

E) Agricultural, Natural and Cultural Resources Information

1. COMMUNITY DESIGN

In terms of community design, Vienna would best be classified as a rural community, as a majority of town land is devoted to agricultural uses. Commercial and industrial developments have been primarily limited to the area surrounding the Interstate-Highway V interchange. Two suburban styled subdivisions: Hickory Grove and Windsor Prairie are located in the South East section of the Town, in sections 35 and 36, respectively.

2. AGRICULTURAL USES

Dane County is one of the most productive agricultural counties in Wisconsin. At the same time, according to the American Farmland Trust, Dane County is in the third most threatened farm area in the country. According to the July 2000 Dane County Executive's Farms and Neighborhoods Report, Dane County loses 5,000 acres per year – an area larger than Lake Monona each year. Two powerful forces are working together to contribute to the farmland loss and farm failure in Dane County: 1) the rapid pace of development in the county and; 2) market forces and federal policies that make it increasingly difficult for many farmers to make profits. The Town of Vienna is no exception.

Vienna has some of the most productive soils in the Midwest.

The state, in order to protect this important industry, created Wisconsin's Farmland Preservation Program. Under the Wisconsin Farmland Preservation Program, the state provides income tax credits to farm owners who keep their property in agricultural use. The law allows the income tax credit for landowners in counties with Farmland Preservation Plans and who have land zoned for exclusive agricultural use.

This program provides property tax relief in the form of tax credits to owners of farmland. The amount of credit is determined by a formula based on the household income of the farmland owner, the amount of property tax, and the type of land use provisions protecting the farmland. These land use provisions include Farmland Preservation Plans and Exclusive Ag Zoning.

A county agriculture preservation plan is required for participation in the program. The plans contain statements of policy regarding preservation of agricultural lands, urban growth, the provision of public facilities and the protection of significant natural resource, open space, scenic, historic or architectural areas. The Dane County Farmland Preservation Plan, adopted by the County Board on December 3, 1981, is largely a compilation of town land use plans

3. SOIL TYPE, COMPOSITION, AND DRAINAGE

Soils within the Town of Vienna belong to the following soil associations:

- Batavia-Houghton-Dresden Association
- Plano-Ringwood-Griswold Association
- Dodge-St. Charles-McHenry Association

The Batavia-Houghton-Dresden Association range from well drained to poorly drained soils with deep and moderately deep silt loams and mucks that are underlain by silt, sand, and gravel. Batavia soils are nearly level to sloping and generally well drained. Houghton soils are nearly level and poorly drained muck soils. Dresden soils are gently sloping to steep. A large part of this association is cultivated, typically with corn. Limitations for onsite sewage disposal range from moderate to very serve.

The Plano-Ringwood-Griswold Association consists mainly of gently sloping areas on glacial uplands, with some areas on uplands that are nearly level to sloping. There is a small acreage of moderately steep rises or ridges. Plano soils are either nearly level or gently sloping and are well drained to moderately well drained. Ringwood soils are gently sloping to sloping and well drained. Griswold soils are mainly sloping but they range form gently sloping to moderately steep and are well drained. County-wide, most areas of these soils are cultivated. Common crops include corn, oats, and alfalfa. This series has slight or moderate limitations for onsite sewage disposal.

The Dodge-St. Charles-McHenry Association has a varied landscape that is characterized by drumlins and by ground, end, and recessional moraines. The landscape is mostly gently sloping to sloping with some level areas on benches. Ringwood soils are gently sloping to sloping and well drained. Griswold soils are mainly sloping and well drained. These soils have slight to moderate limitations for cropping. The common crops are corn, oats, and alfalfa. These soils have slight or moderate limitations for onsite sewage disposal. A small amount of these soils are found along the Town's western border.

(Information taken from Dane Co Soil Survey).

NRCS Soil Data

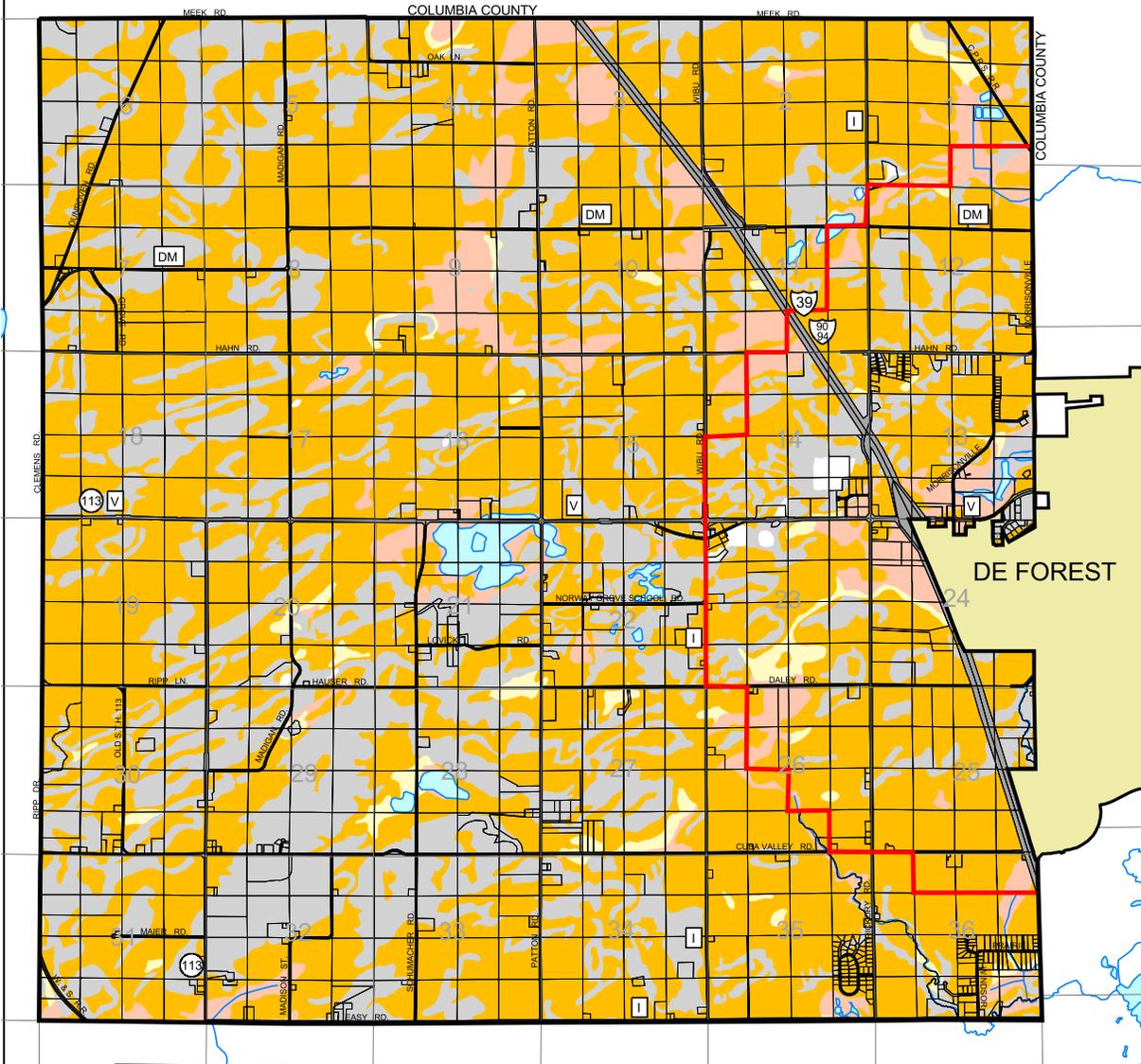
Data is collected nationally by the Natural Resource Conservation Service (NRCS) and stored in the NRCS Map Unit Interpretations Record database. Each state and region of the State in the United States use the same parameters for understanding and managing agricultural land bases (soils). The NRCS database gave us a proportionate definition of the component soils and their properties across the Town of Vienna. This information is helpful when addressing land use and infrastructure management decisions. The data that the NRCS database contains is both estimated and measured for physical and chemical soil properties to enhance engineering, water management, recreation, agronomic, woodland, range and wildlife uses of the soil.

NRCS Data collected includes, but is not limited to:

1. Crop yield information
2. Plant cover name (common and scientific)
3. Erodible land classifications for wind
4. Erodible land classifications for water
5. Soil hydric classification criteria and land form
6. Names of soils by type
7. Soil limitations by type
8. Soil type by land mass (acreage)
9. Taxonomic (biological relationships) of soils
10. Wildlife habitat information for soil units
11. Woodland management information for soil units

Maps of soil conditions and their suitability for development and agricultural production are included in the following pages.

TOWN OF VIENNA DANE COUNTY, WISCONSIN PRIME FARMLAND MAP



2000 0 2000 4000 Feet

Key	
	Town of Vienna
	Village of De Forest
	DeForest Extraterritorial Zone
	Parcels
	Rivers
	Lakes
	Prime Farmland Soils
	Not prime farmland
	Prime if drained and not flooded
	Prime if drained
	Prime farmland



Drafted: LSR
Date: 05-17-05
File: g projects maps wi town vienna
Note: base data provided by Dane Co., and the Town of Vienna



4. OTHER AGRICULTURE PROGRAMS

CROP- Credit Relief Outreach Program

Crop features 90% guarantees on loans of up to \$30,000 made by local lenders by WHEDA (Wisconsin Housing and Economic Development Authority). Payment is not due until March 31 of the following year. To be eligible for CROP, applicants must meet the following guidelines: 1) Unable to obtain conventional financing at the lender's standard interest rate, 2) Debt-to-Asset ratio 40% or greater, and 3) Applicant meets lender's underwriting standards. CROP can be used for feed, seed, fertilizer, pesticides, land rent, hires, animal feed, UCC filing fees, crop insurance, feeder animals, tillage services, equipment rental/repair, or utilities for commodity production. Crop funds may not be used for property taxes, farm house utilities, existing loans, capital improvements, CROP loan interest, accounting services, or revolving lines of credit.

FARM

The FARM program, sponsored by WHEDA, gives applicants access to credit by guarantying loans made by local lenders. The purpose is for the expansion or modernizing of existing farms. The maximum loan guarantee is the lesser of your net worth, 25% of the loan amount, or \$200,000. Qualified applicants have a debt-to-asset ratio of 85% or less and meet lender's underwriting standards.

Agribusiness Guarantee

This loan guarantee is available through WHEDA for agribusinesses in Wisconsin looking to purchase equipment, land, buildings, permanent working capital, or marketing materials. Successful applicants will be involved with the development of a new product, new market, or improved marketing method. The maximum guarantee is 80% on loans up to \$750,000.

Purchase of Development Rights (PDR)

Purchase of Development Rights (PDR) and (PACE) Purchase of Agricultural Conservation Easements Programs are farmland preservation programs based on the idea that property owners have several different rights. These include the right to use land, lease, sell and bequeath it, borrow money using it as security, construct buildings on it and mine it, or protect it from development. Such rights are subject to reasonable local land use regulations. The basis of PDR/PACE is that some or all of these rights can be transferred or sold to another person.

When a landowner sells property, generally all the rights are transferred to the buyer. PACE/PDR programs enable landowners to sell their right to develop land from separately from their other property rights. The buyer, however, does not acquire the right to build anything on the land, but only the right and responsibility to prevent development. After selling an easement, the landowner retains all other rights of ownership, including the right to farm the land, prevent trespass, sell, bequeath or otherwise transfer the land.

The programs are voluntary for interested landowners wishing to sell agricultural conservation easements to a government agency or private conservation organization. The agency or organization usually pays them the difference between the value of the land as restricted and the value of the land for its "highest and best use," which is generally residential or commercial development.

Removing the development potential from farmland generally reduces its future market value. The goal is to help facilitate farm transfer to the children of farmers and make the land more

afford-able to beginning farmers and others who want to buy it for agricultural purposes. The reduction in market value may also reduce property taxes and help prevent them from rising. PACE/PDR compensates landowners for permanently limiting non-agricultural land uses. Selling an easement allows farmers to cash in a percentage of the equity in their land, thus creating a financially competitive alternative to development.

Drawbacks to the program typically include the limited availability of funds to purchase rights. Some funding sources are highlighted by the American Farmland Trust.

(Information taken from American Farmland Trust Fact Sheet)

Transfer of Development Rights (TDR)

Transfer of development rights (TDR) programs give landowners the ability to transfer the right to develop one parcel of land to a different parcel of land. Generally, TDR programs are established by local zoning ordinances. In the context of farmland protection, TDR is used to shift development from agricultural areas to designated growth zones closer to municipal services. The parcel of land where the rights originate is called the "sending" parcel. When the rights are transferred from a sending parcel, the land is restricted with a permanent conservation easement. The parcel of land to which the rights are transferred is called the "receiving" parcel. Buying these rights generally allows the owner to build at a higher density than ordinarily permitted by the base zoning.

Like PDR, TDR programs are based on the idea that property owners have several different rights. These include the right to use land, lease, sell and bequeath it, borrow money using it as security, construct buildings on it and mine it, or protect it from development. Such rights are subject to reasonable local land use regulations. The basis of PDR/PACE is that some or all of these rights can be transferred or sold to another person.

(Information taken from American Farmland Trust Fact Sheet)

Land Evaluation Site Assessment (LESA)

The Farmland Policy Protection Act (7 CFR 658) identifies a point system that can be used to help determine the appropriateness for development of a particular site. The system has historically been used by federal agencies to help assess impacts of federal projects on an area, but it also very applicable to assist Towns and Municipalities in evaluating individual developments as well. The Federal Code of Regulations is available online for review at:

<http://www.gpo.gov/nara/cfr/index.html>

Regulation of Livestock Operations

Wisconsin law grants local governments the authority to enact zoning controls and regulations on livestock operations (s. 92.15). However, Wisconsin law also limits the authority of local governments to impose those controls.

Local units of government may not regulate livestock operations that were in existence as of October 14, 1997 unless or until cost sharing is provided. State statute 92.15 also prohibits local regulation of livestock operations in a manner inconsistent with state standards unless the local unit of government can show that more stringent regulation is necessary to achieve water quality standards and such a showing is approved by the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) or DNR. The current state regulations applicable to livestock

operations do not provide or allow for any limitation to size, nor provide for or allow the wholesale cessation of permitting of these facilities.

UPDATE: 2003 Wisconsin Act 235 directs the Department of Agriculture, Trade and Consumer Protection to develop a rule that provides a predictable framework for county and municipal decisions to site or expand livestock facilities. For more information on ATCP Rule 51, go to:

http://www.datcp.state.wi.us/core/environment/land-water/siting_rule.html

Dane County currently provides standards of the number of livestock that may be kept on variously sized parcels in Sections 10.12 through 10.127 of their zoning ordinance.

As a means to provide local units of government with a responsible tool to respond to the political pressure being exerted from local farm opponents, DATCP has formed a Model Livestock Ordinance Advisory Committee. The Committee is charged to provide advice on the design of a model ordinance to regulate livestock-related activities and the use of the model ordinance within a framework of local land use planning. This process is on-going. Current recommendations from the Ordinance Advisory Committee are titled "Local Responses to Livestock Operations."

Planning and zoning assistance for agricultural uses and areas are also available through the American Planning Association. Report Number 482, titled "Planning and Zoning for Concentrated Animal Feeding Operations" is available to aid municipalities with historical information, key issues, federal, state and local government responses and sample ordinances. This and other information can be obtained at the APA website at:

<http://www.planning.org>

5. OTHER AGRICULTURAL RESOURCES

American Farmland Trust

American Farmland Trust is a nationwide nonprofit organization dedicated to protecting agricultural resources. Founded by a group of concerned farmers in 1980, AFT's mission is to stop the loss of productive farmland and to promote farming practices that lead to a healthy environment. The AFT provides a technical information and resources including program fact sheets, data, and maps regarding agricultural preservation. For more information, contact:

American Farmland Trust
1200 18th St., NW, Suite 800
Washington, DC 20036
Phone: (202) 331-7300
Fax: (202) 659-8339
e-mail: info@farmland.org
<http://www.farmland.org>

NRCS-Wisconsin

The Natural Resources Conservation Service is the federal agency that works with landowners on private lands to conserve natural resources. NRCS is part of the U.S. Department of

Agriculture (USDA). The NRCS provides technical support and information through a variety of Programs including: “One-on-one” conservation assistance for farmers, Soil survey, National resources inventory, Wetland Reserve Conservation Easement Program, Wetland Identification Program, Soil Quality research, and water quality research. For more information, contact the State office at:

United States Department of Agriculture
Natural Resources Conservation Service
6515 Watts Road, Suite 200
Madison, WI 53719
Phone (608) 276-USDA
<http://www.wi.nrcs.usda.gov/>

Wisconsin Farm Bureau Federation

The WFBF Website states that “The Wisconsin Farm Bureau Federation is the state’s largest general farm organization representing the needs and interests of all farmers for all commodities. There are 48,190 member families that belong to the Wisconsin Farm Bureau. Voting Farm Bureau members (farmers) annually set the policy the organization follows, and are involved in local, state and national affairs making it a true grassroots organization.” Each county has its own chapter organization. The Bureau offers discounted insurance and other benefits for members. The bureau supports programs geared at increasing the roles of women and youth in agriculture. The organization can be reached at:

Wisconsin Farm Bureau Federation
PO Box 5550
Madison, WI 53705-0550
Phone: 1 (800) 261-FARM or (608) 836-5575
<http://www.wfbf.com>

Wisconsin DATCP

The mission of the Wisconsin Department of Agriculture, Trade and Consumer Protection is to serve the citizens of Wisconsin by assuring:

- The safety and quality of food
- Fair business practices for the buyer and seller
- Efficient use of agricultural resources in a quality environment
- Consumer protection
- Healthy animals and plants
- The vitality of Wisconsin agriculture and commerce

For more information:

Agricultural Resource Management Office
2811 Agriculture Drive
P.O. Box 8911
Madison, WI 53708-8911
Phone: (608) 224-4500
Fax: (608) 224-4656.
<http://www.datcp.state.wi.us>

6. ENVIRONMENTAL CONSTRAINTS AND TOPOGRAPHY

Wetlands and Floodplains

Excessive slope, wetlands, and flood plains are areas typically referred to as “Environmentally Constrained”. It is recommended that these areas be protected from development in Vienna. Different definitions for environmental constraints are as follows:

The *Federal Emergency Management Agency* defines **floodplains** as “Any land area susceptible to being inundated by floodwaters from any source.”

The *U.S. Fish and Wildlife Service* define **wetlands** as follows:

A **wetland** is defined by the Cowardin classification system as Lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface off the land and is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes, (2) the substrate is predominantly undrained hydric soil, and (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year." The definition section of the Cowardin et al. paper states that "The primary objective of this classification is to impose boundaries on natural ecosystems for the purposes of inventory, evaluation, and management."

The **US Army Corps of Engineers (Corps)** and the **US Environmental Protection Agency** define **wetlands** as follows:

Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands are areas that are covered by water or have waterlogged soils for long periods during the growing season. Plants growing in wetlands are capable of living in saturated soil conditions for at least part of the growing season. Wetlands such as swamps and marshes are often obvious, but some wetlands are not easily recognized, often because they are dry during part of the year or "they just don't look very wet" from the roadside. Some of these wetland types include, but are not limited to, many bottomland forests, pocosins, pine savannahs, bogs, wet meadows, potholes, and wet tundra. The information presented here usually will enable you to determine whether you might have a wetland.

In Vienna, a variety of wetlands and floodplains are scattered throughout the Town. In the southeast corner, wetlands and floodplains are found south of both the Hickory Meadows and Windsor Prairie subdivisions. A significant amount of wetlands are also found in the Northeast corner of the Town, primarily north of CTH DM and West of the Canadian Pacific Rail Line. Other wetlands and floodplains are shown adjacent to the interstate.

Steep Slopes

Typical definitions for steep slope in Wisconsin vary from 12% to 20% (and greater). Increased slope provides a number of development-related concerns and difficulties. A significant concern is that developments on steep slopes increase erosion and storm water runoff. This is problematic as it can adversely affect water quality as debris and excess sediment is deposited into surface and groundwater. Other concerns with developments on steep slope include questionable suitability for septic systems in many instances. It is broadly recommended that areas identified as having a slope in excess of 12% be avoided for development. If development is to happen on these areas, it is recommended that the developer prepare detailed erosion controlled plans.

In Vienna, the southern two thirds and northwest corner of the Town belong to the Plano-Ringwood-Griswold association. These areas generally consist of gently sloping areas on glacial uplands, with some areas on uplands that are nearly level to sloping. The center of the Town consists of the Batavia-Houghton-Dresden soils association that varies from being nearly level to having steep slopes.

Most of the steep slopes in the Town are found west of County Highway I and South of County Highway V. Some additional areas of steep slopes are found west of Dunroven Road.

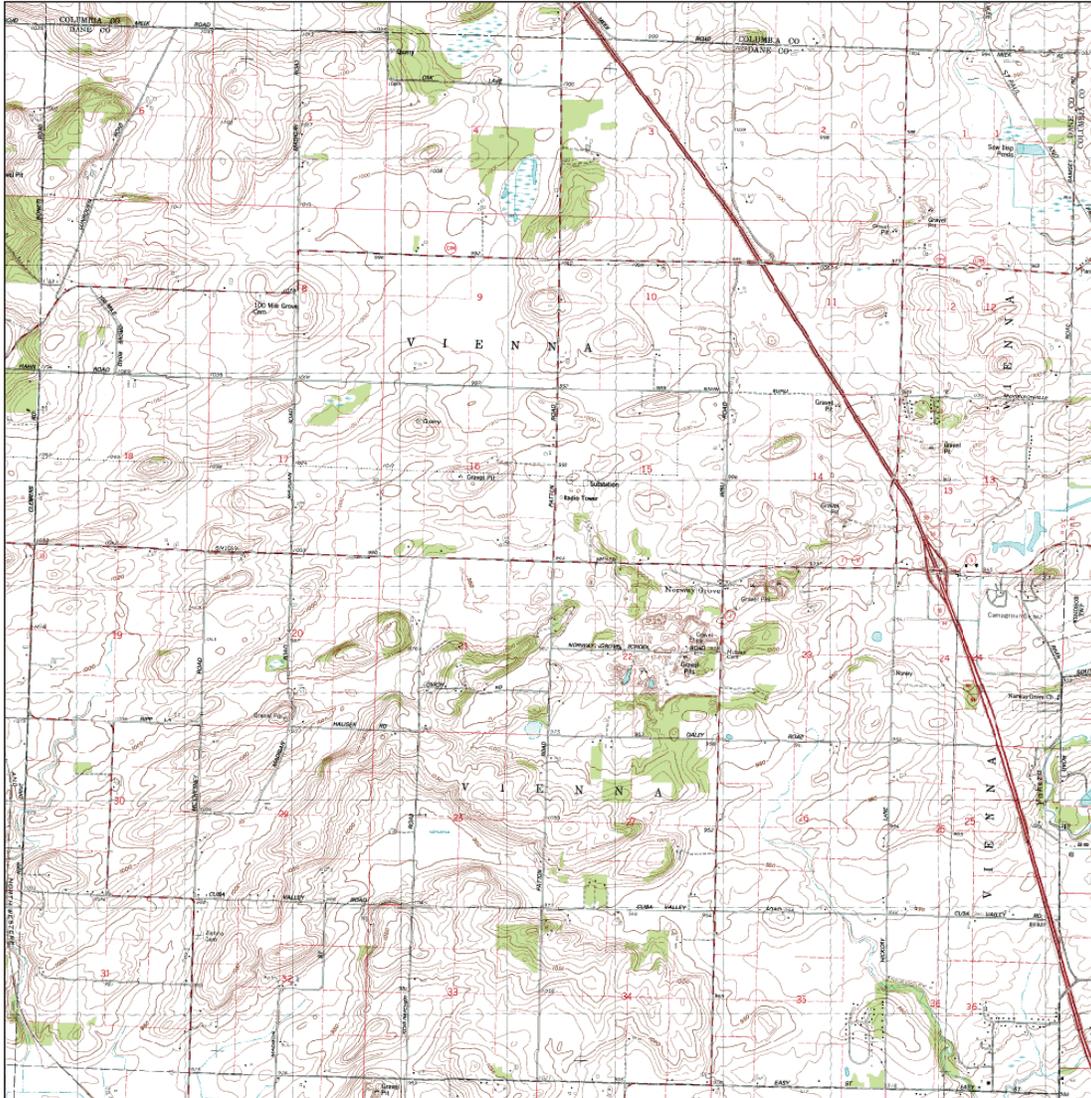
About the USGS Topographic Map

Town Topography is illustrated on the USGS Topographic Map included on the following page. The first features usually noticed on a topographic map are the area features such as vegetation (green), water (blue), some information added during update (purple), and densely built-up areas (gray or red). Many features are shown by lines that may be straight, curved, solid, dashed, dotted, or in any combination. The colors of the lines usually indicate similar kinds or classes of information: brown for topographic contours; blue for lakes, streams, irrigation ditches, etc.; red for land grids and important roads; black for other roads and trails, railroads, boundaries, etc.; and purple for features that have been updated using aerial photography, but not field verified.

Topographic contours are shown in brown by lines of different widths. Each contour is a line of equal elevation; therefore, contours never cross. They show the general shape of the terrain. To help the user determine elevations, index contours (usually every fourth or fifth contour) are wider. The narrower intermediate and supplementary contours found between the index contours help to show more details of the land surface shape. Contours that are very close together represent steep slopes. Widely spaced contours, or an absence of contours, means that the ground slope is relatively level. The elevation difference between adjacent contour lines, called the contour interval, is selected to best show the general shape of the terrain. A map of a relatively flat area may have a contour interval of 10 feet or less. Maps in mountainous areas may have contour intervals of 100 feet or more. Elevation values are shown at frequent intervals on the index contour lines to facilitate their identification, as well as to enable the user to interpolate the values of adjacent contours.

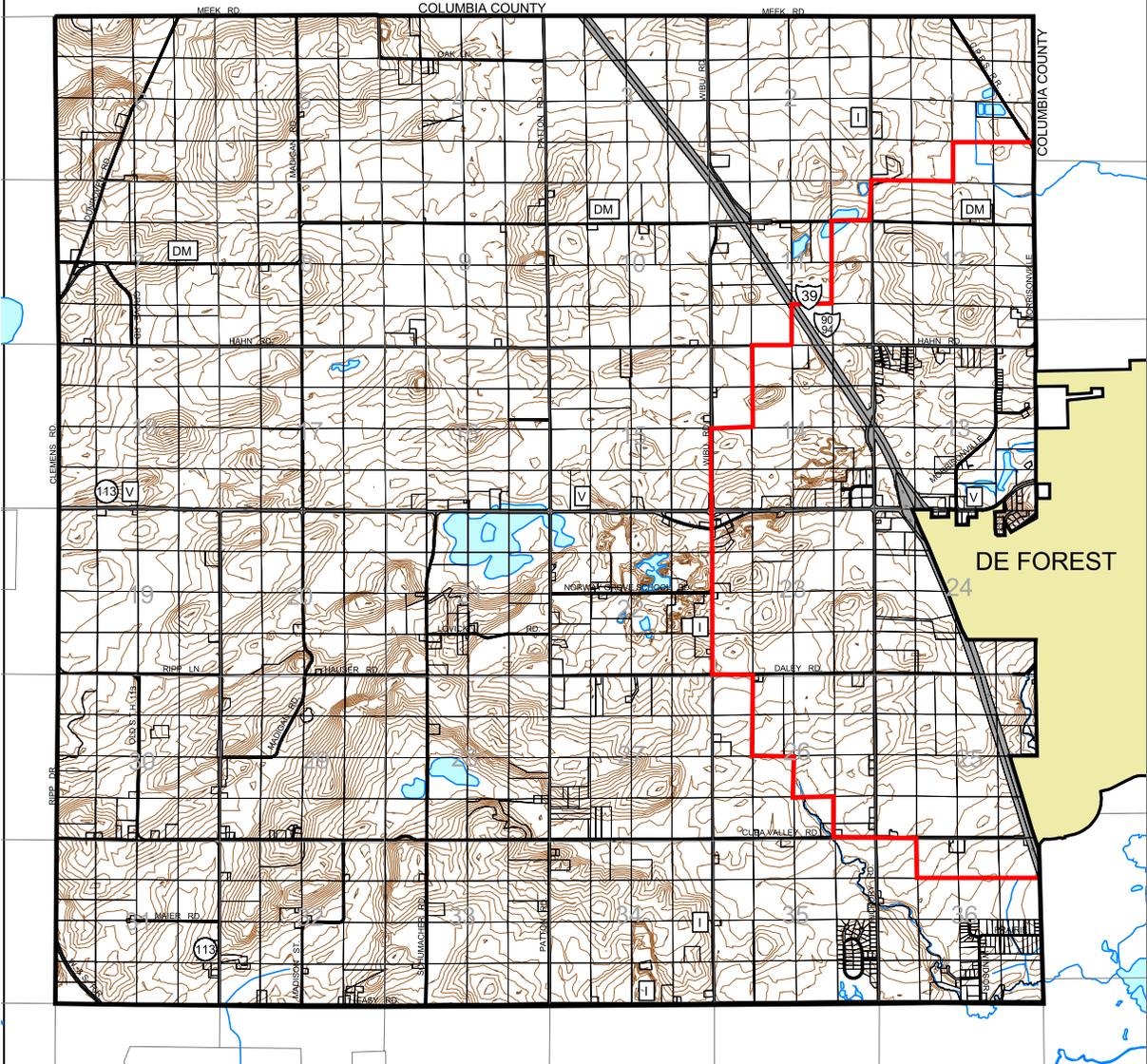
Scale is the relationship between distance on the map and distance on the ground. The maps show and name prominent natural and cultural features. Those at scales of 1:24,000 (1 inch = 2,000 feet) show an area in detail. Such detail is useful for engineering, local area planning, and recreational purposes.

TOWN OF VIENNA DANE COUNTY, WISCONSIN USGS TOPOGRAPHY MAP



Source: TopoZone.com
Date: May 17, 2005

TOWN OF VIENNA DANE COUNTY, WISCONSIN CONTOUR MAP



Key			
	Town of Vienna		Railroads
	Village of De Forest		Road Right-of-way
	DeForest Extraterritorial Zone		Rivers
	Parcels		Lakes
			Contours



Drafted: LSR
Date: 05-17-05
File: g projects maps wi town vienna
Note: base data provided by Dane Co., and the Town of Vienna



8. RARE, THREATENED AND ENDANGERED SPECIES AND NATURAL COMMUNITIES

Additionally, several rare and threatened and endangered species are found in the Vienna area. A list of all endangered species in Dane County can be found in Figure 26.

Figure 26. Rare, Threatened and Endangered Species of Dane County

PLANTS		
Common Name	Species Name	Wisconsin Status ¹
Adder's-Tongue	<i>Ophioglossum vulgatum</i>	Special Concern
<u>American Fever-Few</u>	<i>Parthenium integrifolium</i>	Threatened
Autumn Coral-Root	<i>Corallorrhiza odontorhiza</i>	Special Concern
Broad Beech Fern	<i>Phegopteris hexagonoptera</i>	Special Concern
Cluster Fescue	<i>Festuca paradoxa</i>	Special Concern
Common Bog Arrow-Grass	<i>Triglochin maritimum</i>	Special Concern
Crossleaf Milkwort	<i>Polygala cruciata</i>	Special Concern
Cuckoo Flower	<i>Cardamine pratensis var palustris</i>	Special Concern
Dragon Wormwood	<i>Artemisia dracunculus</i>	Special Concern
Engelmann Spike-Rush	<i>Eleocharis engelmannii</i>	Special Concern
Flodman Thistle	<i>Cirsium flodmanii</i>	Special Concern
Glade Mallow	<i>Napaea dioica</i>	Special Concern*
<u>Hairy Wild-Petunia</u>	<i>Ruellia humilis</i>	Endangered
Hall's Bulrush	<i>Scirpus hallii</i>	Special Concern*
Hidden-Fruited Bladderwort	<i>Utricularia geminiscapa</i>	Special Concern
<u>Hill's Thistle</u>	<i>Cirsium hillii</i>	Threatened*
Horse-Tail Spikerush	<i>Eleocharis equisetoides</i>	Special Concern
Innocence	<i>Hedyotis caerulea</i>	Special Concern
<u>Kitten Tails</u>	<i>Besseyia bullii</i>	Threatened
Large Roundleaf Orchid	<i>Platanthera orbiculata</i>	Special Concern
Large Water-Starwort	<i>Callitriche heterophylla</i>	Threatened
Leafear Foxglove	<i>Tomanthera auriculata</i>	Special Concern*
Lesser Fringed Gentian	<i>Gentianopsis procera</i>	Special Concern
Marbleseed	<i>Onosmodium molle</i>	Special Concern
New Eng. Northern Reed Grass	<i>Calamagrostis stricta</i>	Special Concern
One-Flowered Broomrape	<i>Orobanche uniflora</i>	Special Concern
Pale Bulrush	<i>Scirpus pallidus</i>	Special Concern
<u>Pale False Foxglove</u>	<i>Agalinis skinneriana</i>	Endangered*
Pale Green Orchid	<i>Platanthera flava var herbiola</i>	Threatened
<u>Pale-Purple Coneflower</u>	<i>Echinacea pallida</i>	Threatened
<u>Pink Milkwort</u>	<i>Polygala incarnata</i>	Endangered
Pomme-De-Prairie	<i>Psoralea esculenta</i>	Special Concern
<u>Prairie Bush Clover</u>	<i>Lespedeza leptostachya</i>	Endangered**
Prairie False-Dandelion	<i>Nothocalais cuspidata</i>	Special Concern
Prairie Fame-Flower	<i>Talinum rugospermum</i>	Special Concern

<u>Prairie Indian Plantain</u>	<i>Cacalia tuberosa</i>	Threatened
<u>Prairie Milkweed</u>	<i>Asclepias sullivantii</i>	Threatened
<u>Prairie Parsley</u>	<i>Polytaenia nuttallii</i>	Threatened
<u>Prairie White-Fringed Orchid</u>	<i>Platanthera leucophaea</i>	Endangered**
Purple Meadow Parsnip	<i>Thaspium trifoliatum var flavum</i>	Special Concern
<u>Purple Milkweed</u>	<i>Asclepias purpurascens</i>	Endangered
Purple-Stem Cliff-Brake	<i>Pellaea atropurpurea</i>	Special Concern
Reflexed Trillium	<i>Trillium recurvatum</i>	Special Concern
Richardson Sedge	<i>Carex richardsonii</i>	Special Concern
Rock Stitchwort	<i>Minuartia dawsonensis</i>	Special Concern
<u>Rough Rattlesnake-Root</u>	<i>Prenanthes aspera</i>	Endangered
<u>Roundstem Foxglove</u>	<i>Agalinis gattereri</i>	Threatened
Shadowy Goldenrod	<i>Solidago sciaphila</i>	Special Concern
<u>Sheathed Pondweed</u>	<i>Potamogeton vaginatus</i>	Threatened
Short's Rock Cress	<i>Arabis shortii</i>	Special Concern
Showy Lady's-Slipper	<i>Cypripedium reginae</i>	Special Concern
Small Forget-Me-Not	<i>Myosotis laxa</i>	Special Concern
<u>Small Skullcap</u>	<i>Scutellaria parvula var parvula</i>	Endangered
<u>Small White Lady's-Slipper</u>	<i>Cypripedium candidum</i>	Threatened
Small Yellow Lady's-Slipper	<i>Cypripedium parviflorum</i>	Special Concern
Smooth-Sheath Sedge	<i>Carex laevivaginata</i>	Special Concern
Snowy Campion	<i>Silene nivea</i>	Special Concern
<u>Sticky False-Asphodel</u>	<i>Tofieldia glutinosa</i>	Threatened
Swamp Agrimony	<i>Agrimonia parviflora</i>	Special Concern
Sycamore	<i>Platanus occidentalis</i>	Special Concern
<u>Tussock Bulrush</u>	<i>Scirpus cespitosus var callosus</i>	Endangered
Twinleaf	<i>Jeffersonia diphylla</i>	Special Concern
Upland Boneset	<i>Eupatorium sessilifolium brittonianum</i>	Special Concern
Whip Nutrush	<i>Scleria triglomerata</i>	Special Concern
Wilcox Panic Grass	<i>Panicum wilcoxianum</i>	Special Concern
<u>Wild Hyacinth</u>	<i>Camassia scilloides</i>	Endangered
Wild Licorice	<i>Glycyrrhiza lepidota</i>	Special Concern
<u>Wooly Milkweed</u>	<i>Asclepias lanuginosa</i>	Threatened
<u>Yellow Gentian</u>	<i>Gentiana alba</i>	Threatened
<u>Yellow Giant Hyssop</u>	<i>Agastache nepetoides</i>	Threatened

ANIMALS

Common Name	Species Name	Wisconsin Status ¹	Taxa
A Tiger Beetle	<i>Cicindela macra</i>	Special Concern	Beetle
A Tiger Beetle	<i>Cicindela patruela patruela</i>	Special Concern	Beetle
Little White Tiger Beetle	<i>Cicindela lepida</i>	Special Concern	Beetle
Giant Carrion Beetle	<i>Nicrophorus</i>	Endangered**	Beetle

	<i>americanus</i>		
<u>American Peregrine Falcon</u>	<i>Falco peregrinus anatum</i>	Endangered**	Bird
<u>Barn Owl</u>	<i>Tyto alba</i>	Endangered	Bird
<u>Bell's Vireo</u>	<i>Vireo bellii</i>	Threatened	Bird
Black-Crowned Night-Heron	<i>Nycticorax nycticorax</i>	Special Concern	Bird
<u>Cerulean Warbler</u>	<i>Dendroica cerulea</i>	Threatened*	Bird
Dickcissel	<i>Spiza americana</i>	Special Concern	Bird
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	Special Concern	Bird
<u>Henslow's Sparrow</u>	<i>Ammodramus henslowii</i>	Special Concern	Bird
<u>Loggerhead Shrike</u>	<i>Lanius ludovicianus</i>	Endangered*	Bird
Northern Harrier	<i>Circus cyaneus</i>	Special Concern	Bird
Yellow Breasted Chat	<i>Icteria virens</i>	Special Concern	Bird
Broad-Winged Skipper	<i>Poanes viator</i>	Special Concern	Butterfly
Dion Skipper	<i>Euphyes dion</i>	Special Concern	Butterfly
Little Glassy Wing	<i>Pompeius verna</i>	Special Concern	Butterfly
Mottled Dusky Wing	<i>Erynnis martialis</i>	Special Concern	Butterfly
Olive Hairstreak	<i>Mitoura grynea</i>	Special Concern	Butterfly
Ottoo Skipper	<i>Hesperia ottoe</i>	Special Concern	Butterfly
Regal Fritillary	<i>Speyeria idalia</i>	Endangered*	Butterfly
Elusive Clubtail	<i>Stylurus notatus</i>	Special Concern	Dragonfly
Great Spreadwing	<i>Archilestes grandis</i>	Special Concern	Dragonfly
Smoky Shadowfly	<i>Neurocordulia molesta</i>	Special Concern	Dragonfly
American Eel	<i>Anguilla rostrata</i>	Special Concern	Fish
Banded Killifish	<i>Fundulus diaphanus</i>	Special Concern	Fish
<u>Black Redhorse</u>	<i>Moxostoma duquesnei</i>	Proposed End.	Fish
<u>Blue Sucker</u>	<i>Cycleptus elongatus</i>	Threatened*	Fish
Lake Chubsucker	<i>Erimyzon sucetta</i>	Special Concern	Fish
Lake Herring	<i>Coregonus artedi</i>	Special Concern	Fish
Lake Sturgeon	<i>Acipenser fulvescens</i>	Special Concern*	Fish
Least Darter	<i>Etheostoma microperca</i>	Special Concern	Fish
<u>Paddlefish</u>	<i>Polyodon spathula</i>	Threatened*	Fish
Pirate Perch	<i>Aphredoderus sayanus</i>	Special Concern	Fish
Pugnose Minnow	<i>Opsopoeodus emiliae</i>	Special Concern	Fish
<u>Pugnose Shiner</u>	<i>Notropis anogenus</i>	Threatened	Fish
Redside Dace	<i>Clinostomus elongatus</i>	Special Concern	Fish
Silver Chub	<i>Macrhybopsis storeriana</i>	Special Concern	Fish
<u>Speckled Chub</u>	<i>Macrhybopsis aestivalis</i>	Threatened	Fish
<u>Starhead Topminnow</u>	<i>Fundulus dispar</i>	Endangered	Fish
<u>Striped Shiner</u>	<i>Luxilus chrysocephalus</i>	Endangered	Fish
Western Sand Darter	<i>Ammocrypta clara</i>	Special Concern	Fish
<u>Blanchard's Cricket Frog</u>	<i>Acris crepitans</i>	Endangered	Frog

	<i>blanchardi</i>		
Bullfrog	<i>Rana catesbeiana</i>	Special Concern	Frog
A Prairie Leafhopper	<i>Polyamia dilata</i>	Threatened	Insect
Red-Tailed Prairie Leafhopper	<i>Aflexia rubranura</i>	Endangered*	Insect
<u>Western Slender Glass Lizard</u>	<i>Ophisaurus attenuatus</i>	Endangered	Lizard
Arctic Shrew	<i>Sorex arcticus</i>	Special Concern	Mammal
Franklin's Ground Squirrel	<i>Spermophilus franklinii</i>	Special Concern	Mammal
Pigmy Shrew	<i>Sorex hoyi</i>	Special Concern	Mammal
Prairie Vole	<i>Microtus ochrogaster</i>	Special Concern	Mammal
Western Harvest Mouse	<i>Reithrodontomys megalotis</i>	Special Concern	Mammal
White Tailed Jackrabbit	<i>Lepus townsendii</i>	Special Concern	Mammal
Woodland Vole	<i>Microtus pinetorum</i>	Special Concern	Mammal
Newman's Brocade	<i>Mecropleon ambifusca</i>	Special Concern	Moth
Oithona Tiger Moth	<i>Grammia oithona</i>	Special Concern	Moth
Phyllira Tiger Moth	<i>Grammia phyllira</i>	Special Concern	Moth
Silphium Borer Moth	<i>Papaipema silphii</i>	Endangered	Moth
<u>Buckhorn</u>	<i>Tritogonia verrucosa</i>	Threatened	Mussel
<u>Bullhead</u>	<i>Plethobasus cyphus</i>	Endangered	Mussel
<u>Butterfly</u>	<i>Ellipsaria lineolata</i>	Endangered	Mussel
Elktoe	<i>Alasmidonta marginata</i>	Special Concern*	Mussel
Ellipse	<i>Venustaconcha ellipsiformis</i>	Threatened	Mussel
<u>Higgins' Eye</u>	<i>Lampsilis higginsii</i>	Endangered**	Mussel
<u>Monkeyface</u>	<i>Quadrula metanevra</i>	Threatened	Mussel
<u>Rock Pocketbook</u>	<i>Arcidens confragosus</i>	Threatened	Mussel
Round Pigtoe	<i>Pleurobema sintoxia</i>	Special Concern	Mussel
<u>Winged Mapleleaf</u>	<i>Quadrula fragosa</i>	Endangered**	Mussel
<u>Yellow Sandshell</u>	<i>Lampsilis teres anodontoides</i>	Endangered	Mussel
<u>Eastern Massasauga</u>	<i>Sistrurus catenatus catenatus</i>	Endangered*	Snake
<u>Timber Rattlesnake</u>	<i>Crotalus horridus</i>	Special Concern	Snake
<u>Blanding's Turtle</u>	<i>Emydoidea blandingii</i>	Threatened*	Turtle
<u>Ornate Box Turtle</u>	<i>Terrapene ornate</i>	Endangered	Turtle

Natural Communities

Important examples of the following natural community types have been found in Dane county. Although communities are not legally protected, they are critical components of Wisconsin's biodiversity and may provide the habitat for rare, threatened and endangered species.

Alder Thicket	Emergent Aquatic	Mussel Bed
Bat Hibernaculum	Ephemeral Pond	Northern Wet Forest
Bog Relict	Floodplain Forest	Oak Barrens
Calcareous Fen	Lake--Deep, Hard, Seepage	Oak Opening
Cedar Glade	Lake--Shallow. Hard.	Onen Bog

Dry Cliff Dry Prairie Dry-Mesic Prairie	Drainage Lake--Shallow, Hard, Seepage Lake--Soft Bog Mesic Prairie	Shrub-Car
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¹Wisconsin Status:

Endangered: continued existence in Wisconsin is in jeopardy.
 Threatened: appears likely, within the foreseeable future, to become endangered.
 Special Concern: species for which some problem of abundance or distribution is suspected but not yet proven.
 Rule: protected or regulated by state or federal legislation or policy; neither endangered nor threatened.
 * indicates: A candidate for federal listing.
 ** indicates: Federally Endangered or Threatened.

9. THE LOWER ROCK RIVER BASIN PLAN

The Lower Rock River Basin is located in south central Wisconsin and covers 1,857 square miles, three sub-basins, and 15 watersheds, including all of the Town of Vienna. The basin is experiencing water quality problems from both developing urban areas and the agricultural areas. Primary problems include altered stream and groundwater hydrology, loss of habitat, sedimentation, pesticide and nitrate contamination, and increased storm water runoff. Other areas of concern include erosion control and continued loss of wetlands.

In response to these and other water quality issues, the Lower Rock Basin Plan was created in 1998. There are numerous community groups working with WDNR to implement this plan, including the Rock River Coalition, the Rock River Partnership, and the Upper Sugar River Initiative.

10. PRIORITY WATERSHED DESIGNATION

The Lake Mendota-Yahara River Watershed and the Six Mile And Pheasant Branch Creeks Watershed were designated as a joint priority DNR watershed in 1996. The Priority Watershed Program is a joint effort of the Department of Natural Resources (DNR), Department of Agriculture, Trade and Consumer Protection (DATCP), the University of Wisconsin Extension (UWEX), counties (usually through their Land Conservation Departments), municipalities, and lake districts with assistance from a variety of federal, state, and local agencies. The Wisconsin Land and Water Conservation Board designates priority watershed and lake projects, approves implementation plans, recommends funding levels and priorities, and recommends changes to the governor and DNR that will improve program effectiveness. The program provides grants to local governmental units in both urban and rural watersheds selected for priority watershed projects. Grants can reimburse up to 70 percent of the cost of installing best management practices, which reduce the likelihood of pollutants being carried to streams, lakes or groundwater via runoff. Examples of these practices include crop management, stream bank protection, feed lot drainage controls, construction site erosion control, and municipal storm water management.

11. THE LAKE MENDOTA-YAHARA RIVER WATERSHED

The Lake Mendota-Yahara River Watershed is a mixture of 85 square miles of urban, suburban, and agricultural lands. The watershed has a medium susceptibility for groundwater contamination based on WDNR groundwater susceptibility mapping. Some concerns regarding decreased groundwater recharge have been raised as development increases. These concerns have caused many of the communities in this watershed to develop comprehensive storm water management plans.

Lake Mendota is 9,842 acres in size, and is the major lake in the watershed. Its average depth is 42 feet, with its deepest point being 82 feet. Panfish are considered to be abundant, while northern pike, walleye, largemouth bass, smallmouth bass, and catfish are common. The lake is publicly accessible in multiple locations by boat ramps and barrier-free piers. It is classified as a drainage lake, meaning it is fed primarily by streams and with outlets into streams or rivers. They are more subject to surface runoff problems but generally have shorter residence times than seepage lakes. Watershed protection is usually needed to manage lake water quality.

The Yahara River originates in Columbia County and meanders through primarily agricultural lands to the 2,000 acre Cherokee Marsh, the largest wetland complex in the watershed, and eventually into Lake Mendota. The stream exhibits fair water quality and maintains an active warm water fishery. However, heavy fertilizer use, poor animal waste management and silage holding problems have an increasing negative impact on the rivers water quality. Continued development in northern Dane County threatens both water quality and habitat if adequate storm water and erosion controls are not established.

12. SIX MILE AND PHEASANT BRANCH CREEKS WATERSHED

Six Mile Creek's water quality along its 12-mile length is generally good, supporting a limited forage fishery west of Hwy 113, a diverse forage and warm water sport fishery from Hwy 113 to Lake Mendota, and abundant spawning areas. Six Mile Creek's 43-square-mile watershed is predominately agricultural (63%) but also includes Wastewater spray runoff the rapidly urbanizing village of Waunakee (WDNR 1996b). From 1995 to 2000, the village grew by 25%, to roughly 9,000 people. Waunakee's wastewater effluent is treated at the Madison Metropolitan Sewerage District (MMSD). Upstream of the village, Waunakee Marsh traps sediment from the area's row-cropped fields, which is adversely affecting the wetland's ecology. Downstream of the village of Waunakee to Lake Mendota urban development threatens the stream. Several small rural communities and large developments lie in the drainage area outside of the village, contributing pollutants from agricultural land spreading, construction site erosion, and habitat loss. In Summer 1991, Stokely's wastewater spray irrigation system--which landspreads its canning waste on 178 acres just outside of the village--malfunctioned, causing fish kills in Six Mile Creek. This incident was not the first caused by Stokely's land-spreading operations. Fish kills in Six Mile Creek occurred three times in a short two-year period. The July 12, 1991 spill released 6,000 gallons of untreated wastewater directly into the creek. This spill followed on the heels of a pipe leak July 1, 1991, during which 85,000 gallons of wastewater drained into the creek. In 1990 a spill released to the creek 230,000 gallons from a pipe leak (WDNR 1996a). Fish managers estimate hundreds to thousands of pike, walleye, bass etc., fingerlings were killed in the last incident, as a fish rearing marsh for Lake Mendota is located just off the creek.

A recent fishkill on Six Mile Creek on July 2, 2001, resulted in the death of over 200 fish (white suckers and creek chubs) near Madison Street Bridge in Waunakee. The fishkill coincided with the flushing of a new water main. New water mains are typically more heavily chlorinated as a means to sanitize and disinfect before bringing the main online. It's likely that this flushing event depressed oxygen levels or contained high levels of chlorine, resulting in a fishkill.

Pheasant Branch Creek is 7-mile-long stream that drains 22.7 square miles of west-central Dane County. It enters Lake Mendota from the west. The stream's South Fork is intermittent and flows north from its headwater near Mineral Point Road. It drains the rapidly urbanizing west side of Madison and the city of Middleton. The North Fork drainage area is predominately agricultural until its confluence with the South Fork at the western edge of the city of Middleton and Highway 12. Much of the North Fork has been channelized and straightened in the segment west of the city of Middleton. The stream is still rapidly eroding a channel through the terminal moraine that once blocked its outlet to Mendota. Cultivation of land draining to the creek, ditching, straightening, and urbanization have all increased the peak flows through the downstream section, accelerating channel and bank erosion (WDNR 1981). In addition, much of the historic wetland along the creek has been drained. Downstream of the confluence of the North and South forks, the stream passes through the city of Middleton and has a fairly steep gradient until it enters Pheasant Branch Marsh just upstream of its mouth. Despite extensive rip-rapping before 1991 to reduce severe channel erosion in the city of Middleton, streambank erosion continued. Given the extensive and rapid urbanization of both the North and South Fork areas, channel erosion will likely remain a problem. Increased urbanization delivers increasing amounts of sediment to Pheasant Branch Marsh and Lake Mendota, requiring occasional dredging of the mouth of the stream.

13. GROUNDWATER OVERVIEW

The Town of Vienna's water source is primarily from wells, which draw from a deep sandstone aquifer.

There are a variety of existing reports relating to groundwater quality including:

- Wis. Geological and Natural History Survey (WGNHS) and the U. S. Geological Survey have developed a groundwater model for Dane County in cooperation with the Dane County Regional Planning Commission (DCRPC).
- DNR Groundwater and its Role in Comprehensive Planning Fact Sheets.

14. TOWN WATER BODIES

There are no navigable water bodies in the town.

15. WOODED LANDS

There are relatively few areas with complete wood cover within the Town according to available land cover maps. One such area is located west of Patten Road, south of Cuba Valley Road. Others are located near CTH and Norway Grove School Road.

16. EXTRACTION OF MINERAL RESOURCES

There are several active and non-metallic mines in Vienna, as well as several inactive and unreclaimed sites. See the Existing Land Use Map for their locations. There are also additional parcels of land zoned for mineral extraction, see the Zoning Map. These activities are regulated by the State of Wisconsin (NR 135) and Dane County (Chapter 10 and 74) in addition to local planning policies and ordinances at the Town level.

17. HISTORICAL AND CULTURAL RESOURCES

The State registry for historical places lists the Dunroven House, located at 7801 Dunroven Road as a historic site on the State and Historic Register. Two buildings make up this site dating back to the Colonial Revival period.