-acre zoning district for agricultural areas.

Objective 2: Mitigate nutrient run-off from agricultural lands.

Action: Support state and county departments to maximize education and incentives (CRP) relative to nutrient run-off.

Objective 3: Support continuation of state programs for farmland preservation.

Action: Try to keep effective programs in place.

Cultural and Historic Resources

Goal: Preserve and enhance the rural heritage, including historical places, sites and landscapes.

Objective 1: Identify and recognize historical, rural, and cultural resources.

Action: Preserve the current road naming system in the Town of Trempealeau.

Action: Recognize and label historic sites with the town.

Action: Work to identify historical, archeological sites and cultural resources in the Town of Trempealeau.