CHAPTER 9: AGRICULTURAL, NATURAL AND CULTURAL RESOURCES

INTRODUCTION

Agricultural, natural, and cultural resources give definition to a community and strongly affect quality of life. Within the Town of Eldorado, the Eldorado State Wildlife area, a mixture of wetlands, grasslands, shrubs, woods and agricultural lands, dominates the southcentral portion of the Town. The remainder of the Town is a blend of working farms interwoven with stands of woodland and residential housing. Agriculture has a long history in the Town of Eldorado and Fond du Lac County. Although agricultural acreage and the number of farms have been declining in Fond du Lac County and the Town it continues to play an important role in the local economy. Natural features such as topographic relief, lakes, streams, wetlands and soils have significant bearing on historic and contemporary land use and development patterns. Understanding the relationship between environmental characteristics and their physical suitability to accommodate specific types of activities or development is a key ingredient in planning a community’s future land use.

Wisconsin’s Smart Growth” Legislation requires the agricultural, natural and cultural resources element to consist of objectives, policies, goals, maps and programs that promote effective management of Eldorado’s agricultural, natural, and cultural resources. This chapter, along with Appendix G: Agricultural, Natural and Cultural Resources Inventory, and Chapter 2: Plan Framework and Implementation address these requirements.

SUMMARY OF KEY POINTS AND NARRATIVE

Below is a summary of the key agricultural, natural and cultural resource points derived from the data collection and analysis and a brief narrative of what it means in terms of developing the future land use plan policies and strategies.

Agricultural Resources

The Facts:

- Fond du Lac County lost 244 or 15 percent of its farms between 2007 and 2012.
- As of the most recent year 2018 land use inventory, 60 percent (13,777 acres) of the Town’s land was classified as agricultural.
- Between 2009 and 2018, the value of agricultural land decreased by 13.7 percent in the Town of Eldorado.
- Overall, about 84 percent (19,551 acres) of the land within the Town of Eldorado is considered prime farmland.
What it Means:

Agriculture has been and continues to be important to the economy of the area and the county. It not only produces food and fiber, but also is linked to many other components of the economy. Agriculture supports equipment and implement manufacturer’s, dealers and repair technicians; vegetable and meat processing industries; trucking; and veterinary services. Agri-tourism supports the local economy. It creates demand for new services and provides supplemental income to agricultural operations by allowing farmers to sell directly to consumers through farm markets, roadside stands and community supported agriculture (CSA’s).

About 52 percent of the Town is comprised of soils that do not need to be drained or protected to be considered prime farmland. The means that these soils have the best combination of physical and chemical characteristics needed to produce sustained high yields of food, feed, forage, fiber, etc. without large expenditures. Unfortunately these soils are also best suited for development.

Natural Resources

Soils

The Facts:

- Three general soil associations, or groupings of individual soil types based on geographic proximity and other characteristics, are present within the Town of Eldorado.
- Evaluation of the soil data indicates that almost 83% of the soils in the Town of Eldorado are very limited for conventional on-site individual septic systems.
- Over half of the area within the Town of Eldorado (53%) acres has soils that are considered very limited for building site development (with basements).
- In approximately 52 percent (11,943 acres) of the Town, the depth to groundwater is less than two feet

What it Means:
Soils support the physical base for development and agriculture within the Town. Due to high groundwater, much of the town may not be the most suitable for building site development and conventional on-site individual septic systems. However many of these limitations can be addressed through building construction technology and new treatment options.

Geology

The Facts:

- There are no areas in the Town with high bedrock.
- Less than one percent (0.2%, 37 acres) of the Town’s total acreage has slopes in excess of 12 percent.
There are no non-metallic mining sites within the Town of Eldorado, according to data obtained from Fond du Lac County.

There are approximately 8 acres suitable for sand and gravel.

**What it Means:**

Soils within the Town are not the most suitable for non-metallic mining operations. As a result, there are currently not any non-metallic mining sites in the Town. In addition, soils information indicates that there are not really any significant areas that are suitable for sand and gravel extraction.

**Water Resources**

**The Facts:**

- Two watersheds: the Fox River (UF05) and the Fond du Lac River Watershed (UF03) are situated in the Town of Eldorado.
- The Eldorado Marsh is located in the south central portion of the Town.
- There is one named river and one named creek within the Town of Eldorado and several unnamed creeks.
- Currently the WDNR along with many partners throughout the Upper Fox and Wolf River Basins are working on a TMDL (Total Maximum Daily Load) to improve water quality within the Upper Fox and Wolf Rivers.

**What it Means:**

Surface water quality is an important issue within the Town. With all runoff from the Town flowing into Lake Winnebago and eventually making its way to the Fox River and Bay of Green Bay, the Town plays an important ‘upstream’ role in terms of assuring that stormwater is clean once it leaves the Town. Water quality can be impacted by both urban and rural point and non-point sources. In Eldorado’s case, a majority of waterway pollutants are either derived from urban paved (roads, parking lots) and lawn fertilizers, or from agricultural runoff. A number of programs and regulations exist to improve the quality of water entering streams, rivers, and lakes, however; more can always be done to ensure clean waters for the Town’s citizenry. A TMDL is being developed for phosphorus and total suspended solids. To restore the waters within this basin, the TMDL will identify sources or pollutants and reductions necessary to address water quality impairments.

The Eldorado Marsh is an important water resource to the Town and its residents. It defines the Town, provides wildlife habitat and supports a rich assortment of wetland types, small oak openings, shrubs, grasslands and agricultural land. As such, residents feel that the marsh should be protected and enhanced for future generations to enjoy.
**Floodplains and Wetlands**

**The Facts:**

- Overall 15.5 percent (3,584) of the Town's acres are in floodplains. While another 12.6 percent include floodplains that are also wetlands.
- Overall, approximately 16 percent (16.4%) of the Towns' total acreage are classified as wetlands.

**What it Means:**

Wetlands and floodplains are the two most important natural features which help to control and moderate the volume of stormwater which enters/exports the Town's drainage system. Many of the wetland areas are small scattered sites which are less than 5 acres in size. However one large wetland complex: the Eldorado Marsh Wildlife Area exists in the southcentral portion of the Town. Identified floodplain areas are primarily associated with this area as well as the West Branch of the Fond du Lac River. Regardless of size, wetlands are important in terms of collecting and filtering urban and rural stormwater runoff.

**Groundwater**

**The Facts:**

- Groundwater aquifers within Fond du Lac County are recharged mostly by the percolation of precipitation through the unsaturated zone to the water table.
- The south central area of the Town associated with the Eldorado Marsh (and continuing west) is most susceptible to groundwater contamination.
- In March, 2010 the Wisconsin Geological and Natural History Survey University of Wisconsin-Extension completed a project to provide baseline groundwater information for the Town.

**What it Means:**

The depth of private wells within the Town varies from less than 50 feet to greater than 200 feet. Shallow wells are often more susceptible to contamination than deeper wells. However, since all groundwater originates as precipitation infiltrating into the ground, eventually even deep groundwater may show signs of degradation in water quality over time. Groundwater quality can be influenced by human activity or land uses. Contaminants found in drinking water can negatively impact health.
Wildlife Resources

The Facts:

- There are approximately 151 acres of planted woodlands and 1,793 acres of general woodlands. Most are scattered throughout the Town.
- Important environmental corridors within the Town of Eldorado are associated with the West Branch of the Fond du Lac River, the Van Dyne Creek, unnamed stream corridors, the Mascoutin Valley State Trail and the Eldorado Marsh.

What it Means:

Woodland areas are not as prevalent in the Town as they once were. Agricultural and to some extent rural land development activities have eliminated many of the forested areas. While a few larger woodlands exist, most are associated with the Eldorado State Wildlife area, the West Branch of the Fond du Lac Rivers and wetland areas. Nearly all woodlands provide some type of habitat for common animal species, even small woodlands or hedgerows. Isolated woodland patches can be improved through strategic planting plans that restore and connect these areas to larger forest patches.

The Facts:

- The U.S. Fish and Wildlife Service (USFWS) identifies three (3) federally listed species for Fond du Lac County.
- The Wisconsin Natural Heritage Inventory identifies nine rare species and natural communities by Town, six (6) bird, one (1) Community one (1) plant and one (1) Other.

What it Means:

Several endangered or threatened species and one natural community exists in the Town. Due to the sensitive nature of this information, the location of these species is not identified in this report. While several endangered or threatened species and one natural community has been identified, this does not mean that others don’t exist, or that others may not be found in the future. Therefore, the maintenance and expansion of all habitat areas within the Town will ensure that a high quality landscape exists for both plant and animal species. The largest threat to habitat, next to development, is the introduction/proliferation of non-native (invasive) species. The Town should take adequate steps to protect areas of critical habitat from the infestation of non-native species.

Cultural Resources

The Facts:

- There are no properties within the Town of Eldorado listed on the National Register.
A search of the DHP’s online Architecture and History Inventory (AHI) reveals a total of 42 sites listed for the Town of Eldorado.

There are no historical markers located in the Town of Eldorado.

There are no museums in the Town of Eldorado.

One locally significant historic place has been identified: Peniel Chapel.

The Eldorado Community Historical Organization (ECHO) was formed under the 501c3 of the Eldorado Lions.

What it Means:

Even though a historical property or object has not been identified, it does not mean that nothing exists in the Town. It only means that none have been identified. In addition, this plan does not search for sites on the Archeological Sites Inventory (ASI) due to the sensitive nature of archeological sites. It is a known fact that Native American tribes frequented the Fond du Lac area and therefore it would not be surprising if evidence of their presence was not apparent in the Town. One reason that properties and objects have not been identified is because a survey may not have been completed for the Town.

Peniel Chapel, a local historic place, was built in 1856 by early Welsh settlers who came to the Town. This chapel exists due to the dedication of a group of local volunteers who formed the Peniel Welsh Chapel Association, Inc. In addition, another group of volunteers, who are part of the Eldorado Community Historical Organization, work to preserve the history of the Town of Eldorado. The group stores historical items and records at the Community Center and fire station. This is limiting the amount of materials they are able to gather regarding the history of Eldorado.

POTENTIAL FRAMING CONCEPTS

These are derived from the data analysis and discussions throughout the process. Framing Concepts provide more detailed discussion of key issues that were identified as well as big ideas expressed in relation to the goals. These may include maps that show where in the community particular policies apply, detailed description of specific strategic directions, specific recommendations as well as diagrams and photo imagery to help convey specific points. The following Framing Concepts are suggested for moving forward in the process:

Farmland Preservation or Preserve farming economic viability

1. Preserve the most productive farmland
2. Support local farmers
3. Minimize conflicts between incompatible uses
4. Limit residential development Focus residential development
   Direct to certain areas Keep village as focus for residential development
Combine Water Resources, Watershed Planning & Management and Drinking Water Protection & Green Infrastructure

1. Protect groundwater
2. Protect surface water
3. Protect marsh

Watershed Planning & Management
Drinking Water Protection
Historic Preservation

1. Compile an inventory of important cultural and historical resources?
2. Preserve and protect historic sites and structures?