

## AGRICULTURAL, NATURAL AND CULTURAL RESOURCES

### Introduction

Agricultural, natural and cultural resources may interact with other elements in the comprehensive plan. Natural resources are often a defining feature of a given place. Many municipalities or areas are named after their surrounding geography or natural resources. Humans rely on natural resources for purifying our environment, growing food, raw materials, and recreation. In areas of high growth, such as western Wisconsin, natural resources are being threatened from sprawl and increased demand. Planning for the future of the Village's natural resources is important in order to preserve the environment, and indirectly, health.

### Ecological Landscape

The Village of Elmwood is entirely within the Western Coulee and Ridges Ecological Landscape. According to the Wisconsin Department of Natural Resources, the landscape is characterized by its highly eroded, driftless topography and relatively extensive forested landscape. Soils are silt loams (loess) and sandy loams over sandstone residuum over dolomite. Several large rivers including the Wisconsin, Mississippi, Chippewa, Kickapoo and Black flow through or border the ecological landscape.

Historical vegetation consisted of southern hardwood forests, oak savanna, scattered prairies, and floodplain forests and marshes along the major rivers. With Euro-American settlement, most of the land on ridgetops and valley bottoms was cleared of oak savanna, prairie, and level forest for agriculture. The steep slopes between valley bottom and ridgetop, unsuitable for raising crops, grew into oak-dominated forests after the ubiquitous pre-settlement wildfires were suppressed. Current vegetation is a mix of forest (40%), agriculture, and grassland with some wetlands in the river valleys. The primary forest cover is oak-hickory (51%) dominated by oak species and shagbark hickory. Maple-basswood forests (28%), dominated by sugar maple, basswood and red maple, are common in areas that were not subjected to repeated pre-settlement wildfires. Bottomland hardwoods (10%) are common in the valley bottoms of major rivers and are dominated by

### ***Agricultural, Natural and Cultural Resources Element Requirements:***

*A compilation of objectives, policies, goals, maps and programs for the conservation, and promotion of the effective management, of natural resources such as groundwater, forests, productive agricultural areas, environmentally sensitive areas, threatened and endangered species, stream corridors, surface water, floodplains, wetlands, wildlife habitat, metallic and nonmetallic mineral resources, parks, open spaces, historical and cultural resources, community design, recreational resources and other natural resources.*

*§ 66.1001(2)(e), Wis. Stat.*

**Figure 5.1: Western Coulee and Ridges Ecological Landscape**



Source: WDNR (2008)

silver maple, ashes, elms, cottonwood, and red maple. Relict conifer forests including white pine, hemlock and yellow birch are a rarer natural community in the cooler, steep, north slope microclimates.

There are no natural lakes in this ecological landscape, but there are a number of impoundments. Levels of stream and groundwater pollution are worse than average, according to Wisconsin DNR watershed rankings. The total land area for the Western Coulees and Ridges Ecological Landscape is approximately 6.2 million acres, of which 38% is classified as timberland. Public land ownership includes only 3% of this ecological landscape.

## **Groundwater**

Groundwater is an important resource for Wisconsin as about 75% of Wisconsin residents rely on it for their source of drinking water. About 15%-30% of all precipitation in Wisconsin ends up as groundwater. There is documentation in some parts of the state of reduction in groundwater recharge due to increases in impervious surfaces and increases in demand. Also, the quality of groundwater has been of concern in parts of Wisconsin where high levels of nitrates and other contaminants have been found.

According to the Wisconsin Department of Natural Resources, groundwater contamination susceptibility is the ease with which water, and any contaminant carried in the water, travels from the land surface to the top of the groundwater layer. Five physical resource characteristics are identified as important in determining groundwater contamination susceptibility.

### **Bedrock Depth**

The depth to bedrock is the distance to the top of the bedrock, which is the uppermost consolidated deposit. Where the depth to bedrock is shallow, contaminants generally have less contact time with the earth's natural pollutant removal processes found in the unconsolidated surficial deposits; the greater the depth to bedrock, the more likely that the water table is located above the bedrock layer. The depth to bedrock in the Village varies between 5 and 50 feet, approximately 35%-75% of that bedrock is within 5 feet of the land surface.

### **Bedrock Type**

When the bedrock is shallow, bedrock type can affect the ease with which infiltrating waters flow to the groundwater. Bedrock is consolidated material that underlies the soils and surficial deposits. Bedrock type is defined as the type of the uppermost rock layer; it is important in assessing an area's susceptibility to groundwater contamination, especially if the bedrock is located close to the land surface. The bedrock in the southeast portion of the Village consists of carbonates, while the remaining area within the Village consists of sandstone.

## **Soil Characteristics and Associations**

A soil association is a landscape that has a distinctive proportional pattern of soils. Soil associations can be grouped into characteristic categories that determine the soil's permeability. The vast majority of the Village's soils have high-medium permeability and soils with low permeability are located in the far southeast portion of the Village.

## **Surficial Deposits**

Surficial deposits are the unconsolidated materials above the bedrock. The texture and permeability of the surficial deposits affect the rate at which infiltrating water will reach the water table, which make them one of the most important factors in determining groundwater contamination susceptibility. The surficial deposits in the Village are almost entirely comprised of sand.

## **Water Table Depth**

The depth to water table is the distance from the land surface to the water table. The northwest and southeast portions of the Village have depths greater than 50 feet, but the majority of the Village's depth to the water table is between 20 and 50 feet (see Depth to Water Table map). The distance the water must flow to the groundwater and the ease of its movement combine to play a significant role in determining the susceptibility of an area to contamination.

Since the Village of Elmwood uses a municipal water system (see Utilities and Community Facilities element), groundwater contamination susceptibility is important to consider since its negative impacts can impact many people. The Village has a Wellhead Protection Overlay Zoning District (Sec. 13-1-55) in order to protect the municipal wells.

## **Forests**

Forests are a dominant natural and aesthetic characteristic of the Village of Elmwood and Pierce County. Preserving forestlands ensures that their ecological, economic, and aesthetic qualities are protected. The forests surrounding the Village of Elmwood provide wildlife habitat and protect the rivers and streams from runoff because of increased infiltration. According to the Pierce County Land and Water Management Plan (2006), approximately 27% of the County's land cover is forests. In the Village of Elmwood, deciduous forests dominate the existing land cover, most of which are located in the steep-sloped bluffs that surround the Village. Pockets of coniferous forests are scattered throughout the Village (see Existing Land Cover map).

## **Soils**

According to the Pierce County Land and Water Resource Management Plan (2006), there are two soil associations in the Village of Elmwood. The dominant association is Arenzville-Alluvial, which are soils of the bottom lands. Small portions in the northwest

and southeast portions of the Village are in the Otterholt-Spencer association, which are deep, silty soils over till-capped dolomite.

The natural drainage class is a group of soils defined as having a specific range in relative wetness under natural conditions as it pertains to wetness due to a water table under conditions similar to those under which the soil developed. The drainage classes of the majority of soils in the Village are well drained and moderately well drained, which means that water moves readily to somewhat slowly (see Drainage Class map). The Village contains a few small areas of somewhat poor drained soils which remain wet at shallow depths for periods during the growing season, and they are mostly concentrated around the Eau Galle River and Cady Creek.

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. The USDA Pierce County Soil Survey identifies soil limitations for various types of buildings. These limitations are labeled as slight, moderate, and severe. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth the water table, ponding, flooding, subsidience, linear extensibility (shrink-swell potential), and compressibility. The properties that affect the ease and amount of excavation include depth to the water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or cemented pan, and the amount and size of rock fragments. The Soil Limitations map identifies areas in the Village that have limitations to the construction of dwellings with basements. The majority of the developed parts of the Village are either somewhat or not limited, the steep slopes and bluff lines are somewhat or very limited.

- ❖ The data used to create the maps for this section are derived from generalized state information at small scales, and cannot be used for any site-specific purposes.

## ***Agriculture***

Wisconsin farmland has been under increasing pressure in the past decade because of development sprawl and changes in the industry. As a growing number of people have decided to live in the country rather than in the city, the price of farmland has increased drastically; motivating farmers to sell or split-up land. The average cost of agricultural land sold for agricultural use in Pierce County in 2003 was \$1,765/acre. In contrast, agricultural land sold for another use cost \$4,449/acre in 2003.

The Natural Resource Conservation Service (NRCS) has established a soil capability classification system in order to evaluate the potential suitability of soils for agricultural production (see Soil Suitability map). It does this by considering characteristics and suitability for supporting various crops and is based on the limitations of the soil. Although much of the soils in the Village of Elmwood are highly or moderately suitable

for agricultural uses, much of that land is either already developed into higher density uses or are steep slopes and wooded areas which makes cultivation difficult. Even though agricultural uses are limited in the Village; it is surrounded by productive farmland. According to the 2002 Census of Agriculture, there were 1,510 farms on 267,311 acres in Pierce County, which was a decrease of 1% in farms and 7% in acreage from 1997.

***Environmentally Sensitive Areas***

The Eau Galle River corridor, which stretches from St. Croix County into Pepin County, is the Village’s most sensitive area. This area also includes the floodplains and wetlands that are a part of the corridor. The Village’s Wastewater Treatment Plant discharges into the river, which is closely monitored for compliance, and is a threat to health of the river and the wildlife it supports due to thermal loading (see Utilities and Community Facilities element). Agricultural run-off, erosion, and additional land development are other large threats to this corridor. The steep slopes and forests that surround the Village could also be considered sensitive areas to be protected.

***Threatened and Endangered Species***

According to State Statute 29.415 and Administrative Rule NR27, it is illegal to take, transport, possess, process or sell any wild animal that is included on the Wisconsin Endangered and Threatened Species List without a valid permit. No one may process or sell any wild plant that is a listed species without a valid permit.

The DNR Bureau of Endangered Resources maintains a database of threatened and endangered species. The following is a list of the threatened and endangered species in Pierce County.

***Threatened Species:***  
*Any species whose continued existence as a viable component of this state’s wild animals or plants is determined to be in jeopardy on the basis of scientific evidence.*

***Endangered Species:***  
*Any species which appears likely, within the foreseeable future, on the basis of scientific evidence to become endangered.*

*Source: Wisconsin DNR*

**Plants**

Musk-Root	<i>Threatened</i>	Marbleseed	<i>Special Concern</i>
Roundstem Foxglove	<i>Threatened</i>	Louisiana Broomrape	<i>Endangered</i>
Carolina Anemone	<i>Endangered</i>	Pomme-De-Prairie	<i>Special Concern</i>
Dragon Wormwood	<i>Special Concern</i>	Small Skull Cap	<i>Endangered</i>
Prairie Sagebrush	<i>Special Concern</i>	Prairie Ragwort	<i>Special Concern</i>
Ground-Plum	<i>Endangered</i>	Snowy Campion	<i>Threatened</i>
Kitten Tails	<i>Threatened</i>	Small-Flowered Woolly	<i>Special Concern</i>
Great Indian Plantain	<i>Special Concern</i>	Prairie Fame- Flower	<i>Special Concern</i>
Yellow Evening Primrose	<i>Special Concern</i>	Snow Trillium	<i>Threatened</i>
Carey’s Sedge	<i>Threatened</i>	Showy Lady’s Slipper	<i>Special Concern</i>
Hill’s Thistle	<i>Threatened</i>	Tufted Hairgrass	<i>Special Concern</i>
Arrow-Headed Rattle-Box	<i>Special Concern</i>	Wild Licorice	<i>Special Concern</i>
Silky Prairie Clover	<i>Special Concern</i>	Glade Mallow	<i>Special Concern</i>
Glade Fern	<i>Special Concern</i>	Marsh Ragwort	<i>Special Concern</i>
Twinleaf	<i>Special Concern</i>	American Gromwell	<i>Special Concern</i>
Prairie Bush Clover	<i>Endangered</i>	Prairie False-Dandelion	<i>Special Concern</i>

**Animals**

Red-Shouldered Hawk	Threatened	Purple Wartyback	Endangered
Bald Eagle	Special Concern	Butterfly	Endangered
Lake Sturgeon	Special Concern	Elephant Ear	Endangered
Skipjack Herring	Endangered	Snuffbox	Endangered
American Eel	Special Concern	Ebony Shell	Endangered
Redside Dace	Special Concern	Plains Clubtail	Special Concern
Crystal Darter	Endangered	Skillet Clubtail	Special Concern
Blue Sucker	Threatened	Higgins' Eye	Endangered
Mud Darter	Special Concern	Yellow/Slough Sandshells	Endangered
Western Sand Darter	Special Concern	Washboard	Special Concern
Banded Killfish	Special Concern	Smoky Shadowfly	Special Concern
Goldeye	Endangered	Stygian Shadowfly	Special Concern
Black Buffalo	Threatened	Bullhead	Endangered
Shoal Chub	Threatened	Round Pigtoe	Special Concern
Silver Chub	Special Concern	Winged Mapleleaf	Endangered
River Redhorse	Threatened	Monkeyface	Threatened
Pallid Shiner	Endangered	Russet-Tipped Clubtail	Special Concern
Weed Shiner	Special Concern	Buckhorn	Threatened
Pugnose Minnow	Special Concern	Wing Snaggletooth	Threatened
Yellow-Bellied Racer	Special Concern	Smooth Coil	Special Concern
Timber Rattlesnake	Special Concern	Net-Veined Leafhopper	Threatened
Wood Turtle	Threatened	Elktoe	Special Concern
Olive Hairstreak	Special Concern	Rock Pocketbook	Threatened
Spectacle Case	Endangered	Eastern Pipistrelle	Special Concern
Bat Hibernaculum	Special Concern		

**Natural Communities**

Dry Cliff	Southern Dry Forest
Moist Prairie	Southern Dry- Mesic Forest
Moist Cliff	Southern Mesic Forest
Northern Dry- Mesic Forest	Emergent Marsh
Oak Barrens	Floodplain Forest
Pine Relict	Stream- Slow, Hard, Warm

***Exotic and Invasive Species***

Exotic and invasive species pose a significant threat to the State of Wisconsin. Invasive species can damage the economy, health, ecology, and recreation opportunities of Wisconsin. Some associated impacts from the Wisconsin Council of Invasive Species are as follows:

**Agriculture:**

- cost of controls and loss of production
- pastures degraded

**Fisheries:**

- fish habitat degraded
- fishing access disrupted

***Exotic Species:***

*A non-native species; one that has been accidentally or deliberately moved by human activity to an area which it is not native to. Exotic species can have damaging effects on the environment since they may lack natural competition.*

***Invasive Species:***

*A non-native species whose introduction causes or is likely to cause economic or environmental harm or harm to human health.*

*Source: Wis. State Statute*

**Forestry:**

- limits tree regeneration in forests
- long-term forest production declines due to tree seedlings being out-competed

**Recreation:**

- recreational boating and fishing disrupted
- hunting/hiking land rendered impassable by invasive shrubs

**Tourism:**

- decreased aesthetics resulting in loss of tourism
- human health concerns from toxic and allergenic plants

**Native Ecosystems:**

- displaces native vegetation
- degrades wildlife habitat
- contributes to endangerment of rare plants and animals
- homogenizes the landscape

Buckthorn is becoming increasingly established in Pierce County. Common Buckthorn is tall shrubs or small trees reaching 20-25 feet in height and 10 inches in diameter and grows in large shrub growth forms. It was introduced from Europe and planted in Wisconsin as hedgerows as early as 1849. The seeds can be spread long distances by birds. Once established buckthorn spreads aggressively, invading forests and dominating understory vegetation, replacing native species by forming dense thickets, and shading out native plants. The cost per acre for removal ranges from \$50-\$1,500/acre, depending on density, terrain, and method. For more information regarding identification and control measures, contact the Wisconsin DNR or the Wisconsin Council of Invasive Species. Honeysuckle, garlic mustard and gypsy moths are also becoming established in the County.

**Stream Corridors and Watersheds****Eau Galle River**

The Eau Galle River begins in St. Croix County and flows south for 51 miles through Pierce County, and the Village of Elmwood, to the Chippewa River in Pepin County. The river is classified as a Class III Trout Stream, and once supported a strong native population of Brook Trout. As a result of changing abutting land uses, the native population is only present in the northern headwaters of the river. Brown Trout stocking has been successful because of their toleration of warmer water temperatures. In 1966, the river was dammed near the Village of Spring Valley to create a 150 acre reservoir. According to the DNR, the river

***Class III Trout Stream:***

*These waters are marginal trout habitat with no natural reproduction occurring. They require annual stocking of trout to provide trout fishing. Generally, there is no carryover of trout from one year to the next. There are 1,591 miles of Class III trout streams in Wisconsin and they comprise 15% of Wisconsin's total trout stream mileage.*

*Source: Wisconsin DNR*

is severely impaired by fine sediment and large-scale bank erosion especially in the Elmwood area. Also, because of elevated stream temperatures, turbidity, excessive nutrient inputs, sedimentation, and loss of instream habitat, the river is included on the state's list of impaired waters. Control of sediment, nutrients and stormwater runoff is crucial to the improvement of the water quality in the Eau Galle River.

### Eau Galle River Watershed

The Village of Elmwood is entirely within the Eau Galle River Watershed and the Lower Chippewa Basin (see Figure 5.2). The watershed is threatened by polluted runoff from agricultural and residential uses and flooding. Flooding and unmanaged stormwater runoff allows large sediment loads to be deposited into the river and can cause the banks to erode.

#### **Watershed:**

A watershed is an area of land that drains its water into a stream, lake, or wetland. The size of a watershed can range from several hundred square miles to only a few square miles. There are 330 watersheds in the State.

Figure 5.2: Pierce County Watersheds



Source: Wisconsin Dept. of Natural Resources

### **Floodplains**

Floodplains are natural extensions of waterways and are very important for flood and erosion control. They provide area for water dispersal, habitat, groundwater recharge, as well as reduce flood velocities, sediment loads, and improve water quality. Flooding is a natural part of the environment. The displacement of floodplains causes following floods to crest higher than before and also reduce other floodplain functions. Floodplains consist of any land which may be covered with water during the regional flood, also known as a 100 year flood. The 100 year flood is land that has a 1% chance of flooding in any year. A reduced-size copy of the floodplain map is shown below.



## **Wildlife Habitat**

The natural areas within and surrounding the Village offer excellent wildlife habitat for a number of plant and animal species. According to the Pierce County Land and Water Resource Management Plan (2006), the mix of agricultural lands and woodlands provide an ideal habitat for common species such as white-tailed deer, squirrels, rabbits, raccoons, grouse, turkeys, songbirds, and pheasants.

## **Parks and Open Space**

Parks and open space can have many functions for a community. They can be used for recreation, education, flood control, habitat preservation, protection of groundwater recharge areas, air and surface water quality improvement, buffers, and can even increase neighboring property values. Please refer to the Utilities and Community Facilities element for parks and open spaces located within the Village of Elmwood.

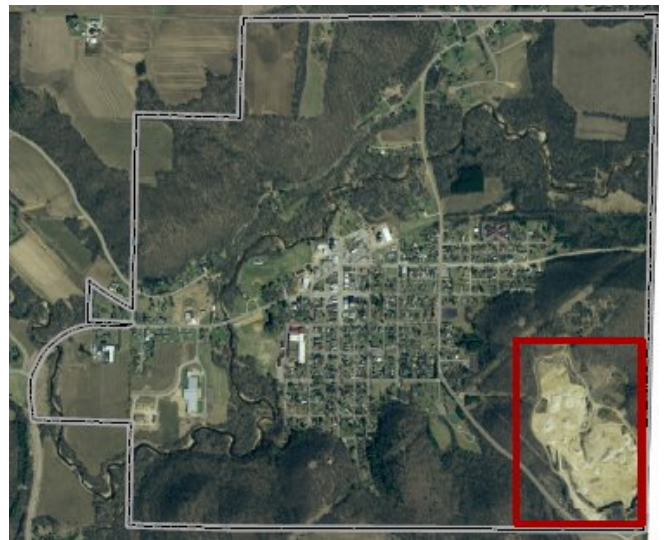
## **Metallic/Non-metallic Mineral Resources**

### **Kraemer Quarry**

The Kraemer Company operates a dolomite (limestone) quarry in the southeast corner of the Village. Its total site acreage is 125.68 acres in Pierce County and 21.64 acres in Dunn County. The operation includes a pit with a scale and a loader. The dolomite from the quarry is crushed and is used for soil treatment, primarily to reduce soil acidity, and other commercial uses. The quarry requires a conditional use permit in order to operate.

According to the quarry's Reclamation Plan, the mine will be operated until it is no longer economically feasible to do so or when the dolomite is depleted. The mining operation will continue toward the east of the property line into Dunn County. The portion of the property that has been disturbed by mining activity will be returned to a natural and wildlife area and portions of the highwalls will remain for geologic observation. Erosion control measures, such as grading and seeding the topsoil will be implemented to prevent and control erosion. All graded slopes will be no less than 3:1. The quarry floor will be graded to facilitate proper drainage and will also be seeded and mulched. Trees will be planted along the highwall as a security measure. The entire Reclamation Plan is available through the Pierce County Land Management Department.

**Figure 5.4: Kraemer Quarry (Pierce County)**



**Source:** Pierce County (2007)

All counties in Wisconsin were required to adopt an ordinance by June 1, 2001, that establishes a non-metallic mine reclamation program to promote compliance with state reclamation standards contained in Chapter NR 135 of the Wisconsin Administrative Code.

### ***Historical and Cultural Resources***

Historic preservation is protection, preservation, rehabilitation, and reconstruction of cultural resources. Cultural resources can include a structure, area, site, object, or community that has historic, archeological, architectural, cultural, or social significance. Preservation gives character, pride, and a sense of meaning to communities and citizens. There are also economic reasons for preservation, such as an increase in tourism, increase in property values, and it can be cheaper than building new.

The Wisconsin Historical Society maintains an Architecture and History Inventory (AHI) for the entire state. The Inventory is a collection of information on historic buildings, structures, sites, objects, and historic districts. Most properties become part of the Inventory as a result of a systematic architectural and historical survey.

Those sites not listed in the AHI, but still of historical and cultural significance, were also included in Table 5.1 by members of the Village's Plan Committee. They used the following methodology from the Wisconsin Historical Society:

State and National Register listings recognize properties that physically embody important aspects of local, state, and national history. Eligible properties must retain their essential physical appearance from the period in which they were important and meet one of the four criteria for listing:

- Be a good local example of an architectural style. To be individually eligible in the area of architecture, a property must retain the majority of its original architectural features and be a good example of the style and period.
- Be associated with a person important in our past. The property must be the resource most clearly related to the person's period and area of importance.
- Represent an important period, movement or trend in local, state or national history.
- Have potential to yield information; these types of properties are primarily archaeological sites.

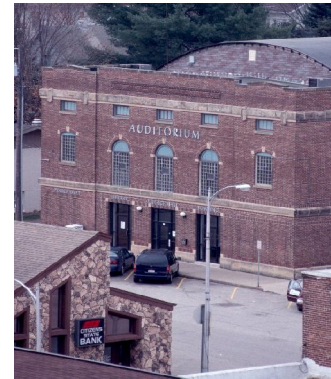
**Table 5.1: Village of Elmwood historical and cultural sites**

AHI Number	Location	Name	Resource Type
25229	105 S. Main Street	John & Jane Eager (Highland Hollow)	Business
	117 S. Main Street	Mike Bechel (Old Sailer Bldg)	Business
	133 S. Main Street	Dennis Hinck (Blue Apartment Bldg)	Apartments
	209 S. Main Street	Ken & Sharon Larson	Home
	226 S. Main Street	Jamie & Shanna Bock	Home
	230 S. Main Street	Frank & Adeline Crownhart	Home
	407 S. Main Street	Jim & JoAnn Baier	Home
	116 N. Main Street	Isaac & Jude Weix (T&S Hardware)	Business
	309 W. Pierce Avenue	Ed & Nancy Pelzel	Home
	206 S. Public Street	Barb Kardash	Home
	215 S. Public Street	Herb & Dolores Radtke	Log Cabin House
	224 S. Public Street	Scott & Debra Feiler	Home
	125 E. Race Avenue	Kathy Johns (Simple Pleasures Quilting)	Business
	335 E. Race Avenue	Cal Seeger	Apartments
	148 W. Race Avenue	Mike Bechel	Old Gas Station
	109 S. Scott Street	Samual & Naomi Loga	Home
	106 W. Shaw Avenue	Jason & Todd Gilbertson	Home
	431 W. Shaw Avenue	Brenda Fredrickson	Home
	226 W. Wilson Avenue	Springer Household	Home
	208 W. Winter Avenue	Jeff & Karen Leehe	Home
	129 S. Woodworth Street	John & Jean Swesey	Home
	230 S. Woodworth Street	St. Peters Lutheran Church	Church
25228	323 W. Winter Ave.	Village Auditorium	Recreational Building/ Gymnasium
25230	614 Main St.		House
25231	Main St. & Shaw Ave.	United Methodist Church	Church
25232	401 Main St.		House
25233	Main St.	Elmwood Circle Pavilion	Pavilion
25234	405 Public St.		House
25235	402 Wilson St.		House
25236	Wilson Ave. & Woodworth St. – South side, 2 <sup>nd</sup> house from corner		House
25237	Wilson Ave. & Public St. – SW corner		House
25238	106 W. Wilson Ave.	Sacred Heart Catholic Church	Church
25239	Wilson Ave. & Woodworth St. – SE corner		House
25240	Wilson Ave. & Woodworth St. – NW corner		House
120149	422 W. Winter Ave.	Well #1	Water Utility

**Source:** Wisconsin Historical Society, Architecture and Historical Inventory, Dolores Radtke, Sandra Weix

**Village Auditorium**

The auditorium was built in 1920 by private donations from local businessmen as a gift to the Village. Today it houses the Village office, police department, a dining and meeting hall, and a two-lane bowling alley. The upper floor originally held a movie theater and a basketball court. As written in *Life in the Valley - Elmwood’s First 100 Years*, “Perhaps more than any other building in Elmwood the Auditorium evokes the most memories for residents.”



**Recreational Resources**

The Village of Elmwood has numerous outdoor recreational opportunities available (see Community Facilities map). Boating, camping, hiking, biking, and snowmobiling are all offered in the Village. For a complete list of active recreational resources, refer to the Transportation element. For a complete list of parks within the Village, refer to the Utilities and Community Facilities Element.

According to the survey, respondents felt that preserving the cultural and historic sites and protecting groundwater are the highest priorities concerning natural resource protection.

**Table 5.2: Village of Elmwood natural and cultural resource priorities**

<b>Response</b>	<b>High priority</b>	<b>Medium priority</b>	<b>Low priority</b>	<b>No opinion</b>	<b>No answer</b>
Enhance the gateways and entrances to the Village	15.8%	36.8%	25.0%	13.6%	8.6%
Restore the urban forest along the major roads and in the parks	17.8%	37.5%	24.3%	11.2%	9.2%
Preserve the cultural and historic sites within the Village	33.6%	33.6%	17.8%	7.2%	7.9%
Develop current Village property for parks/open space	15.1%	36.2%	28.3%	11.8%	8.6%
Restore the natural plant communities and wildlife habitat	15.1%	35.5%	27.6%	12.5%	9.2%
Protect groundwater by encouraging on-site retention	36.8%	34.9%	4.6%	14.5%	9.3%

**Source:** Village of Elmwood Community Survey (2008)

**SWOT Analysis: Agricultural, Natural and Cultural Resources**

<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>• Natural beauty</li> <li>• Eau Galle River</li> <li>• Abundant wildlife</li> <li>• Air quality</li> <li>• Access to cultural events</li> <li>• Rich in history/historical landmarks</li> <li>• Stormwater management</li> </ul>	<p><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>• Shallow bedrock</li> <li>• Sandy soils</li> <li>• Streambank erosion</li> </ul>
<p><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>• Improve stormwater management</li> <li>• Control erosion</li> <li>• Preserve historical landmarks</li> </ul>	<p><b>THREATS</b></p> <ul style="list-style-type: none"> <li>• Age of water treatment plant</li> <li>• Exotic and invasive species</li> <li>• Water quality from municipal wells</li> </ul>

**Goals, Objectives, and Implementation**

**Goal:** Preserve and promote the agricultural, natural and cultural resources within the Village of Elmwood.

**Objectives:**

- Enforce regulations to preserve, protect, and improve the quality of water resources.
- Restore, maintain, and protect native, natural wildlife habitat and environmentally sensitive areas from exotic and invasive species.
- Promote best management practices for stormwater.
- Support maintenance of historical landmarks in the Village.

**Implementation (Policies and Programs):**

- Educate landowners on potential land use options and control measures for exotic and invasive species.
- Review Village Ordinances to ensure maximum protection of natural resources and wildlife habitat without impeding desired development.
- Implement the tasks outlined the Village’s Comprehensive Stormwater Management Plan.
- Ensure protection of the Village’s cultural and historical resources.