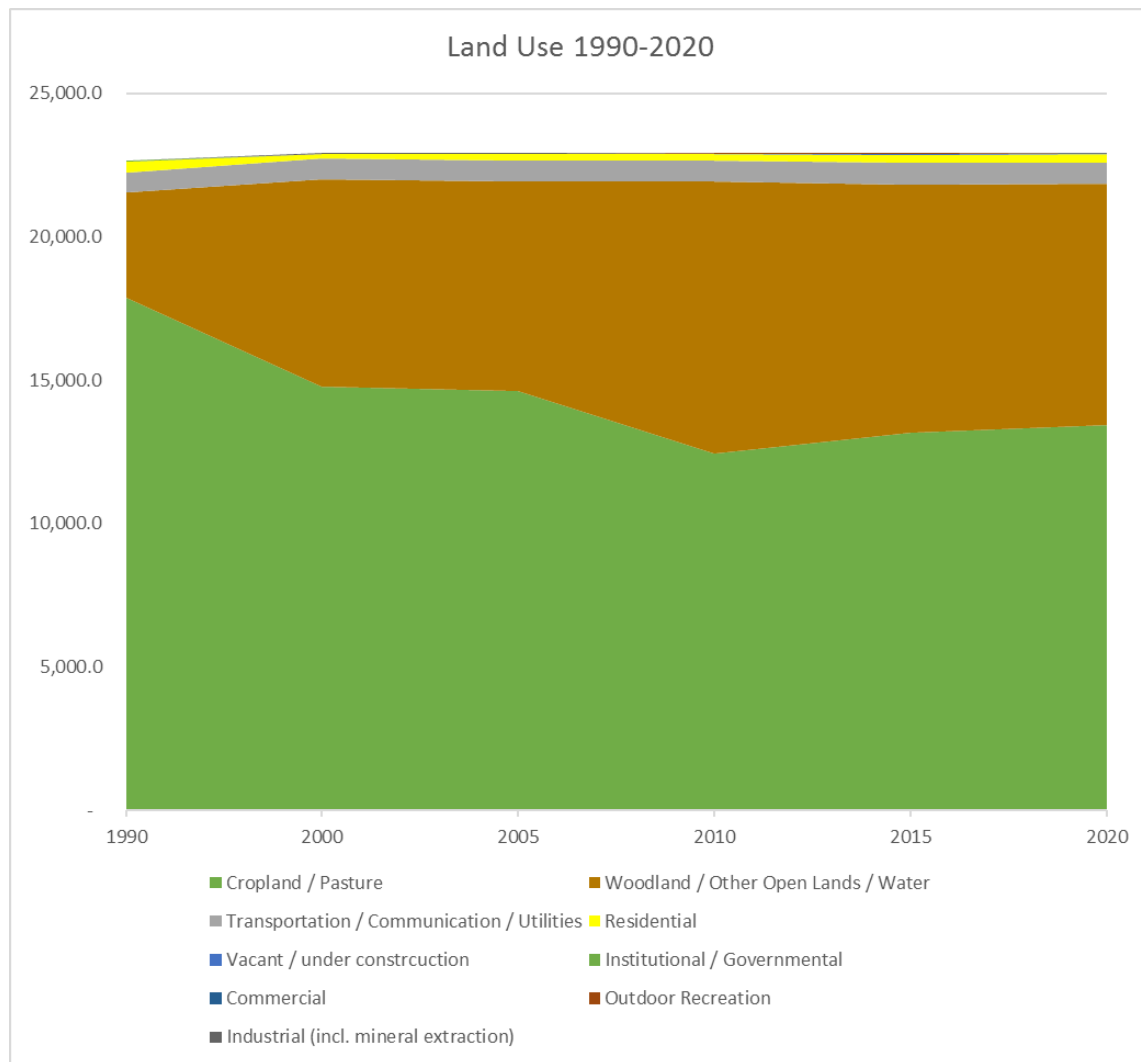


## Chapter 5: AGRICULTURAL, NATURAL AND CULTURAL RESOURCES

### I. Agricultural Resource Inventory

Chart 5-1 Land Use 1990-2020

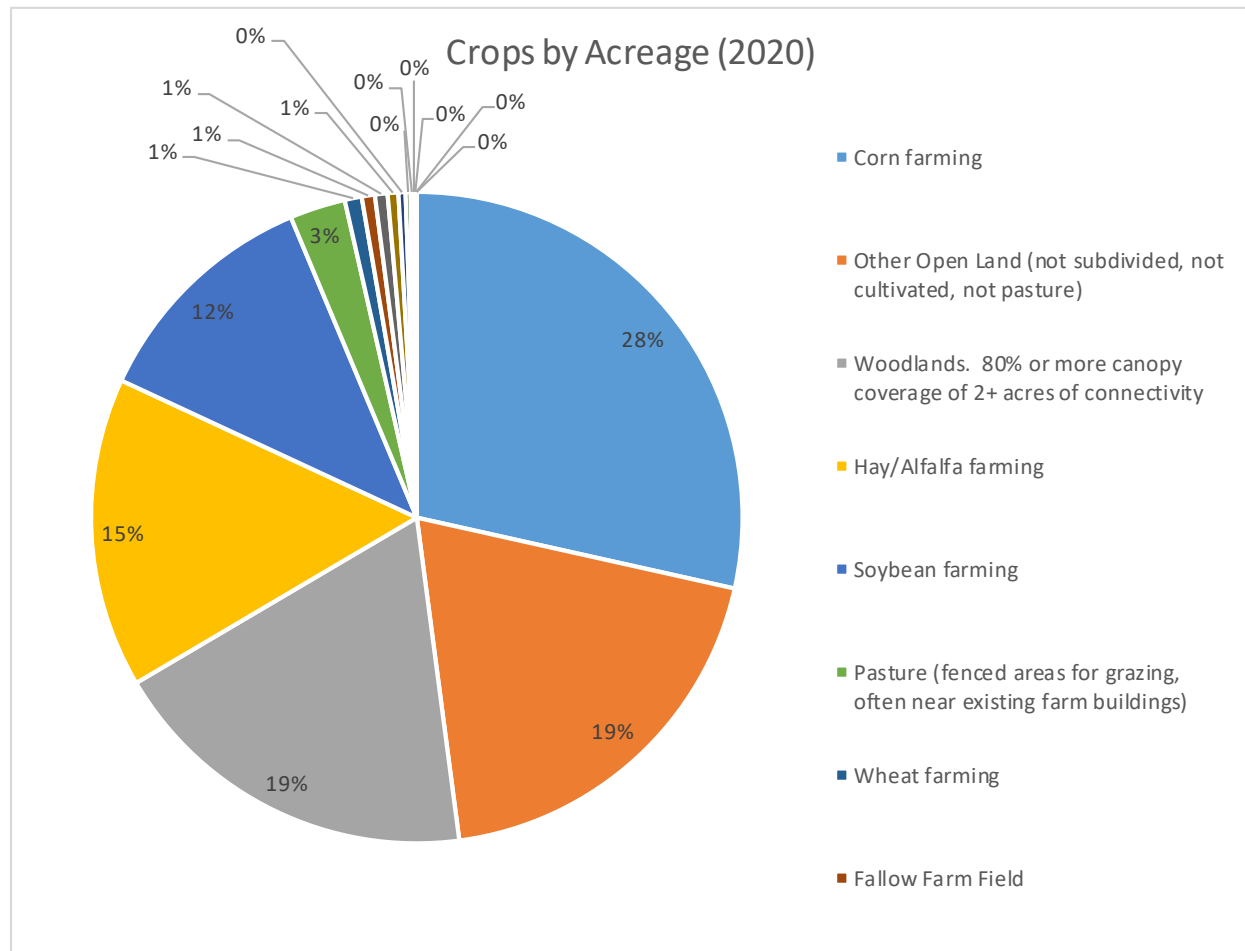


#### Historical Trends:

In the Town of Primrose, land in crop and pasture declined by 4,446 acres between 1990 and 2020 (*Dane County Land Use Inventory*). Woodland/other open land and water increased by 4,736 acres, while outdoor recreation increased by 1.37 acres over the same time period. Land devoted to residential use decreased by 95.33 acres from 1990 to 2020.

# Farming Today:

Chart 5-2 Crops by Acreage (2020)



Ninety four percent of the Town’s land was in agricultural use in 2020. Forty percent of the farmland in the Town was dedicated to traditional corn/soybean rotational crops, with another 19% in woodland, 15% on Hay/Alfalfa farming and 3% on pasture. Small, but growing, acreages of wheat farming, dairy cattle and milk production, beef cattle rancing and farming, apiculture, other grain farming, and nursery tree production also occur throughout the town.

Table 5-1 Land in Agricultural Use 2010-2020

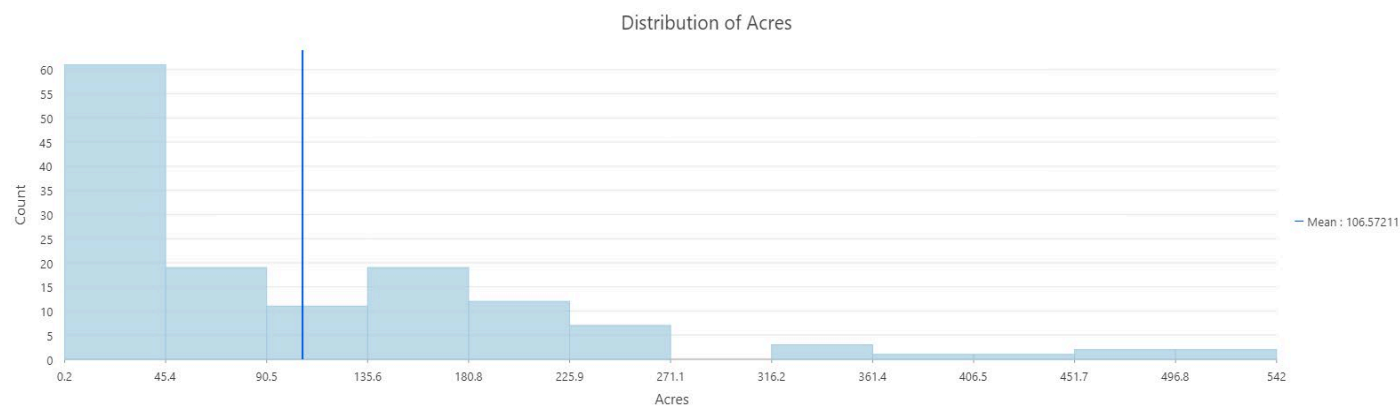
<b>Town of Primrose Land in Agricultural Use 2010-2020</b>			
<b>Description</b>	<b>2010 Acres</b>	<b>2020 Acres</b>	<b>Change 2010-2020</b>
Other Open Land (not subdivided, not cultivated, not pasture)	5105.699	4211.210	-894.489
Corn farming	5104.426	6179.685	1075.258
Woodlands. 80% or more canopy coverage of 2+ acres of connectivity	4185.242	4036.016	-149.227
Hay/Alfalfa farming	3537.820	3337.896	-199.924
Soybean farming	2157.716	2551.078	393.362
Pasture (fenced areas for grazing, often near existing farm buildings)	836.301	599.442	-236.858
Wheat farming	189.073	183.312	-5.761
Farms residence and driveway/access road	156.601	50.018	-106.583
Other grain farming (barley, rye, milo, oat, wild rice etc...)	143.988	10.780	-133.208
Nursery and tree production	110.826	115.161	4.334
Dairy cattle and milk production	68.236	53.754	-14.482
Beef cattle ranching and farming, including feedlots	34.571	76.693	42.122
Fallow Farm Field	33.669	141.055	107.387
All other farm related buildings	20.343	135.751	115.408
Farm related outbuildings detached from primary farm	17.940	10.077	-7.863
Abandoned/Unused farming structures	7.903		-7.903
Vegetable garden (plots less than [one / one-half acre])	7.829		-7.829
Polyculture/CSA (community supported agriculture)	7.825		-7.825
Chicken egg production	6.615		-6.615
Greenhouse, nursery and floriculture production (nursery stock, shrubbery, cut flowers, and other products produced	6.331		-6.331

<b>Town of Primrose Land in Agricultural Use 2010-2020</b>			
<b>Description</b>	<b>2010 Acres</b>	<b>2020 Acres</b>	<b>Change 2010-2020</b>
primarily for non-food uses, such as landscaping)			
Large scale grain elevators, Co-op, Cooperative	5.009		-5.009
Sheep farming	3.395		-3.395
Sand and gravel - quarrying.	1.609		-1.609
Noncitrus fruit and tree nut farming	1.119		-1.119
Other poultry production	0.513		-0.513
Apiculture (raising bees)	0.105	0.105	0.000
Horses and other equine production		24.956	24.956
Undeveloped and unused land area (vacant land). Lands that have been subdivided.		19.429	19.429
<b>Total land in agricultural use</b>	<b>21750.703</b>	<b>21,736.42</b>	<b>-14.284</b>

### Farm Size, Scale, and Type:

The Dane County Zoning Ordinance (Chapter 10, Dane County Code) defines a “farm” as “All land under common ownership that is primarily devoted to agricultural use.” In 2020, there were 138 landowners who had a majority of their property in agricultural use and would be considered a “farm” under this definition. Town of Primrose farms ranged from two-tenths of an acre to 542 acres in size, with an average area of 106.6 acres.

*Chart 5-3 Distribution of Acres*



### 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.

## II. Natural Resources Inventory

### Environmentally Sensitive Areas:

Most of the Town of Primrose lies in the unglaciated Driftless Zone, with a small lobe of glaciated area near the West Branch of the Sugar River valley. The town sits at the intersection of two ecological landscapes, as recognized by the Wisconsin Department of Natural Resources. These landscapes include: [Southwest Savanna](#) and [Southeast Glacial Plains](#). The Wisconsin Department of Natural Resources' [Southwest Wisconsin Grasslands and Streams Conservation Area](#) encompasses the Town of Primrose, and provides funding and technical support to promote the ecological restoration and preservation of native grasslands, prairies and savanna remnants.

The northern portion of the town falls within the watershed of the West Branch of the Sugar River, which has been the subject of extensive fisheries and landscape restoration efforts. The southern portion of the town falls within the watershed of the Little Sugar River, while a small portion of the westernmost portion of the town falls within the Blue Mounds Branch watershed. Designated Resource Protection Corridors (see Chapter 8, Land Use) provide protection for critical resources associated with shorelands, wetlands, floodplains and steep slopes.

### Soils:

Primrose lies in the unglaciated Driftless Zone, characterized by steep slopes and thin soils. Under the Soil and Water Conservation Society's Land Evaluation and Site Assessment classification, the most agriculturally productive soils (Class V and VI) lie primarily in the valley floors of the town's two major river systems. Poorer soils are associated with the slopes and peaks along the slopes.

Hydric soils and soils with hydric inclusions also follow the streams and rivers, especially in the West Branch of the Sugar River valley. Once no longer actively drained or cropped, areas with hydric soils may, in time, revert to wetland conditions. Hydric soils present a variety of practical difficulties for construction, and should be avoided when planning any new development. The Dane County Zoning Division typically requires wetland delineations for proposed fill or construction near hydric soils.

**Wetlands:**

Small wetlands are found in the valleys of the West Branch of the Sugar River and the Little Sugar River. Dane County's Shoreland and Wetland Zoning Ordinance (Chapter 11, Dane County Code) regulates development in and near wetlands.

**Groundwater:**

Hilltops and slopes in Primrose provide very high levels of groundwater recharge, up to 13.9 inches per year. In Primrose, 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 Natural Heritage Inventory identifies the following endangered or threatened species or species of special concern as potentially present in the Town of Primrose.

Table 5-2 The Wisconsin DNR Natural Heritage Inventory

<u>Common name</u>	<u>Scientific name</u>	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
Loggerhead Shrike	<a href="#">Lanius ludovicianus</a>	END	SOC	Bird
Wilcox's Panic Grass	<a href="#">Dichanthelium wilcoxianum</a>	SC		Plant
Bell's Vireo	<a href="#">Vireo bellii</a>	THR		Bird
Stream--Slow, Hard, Cold	<a href="#">Stream--slow. hard. cold</a>	NA		Community~
Prairie Fame-flower	<a href="#">Phemeranthus rugospermus</a>	SC		Plant
Azure Bluets	<a href="#">Houstonia caerulea</a>	SC		Plant
Purple-stem Cliff-brake	<a href="#">Pellaea atropurpurea</a>	SC		Plant
Yellow Wild-indigo	<a href="#">Baptisia tinctoria</a>	SC		Plant
Oak Woodland	<a href="#">Oak woodland</a>	NA		Community
Prairie Turnip	<a href="#">Pediomelum esculentum</a>	SC		Plant
Henslow's Sparrow	<a href="#">Centronyx henslowii</a>	THR	SOC	Bird
Upland Sandpiper	<a href="#">Bartramia longicauda</a>	THR		Bird
Northern Bobwhite	<a href="#">Colinus virginianus</a>	SC/M		Bird
Pickerel Frog	<a href="#">Lithobates palustris</a>	SC/H		Frog~
Hairy Wild Petunia	<a href="#">Ruellia humilis</a>	END		Plant
Prairie Deer Mouse	<a href="#">Peromyscus maniculatus bairdii</a>	SC/N		Mammal
Rusty Patched Bumble Bee	<a href="#">Bombus affinis</a>	SC/FL	LE	Bee
Yellow Bumble Bee	<a href="#">Bombus fervidus</a>	SC/N		Bee

<u>Common name</u>	<u>Scientific name</u>	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
Plains Gartersnake	<a href="#">Thamnophis radix</a>	SC/H		Snake~
White Blue-eyed-grass	<a href="#">Sisyrinchium albidum</a>	SC		Plant
Rusty Patched Bumble Bee Federal High Potential Zone	<a href="#">Rusty Patched Bumble Bee Federal High Potential Zone</a>	NA	HPZ	Bee

#### Woodlands:

In 2020, the Town of Primrose had approximately 4,000 acres of woodland, about 3% less than in 2010. Forested land comprises 17% of the land area in the Town. Blocks of woodlands, including areas that have been forested since at least 1939, are scattered throughout the town.

#### Metallic / Non-Metallic Mineral Resources:

According to county permitting data, there are no active or inactive mineral extraction sites in the town.

### III. Cultural Resources Inventory

#### Historic Sites:

The Wisconsin Historical Society's Architectural Heritage Inventory (AHI) identifies seventeen (17) existing structures of historic interest in the Town of Primrose (Table 5-3). No sites are listed on the National and State Register of Historical Places, but some may be of regional or local significance.

Resources in the AHI were last surveyed in 2007. The Wisconsin Historical Society provides grants to communities for historic survey research.

*Table 5-3: Historic Architectural Resources*

Section	AHI #	Last Surveyed	Historic Name	Other Name	Year Built	Historic Use	Style
4	4405	2006		Sugar River Valley Farmette	Unknown	House	Italianate
4	4406	2006			Unknown	Barn	Astylistic Utilitarian Building
4	4407				Unknown	Silo	Astylistic Utilitarian Building

Section	AHI #	Last Surveyed	Historic Name	Other Name	Year Built	Historic Use	Style
10	4408	2006	Eichelkraut House		Unknown	House	Queen Anne
9	4409	2006			Unknown	Centric Barn	Octagon
16	4410	2006		Primrose Town Hall	Unknown	Town Hall	Front Gabled
16	4411	2006			Unknown	House	Italianate
19	4413	2006			Unknown	Barn	Astylistic Utilitarian Building
23	4414	2007	School		Unknown	One To Six Room School	Craftsman
25	4415	2007			Unknown	House	Other Vernacular
25	4416	2007			Unknown	House	Gabled Ell
28	4417	2006		Primrose Lutheran Church	Unknown	Church	Early Gothic Revival
29	4418	2006			Unknown	House	Astylistic Utilitarian Building
34	4419				Unknown	House	Gabled Ell
34	4420				Unknown	House	Other Vernacular
35	4421				Unknown	Barn	Astylistic Utilitarian Building
8	87162	2006	Ingebrit Peterson House		1857	House	Side Gabled

### 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 of Primrose (Table 5-4).

*Table 5-4 Archaeological and Burial Sites*

ASI_ID	Name	Site Type	Culture Name	Section
12154	Mueller	Campsite/Village	Unknown Prehistoric;Woodland	8
59604	Haag Site	Lithic Scatter	Unknown	8
25327	Esser Rockshelter	Cave/Rockshelter	Unknown Prehistoric	11
29006	Lucille O'connor	Campsite/Village	Unknown Prehistoric	13
67124	Devils Chimney	Cultural Site;Quarry	Historic Indian	11
12362	Amundsen	Campsite/Village	Unknown Prehistoric	10
12674	Emma Pierce Mound Group	Mound(S) - Conical;Mound(S) - Linear	Woodland;Late Woodland	4
22974	Kahl Farm	Mound(S) - Other/Unk;Mound(S) - Linear;Mound(S) - Conical	Woodland	14

ASI_ID	Name	Site Type	Culture Name	Section
12032	Little Sugar Site	Campsite/Village	Unknown Prehistoric	32
12155		Campsite/Village	Unknown Prehistoric	18
12361	Argue Mammoth	Campsite/Village;Paleontological	Unknown Prehistoric	4
29007	Francis O'connor	Campsite/Village	Archaic;Woodland	12
9501	Mt. Julia Site	Campsite/Village	Unknown Prehistoric	13
29008	F & L O'connor	Campsite/Village	Archaic;Woodland	12
100627	Rindy Site	Campsite/Village	Late Woodland	25
12363	Hobbs	Campsite/Village	Unknown Prehistoric	9
9502	Devils Chimney Camp	Campsite/Village	Archaic	10
59603	Meadow Creek Site	Lithic Scatter	Unknown Prehistoric	5
13677	Mt Pleasant Cemetery (Aka Old Baptist Burial Ground)	Cemetery/Burial	Historic Euro-American	22
13678	West Evangelical Lutheran Cemetery	Cemetery/Burial		28
13679	East Evangelical Lutheran Church Cemetery	Cemetery/Burial		28

No sites are listed on the National and State Register of Historical Places, but some may have local or regional significance.

#### 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 land with a history of agriculture;
- 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.

#### **IV. 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:**

1. Discourage land uses which conflict with agriculture.
2. Support efforts to expand economic opportunities for farmers.
3. Limit nonfarm development consistent with town density policies.
4. Direct nonfarm development away from productive agricultural lands.
5. 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.

## **V. 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:**

1. Establish clear, consistent policies for conditional use permits for mineral extraction operations. See Chapter 8, Land Use.
2. Work closely with Dane County to review and provide appropriate conditions for proposed mineral extraction operations. See Chapter 8, Land Use.
3. Discourage development that would conflict with existing mineral extraction operations.

### **Policies**

1. Help identify significant mineral deposits within the town and inventory inactive unreclaimed mineral extraction sites.
2. 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.

## **VI. 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**

1. Establish a resource protection district, with policies to help protect sensitive environmental areas, including floodplains, wetlands and steep slopes.
2. 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.
3. Make sure development uses best practices to minimize impacts to natural land and water resources.
4. Direct development requiring public sewer and water to designated Urban Service Areas.
5. 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 Transfer of Development Rights (TDR), Purchase of Development Rights (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.

## **VII. 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.
4. Preserve and protect the physical spaces which support and house cultural resources and practices of interest to residents of the Town of Primrose.

### **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.
8. Conduct regular surveys of town residents about types of activities, pastimes, hobbies, sports, performances, handiwork, music, art, dance, theater, religion or other cultural practices, including information about the physical locations where such activities take place.