

5 AGRICULTURAL, NATURAL & CULTURAL RESOURCES

The Wisconsin comprehensive planning legislation requires this element to include goals, objectives and policies for the conservation and promotion of effective management of natural, historical and cultural resources in the Town of Onalaska. The area's significant agricultural and natural resources define the Town's identity. Town residents understand that these resources are irreplaceable and are dedicated to their preservation. This chapter provides the background information related to the Town's agricultural, natural and cultural resources. Goals, objectives and policies are included in the companion comprehensive plan document.

5.1 Agricultural Resource Inventory

Agriculture has long been an important economic livelihood in La Crosse County. Because of its location along the Mississippi River, the region has used this amenity to ship agricultural products throughout the region and the world. Major crops include corn, soybeans and dairy products. The trend in the area has been a decrease in number of farms, but an increase in farm size as the remaining farms consolidate.

According to the La Crosse County Land Information and Zoning classification, agriculture, livestock, pasturing and grazing activities are common land uses in the Town, particularly on Brice Prairie and in the coulees in the eastern part of the Town. Farming is a key part of the local economy and the Town heritage. It is also a way of life for many Town residents. The agricultural landscape contributes greatly to the aesthetic appeal of the Town and the surrounding area. However, farmland often makes attractive land for housing development and as the region's population grows, farmland is rapidly disappearing. Table 5.1 shows average farmland sales for the Towns of Medary and Onalaska and the average of all towns in La Crosse County from 1990-1997. It is interesting to note that in the Town of Medary, an approximately equal number of acres of land sold were converted out of agriculture as remained in agriculture. However, in the Town of Onalaska, more than twice as many acres of land remained in agriculture than were converted out of agriculture.

In the Town of Onalaska, and the County as a whole, land converted out of agriculture sold for a higher value than land that remained in agriculture. It is also important to note that only three percent of land sold in all towns in the County was converted out of agriculture, whereas 5.8 percent and 6.8 percent of agricultural land sold in the Town of Medary and the Town of Onalaska respectively were converted out of agriculture.

Table 5.1 Average Farmland Sales, 1990-1997

	Number of parcels sold	Total acres	Acres continuing in agriculture	Acres converted out of agriculture	\$/acre of land continuing in agriculture	\$/acre of land converted out of agriculture	1990 acres of farmland	% sold and converted 1990-1997
T. Medary	8	410	213	197	n/a	n/a	3372	5.8%
T. Onalaska	47	2,404	1,635	769	\$1,082	\$1,204	11,294	6.8%
All towns in La Crosse County	404	21,421	17,508	3,913	\$885	\$1,609	128,529	3.0%

Source: Wisconsin Town Land Use Data Project: Program on Agricultural Technology Studies, UW-Madison

According to the Wisconsin Agricultural Statistics Service, between 1992 and 1997 the following agricultural land trends occurred in La Crosse County:

- Land in farms decreased 7 percent from 182,339 to 169,543 acres
- Average size of farms decreased 3 percent from 231 to 223 acres
- Full time farms decreased 21 percent from 507 farms to 403 farms
- Market value of agricultural products sold decreased 5 percent to \$45,758,000 (crop sales accounted for 20 percent of the market value and livestock sales accounted for 80 percent of the market value)
- Average market value of agricultural products sold per farm decreased slightly from \$60,843 to \$60,287

The State of Wisconsin showed similar agricultural trends during this time period. However, market value of agricultural products sold statewide increased by 6 percent and average market value of agricultural products sold per farm statewide increased by 10 percent.

5.2 Natural Resource Inventory

5.2.1 Landforms/Topography

Scenic ridges, bluffs, valleys, wetlands and rivers characterize the topography of the Coulee Region, where the Town of Onalaska is located. The area is in the unglaciated region, or Driftless Area, of Wisconsin and was not affected by the last Ice Age, around 15,000 years ago. The steep topography contributes much to the attractiveness of the area as a place to live and recreate.

The region has been dissected by a maze of high, narrow ridges and steep, broad coulees worn down by streams. A layer of wind-spread silt covers most of the Coulee Region, while sand and gravel carried from the uplands covers the valleys.



Agricultural land in the Town and throughout the region typically consists of farmland surrounded by steep, scenic hills and bluffs.

5.2.2 General Soils Information

The geology of the area is of the Cambrian System and the Prairie du Chien group of the Ordovician System. The geology is comprised of sandstone with some dolomite and shale.

The soils in the Town are mapped and described in the USDA's *Soil Survey of La Crosse County Wisconsin*. Soils in the area are characterized as forested and silty. Soil types are highly variable and include:

- Hixton sandy loam
- Meridian sandy loam
- Plainfield fine sand
- Dakota sandy loam
- Richwood silt loam
- Trempe loamy fine sand
- Trempealeau fine sandy loam, and
- Waukegan silt loam.

Soil suitability for development depends on the soil type, slope and erosion levels. Soil types in the Town are intermixed, so on-site soil analyses are necessary to determine development potential for individual properties.

Soil suitability classes for agriculture range from Class I to Class VIII. Class I has no significant limitations for raising crops. Classes II and III are suited for cultivated crops but have limitations such as poor drainage, limited root zones, climatic restrictions or erosion potential. Class IV is suitable for crops but only under selected cropping practices. Classes V, VI, and VII are best suited for pasture and range while Class VIII is suited only for wildlife habitat, recreation, and other nonagricultural uses. The soil classes for the Town are depicted on the Soils Map.

5.2.3 Groundwater

Groundwater in the Onalaska area is abundant and is obtained from a sand and gravel aquifer. The groundwater is easy to locate and drill into, but has a high potential for contamination because the sandstone bedrock is not very effective in filtering surface waters that permeate it. A variety of land uses can release contaminants that travel through the sandstone to the water table, potentially causing problems with drinking water supplies.

The groundwater under Brice Prairie, in the western part of the Town, is especially vulnerable to contamination. The Brice Prairie Watershed Storm Water Management Plan, completed in 1999, notes that the quality of the shallow groundwater is generally good, and most private wells are located within the sand and gravel aquifer. However, the shallow depth to groundwater, higher permeability of the aquifer and the potential for rapid infiltration and vertical groundwater flow combine to make groundwater under Brice Prairie highly vulnerable to contamination from surface sources and upgradient water bodies.

Contaminated groundwater has significant environmental, health, economic and social impacts. For

example, contaminated groundwater has considerable financial impacts as contaminated wells adversely impact home values. It is therefore important to incorporate good planning practices to protect groundwater in Brice Prairie, and the rest of the Town.

Several documented contaminant sources have the potential to impact groundwater and surface water quality in the Brice Prairie area. These include:

- Onalaska Municipal Landfill Superfund Site at the northern tip of Brice Prairie;
- Metallics, Inc. on CTY Z near the southern end of the prairie; and,
- Blount Inc., Outers Operation and Kanesh Prairie market leaking underground storage tanks (LUST) sites.

5.2.4 Slopes

Elevations in the Town of Onalaska vary greatly and range from 640 to 1331 feet above sea level. The western part of the Town is located on relatively flat, low land that is adjacent to the Mississippi River, whereas steep, high elevation slopes exist in the eastern part of the Town, as shown on the Environmental Features Map.

Steep slopes are environmentally sensitive from a water quality perspective because when disturbances, such as development, occur on these slopes, increased amounts of erosion and runoff from rain and snowmelt enters surrounding water bodies and can negatively impact water quality. To protect these water bodies, land disturbance activities in the Town must be carefully monitored.

5.2.5 Floodplains

Floodplain areas, defined as areas that are prone to flooding during a 100-year storm event, are designated by the Federal Emergency Management Agency (FEMA). According to FEMA's Flood Insurance Rate Map, designated floodplains are adjacent to Halfway Creek and Sand Lake Creek. This area of special flood hazard is approximately 50 to 60 feet wide on both sides of the creeks. Base flood elevations for Halfway Creek and Sand Lake Creek are delineated on FEMA maps. Much of Brice Prairie is also located within a designated FEMA floodplain, particularly the area between the railroad tracks and CTH XX. It is important to note that all areas of the Town subject to flooding are not necessarily reflected on the FEMA maps.

The state requires county regulation of development in floodplains. Development in these areas is strongly prohibited, to avoid both on-site and up-and downstream property damage.

5.2.6 Wetlands

Wetlands provide valuable wildlife habitat and contribute greatly to the aesthetic appeal of the area. Wetlands are protected by the Wisconsin Department of Natural Resources (DNR) and the U.S. Army Corps of Engineers. The wetlands in and around the Town of Onalaska are mapped by the Wisconsin Wetlands Inventory of the Department of Natural Resources (DNR). The maps show wetlands located along portions of Halfway Creek and on much of Brice Prairie. The wetlands are characterized as forested, deciduous land with wet soil and persistent emergent wet meadow with

some open water. Emergent wet meadow is described as herbaceous plants that stand above the surface of the water or soil. Plant remains persist into the following year's growing season.

5.2.7 Woodlands

The Town of Onalaska is located in a region of the country known as the Prairie-Forest Border, which forms the transition zone between the plains to the south and west and the forests to the north and east. Before European settlement and the resulting fire suppression, the vegetation in this region consisted of oak savanna and southern oak forest. The remaining forest cover is generally broad-leaved deciduous forest. Woodlands comprise much of the land in the eastern part of the Town.

The State's Managed Forest Law (MFL) program is available to landowners with 10 or more contiguous acres of forestland. Participating landowners must agree to a forest management plan that includes harvesting at least 80 percent of their forest area. In exchange, their land is taxed at a rate below the state average.

As of August, 2004, 1,191 acres in the Town were enrolled in the MFL program.

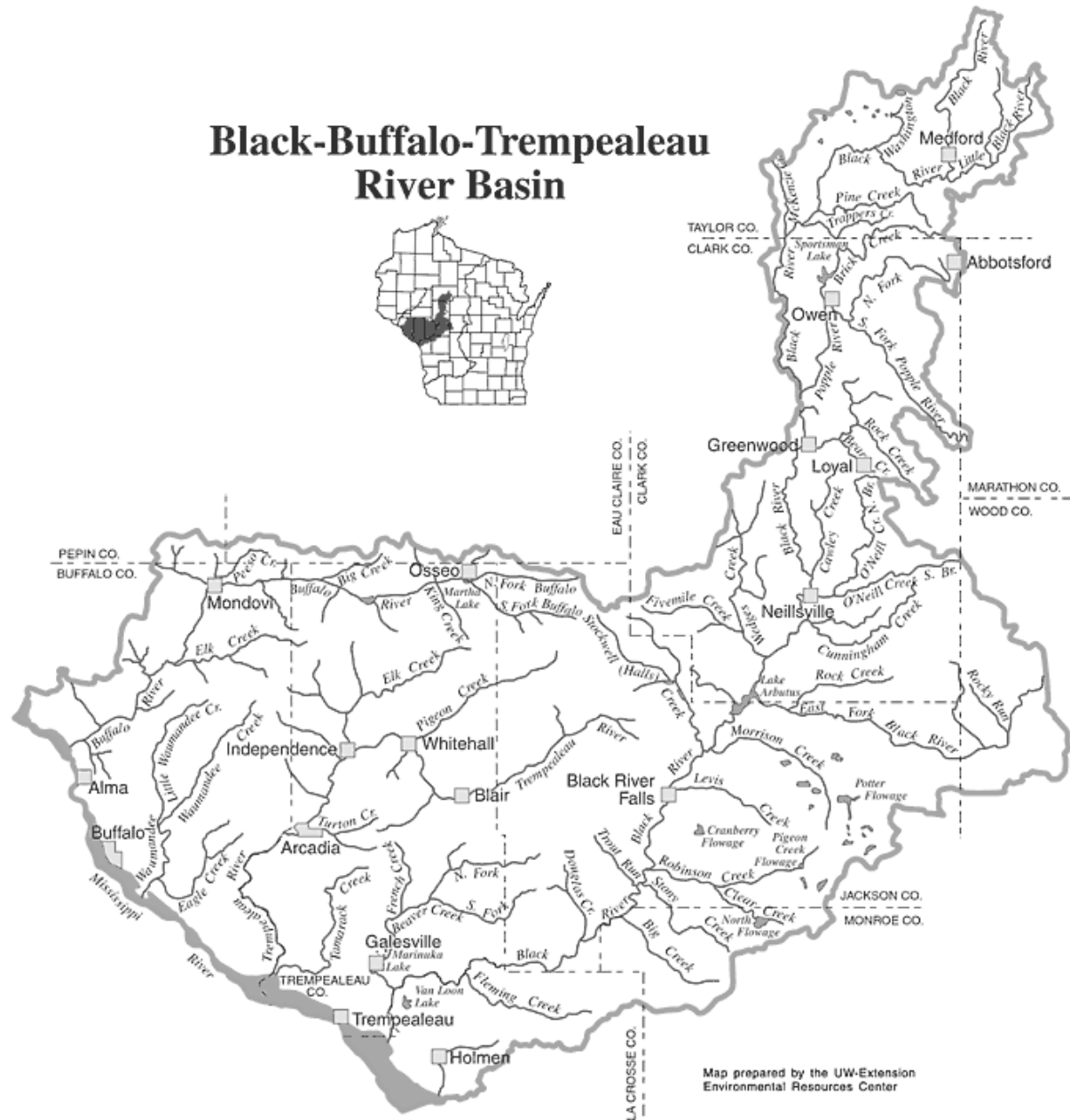
5.2.8 Drainage Basins and Watersheds

The Town of Onalaska is located in the Lower Black River Watershed, which is in the southern part of the Black River Basin. The basin encompasses approximately 2.5 million acres and is home to around 80,000 people. Almost 600,000 acres of county, state and federally-owned public land and 300,000 acres of wetlands are found within the basin. The landscape is considered to be some of the roughest terrain in the state.

The Halfway Creek and Sand Lake Coulee watersheds are located within the Lower Black River Watershed, and are encompassed almost entirely within the Town of Onalaska's boundaries. Halfway Creek is comprised of two primary sub-watersheds, Long Coulee and Halfway Creek. The total watershed encompasses approximately 22,944 acres. As of 1995, 10,558 acres were in agricultural use, 10,336 acres were wooded, 1,130 acres were developed and the remaining 520 acres were classified as miscellaneous open spaces.

Sand Lake Coulee watershed encompasses approximately 5,120 acres, of which, in 1995, 1,356 acres were in agricultural use, 2,403 acres were wooded, 1,142 acres were developed and the remaining 219 acres were miscellaneous open spaces.

Figure 5.1: Black-Buffer-Trempealeau River Basin



Source: <http://clean-water.uwex.edu/bbt/basin/map.htm>

5.2.9 Stream Corridors

About 3,500 miles of streams and 82 lakes and impoundments make up the water resources of the Black-Buffalo-Trempealeau Basin. Of these total stream miles, 604 miles are designated cold-water streams that are capable of supporting, to some degree, a trout fishery. Halfway Creek runs through the Town from northeast to southwest and is stocked with brown and brook trout. Sand Lake Creek also runs through the Town and generally flows east to west.

The transition of native vegetation to cropland and increasing urban development in the Lower Black River watershed has created flooding and environmental degradation along Halfway Creek from stormwater runoff. A study of the watershed recommended the construction of wet detention basins, infiltration water basins, stream bank and shoreline stabilization, grassed channels and waterways and construction of wetlands. Nonstructural recommendations included drafting a construction site erosion control ordinance, a stormwater management ordinance, a wellhead protection ordinance, undertaking batch basin sumps and cleaning, street and parking lot sweeping, agricultural best management land practices and a public education and information program.

5.2.10 Surface Water

The primary surface water bodies in the area are the Mississippi River, Black River, Lake Onalaska, Halfway Creek and Sand Lake Creek. One of the most significant outdoor resources available to residents and visitors is Lake Onalaska. Excellent opportunities for boating, canoeing, sailing, fishing, hunting, birdwatching or simply enjoying wildlife abound. The 7,000-acre lake has depths to 40 feet, but the average depth is just 8 feet. The lake was formed in 1937 when the U.S. Army Corps of Engineers finished the Dresbach, MN Lock and Dam 7.

5.2.11 Open Space/Environmental Corridors

There are an abundance of open spaces and environmental corridors in the Town. Open space/environmental corridors are continuous systems of open space that include environmentally sensitive lands, floodplains and wetlands, natural resources requiring protection from disturbance and development, and land specifically designated for open space or recreational use. Important natural areas that are suitable for preservation include the Halfway Creek Valley, the bluffs, the coulees and the important wildlife habitats located throughout the Town.



Looking west toward Lake Onalaska.

5.2.12 Nonmetallic Mineral Resources

There are several areas in the Town used for nonmetallic mineral extraction. Several quarrying operations are located immediately west of the Village of Holmen, adjacent to CTH XX.

5.2.13 Wildlife Habitat and Threatened and Endangered Species

There is an abundance of wildlife habitat in the Town of Onalaska and many rare, threatened or endangered species exist in the Black River Basin, in which the Town of Onalaska is located.

Occurrences of those species are shown on the Endangered and Threatened Species Map.

Brice Prairie is nearly surrounded by the Upper Mississippi River National Wildlife and Fish Refuge, a federally protected 194,000 acre area along a 261 mile stretch of the Mississippi River. The Refuge draws more than three million visitors annually. Brice Prairie is bounded by Lake Onalaska on its west and south sides, the Black River Bottoms to the north and Halfway Creek Marsh on the east.



Grasses on Brice Prairie.

Brice Prairie, Halfway Creek Marsh, the Midway Railroad and Mathy Prairies, the Black River Bottoms and Lake Onalaska provide habitat for a wide variety of wildlife. The entire area lies within the Mississippi flyway for migratory birds, and Lake Onalaska is of particular importance as a nesting site for ducks and shorebirds and a stopover for migratory waterfowl. Lake Onalaska also provides critical habitat for bald eagles, tundra swans and canvasback ducks and is designated a globally important bird area by the American Bird Conservancy. Herons, pelicans, cranes and a variety of diving and puddle ducks are also common in the area. Halfway Creek Marsh and the Black River Bottoms provide grassland, forestland and wetland habitat for migratory songbirds, shorebirds, waterfowl, turtles, frogs, fox and other wildlife. Brice Prairie, Halfway Creek Marsh, the Midway Railroad and

Mathy Prairies, the Black River Bottoms and Lake Onalaska provide habitat for a wide variety of wildlife.

5.2.14 Air Quality

The Wisconsin DNR classifies the La Crosse Metropolitan Area, in which the Town of Onalaska is located, as an air quality attainment area. This designation means the area is not in violation of any air quality regulations. Because land use densities and configurations can both positively and negatively affect air quality, these must be carefully considered in the future to maintain good air quality. As the population in the region grows and more people and goods use the highways, attention will need to be focused on automobile and truck emissions' impact on air quality.

5.3 Cultural Resources Inventory

Preservation of historic and cultural resources is important to the vitality of any community. It fosters a sense of pride and community, and provides an important context for social and cultural continuity between the past, present and future. The Town of Onalaska has a rich cultural history that should be preserved and enhanced whenever possible.

5.3.1 Historic Resources

The Town has a unique collection of historic or architecturally significant buildings and sites. The State Historical Society's Architecture and History Inventory (AHI) contains data on a wide range of historic properties throughout the state-such as round barns, cast iron bridges, commercial buildings, schoolhouses and turn of the century homes-that help shape Wisconsin's distinct cultural landscape. The AHI lists 32 documented properties in the Town of Onalaska. The properties include older houses and outbuildings, farmsteads, cemeteries and bridges.

5.3.2 Archeological Resources

The Town of Onalaska is an attractive place to live and has been for many centuries. Native Americans from the Winnebago (now the Ho Chunk Nation) and Oneota Tribes inhabited the area for several centuries prior to the arrival of the first white settlers. Several areas around Long Coulee, Brice Prairie and Sand Lake Road have been excavated and the existence of Oneota villages has been documented. Burial grounds, remnants of long houses and an established farming community including an elaborate irrigation system were excavated by the Mississippi Valley Archaeological Center (MVAC). Mastodon bones dating back 12,000 years were also found in the extensive excavations. The MVAC has documented significant cultural artifacts on Brice Prairie, dating from between 1300 and 1400 AD, which is the earliest phase of the Oneota Tradition.

Four archeological sites in the Town of Onalaska are listed on the National Register of Historic Places. Those sites include:

- Midway Village Site
- Midway Archaeological District
- Sand Lake Archeological District
- Sand Lake Site

Under Wisconsin law, Native American burial mounds, unmarked burials and all marked and unmarked cemeteries are protected from encroachment by any type of development.

5.3.3 Recreational Resources

Recreational resources in the Town of Onalaska include the parks and recreation facilities identified in the Utilities and Community Facilities element. However, it is important to note that the community considers many of its natural resources as passive recreational uses such as wildlife viewing and bird watching, as well as active recreational activities such as boating, canoeing, fishing, and hunting.