# 5

# Agricultural, Natural, and Cultural Resources





#### 5 Agricultural, Natural, and Cultural Resources

#### 5.1 Agricultural, Natural, and Cultural Resources Plan

Land development patterns are directly linked to the agricultural, natural, and cultural resource base of a community. This resource base has limitations with respect to the potential impacts of development activities. Development should be carefully adjusted to coincide with the ability of the agricultural, natural, and cultural resource base to support the various forms of urban and rural development. If a balance is not maintained, the underlying resource base may deteriorate in quality. Therefore, these features need to be considered when making decisions concerning the future conservation and development of the Town of Hubbard.

The Agricultural, Natural, and Cultural Resources element may be the most important element in the Town of Hubbard Year 2030 Comprehensive Plan. The town's vision statement and many of the issues and opportunities identified by the town during the planning process (refer to the Issues and Opportunities element) are related to these resources. The town is concerned with protecting the future of agriculture, protecting surface water and groundwater, preserving rural character, and preserving wooded and open spaces.

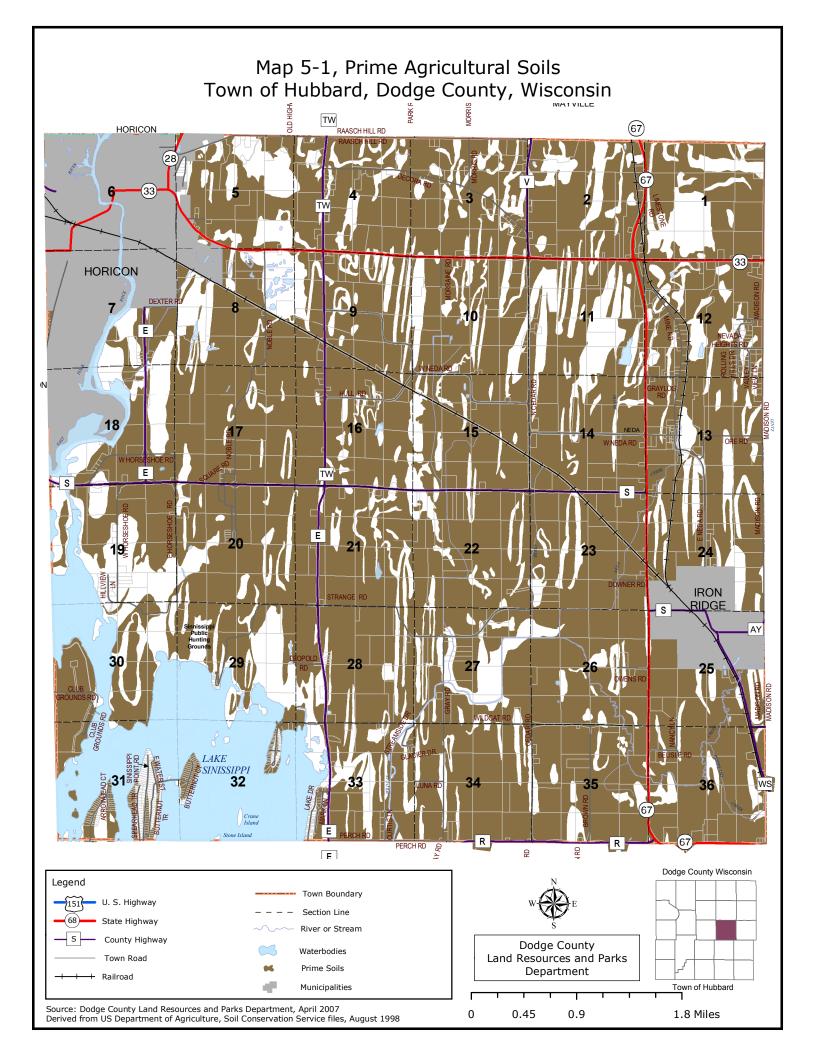
The town's primary focus is to protect productive agricultural lands while also allowing for reasonable and well-planned development. Higher density residential development is planned in limited locations while lower density development would be allowed in some of the town's less productive agricultural areas with the use of careful site planning. Key components of the town's approach include establishing a maximum residential lot size, establishing a system for site plan review, and maintaining an overall low density of development. Under site planning, the placement of homes and businesses on a particular parcel would be evaluated against the town's natural and agricultural resource protection policies. Many of the same tools that will be used to protect agriculture will also be used to protect natural and cultural resources.

#### 5.2 Agricultural and Natural Resources Inventory

#### **Prime Agricultural Soils**

The soils in Dodge County are classified by the United States Department of Agriculture to represent different levels of agricultural use. Class I, II, or III soils are all considered good soils for agricultural production. This classification system is based on criteria of production potential, soil conditions, and other basic production related criteria. All the soils classified as Class I and Class II are identified as prime agricultural soils. Whereas only some of the Class III soils are considered prime agricultural soils and the remaining soil is considered farmland of statewide importance.

The majority of the Town of Hubbard landscape is designated as prime agricultural soil as shown on Map 5-1.



#### Forests

According to the Existing Land Use Map (Map 8-1), there are 1,937.44 acres of woodlands in the Town of Hubbard. The primary value of these woodlands as landscape features is tied to outdoor recreation, aesthetics, and environmental benefits. There is limited economic potential from the standpoint of harvesting pulp or timber, since the town's remaining woodlots tend to be small and widely scattered. Many contain residential development or are located in public recreation or wetland areas. Refer to Map 5-2 for the locations of woodlots in the town.

#### **Metallic and Nonmetallic Mineral Resources**

There are currently no metallic mines the Town of Hubbard. Marysville Limestone Quarry, Karey Sayles Gravel Pit, Hoefs Gravel Pit and Grace Peil Sand Pit compose the non-metallic mines within the town.

Wisconsin Administrative Code NR 135 requires that all counties adopt and enforce a Nonmetallic Mining Reclamation Ordinance that establishes performance standards for the reclamation of active and future nonmetallic mining sites. It is intended that NR 135 will contribute to environmental protection, stable non-eroding sites, productive end land use, and the potential to enhance habitat and increase land values and tax revenues. Dodge County has a Nonmetallic Mining Reclamation Overlay District as part of its adopted Land Use Code. The purpose of this overlay district is to establish a local program to ensure the effective reclamation of non-metallic mining sites in Dodge County.

#### Wetlands

According to the United States Environmental Protection Agency, wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils.

Wetlands may be seasonal or permanent and are commonly referred to as swamps, marshes, fens, or bogs. Wetland plants and soils have the capacity to store and filter pollutants ranging from pesticides to animal wastes. Wetlands can make lakes, rivers, and streams cleaner and drinking water safer. Wetlands also provide valuable habitat for fish, plants, and animals. In addition, some wetlands can also replenish groundwater supplies. Groundwater discharge from wetlands is common and can be important in maintaining stream flows, especially during dry months.

Local, state, and federal regulations place limitations on the development and use of wetlands and shorelands. The Wisconsin Department of Natural Resources (WDNR) has inventory maps for each community that identify wetlands two acres and larger. The wetland inventory map should be consulted whenever development proposals are reviewed in order to identify wetlands and to ensure their protection from development.

There are 2,676.27 acres of wetlands in the Town of Hubbard. The general locations of wetlands two acres and larger are shown on Map 5-3.

#### Floodplains

For planning and regulatory purposes, the floodplain is normally defined as those areas, excluding the stream channel, that are subject to inundation by the 100-year recurrence interval flood event. This event has a one percent chance of occurring in any given year. Because of this chance of flooding, development in floodplain should be discouraged and the development of park and open space in these areas encouraged. The floodplain includes the floodway and flood fringe. The floodway is the portion of the floodplain that carries flood water or flood flows, while the flood fringe is the portion of the floodplain outside the floodway, which is covered by waters during a flood event. The flood fringe is generally associated with standing water rather than rapidly flowing water.

Wisconsin Statute 87.30 requires counties, cities, and villages to implement floodplain zoning. In addition, the Federal Emergency Management Agency (FEMA) has developed flood hazard data. The floodplain areas are near most of the wetland areas in the town. The floodplain areas of the Town of Hubbard are shown on Map 5-4.

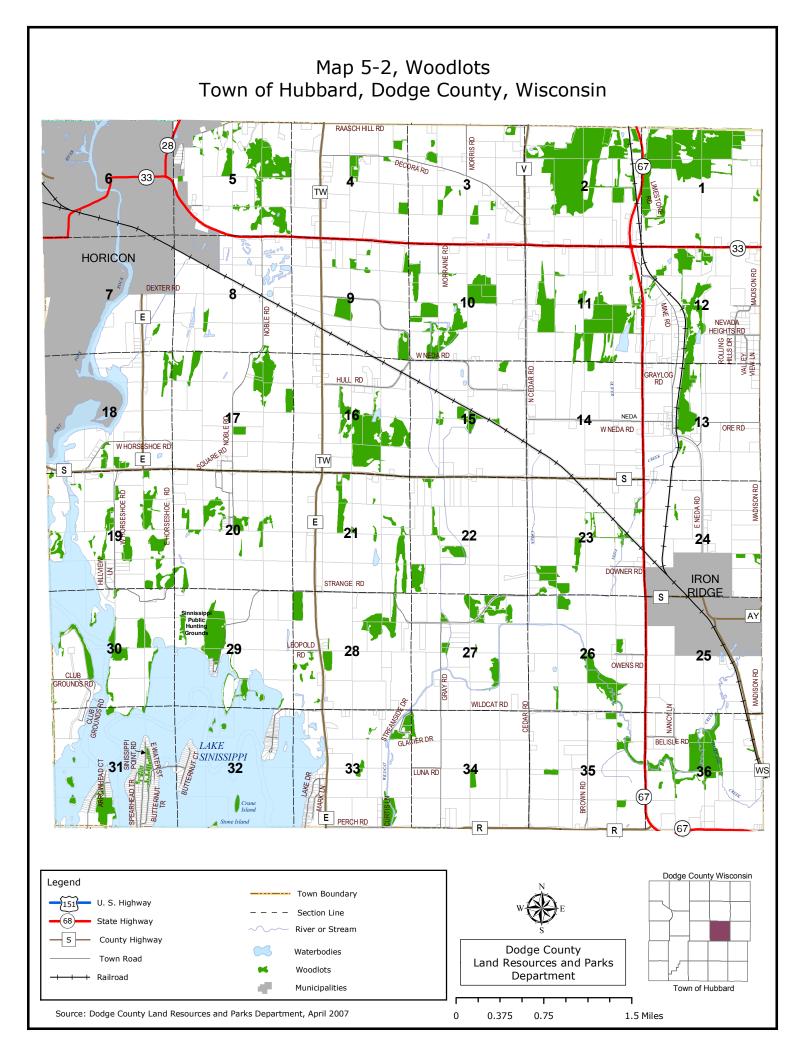
#### Watersheds and Drainage

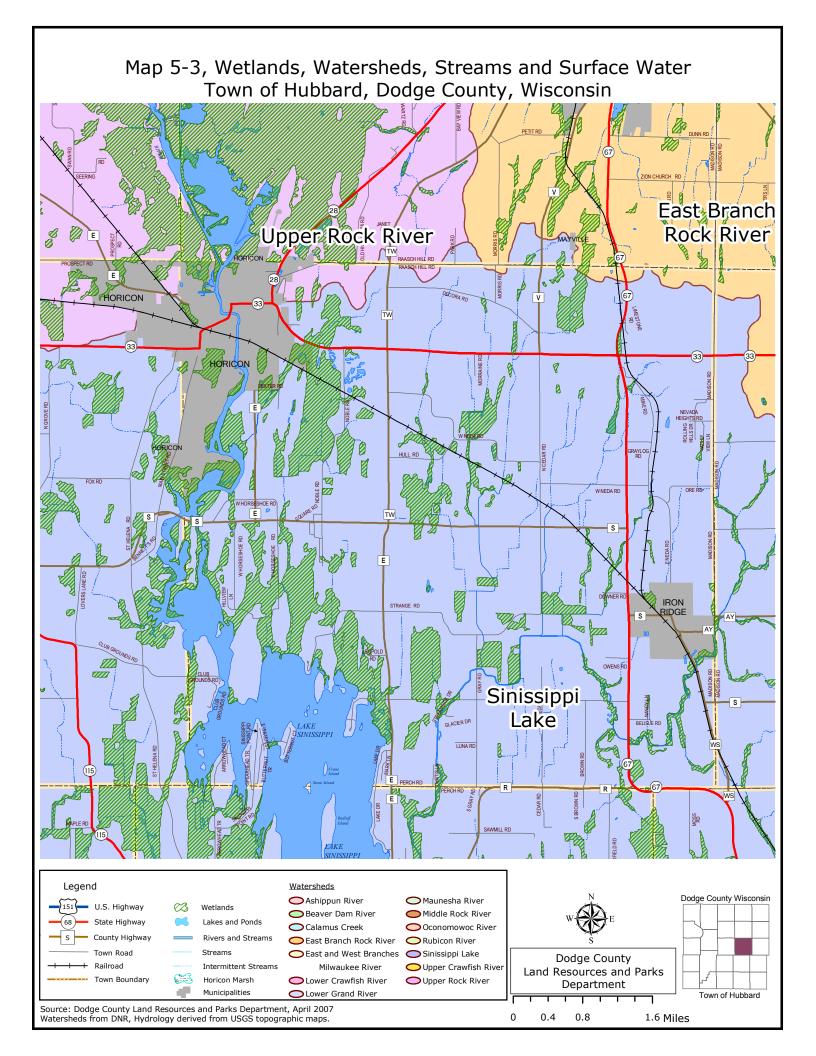
The Town of Hubbard is located in the Upper Rock River Basin. This basin includes 13 surface watersheds. The Upper Rock River Basin encompasses about 1,890 square miles. The Rock River Basin covers 3,700 square miles.

There are four watersheds in the town including the Lake Sinissippi basin, East Fox River, Wildcat Creek, and Woodland Creek watersheds. See Map 5-3 for the locations of these watersheds in the town.

#### **Surface Water Features**

There are 1,842.25 acres of surface water in the Town of Hubbard. The most prominent water feature is Lake Sinissippi located in the southwest portion of the town. According to the WDNR Lake Book, Lake Sinissippi is approximately 2,855 acres and has a maximum depth of eight feet. Fish dominance includes the Common Carp, Big Mouth Buffalo, Bullhead, Northern Pike, Walleye and Pan fish are typically the only fish species found in the lake. A portion of the East Fork Rock River is also in the northwest portion of the town. The most prominent local streams include Wildcat Creek, and Woodland Creek. There are many other intermittent streams located in the town's valleys and wetland areas.





#### **Groundwater Resources**

The source of all groundwater is precipitation, which percolates down through the soil until it reaches the saturated zone called an aquifer, where it is then contained. Water in an aquifer travels from its source to a discharge point such as a well, wetland, spring, or lake. During periods of increased precipitation or thaw, this vast resource is replenished with water moving by gravity through permeable soils which is called a water table system. In some instances, groundwater moves because of pressure created by a confining layer of impervious rock which is called an artesian system. The availability of groundwater within the Town of Hubbard should be investigated before any development occurs.

Within Dodge County there are areas that have natural occurring and human influenced well contaminations. According to studies performed by University of Wisconsin-Extension offices, there are multiple types of contamination in Dodge County. One major source of contamination is nitrate. The town should work with Dodge County to continually monitor the quality and quantity of groundwater in the town.

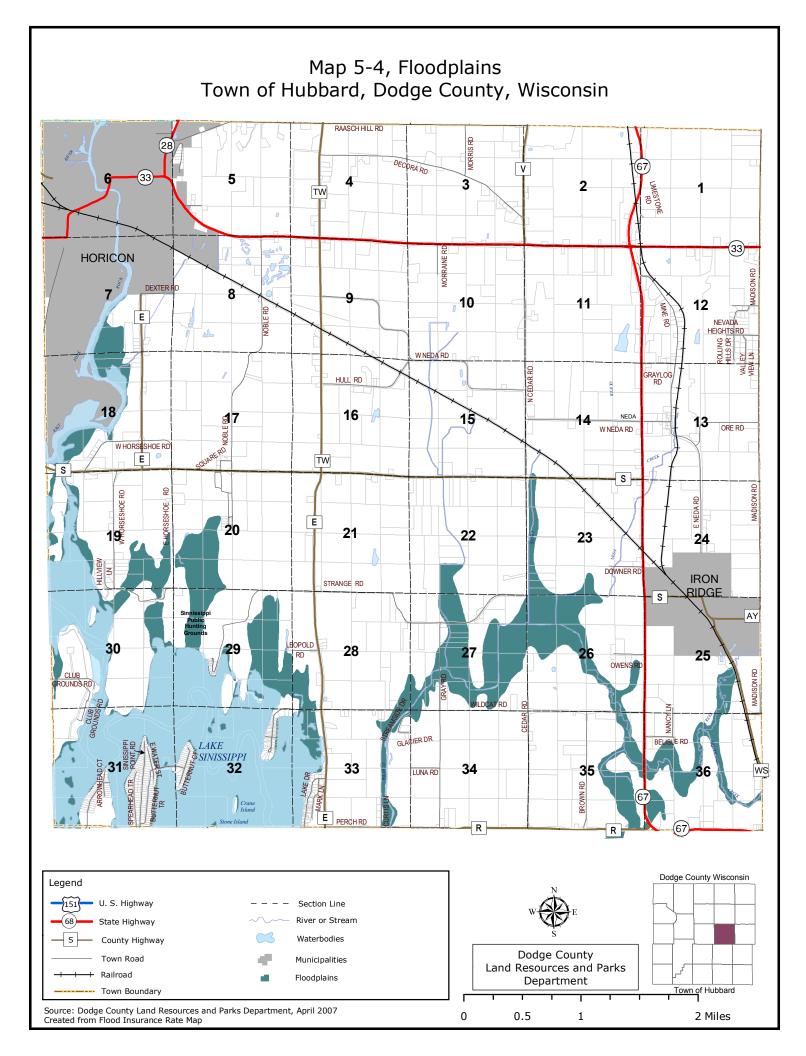
#### **Environmental Corridors/Sensitive Areas**

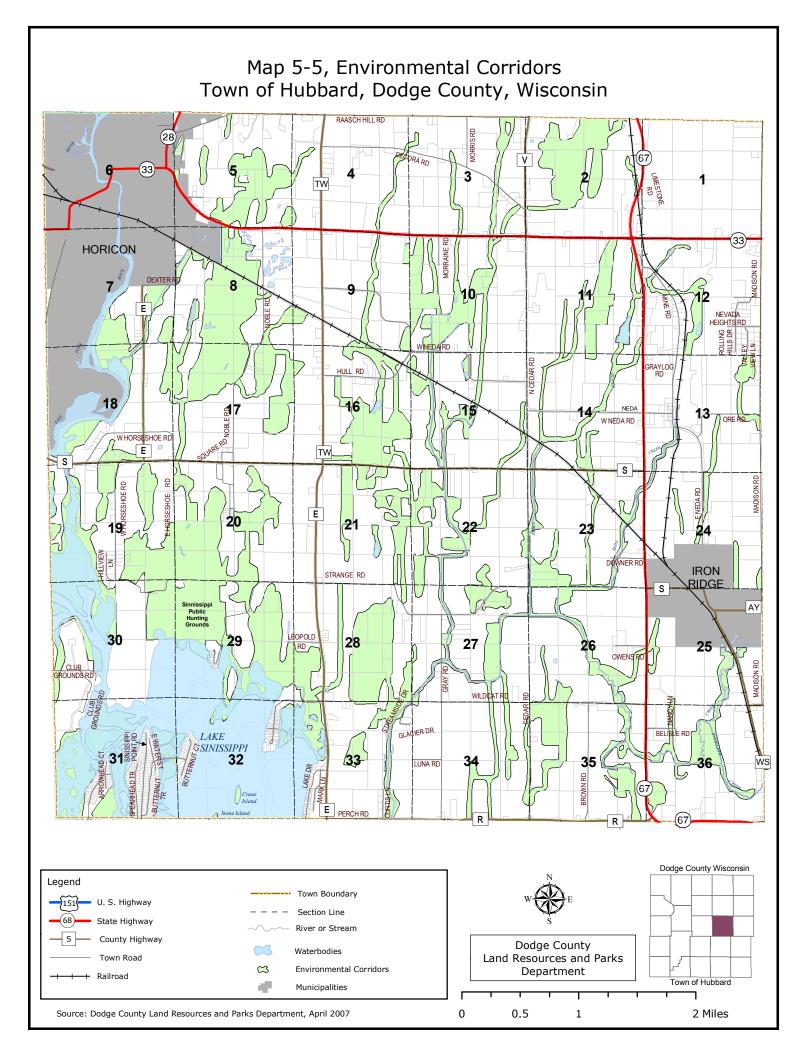
Environmental corridors are continuous systems of open space that often include environmentally sensitive lands including woodlands, wetlands and habitat areas, natural and cultural resources requiring protection from disturbance and development, and lands needed for open space and recreational use. Environmental corridors serve multiple functions. Protection and preservation of environmental corridors contribute to water quality through reduction of nonpoint source pollution and protection of natural drainage systems. Environmental corridors can also protect and preserve sensitive natural resource areas, such as wetlands, floodplains, woodlands, steep slopes, native grasslands, prairies, prairie savannas, groundwater recharge areas, and other areas that would impair habitat and surface or groundwater quality if disturbed or developed. Map 5-5 identifies environmental corridors and natural limitations for building site development in the Town of Hubbard.

#### Wildlife Habitat and Recreational Areas

Wildlife habitat can be simply defined as the presence of enough food, cover, and water to sustain a species. The wetland areas of the Town of Hubbard are particularly accommodating to many types of waterfowl, such as geese, ducks, herons, egrets, and swans. The Town of Hubbard is also home to the typical upland animals of southern Wisconsin, including deer, rabbit, fox, raccoon, squirrel, and muskrat.

The Wisconsin Department of Natural Resources identifies State Natural Areas, which are defined as tracts of land in a natural or near natural state and which are managed to serve several purposes including scientific research, teaching of resource management, and preservation of rare native plants and ecological communities. There is large State of Wisconsin Natural Area in the Town of Hubbard called the Sinissippi Public Hunting Grounds and several additional parcels of other public use lands.





Hubbard is also home to the largest Brown Bat hibernaculum's in the nation which are located in the old, abandoned iron mines located within the town.

#### **Threatened and Endangered Species**

The Wisconsin Department of Natural Resources (WDNR) lists species as "endangered" when the continued existence of that species as a viable component of the state's wild animals or wild plants is determined to be in jeopardy on the basis of scientific evidence. "Threatened" species are listed when it appears likely based on scientific evidence that the species may become endangered within the foreseeable future. The WDNR also lists species of "special concern" of which some problem of abundance or distribution is suspected but not yet proved; the intent of this classification is to focus attention on certain species before becoming endangered or threatened.

Table 5-1 shows the rare, threatened, and endangered species that may be found in the Town of Hubbard and/or Dodge County.

#### Table 5-1

#### Rare, Threatened, and Endangered Species, Dodge County

	Wisconsin Status	Taxa
Plants		
Lesser Fringed Gentian	Special Concern	
Richardson Sedge	Special Concern	
Showy Lady's-Slipper	Special Concern	
Slim-Stem Small-Reedgrass	Special Concern	
Small White Lady's-Slipper	Threatened	
Wafer-Ash	Special Concern	
Yellow Gentian	Threatened	
Animals		
Cantrall's Bog Beetle	Special Concern	Beetle
Giant Carrion Beetle	Endangered	Beetle
Barn Owl	Endangered	Bird
Black-Crowned Night-Heron	Special Concern	Bird
Forster's Tern	Endangered	Bird
Great Egret	Threatened	Bird
Red-Shouldered Hawk	Threatened	Bird
Gorgone Checker Spot	Special Concern	Butterfly
Side-Swimmer	Special Concern	Crustacean
American Eel	Special Concern	Fish
Banded Killfish	Special Concern	Fish
Least Darter	Special Concern	Fish
Pugnose Minnow	Special Concern	Fish
Redfin Shiner	Threatened	Fish
River Redhorse	Threatened	Fish
Slender Madtom	Endangered	Fish
Striped Shiner	Endangered	Fish
Week Shiner	Special Concern	Fish
Blanchard's Cricket Frog	Endangered	Frog
Arctic Shrew	Special Concern	Mammal
Franklin's Ground Squirrel	Special Concern	Mammal
Pigmy Shrew	Special Concern	Mammal
Prairie Vole	Special Concern	Mammal
Ellipse	Threatened	Mussel
Blanding's Turtle	Threatened	Turtle

Source: Wisconsin Department of Natural Resources.

#### 5.3 Cultural Resources Inventory

Cultural resources include historic places, archeological sites, museums and other community resources, and other places that might be of local cultural significance. Refer to Map 5-6 for the locations of cultural resources in Dodge County.

#### **State and National Register of Historic Places**

The National Register of Historic Places recognizes properties of local, state, and national significance. Properties are listed in the National Register because of their associations with significant persons or events, because they contain important information about our history or prehistory, or because of their architectural or engineering significance. The National Register also lists important groupings of properties as historic districts. In addition, the National Park Service highlights properties that have significance to the nation as a whole by conferring on them the status of National Historic Landmark.

The Wisconsin State Register of Historic Places parallels the National Register. However, it is designed to enable state-level historic preservation protection and benefits. Most of the properties in Wisconsin listed in the National Register are also listed in the State Register.

There are no sites in the Town of Hubbard that are listed on the State or National Register.

#### Wisconsin Architecture & History Inventory

The Wisconsin Architecture & History Inventory (AHI) provided by the Wisconsin Historical Society lists historical and architectural information on properties in Wisconsin. The AHI contains data on buildings, structures, and objects that illustrate Wisconsin's unique history. The majority of properties listed are privately owned. Listed properties convey no special status, rights, or benefits. These sites should be periodically reviewed for possible designation on state or national registers.

According to the AHI, the Town of Hubbard has six sites on the Wisconsin Architecture & History Inventory. Although limited information is available the sites are identified as follows.

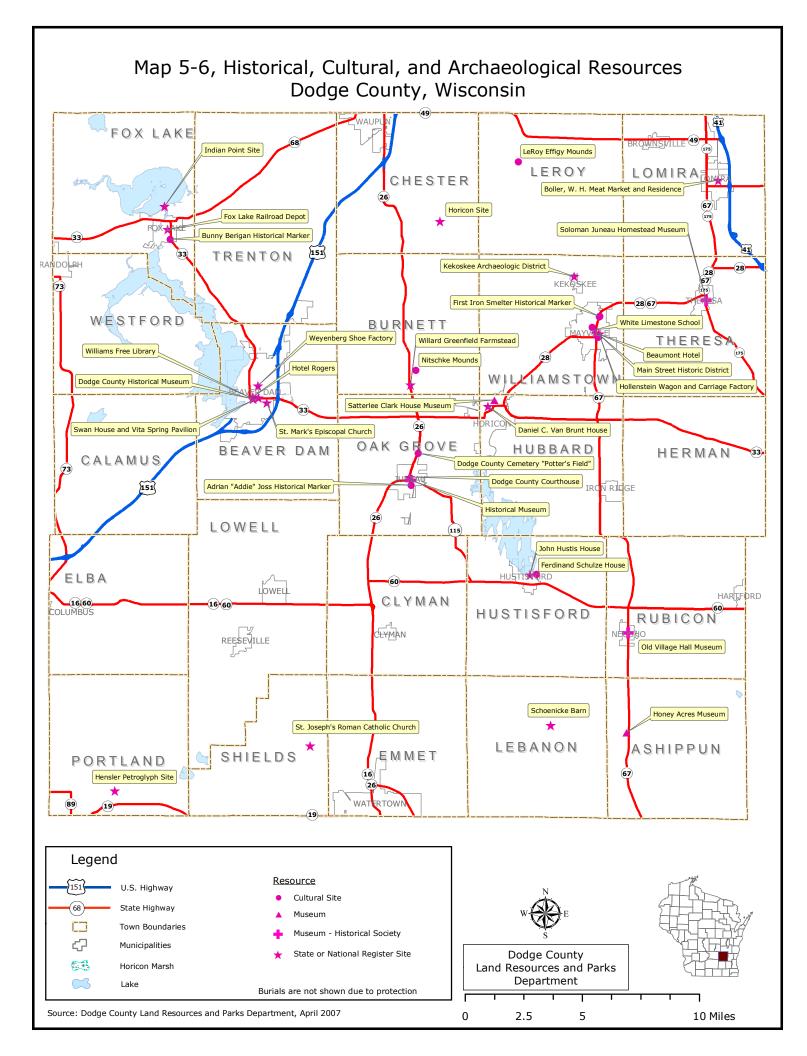
- Frank Draeger House located at N6013 County Highway E. Construction date estimated as 1861.
- Barn located at the north side of State Highway 33 .4 miles west of County Highway V.
- Ulrich Farmstead Gabled Ell House, located at W3536 State Highway 33 Construction date estimated as 1880.
- Boeder House Gabled Ell House, located at W3261 State Highway 33 Construction date estimated as 1870.

- Cross Gabled Brick house located on the west side of State Highway67, one mile north of Neda Road.
- House Astylistic Utilitarian Building, located on the east side of North Cedar Road, one mile south of West Neda Road.

#### **Community Design**

Community design as a cultural resource helps explain the origins and history of how a given community looks, feels, and functions in the present day. Components of the origin of community design include historic settlement patterns, resource use (like mining, farming, and forestry) in rural areas, the industries and businesses that influenced urban areas, transportation features and traffic flow patterns, natural features like rivers, lakes, and wetlands, and the heritage and values of the people who lived in a community in the past and who live there today. These factors might be expressed through street layout, building architecture, landscaping, preservation of natural features, development density, and other components of development design. The design of a community as seen today might also be influenced by community decisions including the use of zoning and subdivision controls, the establishment of parks and other community facilities, the use of historic preservation, and in some cases, the use of land use planning.

Citizens of Dodge County tend to describe the present design of their communities as being tied to "rural character" or "small town atmosphere." Generally, Dodge County's towns identify with the concept of rural character, while the villages and cities tend to identify more with the concept of small town atmosphere. With a focus on the positive aspects of community design, Dodge County further defines rural character to include scenic beauty, a variety of landscapes, curved roads, attractive design of buildings and landscaping, undeveloped lands, farms, small businesses, and quiet enjoyment of these surroundings. Dodge County further defines small town atmosphere to include attractive community entrances, vital downtowns, community culture and events, and the aspects of rural character which surround its small cities and villages.



#### 5.4 Agricultural, Natural, and Cultural Resources Goals and Objectives

Community goals are broad, value-based statements expressing public preferences for the long term (20 years or more). They specifically address key issues, opportunities, and problems that affect the community. Objectives are more specific than goals and are more measurable statements usually attainable through direct action and implementation of plan recommendations. The accomplishment of objectives contributes to fulfillment of the goal.

## Goal 1. Maintain the viability, operational efficiency, and productivity of the town's agricultural resources for current and future generations.

#### **Objectives**

- 1.a. Protect productive farmland from fragmentation and conflicts with nonagricultural uses.
- 1.b. Protect the investments made, in both public infrastructure (roads) and private lands and improvements, that support the agriculture industry.
- 1.c. Increase awareness relative to the importance of protecting the viability of the local agricultural industry.
- 1.d. Strive to reduce the rate of productive farmland being converted to nonagricultural development by restricting development to non-productive or marginally-productive soils.
- 1.e. Develop an ordinance that prohibits the development and operation of "puppymills" in the Town of Hubbard.
- 1.f. Develop ordinance language that allows for the building of a shed on agricultural land prior to the building of a home on the same site. The purpose of which is for only agricultural uses.

#### Goal 2. Balance future development with the protection of natural resources.

#### **Objectives**

- 2.a. Consider the potential impacts of development proposals on groundwater quality and quantity, surface water quality, open space, wildlife habitat, and woodlands.
- 2.b. Direct future growth away from wetlands, floodplains, steep slopes, and areas of exposed bedrock.
- 2.c. Promote the utilization of public and non-profit resource conservation and protection programs such as Managed Forest Law (MFL), Conservation Reserve Program (CRP) and conservation easements.
- 2.d. Decrease sources of non-point source water pollution.
- 2.e. Require the preservation of natural buffers and building of natural buffers and setbacks between intensive land uses and surface water features (this should be added to the zoning ordinances).

### Goal 3. Preserve open space areas and woodlands for the purpose of protecting related natural resources including wildlife habitat, wetlands, and water quality.

#### **Objectives**

- 3.a. Manage growth to protect large, interconnected open space corridors.
- 3.b. Manage growth to protect small, isolated open spaces with aesthetic qualities that contribute to community character.
- 3.c. Conserve large contiguous wooded tracts in order to reduce forest fragmentation and maximize woodland interiors.

## Goal 4. Preserve rural character as defined by scenic beauty, a variety of landscapes, attractive design of buildings and landscaping, undeveloped lands, farms, small businesses, and quiet enjoyment of these surroundings.

#### **Objectives**

- 4.a. Consider the potential impacts of development proposals on those features that the town values as a part of its character and identity.
- 4.b. Discourage rural blight including the accumulation of junk vehicles, poorly maintained properties, and roadside litter.
- 4.c. Encourage efforts that promote the history, culture, and heritage of the town.

## 5.5 Agricultural, Natural, and Cultural Resources Policies and Recommendations

Policies and recommendations build on goals and objectives by providing more focused responses to the issues that the town is concerned about. Policies and recommendations become primary tools the town can use in making land use decisions. Many of the policies and recommendations cross element boundaries and work together toward overall implementation strategies. Refer to Section 9.5 for an explanation of the strategies cited as sources for many of the policies and recommendations.

Policies identify the way in which activities are conducted in order to fulfill the goals and objectives. Policies that direct action using the word "shall" are advised to be mandatory and regulatory aspects of the implementation of the comprehensive plan. In contrast, those policies that direct action using the words "will" or "should" are advisory and intended to serve as a guide. "Will" statements are considered to be strong guidelines, while "should" statements are considered loose guidelines. The town's policies are stated in the form of position statements (Town Position), directives to the town (Town Directive), or as criteria for the review of proposed development (Development Review Criteria).

Recommendations are specific actions or projects that the town should be prepared to complete. The completion of these actions and projects is consistent with the town's policies, and therefore will help the town fulfill the comprehensive plan goals and objectives.

#### **Policies: Development Review Criteria**

- ANC1 The rezoning of property out of the GA: General Agricultural District shall be discouraged (Source: Strategy ANC1).
- ANC2 Major land divisions shall not be permitted in areas not served by a sanitary sewage district or agricultural zoning districts (Source: Strategy ANC1, ANC2, LU1).
- ANC3 New non-farm residential development should be placed on the landscape in a fashion that preserves productive farmland, reduces farmland fragmentation, and prevents conflicts between agricultural and residential land uses (Source: Strategy ANC1, ANC2, ANC3, ANC5, LU2).
- ANC4 New non-farm residential development should not be placed on lands that are currently cropped, are enrolled CRP, or contain class I or II prime agricultural sales (Source: Strategy ANC1, ANC3, ANC5, LU2).
- ANC5 New development should be placed on the landscape in a fashion that minimizes potential negative impacts to natural resources and rural character such as shoreline areas, farmlands, locally significant landmarks, historical sites, wetlands, floodplains, wildlife habitat, woodlands, existing vegetation, aesthetically pleasing landscapes, and existing topography (Source: Strategy ANC4, ANC5, LU2).
- ANC6 Development occurring within or near natural resources should incorporate those resources into the development rather than harm or destroy them (Source: Strategy ANC4, ANC5, LU2).

#### Recommendations

- Continue to use the right-to-farm statement on land divisions (Source: Strategy ANC2).
- Encourage the enrollment of private lands into local, state, and federal resource protection programs (Source: Strategy ANC4).
- Work with Dodge County to modify county zoning and land division ordinances to better protect the right to farm (Source: Strategy ANC2).
- Utilize site planning, limits of disturbance regulations, and a maximum residential lot size to preserve agricultural lands (Source: Strategy ANC1, LU2).
- Conduct a community survey of historical and archeological resources at least once every 20 years (Source: Strategy ANC8).

#### 5.6 Agriculture, Natural, and Cultural Resources Programs

The following programs are currently utilized by the community or are available for use by the community to implement the goals, objectives, policies, and recommendations identified.

#### Wisconsin Act 307 - Notification to Nonmetallic Resource Owners

This Act amends portions of the Wisconsin Comprehensive Planning Law to increase communication and notification of local planning with owners of nonmetallic mineral sites. Public participation procedures must now include written procedures describing the methods the local government will use to distribute proposed, alternative, or amended elements of a plan to owners of property, or to persons who have a leasehold interest in property, which may extract nonmetallic mineral resources on the property. This is only required if the comprehensive plan changes the allowable use or intensity of use of the given property. Wisconsin Act 307 also added provisions to the Comprehensive Planning Law detailing that prior to a public hearing written notice shall be provided to property owners or operators with an interest in nonmetallic mineral resources.

#### Wisconsin Historical Society, Office of Preservation Planning (OPP)

Whether you need information concerning state or federal laws and regulations that may be applicable in your case, whether you need information on grassroots strategies for preserving and protecting historic properties, or whether you need information on how you may protect and preserve your own historic property the Office of Preservation Planning of the Wisconsin Historical Society can assist.

#### Wisconsin Farmland Preservation Program

The purpose of the program is to help preserve farmland through local planning and zoning, promote soil and water conservation, and provides tax relief to participating farmers. Farmers qualify if their land is zoned or if they sign an agreement to use their land exclusively for agricultural purposes. Contact: County Land Conservation Department, Wisconsin Department of Agriculture, or Dodge County Planning and Development Department.

#### Conservation Reserve Program (CRP)

Purpose is to reduce erosion, increase wildlife habitat, improve water quality, and increase forest land. Landowner sets aside cropland with annual rental payments based on amount bid. Practices include tree planting, grass cover, small wetland restoration, prairie and oak savannah restoration, and others. Eligibility varies by soil type and crop history. Land is accepted into program if bid qualifies. Continuous sign up open for buffers, waterways and environmental practices. Periodic sign ups announced throughout the year for other practices. Ten year or 15 year contract if planting hardwood trees is required and it is transferable with change in ownership. Public access not required. Contact: USDA Natural Resources Conservation Service or Farm Service Agency, or County Land Conservation Department.

#### Wisconsin Glacial Habitat Program

This program focuses on establishing a patchwork of restored wetlands and grasslands in combination with croplands to provide all of the elements necessary for the life cycle of waterfowl, wild pheasants and non-game songbirds. The goals of the program are to establish 38,600 acres of permanent grassland nesting cover and restore 11,000 acres of wetlands within Columbia, Dodge, Fond du Lac and Winnebago Counties. In order to achieve these goals, the DNR is purchasing, as well as securing perpetual easements, on properties ranging in size from 10 acres up to a few hundred acres. Only those properties purchased by the state become public property and are open to public hunting.