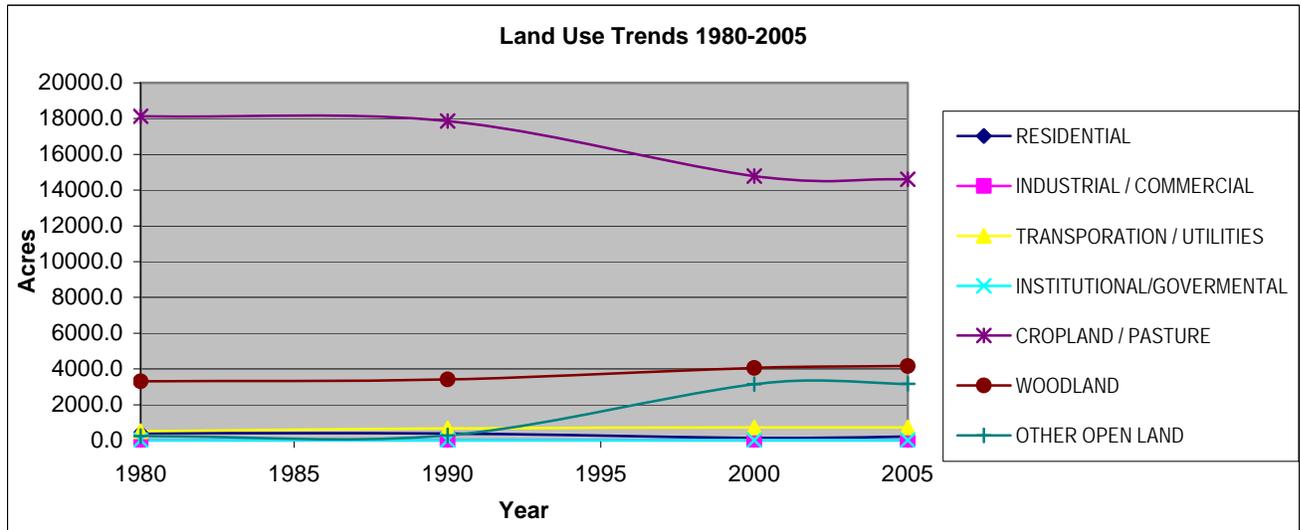
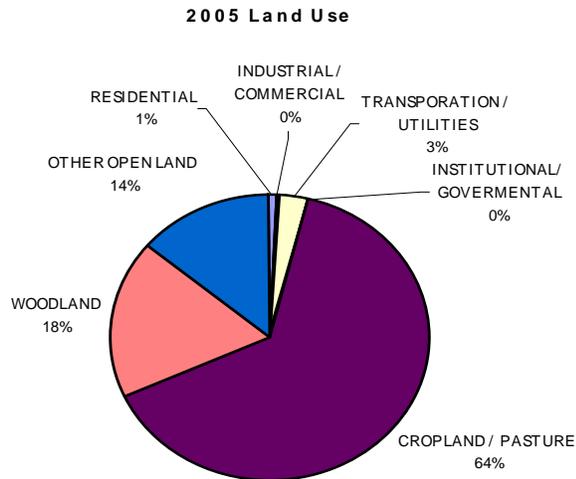


## CHAPTER 5: AGRICULTURAL, NATURAL AND CULTURAL RESOURCES

### Agricultural Resource Inventory



- Historical Trends:** The Town of Primrose has a strong agricultural history. Over the last 25 years, the predominate trend has been conversion of marginal cropland and pasture into other open land categories, which includes federal set-aside programs such as the Conservation Reserve Program. Woodlands have also expanded in the town. (Table 5-1). Despite these trends, cropland and pasture remain the predominant land use, accounting for 64% of the land area in 2005. Primrose benefits from Dane County's strong agricultural economy. Among Wisconsin counties, Dane County was first with \$287.6 million in agricultural sales (Marathon County was a distant second at \$205.4 million). In spite of this productivity, the State of Wisconsin has lost one third of its agricultural lands to other uses since 1950 (Wisconsin Working Lands Initiative, Aug. 2006, WDATCP).



*Farming Today:* Over 64% of the Town’s land was agricultural in 2005. This includes row crops, pastures, and idle farmland. Because farming is the Town’s primary activity, land uses that are not compatible with farming operations are discouraged in agricultural areas. Experience has shown that routine agricultural activities often cause noises, dust, odors and hazards to nearby residential development.



- *Farm Size, Scale, and Type:* The town has a diverse agricultural base, including commodity crops such as corn and soybeans, traditional dairy farms, other livestock such as sheep and goats and a growing organic sector. Because of the Town’s location in the Driftless Area, there are many steep slopes not suited to row crops, and these slopes are forested or in pasture. According to county level data provided by the USDA Census of Agriculture 2002, a small decrease in the number of farms and the number of acres of farmland in Dane County occurred from 1997-2002 (Table F). Unfortunately, Town level farm summary data are not calculated. However, because the agricultural sector is regionally dependent, the status of agriculture in the county is useful information for making Town level decisions.

Table 5-B: Dane County Farm Summary, 1997-2002

	1997	2002	Percent Change
Number of Farms	3,179	2,887	-9.2%
Land in Farms (acres)	559,476	515,475	-7.9%
Average Farm Size (acres)	176	179	+1.7%

Source: USDA Census of Agriculture, 2002

- *Future Prospects:* Because of the Town’s strong density policy, agricultural practices will likely continue over the next twenty years. National and regional market factors may affect the type of farming in the Town.

Natural Resources Inventory

- *Environmentally Sensitive Areas:* The Town of Primrose sits at the northeastern edge of the Southwest Savanna ecological landscape. The Wisconsin Land Legacy Report (WIDNR, 2006) describes the Southwest Savanna as an area “characterized by deeply dissected, unglaciated topography with broad open hilltops, flat fertile river valleys and steep wooded slopes.” Conservation concerns for the area include the steep decline of native grassland bird species, such as prairie chicken, Bell’s vireo and loggerhead shrike. Remnant tallgrass

prairie and oak savanna communities persist in Primrose, particularly on steep hillsides. The Wisconsin DNR has designated the Town of Primrose as part of a proposed 274,000-acre Southwest Grassland and Stream Conservation Area (SGSCA). Once funding is approved by the state legislature, the DNR and its governmental and nonprofit conservation partners will work with private landowners to support voluntary conservation, restoration and stewardship of critical grassland habitat. The project hopes to conserve a total of 12,000 acres throughout the project area through fee-title and conservation easement purchases from willing landowners.

The northern two-thirds of the town lies within the watershed of the Mount Vernon Creek / West Branch of the Sugar River, Class 2 coldwater trout streams. The Mount Vernon Creek Public Fishery Area, operated by the Wisconsin DNR, sits south of Highway 92, near the Primrose / Springdale town line. The southern third of the town lies in the watershed of the Little Sugar River, another coldwater community and a DNR-designated Exceptional Resource Water. The town also includes a small portion of the Gordon Creek watershed to the west (Maps 5-2 and 5-3).

- *Soils:* Under the Soil and Water Conservation Society's Land Evaluation and Site Assessment classification, Class I and Class II agricultural soils in the Town of Primrose are limited to the valley floors. Many of these soils also fall into hydric soil categories and may be prior drained or converted wetlands. The relatively flat area near the confluence of Mount Vernon Creek and the West Branch of the Sugar River in Sections 13, 14, 23 and 24 have a high concentration of Class III agricultural soils in upland areas.
- *Wetlands:* Because of the town's topography, all the wetlands in the Town of Primrose are associated with the two major river systems, the West Branch of the Sugar River and the Little Sugar River. Most of the town's wetlands are smaller than two acres. Larger emergent marshes are limited primarily to floodplains and valley floors (Map 5-2).
- *Groundwater:* In Dane County, groundwater supplies nearly all the water for domestic, commercial and industrial uses. Therefore it is extremely important to protect the quality of our groundwater. Excessive use of road salts, fertilizers, and pesticides and poor maintenance of some animal waste and septic systems can hurt groundwater quality.
- *Wildlife and Endangered Species:* The Wisconsin DNR inventories endangered species and records data on their Natural Heritage Inventory website. State endangered and threatened species occurring in the Town of Primrose include Loggerhead Shrike (*Lanius ludovicianus*), Henslow's Sparrow (*Ammodramus heslowii*), both grassland birds, and Yellow Gentian (*Gentiana alba*), a woodland/savanna plant. Other species of special concern include:
  - Redside Dace (*Clinostomus elongates*), a coldwater fish;

- Innocence (*Houstonia caerulea*), a prairie/woodland wildflower;
- Large Roundleaf Orchid (*Platanthera orbiculata*) a wildflower associated with moist hardwood woodlands;
- Prairie Fame-flower (*Talinum rugospermum*), a sandy prairie wildflower;
- Purple-stem Cliff-brake (*Pellaea atropurpurea*), a plant associated with sandstone and dolomite cliffs;
- Wilcox Panic Grass (*Panicum wilcoxianum*), a prairie grass associated with dry, gravelly hillsides, and;
- Yellow Wild-indigo (*Baptisia tinctoria*), an oak barrens wildflower.

In addition, Primrose's oak woodlands and coldwater streams are both identified by the Wisconsin DNR as ecological communities of special concern (Map 5-3).



- **Woodlands:** In 2005, the Town of Primrose had almost 4,300 acres of woodland, including 3,400 acres (79%) in contiguous blocks of 20 acres or larger. Forested land comprises 18% of the land area in the Town, second only to agriculture in area of land use. Woodlands tend to follow uncultivated steep slopes of the town's

river valleys, forming corridors scattered throughout the town. Forested lands are particularly concentrated in the Lower Sugar River watershed.

- **Metallic/ Non-Metallic Mineral Resources:** There are no known metallic mineral resource deposits in the Town. Soils likely to contain significant sand and gravel deposits underlie the valley bottoms, but may be inaccessible due to environmental and hydrologic constraints, such as wetlands and floodplains (Map 5-4). While there are no active, permitted extraction sites in the town, Dane County Zoning data show four legal, nonconforming, inactive mineral extraction sites in Primrose.

### Cultural Resources Inventory

- **Historic Sites:** The Wisconsin Historical Society's Architectural Heritage Inventory (AHI) identifies fifteen existing structures of historic interest in the Town of Primrose (Table 5C). No sites are listed on the National and State Register of Historical Places, but some sites in the Town may be eligible and many are of regional or local significance.

Significant historic landmarks include the Primrose Lutheran Church, which still has an active congregation, and the Ingebrit Peterson log home, constructed in 1857. Many of the resources in the AHI were last surveyed in 1979. Resurveys of the town would be needed to determine which buildings are still standing, and to identify any other historic resources that should be added to the AHI. For example, the Town of Primrose is the birthplace of former Wisconsin Governor

and U.S. Senator Robert “Fighting Bob” LaFollette, and the foundations of the original LaFollette farm buildings are still visible. The Wisconsin Historical Society provides grants to communities for historic survey research.

**Table 5C: Historic Architectural Resources in Town of Primrose**

AHI#	Section#	¼ / ¼	Building Type	Status
4405	02	SW / SW	Italianate clapboard house	Private owner
4406	04	SW / SW	Barn	Private owner
4407	04	NW / NE	Silo	Private owner
4408	10	NE / SW	Eichelkraut House	Private owner
4409	09	SW / SW	Octagon barn	Private owner
4413	19	SE / SE	Barn	Private owner
4414	23	SE / SE	Craftsman brick building	Private owner
4415	25	NW / NW	Stone house	Private owner
4416	25	NE / NE	Gabled ell house	Private owner
4417	28	NE / NE	Primrose Lutheran Church	Active church
4418	29	SW / NW	Limestone house	Private owner
4419	34	SW / SW	Clapboard gabled ell house	Private owner
4420	34	NW / SE	Limestone house	Private owner
4421	35	SE / SE	Barn	Private owner
87162	08	NE / SW	Ingebrit Peterson House	Private owner



- *Archaeological and Burial Sites:* Under Wisconsin law, Native American burial mounds, unmarked burials, and all marked and unmarked cemeteries are protected from intentional disturbance. The Wisconsin Historical Society maintains a list of archaeological sites and cemeteries referred to as the Archaeological Site Inventory (ASI). The Archaeological Site Inventory (ASI) is the most comprehensive list of

archaeological sites, mounds, unmarked cemeteries, marked cemeteries, and cultural sites available. The ASI does not include all of the sites and cemeteries present in the state, however. It includes ONLY those sites that have been reported to the Wisconsin Historical Society.

Detailed ASI information is confidential and is not subject to Wisconsin’s open records law (Wis. Stats. §§ 44.48 and 157.70). This information is also protected by Federal law (Section 304 of the National Historic Preservation Act, Section 9(a) of the Archaeological Resources Protection Act of 1979). This caution not only helps protect archaeological sites but also protects landowners since private landowners own the majority of archaeological sites in the Town.

Since only a small portion of the Town has been surveyed for the presence of archaeological sites and cemeteries, the sites listed in the inventory represent only a fraction of the sites that are actually present. Local residents and American Indian communities who have and do live and work in the area possess much additional

information on other archaeological sites and cemeteries. Steps should be taken to have this information incorporated into future updates of the *Town of Primrose Comprehensive Plan*.

Up to this point in time, twenty-one (21) archaeological sites and cemeteries have been reported for the Town (Table 5D). The following types of sites have been identified:

- Twelve (12) Campsites/Villages; eight of unknown age, one belonging to the Archaic Tradition (8000 BC-500 BC), one belonging to the Woodland Tradition (500 BC-1200 AD), and two yielding both Archaic and Woodland materials (8000 BC to 1200 AD).
- One (1) find of a mammoth or mastodon bone, possibly in association with a cluster of tools found around a nearby spring. If the mammoth/mastodon bone is related to the artifacts, then the site dates ca. 11,000-9,000 BC.
- Three (3) Native American burial mound groups (ca. 500 BC to 1200 AD)
- One (1) rockshelter that has produced Native American artifacts, age unknown.
- Three (3) Euro-American cemeteries.
- One (1) Cultural Site/Quarry; significant to Ho-Chunk populations.

Clearly this sample of sites does not reflect the rich history of the area. Many more sites are present in the area, but have not been reported to the Wisconsin Historical Society and thus are not included in this table. These 'missing' sites include farmsteads, homesteads, and gravesites associated with the earliest settlers, post-Contact Native American sites and cemeteries, and may include Native American cemeteries and rock art sites. We encourage the Town to speak with local residents to see what other archaeological resources may be present in Primrose Township.

No sites are listed on the National and State Register of Historical Places, but many sites in the Town certainly may be eligible and are important.

Table 5D: Archaeological Resources

State # /Burial Code #	Site Name	Site Type	Cultural Study Unit	Section(s)
DA-0773	MT. JULIA SITE	1. Campsite/village	1. Unknown Prehistoric	13
DA-0772	DEVILS CHIMNEY CAMP	1. Campsite/village	1. Archaic	10
DA-0774	LITTLE SUGAR SITE	1. Campsite/village	1. Unknown Prehistoric	32
DA-0226	MUELLER	1. Campsite/village	1. Unknown Prehistoric 2. Woodland	8
DA-0227	Unnamed Site	1. Campsite/village	1. Unknown Prehistoric	18
DA-0332	Argue Mammoth	1. Campsite/village 2. Paleontological	1. Unknown Prehistoric	9
DA-0333	AMUNDSEN	1. Campsite/village	1. Unknown Prehistoric	15, 10
DA-0334	HOBBS	1. Campsite/village	1. Unknown Prehistoric	10
DA-0771	Mount Vernon Creek	1. Mound(s) - Other/Unk 2. Campsite/village	1. Woodland 2. Historic Indian	Multiple
DA-0857	Emma Pierce Mound Group	1. Mound(s) - Linear 2. Mound(s) - Conical	1. Woodland 2. Late Woodland	4 4
BDA-0093	WEST EVANGELICAL LUTHERAN CEMETERY	1. Cemetery/burial		28
BDA-0094	EAST EVANGELICAL LUTHERAN CHURCH CEMETERY	1. Cemetery/burial		28
BDA-0240	MT. HOPE CEMETERY			36
DA-0935	Kahl Farm	1. Mound(s) - Conical 2. Mound(s) - Linear 3. Mound(s) - Other/Unk	1. Woodland	14
DA-1025	ESSER ROCKSHELTER	1. Cave/rockshelter	1. Unknown Prehistoric	11
DA-1114	LUCILLE O'CONNOR	1. Campsite/village	1. Unknown Prehistoric	13
DA-1115	FRANCIS O'CONNOR	1. Campsite/village	1. Archaic 2. Woodland	12
DA-1116	F & L O'CONNOR	1. Campsite/village	1. Archaic 2. Woodland	12
DA-1180	Meadow Creek site	1. Lithic scatter	1. Unknown Prehistoric	8
DA-1181	Haag site	1. Lithic scatter	1. Unknown	8
DA-1313	Devil's Chimney	1. Cultural Site 2. Quarry	1. Historic Indian	11

- *Community Design:* The town incorporates community design guidelines. When reviewing development proposals, the Town and property owners will consider the following objectives of the Town:
  - Avoid disturbance of productive agricultural land;
  - Avoid disturbance of floodplains, wetlands and steep slopes;
  - Minimize number and length of driveways, and;
  - Avoid fragmentation of existing contiguous wood lots of 20 acres or more.

See *Chapter 8: Land Use* for detailed design and siting criteria.

### **Agricultural Resource Goals, Objectives and Policies:**

#### *Goals*

1. Preserve productive farmlands in the town for continued agricultural use.
2. Keep farming economically viable in the Town of Primrose through the 21st century.
3. Maintain the rural character of the town.

#### ***Supporting Objectives:***

- a) Discourage land uses which conflict with agriculture.
- b) Support efforts to expand economic opportunities for farmers.
- c) Limit nonfarm development consistent with town density policies.
- d) Direct nonfarm development away from productive agricultural lands.
- e) Protect farm operations from incompatible land uses and activities which may adversely affect the capital investment in agricultural land, improvements and equipment.



#### *Policies*

1. Limit nonfarm uses in agricultural preservation districts to one unit per 35 acres owned as of April 28, 1981 (see *Chapter 8: Land Use*).
2. Allow rezones for nonfarm development only on lands that meet town siting, lot design and driveway criteria (see *Chapter 8: Land Use*).
3. Direct development incompatible with agricultural use away from farming areas and toward areas with appropriate public services.
4. Cooperate with other units of government to make local farmers eligible for farmland preservation tax credits and other programs that encourage continued farming.
5. Town ordinances that restrict noise, odors, keeping of animals, etc. shall not apply to farming activities in agricultural preservation districts.
6. Encourage farmer participation in cost-share and other programs as described in the *Dane County Land & Water Resources Plan*.

7. Encourage and participate in farmer education programs provided through UW Extension.
8. Consider new tools, such as TDR and PDR, to help protect agricultural lands and provide financial alternatives to developing farmland (See *Chapter 8: Land Use*).
9. Work with Dane County to revise county zoning and land division ordinances to support farm operations and agriculture-related businesses.

### **Mineral Resource Goals, Objectives and Policies:**

#### *Goals*

1. Make sure mineral extraction operations protect public health, safety and the environment and are consistent with the goals and objectives of this plan.
2. Limit conflicts between mineral extraction and incompatible uses.

#### ***Supporting Objectives:***

- a. Establish clear, consistent policies for conditional use permits for mineral extraction operations.
- b. Work closely with Dane County to review and provide appropriate conditions for proposed mineral extraction operations.
- c. Discourage development that would conflict with existing mineral extraction operations.

#### *Policies*

1. Work with Dane County to revise the county zoning ordinance to establish objective criteria for mineral extraction operations.
2. Help identify significant mineral deposits within the town and inventory inactive unreclaimed mineral extraction sites.
3. Review conditional use permits for new or expanded mineral extraction sites and develop recommended conditions based on the nature of the proposed operation, the location, topography, environmental features of the site, and public comment received. Work with Dane County as necessary to develop specific conditions related to, at a minimum:
  - Hours of operation;
  - Conditions on schedule, notification and nature of blasting (if any);
  - Truck traffic and safe routes for material hauling;
  - Other uses on the site, such as crushing or asphalt production;
  - Fencing, screening and warning signs on the site, and;
  - Final use of any reclaimed sites, consistent with other goals, objectives and policies of this plan.

### **Natural Resource Goals, Objectives and Policies:**

#### *Goals*

1. Protect important natural features such as significant woodland and grassland areas, floodplains, wetlands, endangered species habitat and steep slopes.
2. Provide sufficient parks and outdoor recreation areas to meet the needs of town residents.

3. Preserve the rural and scenic character of the town.
4. Protect and where possible, improve surface and groundwater quality.
5. Provide for sustainable, diverse hunting, fishing, wildlife observation and other outdoor activities within the town.
6. Support and encourage voluntary stewardship of private and public lands and respect private property rights.

*Supporting objectives*

- a. Establish a resource protection district, with policies to help protect sensitive environmental areas, including floodplains, wetlands and steep slopes.
- b. Establish a public lands district, with policies to help foster cooperation with public agencies owning lands in the town and promote consistency with this plan.
- c. Make sure development uses best practices to minimize impacts to natural land and water resources.
- d. Direct development requiring public sewer and water to designated Urban Service Areas.
- e. Where possible, limit fragmentation of valuable natural resources and try to connect separated wildlife habitats to maintain robust viable populations.



*Policies*

1. Guide the location and design of development in a manner that will minimize any adverse impact on the quality of surface waters, aquifers, wetlands, woodlands, and agriculture.
2. Support and coordinate with Dane County on erosion control, stormwater, floodplain, wetland and shoreland regulation.
3. Support cost-share, farm conservation plans and other efforts described in the *Dane County Land & Water Resources Plan*.
4. Work cooperatively with municipal, county, state and federal public agencies and nonprofits owning land in the Town to,
  - participate in public acquisition planning processes;
  - develop agreements on future use of existing public lands;
  - assure input from Town officials and citizens, and;
  - provide a better understanding of financial resources and funding mechanisms available for land acquisition and management.
5. Consider TDR, PDR and other programs to protect natural resources and give landowners alternatives to development. Give priority to tools and incentives that

complement and support other voluntary conservation efforts in the town, such as the DNR's Southwest Grassland and Stream Conservation Area.

6. Review town siting criteria, design and development guidelines to make sure they adequately protect the rural character of the town, and avoid environmental impacts. The town should consider whether future amendments to the *Town of Primrose Comprehensive Plan* should address issues such as:
  - Development, landscaping or design guidelines for ridgetops to reduce impacts to scenic vistas and prevent erosion.
  - Establishing limits on tree removal to protect woodlands and avoid fragmentation of habitat.
  - Using downward-directed lighting to protect dark skies and avoid unnecessary light pollution.

### **Cultural Resource Goals, Objectives and Policies:**

#### *Goals and Objectives:*

1. Encourage identification, protection, interpretation and maintenance for all significant archaeological sites in the town.
2. Encourage identification, protection, preservation and restoration of buildings, structures and sites which represent or reflect elements of the town's cultural, social, economic, political and architectural history.
3. Help increase public awareness and appreciation of the town's historic and archaeological resources.



#### *Policies and Programs:*

1. Support local, county, state and federal historic preservation efforts.
2. Support efforts to help provide restoration grants to willing owners of historic properties. Provide information about grants, technical assistance and recognition programs to town residents.
3. Consider potential for providing modest incentives for landowners to maintain or restore historic properties.
4. Support efforts to document and research historic and archaeological sites in the town. Work with the Wisconsin Historical Society to provide interpretative materials, plaques or markers for Town of Primrose sites of statewide or regional interest.
5. Work with the Village of Mount Horeb Historical Society, other historical societies, the Primrose Lutheran Church, Native American tribes and residents to educate and provide interpretation of town historic sites, rural schools, and document the written and oral history of the town.

6. Consider whether the town should appoint a town historian and/or help establish a Town of Primrose Historical Society. Make meeting space available in the Town Hall.
7. Support local festivals, ethnic celebrations, farm tours, farm breakfasts, and markets that celebrate the town's history, heritage and rural way of life.