

CHAPTER 5 Agricultural, Natural and Cultural Resources Element

Section 5.1 Introduction

The agricultural, natural and cultural resources of the Town of Plover are some of the main reasons why people choose to live here. The Town's flat topography and unique soils are ideal factors for agricultural production. The Wisconsin River, woodlands and wetlands, abundant wildlife and productive farms and farmland all come together to create a favorable living environment.

The residents of the Town of Plover recognize the value of their uncommon 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 proper management of natural resources within the community will help sustain a rich quality of life that is enjoyed by all who settle here.

Section 5.2 Agricultural Resources Inventory

A. Agricultural Potential Based on Land Evaluation Rating (LE-SA)

Land Evaluation and Site Assessment (LESA) is a tool that can be helpful in assisting Town leaders to identify land that has the highest value for agricultural use within the community. The LESA system is a point-based approach that can be used for rating the relative value of agricultural land resources. It does so 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. The second set, **Site Assessment**, includes factors that are intended to measure social, economic, and geographic attributes that also contribute to the overall value of agricultural land.

A Land Evaluation (LE) rating was developed for use across all of Portage County. Three soil property indexes, all published by the Natural Resources Conservation Service (NRCS), were combined to produce the LE rating: prime farmland classification, land capability class – natural condition, and productivity index. LE ratings reflect the productivity potential, as well as the economic and environmental costs of producing a crop. Possible LE ratings range from 0 to 100, with **higher numbers meaning greater value for agriculture**. 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.

A Site Assessment (SA) rating was also developed for the Town of Plover. The site assessment factors are further evaluated in the Land Use element of this plan. As with the LE rating, SA ratings range from 0 to 100, with higher numbers meaning greater value for agriculture. The LE and SA scores are combined to yield a score for each two-acre block of land within the Town 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 greater than 40 contiguous acres in size). Weighting factors can be changed by each community to reflect its own priorities. See Appendix E for a complete explanation of this system. The Town of Plover has decided to use the LESA model as an advisory tool to help identify productive agricultural areas in the community that are recommended to remain in agricultural use.

B. Highly Productive Agricultural Soils

Highly productive agricultural soils in the Town of Plover have been identified, with the assistance of the county conservationist, 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.

The Town has very little soil listed as prime; however, due to intensive management practices (including drainage, irrigation, fertilizing, and aerial spraying) many areas of the Town have been rendered highly productive. Some of these practices occurring in the more porous sandy soils may result in negative consequences such as high nitrate levels in groundwater.

Highly productive agricultural soils in the Town include:

- Billett sandy loam, 0-2% slopes
- Dunnville very fine sandy loam, 2-6% slopes
- Rosholt loam, 2-6% slopes
- Richford loamy sand, 0-6% slopes
- Friendship loamy sand, 0-3% slopes
- Dunnville very fine sandy loam, mottled subsoil variant. 1-3% slopes

C. Farming Systems, Demographics, and Land Tenure

The agricultural landscape of the Town of Plover can best be described as a “coming together” of farming systems. The Town is located in two major farming regions in Wisconsin. The 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 (Marathon County) and Green Bay (Brown County), then turns southwest through Fond du Lac, Madison and ends near Dubuque (Iowa County). Wisconsin Department of Agriculture 2002 permit information list three (3) active grade-A dairy farms operating in the Town of Plover. To the south in Buena Vista, there were eleven (11) farms, to the east in Stockton there were twenty-four (24) farms, and to the east in Grant there were two (2) farms.

The second farming region which includes Plover is that of fresh vegetable production. The irrigated sands of the “golden sands” region of Wisconsin are located between the Town of Amherst and Stevens Point, and continue south into portions of Adams and Waushara counties. The Town of Plover is in the central part of this large irrigated plain where a number of vegetable operations can be found. While no exact acreage numbers are available, the presence of pivot irrigation rigs is one key indicator of vegetable production. There were approximately 78 irrigation pivots in Plover in 2000 as identified by aerial photo interpretation. Some of these fields may not be used for vegetable production, but odds are the majority have been used for this industry. Continued development pressure near the Village of Plover may have an impact on some of these operations.

The amount of land dedicated to agricultural production does change regularly from year to year. In 2000, the Portage County Planning and Zoning office analyzed aerial photography for the Town of Plover to identify active farmland within the community. The land in farms was broken down by presence of irrigation, 12,628 acres, use for row crops or hay, 20 acres and permanent pasture, 572 acres. Total agricultural acres identified for 2000 were 16,211, which represented approximately 59% of the total Town acreage.

There were 66 people employed in an agriculturally related field in the Town of Plover in 2000 (Table 1.9, Issues and Opportunities section), representing 5.6% of employment for the Town.

Map 5.1 Highly Productive Agricultural Soils

Map 5.2 Portage County Drainage District

This is down slightly from the 1980 figure of 73 persons (7.0%). Plover 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 where, while acreage per farm is up. Farm consolidation is a common practice in this industry.

C. 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 Agricultural, Natural and Cultural Resources element of the Portage County Comprehensive Plan.

D. Other Local Influences on Agriculture

The Plover area is beginning to see increased pressure for the development of rural residential properties. The expansion of the Village of Plover has a great impact on the Town, decreasing the land base from the Township. This increased interest in the Plover area has brought more homes onto the agricultural landscape, increasing the potential for conflict, increasing the assessed value of non-farm lands, and most importantly, possibly increasing the sale price per acre of land beyond the point of being economically viable for purchase as farmland.

1. Portage County Drainage District (Map 5.2)

The Portage County Drainage District was organized in 1903 to develop and maintain a series of drainage ditches that would make agriculture on and near the Buena Vista Marsh possible. Construction began in 1907 and was completed in 1915. Due to such adverse conditions as acid soil, fire, frost, and the high cost of re-dredging, farming became unprofitable. Increased interest in irrigated agriculture for mint, potatoes, hay and pasture led to the re-dredging of the ditches in the late 1960's. Currently, the Portage County Drainage District is the largest active district in the State. (Lake Wazeecha Watershed Inventory Report, 1993)

The Drainage District is approximately 87 square miles in size and contains approximately 93 miles of District operated ditches, 41.5 miles of "private drains" and 5 miles of perennial streams. The construction and maintenance of District operated ditches is regulated by a Wisconsin Department of Natural Resource "Maintenance Dredging Agreement" and ATCP 48 of the Wisconsin Administrative Code under DATCP. (Prototype Management Plan for the Portage County Drainage District, 1994)

The Portage County Drainage District oversees the maintenance of these ditches through statutory authority. A tax is levied against land in the district receiving benefits from the ditches. The taxes are used for maintenance of the ditches. In recent years, the ditches have come to need extensive dredging, and most ditches require a permit from the Department of Natural Resources. Although some permits have been granted, there have been conflicts between the Drainage District and the DNR concerning authority and jurisdiction over the ditches. The presence and continued maintenance of the ditches will be necessary to sustain agricultural production.

E. Agricultural Programs

1. 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.

2. 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.

3. 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.

4. 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 raised during the planning process:

- How can the Town keep agriculture areas free from residential encroachment?
- How can the Town maintain agricultural areas?
- How can farmers utilize cover crops to reduce erosion (sandy soil)?
- To what extent does the Town want to continue the diversity of farm operations (crop and animal)?

- How can the Town encourage agricultural producers to use Best Management Practices?

Section 5.4 Agricultural Goals, Objectives and Policies

A. Goal:

Preserve agricultural lands and maintain local conditions that support the Town's agricultural economy.

B. Objectives:

1. Non-agricultural development respects the value of agricultural practices.
2. Promote public awareness regarding the operations and activities of the agricultural community.
3. Encourage agricultural practices that are environmentally sensitive to protect air, soil, water and wildlife resources.

C. Policies:

1. Implement and apply Exclusive Agricultural Zoning where appropriate to help protect productive agricultural areas.
2. Submit the Town's Exclusive Ag zoning map to the State Land Conservation Board for certification to allow farmers to qualify for Farmland Preservation tax credits.
3. Maintain and promote agri-business and agri-industry which provide local jobs and support area farming, consistent with sound planning.
4. Work with organizations, such as UW-Extension and the Land Conservation Department, to provide information regarding Best Management Practices to help minimize erosion.
5. Information regarding agricultural practices, Wisconsin's Right to Farm Law, Best Management Practices, etc. is available at the Town Hall.
6. Work with the Portage County Drainage Board to properly manage lands and ditches within the Drainage District to protect agricultural uses and water quality.
7. Recommend that new residential development adjacent to agricultural operations incorporate the use of spatial and/or vegetative buffers to minimize potential conflict.

Section 5.5 Natural Resources Inventory

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 Plover Plan Commission and Town Board.

A. Geomorphology

The present Portage County landscape primarily reflects the last or Wisconsin stage of the Pleistocene or Glacial Epoch (Holt, 1965). The glacial ice transported large amounts of rock debris known as drift. The drift is called till if deposited directly by the ice, and outwash if placed by glacial meltwater.

The Town of Plover is located in a geologic province known as the sand-plain province. This province was formed by glacial meltwaters depositing an extensive mix of sand and gravel with small amounts of clay or silt. The average thickness of these deposits is less than 50 feet in the western part of the Town to over 100 feet in the eastern part of the Town. The topography is controlled primarily by the stratified sand and gravel deposits by glacial melt waters as a broad-flood plain. Areas identified as alluvium are post-glacial deposits of materials eroded from uplands and accumulated in lower areas such as marshes (organic-rich clay, silt, sand, and peat) and stream valleys (well-sorted silt, sand, and gravel). These alluvial deposits range from a few feet to over 60 feet in thickness.

The topography of the Town is generally flat and includes some lowland wet areas, creeks, and drainage ditches. Elevation ranges from 1,195 feet above sea level in the eastern part of the Town to 1,035 feet above sea level in the western part of the Town along the Wisconsin River (Map 5.3).

B. Soil Associations (Map 5.4)

Soils in the Town can be grouped into five soil associations, as follows:

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 are found in the eastern portion of the Town and are used primarily as crops. There is moderately rapid permeability and low to medium available water capacity.

Plainfield-Friendship Association: Excessively drained and moderately well drained, nearly level to sloping soils that formed in deep sandy deposits. These soils are found in the western portion of the Town and used primarily as crops, woodland or pasture. There is rapid permeability and low available water capacity. Friendship soils are saturated with water at a depth of 3 to 5 feet during periods of wetness.

Roscommon-Meehan-Markey Association: Somewhat poorly drained to very poorly drained, nearly level soils that formed in deep sandy deposits or, in places, in organic deposits that overlie the sand. These soils are found in the southeast portion of the Town and are used primarily as pasture or woodland. Ponding is common in undrained areas and saturation occurs at a depth of less than 3 feet during periods of wetness.

Markey-Seeleyville-Cathro Association: Very poorly drained, nearly level soils that formed in organic deposits over sandy and loamy deposits. These soils are found in the far western portion of the Town, north of STH 54, and are used primarily for pasture or wildlife habitat. This association has very severe limitations for septic drainfields and basements.

Alluvial land, wet-Dunnville Association: Well drained to very poorly drained, nearly level soils that formed in river or stream transported deposits. These soils are found along the Wisconsin River where most of the alluvial land is subject to flooding, while areas of Dunnville soils not subject to flooding have moderate limitations for septic drainfields and basements.

Map 5.3 Topography

Map 5.4 Soil Associations

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 body that is present in the Town is the Wisconsin River. The Wisconsin River flows west and serves as the Town's northern boundary, west of the Village of Plover.

Other surface water features in the Town include: the Little Plover River, which flows west into the Town from the Town of Stockton and converges with the Wisconsin River in the Village of Plover, as well as Ditch Number 1 and the Buena Vista Creek, ditches constructed as part of the Portage County Drainage District to help drain the Buena Vista Marsh for use as farmland. Ditch Number 1 is listed as a Class 1 trout stream by the Wisconsin Department of Natural Resources (DNR), while the Buena Vista Creek is listed as Class 2.

The DNR defines Class 1 streams as: high quality trout waters that have sufficient natural reproduction to sustain populations of wild trout, at or near carry capacity. Consequently, streams in this category require no stocking of hatchery trout. These streams or stream sections are often small and may contain small or slow-growing trout, especially in the headwaters. Class 2 is defined as: having some natural reproduction, but not enough to utilize available food and space. Therefore, stocking is required to maintain a desirable sport fishery. These streams have good survival and carryover of adult trout, often producing some fish larger than average size.

The majority of the Town, south and west of Cty Rd B, is situated in the Fourmile and Fivemile Creek watershed, while north of Cty Rd B is the Plover and Little Plover River Watershed. A watershed can be defined as interconnected areas of land draining from surrounding ridge tops to a common point such as a lake or stream union with a neighboring land area (Map 5.5).

Wetlands are an important part of the 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 in Plover 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 Wisconsin River in the western part of the Town, with scatterings in the eastern and southern parts of the Town.
- **Scrub/shrub wetlands**, the second most abundant type – 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 western part of the Town, with inclusions scattered throughout the southwest part of Plover.
- **Emergent/wet meadow**, the third type of wetland - 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 primarily along intermittent and ephemeral drainage ways in the southern part of the Town.

A flood plain is defined as land which has been or may be covered by floodwater during the regional flood. The flood plain includes the floodway and flood-fringe 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 Flood plain is the area adjoining a river stream, or watercourse covered by water in the event of a 100-year flood.

Flood plains 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. Floodplains in the Town are shown on Map 5.6.

D. Groundwater (Map 5.7)

All Town of Plover residents water supply comes from groundwater, therefore, protection of this resource is important. Depth to water table, soil texture, and permeability all play a role in determining the negative effects that pollutants may have on water quality. Depth to groundwater varies from 1 - 10 feet in the southern part of Plover and 10 - 25 feet in the northern and eastern portions. Although some of the soils ranked moderate to good in pollution attenuation, the sub-surface soil texture is sandy and coarse, allowing liquids a faster rate of travel through the soil column.

The aquifer potential throughout most of the Town of Plover is high, with potential pumping yield rates for groundwater at 500-1000+ gallons per minute. This rate is consistent with rates found throughout the eastern 1/3 of the County and much higher than rates found in the northwest quarter of the County. The potential yield rate diminishes north of STH 54 as one gets closer to the Wisconsin River.

In March, 2004 the Portage County Board of Supervisors adopted the Portage County Groundwater Management Plan. The Plan outlines goals and specific action recommendations for groundwater protection and management in the County, along with providing a technical basis and justification for the recommendations based on the best available information. Contact the Portage County Planning and Zoning Department for more information about obtaining a copy of the plan.

Groundwater movement follows subsurface paths or gradients, in much the same way as surface water follows land contours. Map 5.7 illustrates the general direction of groundwater movement in the Town of Plover. As shown, the direction of movement is generally to the west and to the north, towards the Wisconsin River. Knowing groundwater flow can be a helpful piece of information when determining proper siting of well and on-site waste systems.

1. Atrazine Prohibition Areas

The US Environmental Protection Agency (EPA) 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 cause unintentional hormone-like activity in the body.

Map 5.5 Surface Water, Wetlands, and Watersheds

Map 5.6 Floodplains

Map 5.7 Groundwater Flow

Map 5.8 Atrazine Prohibition Areas

The Wisconsin Department of Agriculture, Trade and Consumer Protection 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, above the Enforcement Standard of 3 micrograms per liter, has been detected in some wells within the Town of Plover; because of this, prohibition areas have been defined within only a small part of the community (Map 5.8, Atrazine Prohibition Areas). The prohibition area includes approximately 160 acres within the Town of Plover. The land is found in the northeastern corner of the community, just outside of the Village of Plover near Lake Pacawa.

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 also provides food, as well as, travel corridors between wetlands and woodlands.

1. Prairie Chicken Habitat Management Area

Approximately 1,320 acres of prairie chicken lands are located in the southwestern corner of the Town. These lands are part of the Buena Vista Marsh Wildlife Area. The majority of these acres (924) are managed by the WI DNR under a long-term lease agreement with the Dane County Conservation League and the remainder is owned outright by the WI DNR (Map 5.9). The prairie chicken is a threatened Wisconsin species, which survives in significant numbers in only a few areas within the central part of the State. Management of these lands consists primarily of maintaining the unique grassland habitat. Some of these lands are also potentially productive for agriculture, if cleared, drained, and irrigated.

2. Threatened and Endangered Species

Known rare and endangered fauna species identified by the Wisconsin Natural Heritage Inventory (NHI) that are located within the Towns of Plover and Linwood include: Greater Prairie Chicken, White-tailed jackrabbit, Franklin's Ground squirrel, Osprey, Pirate Perch, Redfin Shiner, and Four-Toed Salamander. Plant types include: Deam's Rockcress, Northern Dry-Mesic Forest, and Northern Mesic Forest communities. These resources 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.

3. Woodlands or forested lands

Woodlands or forested lands comprise 21% of the land area in Plover (Map 5.9) while wetlands make up 12%. Woodlands that exist now are primarily due to an inability to sustain successful agricultural practices.

One option open to all private landowners owning ten or more acres of woodlands is the Managed Forest Law Program (MFL). 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 Department of Natural Resources.

According to 2001 County survey data, 85% of Town respondents felt that an effort should be made to identify and protect woodlands and 74% felt the same about wetlands and floodplains. Loss of these habitat types can threaten the viability of certain species.

F. Air Quality

The following information comes from the Wisconsin 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 Plover, is listed as an attainment area by the WI DNR.

Map 5.9 Forested Lands and Prairie Chicken Management

G. Non-Metallic Mining

The glacial and geologic history of the area has made conditions in many portions of the County suitable for certain types of non-metallic mining. In the Town however, few of these conditions exist for long-term, viable non-metallic mining operations. Evidence of a few small sand and gravel pits exist on the far western side of Plover along Biron Drive, and north of STH 54 near the Town of Grant border.

Section 5.6 Natural Resource Issues

The following issues relating to natural resources were raised during the planning process:

- Groundwater- Is surface water from retention ponds affecting groundwater? Some areas of the Town display high nitrate levels in the groundwater – To what extent can the Town ensure quality drinking water?
- Environmentally Sensitive Areas- What can the Town do to properly manage areas along the Wisconsin and Little Plover Rivers to help protect the quality of these resources?
- Wildlife- What strategies can the Town use to address the negative impacts of increasing deer, turkey and sandhill crane populations?
- Natural Resource/Recreation Areas- How can the Town work more effectively with Portage County and WI DNR to ensure a higher quality of access to the Wisconsin River at Galecke Park? People using the ditches for fishing or other recreational purposes may be trespassing on private property. What can the Town do ensure better access to these resources or make the public more aware of private property rights?

Section 5.7 Natural Resource Goals, Objectives and Policies

A. Goal: Manage and preserve natural resources throughout the Town.

B. Objectives:

1. Encourage practices that are environmentally sensitive and protect air, soil, water, and wildlife resources.
2. Protect the quality and quantity of surface and groundwater resources.

C. Policies:

1. Protect environmentally sensitive areas through the use of Conservancy Zoning.
2. Conserve forest and woodland resources within the Town.
3. Support Department of Natural Resources management of publicly owned lands.
4. Recognize the potential for groundwater contamination due to intensive agricultural practices, improperly functioning septic systems, and sandy soils; and stress the need for continuing education and study of this problem.
5. As a precondition for approving new residential subdivisions (multiple lots), the Town of Plover, in cooperation with Portage County, will require preliminary groundwater tests and/or monitoring by the developer. The results of such tests will be disclosed by the developer to all reviewing bodies, all perspective buyers, and upon request, to the

members of the general public. This will continue to be incorporated as a requirement under the Town's Subdivision Ordinance.

6. Encourage agricultural and development practices that: minimize the transfer of agricultural chemicals into the ground and surface water, and air; and reduce soil erosion and siltation of lakes and streams.

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 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. Keep in mind many of the properties included in this inventory are privately owned and not necessarily open to the public, so please respect the rights of private property owners. At this time, there are thirteen listings in Plover, which include houses, churches, barn, shed, and a school house. Some of these sites include:

Fox Farm - a side gabled house constructed about 1860 located on Cty Rd F, south of STH 54.

Meehan Community Church – a Front Gabled style clapboard church located on Meehan Drive.

Another source of information comes from the National and State Register of Historic Places. There are currently fourteen sites listed throughout Portage County, however, none of them are located in the Town of Plover.

There are three cemeteries located in the Town: Maine Cemetery, located on Hoover Avenue just south of Hwy 51; Meehan Cemetery, located at the intersection of Club Forest Drive and Pierce Avenue; and Plover Cemetery, located on River Drive (the Town of Plover shares ownership with the Village of Plover).

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.

Section 5.9 Cultural Resource Issues

There were no issues or concerns regarding historic or cultural resources during the planning process.

Section 5.10 Cultural Resource Goals, Objectives and Policies

A. Goal: Promote and protect historic and cultural resources.

B. Objective:

1. Work with organizations, such as the Portage County Historical Society, to identify historic and cultural resources.