

CHAPTER 5 Agricultural, Natural and Cultural Resources Element

Section 5.1 Introduction

The agricultural, natural and cultural resources of the Town of Lanark are likely the primary reason why people choose to live here. It is a beautiful place. Rolling hills, substantial natural woodlands and wetlands, varied and abundant wildlife and productive farms and farmland all come together to create a unique and attractive landscape.

The residents of the Town of Lanark recognize the value of their unique landscape and understand that it supports and sustains a way of life they are proud of. For those who choose to farm the land here, the community supports their efforts and works to minimize barriers that impede this economically viable industry. The residents also understand that the identification and protection of the historical and cultural resources of the community will help sustain a rich quality of life that is enjoyed by all who settle here.

Section 5.2 Agricultural Resources

A. Farming Systems, Demographics, and Land Tenure

The Town is located on the edge of two major farm regions in Wisconsin. First, and most prominent is the dairy region. In Wisconsin, dairying is most concentrated in a belt that begins near Hudson (St. Croix County), heads east to Wausau and Green Bay (Brown County), then turns southwest through Fond du Lac, Madison and ends near Dubuque (Grant County). Wisconsin Department of Agriculture 2002 permit information list six active grade-A dairy farms operating in the Town of Lanark. To the north in Amherst, there are sixteen farms, to the south in Belmont, there are six farms, and to the west in Buena Vista there are twelve.

The second farming region that Lanark borders is that of fresh vegetable production. The irrigated lands of the “golden sands” region of Wisconsin lay between Amherst and the Stevens Point area and extend south into Waushara and Adams Counties. The Town is on the southeast edge of this large irrigated plain and there are a number of producers who have scattered vegetable operations. While no exact acreage numbers are available, the presence of pivot irrigation is one key indicator of vegetable production. Aerial photography interpretation from the year 2000 showed 17 irrigation pivots in Lanark.

The amount of land dedicated to agricultural production changes from year to year. In 2000, the Portage County Planning and Zoning Office analyzed aerial photography for the Town of Lanark to identify active farmland within the Community. Total agricultural acres identified for 2000 were 7,434, which represented approximately 32% of the land area in the Town. The land in farms was broken down by presence of irrigation, 1,299 acres, use for row crops or hay, 5,913 acres and permanent pasture, 222 acres.

There were 43 persons employed in an agriculturally related field in the Town of Lanark in 2000 (Table 1.10, Issues and Opportunities section). This represented 5.9% of employment for the Town. This is down substantially from the 1980 figure of 80 persons (21.2%). Lanark has a slightly lower percentage of agriculture-related employment when compared to the town average in Portage County of 6.9% for 2000. Decreasing farm employment is not a unique trend by any means. In general, farm numbers are down while acreage per farm is up. Farm consolidation is currently a common practice in this industry.

B. Highly Productive Agricultural Soils

Portage County Planning staff, with assistance from the County Conservationist, has identified highly productive agricultural soils within the Town of Lanark, based on highest productivity and lowest degree of limitations for farming (Map 5.1, Highly Productive Agricultural Soils). Slopes greater than 6% were excluded from the “highly productive” designation (due to severe hazard for water or wind erosion), along with small parcels and stony, rough, and eroded sites. Highly Productive Soils include:

Billett sandy loam, 0-2% slope	Leola loamy sand, 0-3% slope
Rosholt loam, 2-6% slope	Rosholt loamy sand, 0-2% slope
Rosholt sandy loam, 2-6% slope	Wyocena sandy loam, 2-6% slope
Mecan loamy sand, 2-6% slope	Mecan sandy loam, 2-6% slope

C. Agricultural Potential Based On Land Evaluation Rating and Site Assessment (LE-SA)

The Land Evaluation and Site Assessment (LESA) system is a point-based approach that is generally used for rating the relative value of agricultural land resources. In basic terms, a LESA model is created by defining and measuring two separate sets of factors. The first set, **Land Evaluation**, includes factors that measure the inherent soil-based qualities of land as they relate to agricultural suitability. An LE rating was developed by Portage County Planning and Zoning for use across all of Portage County utilizing USDA Soil Survey data. **Higher numbers mean greater value for agriculture.** Possible LE ratings range from 0 to 100. Many physical and chemical soil properties are considered in the LE rating, either directly or indirectly, including soil texture and rock fragments, slope, wetness and flooding, soil erodibility, climate, available water capacity, pH (alkalinity versus acidity), and permeability. Three soil property indexes were combined to produce the LE rating; prime farmland classification, land capability class – natural condition, and productivity index. All three of these indexes are published by the Natural Resources Conservation Service (NRCS).

An SA (Site Assessment) rating was also developed for the Town of Lanark. As with the LE rating, higher numbers mean a greater value for agriculture. The combined Land Evaluation factors are worth 100 points as are the combined Site Assessment factors. The LE and SA scores are added to yield a potential final score for each two acre block ranging between 0 and 200 points, with a score of 200 representing lands that are of the highest value for agriculture (excluding specialty crops such as cranberries). Communities will then determine an appropriate threshold for ranking lands recommended for protection (i.e. areas with a score higher than 150 and are greater than 40 contiguous acres). Weighting factors can be changed by each community to reflect its own priorities. See Appendix D for a complete explanation of this system.

The Town of Lanark has decided to use the LESA model as an advisory tool to help identify areas in the community that should remain in agricultural use.

D. Farm Economy and Infrastructure

Because of the lack of farm economy information available at the town level, a detailed discussion of the farm economy at the town level is not practical. Please see the complete discussion of the Portage County farm economy in the Agriculture, Natural and Cultural Resource element of the Portage County Comprehensive Plan.

Map 5.1 Highly Productive Agricultural Soils

E. Other Local Influences on Agriculture

The Lanark area has the possibility of seeing increased population density in the future. With this comes increased demand for housing and services. One source of pressure for the development of rural residential properties is the expansion of U.S. Hwy 10 to four lanes from Appleton to Amherst, just north of Lanark. This high speed connection will make it possible to complete the 50 mile trip to downtown Appleton in 45 minutes. Many people find this to be an acceptable travel time for work. The possible interest in Lanark may bring more homes onto the agricultural and natural landscapes, increasing the potential for conflict, increasing the assessed value of non-farm lands for residential development purposes, and most importantly, possibly increasing the sale price per acre of land beyond the point of being economically viable for purchase as farmland.

F. Agricultural Programs

A number of programs are available to agricultural landowners to help achieve desired outcomes ranging from enhancing wildlife habitat to minimizing soil erosion. The following is a partial list from the Natural Resources Conservation Service (NRCS). For more information about these and other programs contact the local NRCS office at 715-346-1325, the Farm Service Agency at 715-346-1313, or the County Land Conservation Department at 715-346-1334.

Priority Watershed Program

The Priority Watershed Program is a state program that was created in 1978 to provide financial assistance to local units of government in selected watersheds to address land management activities. The goal of the program is to improve and protect surface and groundwater quality by reducing pollutants from urban and rural non-point sources. Erosion from agricultural operations, stream banks, and developing urban areas, and runoff from livestock wastes and urban areas are examples of non-point sources of pollution.

All of Lanark, with the exception of approximately 40 acres of land in the northeast corner of the Town, is included in the Tomorrow/Waupaca River Priority Watershed Project. The project began in the spring of 1994 and is expected to be completed in 2007. The watershed is approximately 291 square miles and includes land in Portage, Waupaca and Waushara counties. The plan outlines actions and funds needed to meet the project's objectives, an implementation strategy, and the monitoring component to evaluate the program's success.

Soil and Water Resource Management Program (SWRM – DATCP 50)

The Soil and Water Resource Management Program is administered under state code DATCP 50. The program is designed to conserve Wisconsin's soil and water resources, reduce soil erosion, prevent non-point source pollution and enhance water quality. Cost sharing is provided to qualified applicants who enroll in long term agreements to help manage practices, such as intensive grazing. For more information, contact the County Land Conservation Department.

Conservation Reserve Program (CRP)

The Conservation Reserve Program, administered through the Farm Service Agency (FSA), is a voluntary program for agricultural landowners. Through CRP, one can receive annual rental payments and cost-share assistance to establish long-term, resource conserving covers on eligible farmland. Participants enroll in CRP for 10 to 15 years.

Environmental Quality Incentives Programs (EQIP)

The Environmental Quality Incentives Program (EQIP) is a voluntary conservation program. It supports production agriculture and environmental quality as compatible goals. Through EQIP, farmers may receive financial and technical help with structural and management conservation practices on agricultural land.

EQIP may pay up to 75 percent of the costs of eligible conservation practices. Incentive payments may be made to encourage a farmer to adopt land management practices, such as nutrient management, manure management, integrated pest management, and wildlife habitat management.

Wetlands Reserve Program (WRP)

The Wetlands Reserve Program is a voluntary program to restore and protect wetlands on private property. It is an opportunity for landowners to receive financial incentives to restore wetlands that have been drained for agriculture.

Landowners who choose to participate in WRP may sell a conservation easement or enter into a cost-share restoration agreement with USDA to restore and protect wetlands. The landowner voluntarily limits future use of the land, yet retains private ownership. The landowner and NRCS develop a plan for the restoration and maintenance of the wetland.

The program offers landowners three options: permanent easements, 30-year easements, and restoration cost-share agreements of a minimum 10- year duration

Wildlife Habitat Incentives Program (WHIP)

The Wildlife Habitat Incentives Program is a voluntary program for people who want to develop or improve wildlife habitat on private lands. It provides both technical assistance and cost sharing to help establish and improve fish and wildlife habitat.

Landowners agree to prepare and implement a wildlife habitat development plan. The U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) provides technical and financial assistance to implement the wildlife habitat restoration practices.

Section 5.3 Agricultural Issues

The following issues relating to agriculture were identified through the planning process:

- Changes in the economics of agriculture have put great pressures on the need to produce income from the sale of land for non-agricultural purposes.
- The development potential of the Amherst area is encroaching on the agricultural lands. How can development pressure be directed away from productive agricultural areas?
- How can we encourage more farmers to stay in A-1 zoning?
- Niche markets should be explored and developed. How can the Town promote specialty agricultural operations?
- Buffers between intensive agricultural activities and sensitive environmental areas should be established.
- How can certain types of agricultural operations, such as concentrated livestock operations, be regulated or directed?

Section 5.4 Agricultural Goals, Objectives and Policies

Goal 1: Protect productive agricultural operations from development pressures.

Objective 1.1: Identify and map highly productive farmlands based on a Land Evaluation Site Assessment (LESA) process and other pertinent information and protect these lands from premature development.

Policy: Develop numeric thresholds within the LESA system as a means of identifying and protecting productive agricultural areas from premature development.

Policy: Use Exclusive Agricultural Zoning as a means of preserving farmlands.

Objective 1.2: Support the development of agricultural zoning districts that protect the integrity of quality farmland, yet consider the economic realities of farming in our current economy.

Policy: In cases where irrigated lands are zoned A-1 Exclusive Agricultural District due to the presence of an irrigation system, and not due to factors related to soils quality, the Lanark Plan Commission and the Portage County Planning and Zoning Department will support a request for rezoning to a district similar to those found adjacent to the property, if the irrigation system is permanently removed, and the proposed land use is compatible with surrounding uses.

Policy: Within or adjacent to the A-1, Exclusive Agricultural Zoning District or the A-20 Primary Agricultural Zoning District, residential dwellings proposed adjacent to agricultural uses permitted in the Agricultural Zoning Districts of the Portage County Zoning Ordinance shall be established a minimum of 100 feet from the property line adjacent to the agricultural use, including road right-of-way, as defined at the time of plat. In no situation shall this requirement render an existing parcel unbuildable for residential purposes.

Policy: Recommend the use of the Open Space Design Option and Density based development in areas designated as Intermediate Agriculture for non farm residences.

Goal 2: The public is aware of the operations and activities of the agricultural community.

Objective 2.1: Work with organizations and agencies to educate the public regarding expectations of living near or adjacent to agricultural uses

Policy: Support the use of the following “Agricultural Use Notice” when property transactions occur within the Enterprise or Intermediate Agricultural Land Use District:

“All lands within the Enterprise Agriculture District are located in an area where land is used for commercial agricultural production. Owners, residents, and other users of this property or neighboring property may be subjected to inconvenience, discomfort, and the possibility of injury to property and health arising from normal and accepted agricultural practices and operations, including but not limited to noise, odors, dust, the operation of machinery of any kind, including aircraft, irrigation, the storage and disposal of manure, the application of fertilizers, soil amendments, herbicides, and pesticides. Owners, occupants, and users of this property should be prepared to accept such inconveniences, discomfort, and possibly injury from normal agricultural operations, and are hereby put on official notice that the state Right-to-Farm Law (Wis. Stat. 823.08) may bar them from obtaining a legal judgment against such normal agricultural operations.”

Goal 3: Environmentally sensitive agricultural practices are used that protect air, soil, water, and wildlife resources.

Objective 3.1: Encourage land use practices which protect the quality of surface and groundwater resources, including minimizing the loss of soil or agricultural chemicals to ground and surface water, as well as the proper location and maintenance of on-site sewage systems associated with residential development.

Policy: Encourage farmers to work with agencies and organizations to develop and implement farm plans, procedures, and Best Management Practices that help protect surface and groundwater, riparian lands, and minimize field and feedlot runoff into surface waters.

Policy: Recommend that concentrated livestock operations be regulated by special exception.

Policy: Direct concentrated livestock operations away from residential and environmentally sensitive areas.

Goal 4: The agricultural community is economically viable.

Objective 4.1: Support farmers who identify niche markets suitable for their operations. Acknowledge the volatile nature of the agricultural economy and the need to be flexible and timely in adjustments to regulations that affect profitability.

Policy: Submit a Town Exclusive Agricultural Zoning Map to the State Land and Water Conservation Board for certification to allow farmers to participate in the Farmland Preservation program.

Section 5.5 Natural Resources

Natural resources in the Town serve as the foundation for residents physical and economic well being – from groundwater quality to land suitability for agricultural, residential, or commercial development. According to the results of the 2001 Comprehensive Planning and Zoning Survey, Town residents favored managing the natural resources that support and sustain them.

This section will describe the existing natural resources inventory and state the issues, goals, objectives, and policies that were identified and adopted by the Town of Lanark Plan Commission and Town Board.

A. Geomorphology

The land surface throughout much of Portage County has been shaped largely by glacial activity. During the glacial age, the continental ice sheet advanced across eastern Portage County, including what is now the Town of Lanark, moving in a southerly and westerly direction. Minor advances and retreats of the ice front formed a series of north-south moraines, as ice transported sediments were dumped near the forward edge of the ice sheets. The moraines are comprised of a wide variety of unsorted materials, known as till, picked up by the advancing glaciers. The till consists of clay, sand, gravel and boulders, which are intermingled. The moraines found in the Town of Lanark are referred to as “recessional” moraines, since they were formed as the ice sheet melted or receded. These recessional moraines are relatively small and discontinuous, having been broken into widely separated sections by numerous drainage channels. This differs from the larger “terminal” moraine located farther west, as in the Town of Buena Vista.

Map 5.2 Topography

Map 5.3 General Soils

Map 5.4 Wetlands

Map 5.5 Floodplains

In addition to the moraine landforms, much of the landscape in the Town of Lanark is derived from well sorted sand and gravel, deposited by glacial melt-water streams. These areas are often referred to as outwash plains. The flatter areas of outwash are the result of sediments having been deposited on solid ground, while the hilly areas of outwash are the result of sediments having been deposited on stagnant glacial ice or due to postglacial erosion.

The topography of the Town is generally rolling. The elevation gradually increases from approximately 980 feet above sea level in the eastern part of the Town to approximately 1080 feet above sea level in the western part (Map 5.2) while depth to bedrock is generally deep, ranging from 100 to 300 feet.

B. Soils

Soils in the Town of Lanark (Map 5.3) can be grouped into three soil associations, as follows:

- Wyocena-Rosholt Association: Well drained, gently sloping to very steep soils that formed in loamy deposits and sandy glacial till or outwash sand and gravel. These soils are found in the west central part of the Town, south and east of Spring Lake. The lesser sloping areas tend to be used for crops while the steeper areas are used for pasture or woodland. The steeper soils in this association have very severe limitations for septic absorption fields.
- Kranski-Coloma-Mecan Association: Excessively drained and well-drained, gently sloping to very steep soils that formed in sandy glacial till or in deep sandy deposits. Most of these soils are used for pasture or woodland and are subject to soil blowing and water erosion when cropped or exposed.
- Richford-Rosholt-Billett Association: Well drained, nearly level to gently sloping soils that formed in sandy and loamy deposits and outwash sand and gravel. These soils can be found in the upper northwest and lower southeast portions of the Town. Corn, small grain, and alfalfa are the principal crops, while some specialty crops are grown in irrigated areas. These soils are subject to wind and water erosion.

Soil testing by a certified soil tester is strongly recommended for more detailed, site specific information.

C. Surface Water, Wetlands, and Flood Plains

The major surface water bodies that are present in the Town of Lanark are, Spring Lake, Boelter Lake, the Tomorrow River, and Spring Creek (Map 5.4). The Tomorrow River is concentrated in the northeast corner of the Town, flowing from the north to the south-southeast and flows into Waupaca County. Spring Creek enters the Town from the west and meanders across the Town before it meets up with the Tomorrow River. Other surface water features include Allen Creek, which is located in the southeast corner of the Town and flows into Waupaca County, and Bingo Lake, Jim Lake, Huntley's Lake, Pierces Lake, and Peters Lake, located mainly in the southwest corner of the Town. Boelter and Spring lakes were included in a comprehensive study of 29 Portage County lakes between 2003 and 2005.

All of Lanark is located in the Tomorrow-Waupaca River watershed and areas surrounding the creek are subject to occasional flooding from major storm events and meltwater from the spring thaw. A watershed can be defined as interconnected areas of land draining from surrounding ridge tops to a common point such as a lake, wetland, or stream junction with a neighboring land area.

Wetlands are an important part of a watershed, as they act as a filter system for pollutants, nutrients, and sediments, along with serving as buffers for shorelands and providing essential wildlife habitat, flood control and groundwater recharge. Wetlands within the Town of Lanark include three general types: forested, scrub or shrub, and emergent/wet meadow.

- Forested wetlands are the predominant type – including bogs and forested floodplain complexes that are characterized by trees 20 feet or more in height such as, tamarack, white cedar, black spruce, elm, black ash, and silver maple. These wetlands are located primarily along the edges of the Tomorrow River and along Allen and Spring Creeks.
- Scrub/shrub wetlands are the second most abundant type. These wetlands, which include bogs and alder thickets, are characterized by wood shrubs and small trees such as tag aster, bog birch, willow and dogwood. These are also found primarily in the southwestern and southeastern parts of the Town.
- Emergent/wet meadow, the third most numerous type of wetland within Lanark, consists of areas that may have saturated soils more often than having standing water. Vegetation includes sedges, grasses and reeds as dominant plants, but may also include blue flag iris, milkweed, sneezeweed, mint and several species of goldenrod and aster. These types of wetlands are found only in the headwaters of Allen Creek.

A floodplain is defined as that which has been or may be covered by floodwater during the regional flood. The flood plain includes the floodway and floodfringe areas. A 100-year Flood is defined as a flood event having a one percent chance of reaching the 100-year flood elevation in any given year. Contrary to popular belief, it is not a flood occurring once every 100 years. A 100-Year Floodplain then, is the area adjoining a river, stream, or watercourse covered by water in the event of a 100-year flood.

Floodplains provide many benefits including: natural flood and erosion control, water quality maintenance, groundwater recharge, and fish and wildlife habitat. Some of these areas are also desirable for residential development due to aesthetic reasons, and agricultural development due to the presence of nutrient rich soils. If development in these areas increases, the benefits listed above will decrease. The only floodplains in the Town designated by Federal Emergency Management Agency (FEMA) maps are found adjacent to the Tomorrow River (Map 5.5). These areas are regulated by Portage County Floodplain and/or Shoreland Zoning Ordinance.

D. Groundwater

The Town of Lanark is located in a geologic province known as the drift province. The drift province is considerably different from the western half of the County in that the basement granitic bedrock is far from the surface, and the unconsolidated aquifers above it are not limited. The depth to bedrock is generally greater than 100 feet, and the depth to groundwater ranges from a few feet below the surface to 70 feet throughout the Town. Seasonally, depths to groundwater can vary.

All Town residential water use comes from groundwater sources, therefore, protection of this resource is important. Generally, a thick unsaturated zone exists; however, given the sandy soil type, pollutants can readily move to the groundwater with little removal en route. Although some of the soils ranked moderate to good in pollution attenuation, this area of the County should be considered vulnerable overall given the sandy soil type. Potential pumping yield rates for groundwater are between 500 and 1000 gallons per minute, indicative of a large potential supply. However, large removals could affect groundwater levels, wetlands and surface water.

Map 5.6 Groundwater Flow

Map 5.7 Atrazine Prohibition Areas

Map 5.8 Forested Areas

The Town is situated east of the County's groundwater divide and, as such, is part of a larger watershed that drains into Lake Michigan and eventually the Atlantic Ocean. Groundwater flows generally in an easterly direction throughout the Town (Map 5.6). Knowing the direction of groundwater flow can be a helpful piece of information when determining proper siting of well and on-site waste systems.

Data collection for groundwater monitoring remains an on-going process. Residents are responsible for their own groundwater testing. It is recommended that water is tested on an annual basis. More specific information and recommendations regarding groundwater can be found in the ***Portage County Groundwater Management Plan***, adopted by the County Board in March, 2004.

Atrazine Prohibition Areas

The US Environmental Protection Agency is researching the health effects of atrazine in water. Drinking water that contains atrazine will not cause an immediate sickness or health problems (acute toxicity). However, consuming low levels of atrazine over time may cause health problems (chronic toxicity). The EPA is also concerned that atrazine may be an endocrine disruptor which can affect hormone activity in the body.

The Wisconsin Department of Agriculture, Trade and Consumer Protection and WIDNR is responsible for protecting Wisconsin's groundwater from contamination by pesticides and fertilizers. Their authority to restrict the use of a pesticide that is contaminating groundwater at levels above health-based standards is found in the Wisconsin Groundwater Law, [Chapter 160 of the Wisconsin Statutes](#), and by department rule in [ATCP 31, Groundwater Protection Program](#).

The rules for restricting the use of atrazine and other pesticides in Wisconsin are part of [ATCP 30 - Pesticide Product Restrictions](#) and the county maps showing the location of the prohibition areas can also be found in the rule in [ATCP 30 - Appendix A](#).

Atrazine has been detected above the health standard in some wells within the Town of Lanark and because of this, prohibition areas have been defined within the community (Map. 5.7, Atrazine Prohibition Areas). Approximately 3,186 acres of land are within the prohibition area in the Town of Lanark. The lands are found in the northwest and the southwest corners of the community.

E. Wildlife Habitat and Forested Areas

When people think about wildlife, birds, fish, and mammals most likely come to mind. It is important, however, to consider all organisms that make up an ecosystem in order for that system to continue providing the maximum benefit to humans and the environment. Town residents recognize the fact that human beings play a role in protecting or restoring, as well as, degrading or destroying wildlife and its habitat. They also recognize that it will be very difficult to preserve all ecosystems in the Town from human encroachment or interaction, therefore, it is the desire of residents to protect wildlife habitat where practicable.

The biggest threats to wildlife are loss of habitat quality and quantity. These threats can be attributed primarily to fragmentation, invasive species, and pollution. Fragmentation refers to the loss of large, contiguous sections of land through subdivision into smaller parts. These subdivisions can lead to an alteration and possible degradation of the native plant and animal communities. Invasive species, both plant and animal, tend to out compete or prey on native

species also altering the native ecosystem. Pollution can lead to habitat degradation and cause birth defects and increased mortality rates in animal species.

Habitat areas are important for providing food and cover for nesting, brooding, and sheltering. Farmland is one type of habitat that provides food, as well as, travel corridors between wetlands and woodlands.

Woodlands or forested lands comprise 50% of the land area in Lanark (Map 5.8), while wetlands make up 5%. According to 2001 County survey data, 82% of Town respondents felt that an effort should be made to identify and protect woodlands, and 79% felt the same about wetlands and floodplains. Loss of these habitat types can threaten the viability of certain species.

One option open to all private landowners owning ten or more acres of woodlands is the Managed Forest Law Program. The MFL program is intended to foster timber production on private forests while promoting other benefits that forested lands provide. Participants in this program have the option to choose a 25 or 50 year contract period and pay property taxes at a reduced rate on enrolled lands. A portion of the difference in property taxes is recouped by the state at the time of a timber harvest when a yield tax is imposed based on the volume of timber removed. For more information regarding specific requirements and how to enroll in this program, contact the WI Department of Natural Resources.

Threatened and Endangered Species

Known rare and endangered animal species identified by the Wisconsin Natural Heritage Inventory (NHI) located within the Town of Lanark area includes: Karner Blue Butterfly. Rare and endangered plant communities include: Northern Dry Mesic Forest, Floodplain Forest, and Northern Wet Forest. These elements should be taken into consideration when development and protection measures are considered. A detailed description of rare and endangered plants and animals can be obtained from the WI DNR.

The Town of Lanark recognizes the presence of nesting bald eagles on lands south of Spring Lake.

F. Air Quality

The following information comes from the WI DNR and the Environmental Protection Agency:

A few common air pollutants are found all over the United States. These pollutants can injure health, harm the environment and cause property damage. The Environmental Protection Agency calls these pollutants **criteria air pollutants** because the agency has regulated them by first developing health-based **criteria** (science-based guidelines) as the basis for setting permissible levels. These pollutants include: ozone, nitrogen dioxide, sulfur dioxide, carbon monoxide, particulate matter, and lead.

One set of limits (**primary standard**) is designed to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly; another set of limits (**secondary standard**) is intended to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. A geographic area that meets or does better than the primary standard is called an **attainment area**; areas that don't meet the primary standard are called **nonattainment areas**.

All of Portage County, including the Town of Lanark, is listed as an attainment area by the WI DNR.

G. Non-Metallic Mining

The glacial and geologic history of Portage County has made conditions suitable for certain types of non-metallic mining. Along the moraines in the eastern third of the County, glacial deposits have resulted in some lands that are desirable for gravel and aggregate extraction.

The Town of Lanark does have sand and gravel mining resources available. Currently, however, there are no active gravel extraction sites. There was one in the recent past, used by the Wisconsin Department of Transportation, for the construction of the new Hwy 10 in 2003-2004. The Town of Lanark has a non-metallic mining ordinance regulating these areas.

Section 5.6 Natural Resources Issues

Natural resources are important to the residents of Lanark. The following natural resource issues were identified through the planning process:

- How can ground and surface water be protected from failing septic systems?
- How can water resources be protected from the negative impacts of road construction, residential development, and certain agricultural and mining practices?
- How can fishery resources be protected in the Town?
- How can groundwater and other natural resources be protected from junk vehicles and other nuisances?
- Excessive groundwater draws can lower surface water levels. How can surface water levels be maintained while accommodating human activity?
- Residents want to maintain the quality of the viewsheds around surface waters.
- How can the impacts of oak wilt and gypsy moths be addressed?
- How can forest owners be made aware of options for land management?
- How can the spread of exotic species in the Town be minimized?
- Increasing deer population is causing excessive damage. To what extent can the Town control the herd when so many land owners won't allow hunting?
- Deer crossing areas should have signs (CTH A).
- Town Park and recreation plans need to be reflected in the County Outdoor Recreation Plan in order to be considered for state funding.
- What is the DNR's intent for their properties in Lanark?
- Unique geologic features should be identified.
- How can the integrity of the night sky be maintained?
- Cross country skiing trails would be nice to have developed in the Town.
- Who is monitoring the air quality and how do we get additional monitoring sites?

Section 5.7 Natural Resources Goals, Objectives & Policies:

Goal 1: Identify, manage, preserve and protect natural resources throughout the Town.

Objective 1.1: Environmentally sensitive agricultural practices are used to protect air, soil, water and wildlife resources.

Policy: Encourage farmers to work with private, government and educational organizations to develop farm plans and procedures that help protect riparian lands and minimize field and feedlot runoff into surface waters.

Policy: Recommend increased setbacks or use of buffers along surface waters for agricultural activities and development.

Objective 1.2: Preserve significant environmental resources, including floodplains, wetlands, shorelands, and groundwater, as well as areas offering prime opportunities for recreation, open space and wildlife habitat.

Policy: Protect large blocks of naturally wooded lands from interior development.

Policy: Preserve designated Natural Areas through the application of the County's Conservancy Zoning District. Such resources include shore lands, shore land wetlands, and publicly owned lands used for recreation and wildlife management.

Policy: Monitor non-metallic mining operations through requirements in the Town's ordinance.

Policy: Support shoreland protection laws and enforce current setbacks from waterways and environmental features. The Town recommends against the use of averaging for shoreland setbacks.

Objective 1.3: Identify unique features in the Town.

Policy: Limit residential development in areas identified as unique features.

Goal 2: Partnership efforts result in the preservation and restoration of natural resources.

Objective 2.1: Encourage cooperation with Portage County, UW-Extension and the DNR to provide educational materials relating to natural resource management.

Policy: Work with the DNR and UW Extension to educate residents, landowners and loggers about control of oak wilt and non-native species.

Policy: Continue to maintain Town representation on the Groundwater Citizens Advisory Committee (GCAC).

Objective 2.2: Public and private organizations work together to define and develop appropriate public access to natural resources.

Policy: Development should be kept out of the floodplains.

Policy: Encourage quality deer management and access to hunting land.

Policy: Work with surrounding communities to apply similar development standards and standards for agricultural practices adjacent to surface waters.

Policy: Work with other governmental units to help prevent spread of plant diseases and gypsy moths.

Policy: Work with DNR and other organizations to help maintain or enhance fish habitat.

Policy: Encourage the County Parks Department to expand Stedman Park and consider the purchase of other large tracts of land.

Policy: Encourage the use of shielded lighting to preserve the integrity of the night sky.

Objective 2.3: Work with the County to better enforce its Zoning Ordinance relating to inoperable or 'junk' vehicles and other items that negatively impact natural resources.

Objective 2.4: Consider the development of a Town park.

Section 5.8 Cultural Resources

How can you know where you're going if you don't know where you've been? Cultural and historic resources often help link the past with the present and can give a community a sense of place or identity. These resources can include historic buildings and structures along with ancient and archeological sites.

Burial sites are one example of a resource that can add to a community's sense of history as well as provide a great deal of genealogical information. Formally catalogued burial sites are protected from disturbance in Wisconsin and are given tax treatment equal to that of operating cemeteries.

Information regarding cultural and historic resources in the Town of Lanark is constrained to limited financial and human resources. This section will provide goals and policies that promote the effective management of historic and cultural resources.

A. Cultural and Historic Resources Inventory

A wide range of historic properties have been documented that help create Wisconsin's distinct cultural landscape. Descriptions of existing locations are identified on the list of historic places by the Wisconsin Historical Society. Many of the properties included in this inventory are privately owned and not necessarily open to the public. At this time, there are eleven listings in Lanark, which include buildings, houses, barns, church, and a school house. Among the more conspicuous sites are:

Pipe School - a one to six room clapboard school house constructed in 1889 located on Pipe Road.

First Presbyterian Church (currently Badger Community Church) – a gothic revival style aluminum/vinyl siding church constructed in 1898 located at the junction of Badger Road and State Hwy 54 east.

Another source of information comes from the National and State Register of Historic Places. There are currently fourteen sites listed throughout Portage County, with one located in the Town of Lanark. This site includes: Severance-Pipe Farmstead and School, both located on Pipe Road, 1/8 mile east of CTH T.

Cemeteries:

There are three cemeteries in the Town, as identified in the Utilities and Community Facilities chapter of this Comprehensive Plan.

The Wisconsin Historical Society has identified a Native American burial site in the Town of Lanark. The site belongs to the Wisconsin DOT and is located between the four lanes of highway and in the right of way of USH 10 near County Rd T. The burial site has been named "Blinded by the Light".

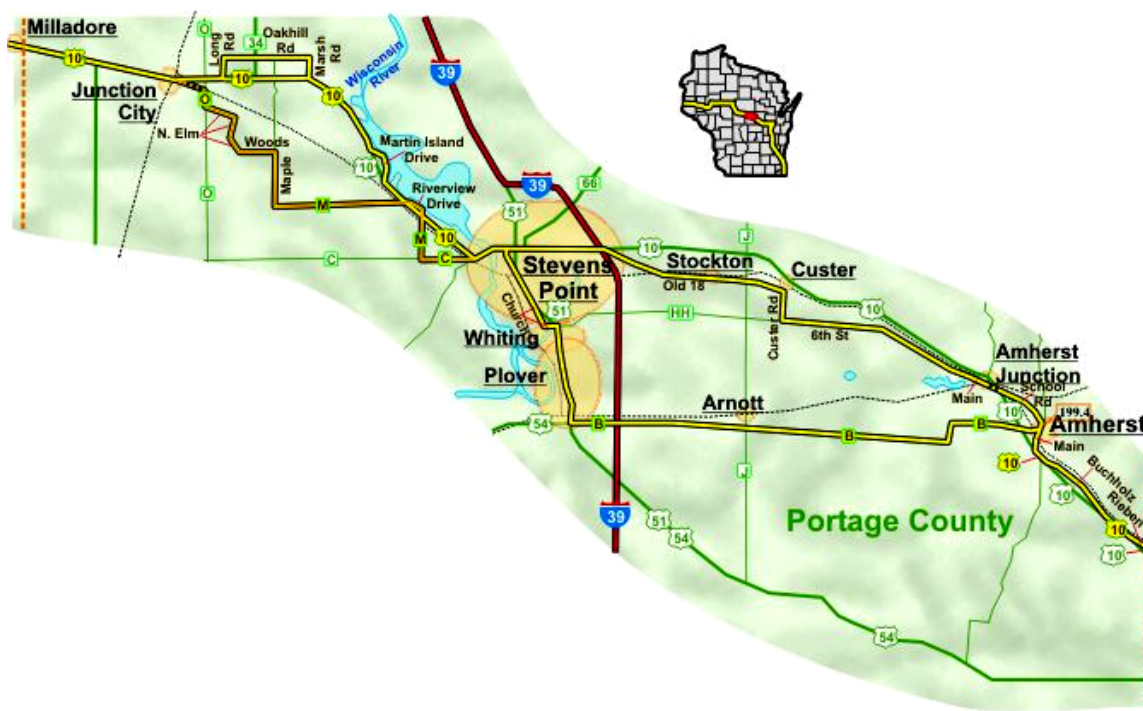
Rustic Roads

According to the WI Department of Transportation, "The Rustic Roads System in Wisconsin was created by the 1973 State Legislature in an effort to help citizens and local units of government preserve what remains of Wisconsin's scenic, lightly traveled country roads for the leisurely enjoyment of bikers, hikers and motorists." Rustic roads are marked by brown and yellow signs with an 'R' followed by a 1 to 3 digit number.

There are only two rustic roads designated in Portage County. The first is Otto Road (R17) in the northeast section of Town, which runs from USH 10 west to Morgan Road, then south on Morgan Road to County T. This road crosses a scenic section of the Tomorrow River. The second is a portion of Town Line Rd (R57), which is located at the Portage/Waupaca County border on the eastern boundary of the Town. This stretch of road is located near the Ice Age National Scenic Trail (Map 3.1, Transportation element).

Yellowstone Trail

The Yellowstone Trail was the first transcontinental automobile highway in the United States through the northern tier of states from Washington through Massachusetts. The Trail began in South Dakota in 1912. It quickly expanded to run from the Twin Cities (Minnesota) to the Yellowstone National Park in Montana. While the intent of the founders was to create a highway from coast to coast the marking of the whole route took considerable time. In 1914 it was formally extended to the Idaho border in the west and to Chicago in 1915. By 1917 the entire route was firmly established.



Several different routes were used by the Yellowstone Trail between Amherst and Stevens Point. One, from 1915 to November, 1919, followed what is now Co. B and U.S. 51/Church St. Another followed old WI 18. A portion of the Trail passes through the Town of Lanark near the current USH 10 alignment (Information and map courtesy <http://yellowstonetrail.org/>).

Other Resources

The Portage County Historical Society is one source where cultural and historic information may be obtained. Other cultural and historic resources identified through the planning process include:

Dam & Grist Mill at Spring Creek
Riverside Bible Camp
Town Hall
Pony Express site (Martin Schultz, Alexander House)
Clay pits used for brick – to construct school house
Amish School house (Damrau Rd. – built in early 1960's)
Joyce and Jerome's Creamery (CTH A & Lanark Ln.)
Wolf Lake Rd. & CTH N – church site
Archaeological site – McKee property
High ground in Stedman Park
Native American burial sites in median of Hwy 10

B. Cultural Resource Programs

At the state level, the Wisconsin Historical Records Advisory Board (WHRAB) works in association with the Wisconsin Historical Society. The Board's activity falls primarily into three areas: it provides guidance and assistance to archives and records management programs in Wisconsin, promotes the value of historical records as keys to our cultural heritage and works through partnerships with statewide organizations whose purpose and goals support that end, and to bring federal grant funds to Wisconsin for improving access and preservation of historical records.

In 2004, the Land Preservation Committee of Portage County established a fund to help purchase lands identified by local units of government as having cultural or natural significance to the community. Although these sites may be identified, the landowner must want to participate in the program to move the process forward. The following sites have been identified as possible preservation areas:

- Site of the current Town Hall and lands along the creek (to the - to provide public access to Spring Creek.
- Lands on the south side of Spring Creek near Spring Lake
- Areas to the south and east of Stedman Park
- Conservation easements to provide access to DNR land in Section 15
- Riverside Bible camp land along the Tomorrow River
- Public access to Boelter Lake
- Lands around Peters Lake
- Lands from Edminster Rd. south to Hartman Creek State Park
- Riparian areas along the Tomorrow River
- Former clay pit on Clinton Rd.
- Alexander House (corner of Badger and Edminster Rds)
- Schultz House (site of stop along main stage coach route)
- Stedman site (site of first gristmill and first election)

Section 5.9 Cultural Resource Issues

The following issues or concerns were identified by the Town of Lanark Plan Commission:

How can historic and cultural resources in the Town be identified and protected?

Section 5.10 Cultural Resource Goals, Objectives and Policies

Goal 1: The general public is more aware of historic and cultural resources in the Town.

Objective 1.1: Cultural and Historic sites are identified

Policy: Work toward the placement of markers at cultural and historic sites.

Policy: Keep an inventory of cultural and historic resources in the Town.

Policy: Develop a method for identification and storage of historic Town records.