

CHAPTER 5 Agricultural, Natural and Cultural Resources Element

66.1001 (2)(e) Wis. Stat.:

Agricultural, Natural and Cultural Resources element. A compilation of objectives, policies, goals, maps, and programs of the conservation, and promotion of the effective management of natural resources such as groundwater, forests, productive agricultural area, environmentally sensitive areas, threatened and endangered species, stream corridors, surface water, floodplains, wetlands, wildlife habitat, metallic and non metallic mineral resources, parks, open spaces, historical and cultural resources, community design, recreational resources and other natural resources.

Section 5.1 Agricultural Resources

A. Agricultural lands

Of the four incorporated Urban Area (UA) communities, only the Village of Plover contained any farmland in 2005. It is assumed that the approximately 439 acres of agricultural land within the Village limits will ultimately be converted to “urban” uses, and is therefore considered a holding area for future development both during and beyond the planning period.

B. Farm numbers, types, and size

There are no farms located within the incorporated limits of Urban Area communities.

C. Farm Economy and Infrastructure

Of the four incorporated UA communities, Plover and Stevens Point contain approximately twenty businesses directly related to the agricultural economy of the surrounding area. These businesses range in type from producers and processors to a wide variety of support service providers (see the Stevens Point and Plover Comprehensive Plans for additional details).

Section 5.2 Natural Resources Inventory

A. Geology and Bed Rock

The Portage County Urban Area is located on the boundary line between the two geological provinces of the “northern highlands” and the “central sand plain”. The former area is characterized by high bedrock, low available groundwater supply, clay type soils, poor land drainage and northern climate vegetation. The northern third of Stevens Point, in general, lies within this geological province. The remaining southern two-thirds of the UA is generally characterized by sand plain features, including extensive well-drained sandy soils, flat topography and ample groundwater supply.

The surface geology of this region along the Wisconsin River is characterized as an “outwash plain” formed from materials deposited in the area from melt water flowing to the Wisconsin River from the edges of the glacial ice sheets to the east. The landscape in the UA was not shaped directly by glacial action as was the case with the lands a few miles to the east where glacial “drift” has formed a hilly landscape.

The location of a series of rapids (now inundated) on the Wisconsin River is evidence of the presence of bedrock near the surface of the ground throughout much of the area. The northern and western areas of the city and the Whiting Avenue area lies over this high bedrock which includes granite and sandstone.

B. Topography

The glacial outwash formed a relatively flat topography across the UA, which contributes to some drainage problems when hard surfaced areas are introduced due to urban development. There are no hills or steep grades that present significant problems to development. The shore land area along the Plover River presents the sharpest changes in the topography, but yet remain relatively gentle grades (see Map 5.1).

C. Soils

The most prevalent soil type across the UA is Plainfield loamy sand. Plainfield loamy soils are characterized as rapidly permeable and may constitute a "moderate" limitation for on-site sewage disposal systems because of the danger of contaminating groundwater supplies. This limitation would not apply in areas served by municipal sewer. The rapid permeability of these soils, however, increases the impact of pollutant sources on the groundwater supply.

An exception to the Plainfield loam are the soils in northern areas of Stevens Point, which are denser soils formed from residual bedrock material that is close to the ground surface. These soils are subject to heaving and swelling due to frost action, thereby presenting potential problems to urban development. Further complications can be expected by the presence of bedrock in the same area (see Map 5.2).

Another exception is a band of Friendship soils, which extends from the base of the Arnott Moraine two miles east of the Village of Plover, through the southern quadrant of the Village to the Buena Vista Marsh. The Soil Survey of Portage County characterizes Friendship soils as having saturated soils within 3 to 5 feet of the surface. Elevated groundwater conditions exist in the area south of Forest Drive. The remainder of the area is subject to periodic elevated groundwater. The last occurrence of elevated groundwater levels was in 1993, when numerous basements were flooded. Local reports indicate that the previous elevated groundwater occurrences were in 1973/4 and 1938.

D. Climate

1. Temperature - The annual average temperature for the UA is 45.1 degrees. Temperature extremes vary from a July average of 72 degrees to a January average of +16 degrees.
2. Precipitation - The average annual precipitation is 31.5 inches, of which about six inches (rainfall equivalent) is from snowmelt. The average annual snowfall is about 48 inches.
3. Growing Season - The average dates from last frost to first frost is May 11th to October 1st. The average length of the growing season is 142 days.

E. Groundwater

Groundwater resources are vital to the health and prosperity of Portage County. One hundred percent of domestic water use and greater than ninety percent of all water use in the County is from groundwater resources. Maintaining the quality and quantity of groundwater is vital to the maintenance of the quality of life in Portage County and the health of its residents.

In September 1984, the Portage County Board of Supervisors created a Groundwater Council, charged with the primary task of developing a strategy and policy for addressing public concerns on groundwater protection and management for recommendation to the County Board. The Council was composed of local public officials representing various units of government from throughout the County.

Map 5.1: UA Topography

Map 5.2: UA Soils

The Portage County Groundwater Management Plan (GMP) was originally adopted in 1988, and revised in March of 2004. The goals of the revised plan effort remain the same as the original – to identify the major problems facing Portage County with respect to groundwater resources, and to provide a technical basis and justification for these recommendations based on the best available information. An important instrument for implementing the Groundwater Management Plan is the Citizen’s Advisory Committee (CAC), which consists of representatives appointed by each of the incorporated and unincorporated municipalities. The task of the CAC is to advise the Portage County Planning and Zoning Committee on ways to implement the recommendations of the GMP. A reorganization of the CAC in 1995 added three Subcommittees – Groundwater Management and Implementation, Public Involvement and Education, and Continual Assessment – to play specific roles within the overall groundwater management structure.

Groundwater in the Portage County Urban Area, located within the “sand plain region”, is plentiful and of good natural quality. The public water supplies for the UA incorporated communities are drawn from wells in the Plover River and Little Plover River valleys, where a deep sand and gravel aquifer provides large quantities of high quality groundwater. Residents of the Village of Park Ridge utilize private, on-site wells for their water supply.

The possible pollution of groundwater from on-site sewage disposal systems, lawn fertilization practices, agricultural practices, existing land uses and landowner practices could endanger the public water supply and affect the surface waters of the Wisconsin, Plover and Little Plover Rivers. In 1990 and 2002, the Village adopted Wellhead Protection Plans to protect groundwater resources and safeguard public health and safety.

The Urban Area well fields are protected by Wellhead Protection ordinances through the Village of Plover, City of Stevens Point, Village of Whiting and Portage County. The ordinances delineate wellhead protection zones, evaluate contaminant sources, identify potential management strategies and offer specific recommendations for protection of the Village well recharge areas. Please see the individual municipal Comprehensive Plans for additional details regarding the different protection ordinances.

The groundwater protection strategies and citizen education efforts recommended in the Portage County Groundwater Management Plan and the municipal Comprehensive Plans will further reduce contamination within the recharge areas of the Urban Area wells.

F. Watersheds and Surface Water Features (see Map 5.4)

The Portage County Urban Area is located within parts of four watersheds. The Villages of Park Ridge and Whiting, with parts of Plover and Stevens Point, are located within the Plover and Little Plover River watershed. Portions of Stevens Point also lie within the Little Eau Claire River and Mill Creek watersheds. The southern portion of Plover lies within the Fourmile and Fivemile Creek watershed. The following is a summary of the UA surface water resources:

1. Wisconsin River - The Wisconsin River, which runs through the western portion of Stevens Point and along the western border of the Villages of Whiting and Plover, is the principal surface water resource in the Urban Area. The river is in flowage condition north of the Stora Enso North America paper company dam (located just south of the Clark Street Bridge). There are also dams at the Kimberly Clark and Stora Enso paper company facilities within the Village of Whiting section of the River.

2. Plover River - The Plover River flows from northeast to southwest through Stevens Point and Whiting, and into the Wisconsin River. The Plover River corridor has many environmental and recreational qualities that have been a strong factor in contributing to the quality of life in the area, from fishing, swimming, and canoeing opportunities to its aesthetic beauty.
3. McDill Pond – McDill Pond was formed in 1853 as an impoundment of the Plover River for logging purposes. Today the 261 acre impoundment occupies portions of the City of Stevens Point, the Village of Whiting and the Town of Plover. A dam located at the City Rd HH Bridge, at the southwest limit of McDill Pond, impounds the lower portion of the Plover River. Due to its proximity to urban development, McDill Pond has historically been a local source of water-based recreation for the urban area community. It is used by owners and members of the surrounding municipalities for fishing, boating, swimming, canoeing, and other recreational uses.
4. Little Plover River - The Little Plover River is a clear, hard water stream that flows through the Village of Plover and into the Wisconsin River. Within the Village, the Little Plover River becomes an 18 acre impoundment which is called Springville Pond. Much of the volume of the Little Plover River is contributed by springs.
5. Mosey Creek - Much of the north side of Stevens Point used to be naturally drained by a small stream called Mosey Creek. Portions west of Michigan Avenue have been enclosed in a city storm sewer to allow urban development. A retention pond has been constructed east of Michigan Avenue to retain stream water at times of high water flow until it can drain away through the City storm sewer.
6. Man-made Lakes – Urban Area man-made lakes include Lakes Pacawa and Clar-Re in Plover, and Joanis in Stevens Point. Lake Pacawa has a public beach and picnic area. A Korean War Veterans' Memorial has been established on the island located in the center of the lake. Worzella Pines Park is located on the north end of the lake. Lake Pacawa is used for a variety of community events.

Lake Clar-Re is associated with residential development and is located just north of the Green Bay and Western railroad tracks along Hoover Avenue.

Lake Joanis is located in the Schmeckle Reserve on the University campus. This 27 acre groundwater lake has an emergency connection to Mosey Creek for instances of high volume water flow.

Water quality improved significantly in the Wisconsin River during the late 1970's due principally to the improvements in the waste treatment system of the paper mills and other industries. Recreation activity, particularly fishing, has increased on the river. The water still has low clarity due to the naturally dark color of the water and suspended solids from soil erosion and other non-point pollution sources. This condition depresses the level of swimming at two City beaches on the river.

The Plover River has experienced high coliform bacteria counts resulting in the closure of the public beach at Iverson Park in Stevens Point at some point during most swimming seasons. This contamination is thought to originate from upstream livestock farms. The avoidance of urban storm water runoff with contaminants is an important city concern, particularly for the protection of McDill Pond.

Map 5.3: UA Groundwater Flow and Watersheds

Map 5.4: UA Surface Waters, Floodplain, and Drainage

Map 5.5: UA Wetlands

Map 5.6 UA Wooded areas

G. Floodplains and Drainage (see Map 5.4)

1. Stream Flooding - The Wisconsin River presents little flooding potential affecting developed lands due mainly to the control afforded by the numerous dams and flowages in the area.

No significant flooding potential exists along the Plover River within Stevens Point affecting developed lands, although there have been isolated instances of water in basements along McDill Pond. Such lands front on McDill Pond where flooding is controlled by a dam in the Village of Whiting. Iverson Park in Stevens Point is regularly inundated by floodwaters from the Plover River.

2. Surface Drainage – Several areas across the Urban Area have localized drainage problems due to a combination of flat topography and/or heavy soils underlain by bedrock close to the surface. See Chapter 4 of this Comprehensive Plan for detailed information on surface drainage facilities.

H. Wetlands

The wetland areas within the Urban Area are located primarily along the Wisconsin River and in a small number of other sites such as along the Little Plover River, and on the City's north side (Map 5.5).

I. Wildlife, Primary Environmental Resource Zones and Green spaces

The City of Stevens Point is situated in a “V” shape zone between the two major natural resource corridors the Wisconsin and Plover Rivers (Map 5.5A). Schmeckle Reserve on the University of Wisconsin – Stevens Point campus is a valuable natural environmental area located in the center of this zone between the two rivers. These environmental resources have important present-day value and further potential for public education, recreation and other leisure time activities. The areas have importance for the preservation and appreciation of the natural environment. Natural areas and green space provide Stevens Point with both resource protection and aesthetic beauty, and are an important part of the City's identity. Well field properties located north and south of Cty Rd HH, along with the “Mainland” property south of Cty Rd HH adjacent to the well field were purchased by the Village of Whiting with the intent that they remain public open space. Upper and Lower Whiting Park also provide environmental resource protection within the Village, as do the approximately 120 acres of school forest land at the southern edge of the Village of Plover.

Fish and wildlife habitat is concentrated in the Wisconsin and Plover River corridors and Schmeckle Reserve. The Jordan Marsh and Mosey Creek corridors also provide important wildlife areas. Scattered woodlands also exist elsewhere throughout the City (Map 5.6), which provide habitat for various wildlife species, including several species of hawks and white-tailed deer. These woodlands are slowly being threatened by development. Nineteen known rare and endangered species have been identified by the Wisconsin Natural Heritage Resources (NHI) located within Section 42308, which includes parts of the Towns of Linwood and Plover, along with the Villages of Plover and Whiting and City of Stevens Point (see Appendix E).

The white-tailed deer population has grown in recent years to a point where it is considered a nuisance for Urban Area residents. Stevens Point conducted a trial deer culling project in 2003 and 2004, resulting in a total of 60 deer culled. The Village of Whiting employed the services of a group of professional hunters in the winters of 2001, 2002 and 2003; 116 deer were harvested during these hunts.

Section 5.3 Cultural Resources

Cultural and historic resources help link the past with the present and can give a community a sense of place or identity. These resources include structures and places with historic significance as well as cultural contributions from a diverse resident population.

A. Historic Resources Inventory

Historic preservation has been a long-standing concern across the Urban Area, from structures to traditions.

1. Stevens Point

Within the City, specific studies on the subject were performed in October, 1980 (Architectural Survey and Historic Preservation Potential Analysis of Central Stevens Point by Pfaller, Herbst Associates) and April 1983 (Architectural and Historic Building Survey, Howard Needles Tammen & Bergendoff - HNTB). Elements and directives from these studies have been incorporated into the City's planning activities over time (Landmarks Ordinance and Commission, the Main Street historic district designation).

2. Village of Plover

In September 2000, Plover designated its Heritage Park as an historic district, based on the regulations in place from the Village's Historic Preservation District Ordinance created in 1996. The Village Plan Commission also serves as the Historic Preservation Commission, and as such, only meets upon request. Other important historical resources include:

- Korean War Memorial
- Veterans Memorial Park
- Yellowstone Trail
- Morgan House
- Sherman House
- Iber House
- Indian Burial mounds along the banks of the Little Plover and Wisconsin Rivers.

3. Village of Whiting Indian Burial Grounds

The Village of Whiting Indian burial grounds were first identified in 1912 by researchers from the University of Wisconsin Stevens Point, where they reported four mounds. As part of the current Upper Whiting Park Archaeological survey, an additional six mounds were identified, for a total of ten mounds still visible within the park boundaries. Based on their initial findings, the Whiting Park site may be one of the earliest sites for the Woodland Tradition discovered in north central Wisconsin. The Woodland Tradition occurred during the period of 550BC to 1000/1600AD, and is distinguished by the construction of burial mounds.

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: provide guidance and assistance to archives and records management programs in Wisconsin, promote the value of historical records as keys to our cultural heritage and works through partnerships with statewide organizations who support that end, and to bring federal grant funds to Wisconsin for improving access and preservation of historical records.

B. Cultural Resources and Traditions

The Urban Area has long been home to a large and diverse number of cultural activities. See individual Community Comprehensive Plans for additional details.

1. Stevens Point

As the City has grown, so has the sophistication of its cultural offerings, which now include theater, symphony, and musical offerings too numerous to list, special annual events such as the Special Olympics and the “Worlds Largest Trivia Contest” at the University, and national gatherings such as the National Wellness Conference. There are also benefits and fundraising activities throughout the year for such organizations as United Way, Operation Bootstrap, and others.

2. Village of Plover

Plover hosts an annual celebration of Village and Portage County history each summer at the Heritage Park. The one-day event, called Plover Portage Rendezvous uses the setting of the historic structures to demonstrate the skills and activities necessary for life in the early settlement days of the County.

3. Village of Park Ridge

The Silver Coach restaurant is the only business within Park Ridge that dates from the Village incorporation in 1938, and is an important community landmark and source of pride. Also, since 1940 Santa has paid an annual visit to the children of the Village. It began when the Garden Club asked the board if the village would pay for candy for Santa to give to the Children, and has continued to this day. Park Ridge also has an annual Village Garage Sale.

Section 5.4 Urban Area Vision Statement and Guiding Principle for Agricultural, Natural and Cultural Resources

A. Urban Area Vision Statement Related to Agricultural, Natural and Cultural Resources *(adopted 6-26-02 by the UA Steering Committee)*

IN 2025, the agricultural industry in Portage County is healthy and thriving. Development has been directed away from productive agricultural land, giving farmers, both large and small, ample space and freedom to be productive and efficient. A variety of agricultural commodities are produced for direct sale in local markets or for marketing worldwide. Farmers value the environment and their practices are sustainable, using methods that protect soil and water resources. Agribusiness remains an integral part of the Portage County economy, providing employment opportunities and living wages.

Key Vision Ideas for Agriculture:

- Sustainable agriculture exists through sensible regulation and a partnership between farmers, their neighbors and local units of government.
- Agricultural land is preserved and protected through regulations and limited development in agricultural areas.
- Local markets provide opportunities for the direct sale of agricultural commodities.

IN 2020, Portage County residents share a common bond in their enjoyment of the environment. The Wisconsin and Plover Rivers embody the natural beauty that is this community. Our natural resources are precious to the people who live here, and they devote considerable efforts and attention to enjoying, protecting and enhancing them. From keeping water clean and abundant to protecting critical ecosystems, residents are dedicated to maintaining their very special part of the world.

Key Vision Ideas for Natural Resources:

- Preservation and protection of natural resources contributes to a high quality of life.
- Development occurs in ways that protect the natural resources we enjoy. We direct growth away from sensitive areas and account for the protection of our air, land, and water resources.
- Regulations are in place to assure that our air quality is assessed and maintained.
- Groundwater quality and quantity is continually monitored and assessed, and a set of regulations restricts development in recharge areas.
- Public access to our natural resources is preferred to private ownership of these resources.
- Green spaces are created and protected in the urban area.

Key Vision Ideas Cultural Resources:

- Cultural and historic resources are identified and protected.

B. Guiding Principles for Agricultural, Natural and Cultural Resources:

1. Agriculture: Sustain an economically viable agricultural industry.
2. Manage the natural resources that support and sustain us.
3. Encourage identification and protection of historic and cultural resources.

Section 5.5 Urban Area Agricultural, Natural, Cultural Resources Goals

A. Preliminary Goals: (adopted 10-23-02 by the UA Steering Committee)

1. Agriculture

- Ensure the agricultural community remains economically viable for agribusiness.
- Agricultural practices are unencumbered by development pressure.
- Educate the public about the operations and activities of the agriculture community.

2. Natural Resources

- Utilize Agricultural practices that are environmentally sensitive and protect air, soil, water and wildlife resources.
- Identify, manage, preserve and protect natural resources throughout the Portage County Urban Area.
- Development takes place in ways that protect our natural resources.
- Local units of government work together to define and develop appropriate public access to natural resources.
- Develop an educational program for municipal boards and the public related to natural resources issues.
- Develop partnership efforts that result in the preservation and restoration of natural resources.

- Natural resources that provide recreational opportunities are protected to ensure their lasting presence.

3. Cultural Resources

- Develop guidelines for identifying and protecting cultural and historic resources.
- The Arts become an integral part of our communities.
- Make the general public more aware of cultural resources.

Section 5.6 Agricultural, Natural and Cultural Resources Conclusions

The Vision statements included above represent an ideal that the Urban Area (UA) communities believe is in their best interest to strive for over time. The very nature of urban living, however, (increased spatial extent and intensity of development) means that the UA communities will also need to continually try to achieve a balance between agricultural, natural, and cultural resource protection and the physical changes necessary to maintain and enhance the overall quality of life for the growing number of residents within the urban area and across all of Portage County.

A. Agriculture

1. There is an urgent need to address alternatives for keeping productive agricultural land in agriculture, including the financial aspects of doing so.
2. A Purchase of Development Rights (PDR) program for agricultural land should be studied to find what the public (government) and private (landowner / resident) interest is in pursuing it.
3. A study should be performed regarding how local governmental units can assist farmers in applying Best Management Practices.

B. Natural Resources

1. Groundwater is highly important to the UA and surrounding communities, and any protections that are in place need to be maintained, and any other additions or enhancements to these protections should be supported.
2. Wetlands in the UA have been diminished over time. They perform an important function and should be preserved as much as possible.
3. Urban open- and green-spaces are very important, and should receive consideration in development decisions. The Portage County Open Space Plan should be implemented.

C. Cultural Resources

1. Encourage the participation of Urban Area residents in identifying and supporting important historic and cultural resources within their individual communities, and throughout all of the Urban Area and Portage County.
2. Protect and enhance the UA historic improvements, sites, districts, and cultural heritage through the local Historic Preservation Commissions.