

ELEMENT 5 - NATURAL, AGRICULTURAL, AND CULTURAL RESOURCES

5.1 INTRODUCTION

This element will explore the various natural, agricultural, and cultural resources in the town including topography, soils, land cover, agricultural areas, water resources, wetlands, floodplains, agricultural characteristics, and cultural and historic town resources. It is important to acknowledge these resources to make intelligent and informed decisions, as they relate to land use.

5.2 NATURAL RESOURCES

Importance of the Community Natural Resource Base

The natural resource base of the Town of Springbrook is directly interconnected to town land use. The community natural resource base impacts activities such as farming and forestry, as quality and quantity of natural resources directly influences the productivity and sustainability of land use activities. Residential development is greatly influenced by the presence of natural attributes such as woodlands, lakes, rivers, and wildlife, which attract both residents and visitors to the community. Furthermore, community economy is linked to revenues generated through tourist expenditures, and forest productivity, both of which rely on the continued viability of the community natural resource base.

Due to the interconnectedness of land use and community natural resources, and the role natural resources play in defining community character, it is important that community planning emphasize resource sustainability and protection of sensitive environmental features. The maintenance of resource quality in the future is directly related to land use. Impacts to air, land, wildlife, and water are generated by every land use activity, and it is the cumulative effect of these activities, which can create environmental problems.

Background

The Town of Springbrook encompasses approximately 22,208 acres and is located in the middle of Washburn County. Springbrook was part of Veazie from 1883 through 1904 before it became a town in 1904. Ames, Earl, and Springbrook are all located in Springbrook Township. The name Springbrook may have been inspired by a small creek, which is spring-fed.

Topography & Slope

The Town of Springbrook is located within the Central Plains geographic province of Wisconsin; a region is characterized by low to moderate topographic relief. Surface elevations in Springbrook range from a maximum of approximately 1320 feet (derived), in the far northwestern corner of the town, to a minimum of approximately 1041 feet (derived) at the Namakagon River in the southwest corner of the town.

Steeply sloping lands can present challenges, or pose barriers to development. Steepness of topography is commonly expressed as percent slope (vertical rise/ horizontal run *100). As a rule, slopes in excess of 20 percent are of greatest concern for any land disturbing activity. Steep

slopes do not necessarily preclude all forms of development, although costly engineering and site preparation/mitigation measures are required in order to minimize potential adverse impacts. Potential problems associated with development of excessively sloping lands include erosion and slope stability.

Slopes in the Town of Springbrook range from level to nearly 33%. The steepest slopes are found in the moraines of the northwestern part of Springbrook and along the Namakagon River. The principal existing land use in these areas is currently woodlands. Any proposed future development of these lands will require consideration of site-specific topographic constraints. Topography and slope are depicted in Map 5.1.

Soils

An understanding of local soils is a critical component of land use planning. Soil conditions influence productivity of agricultural lands and forests, and may pose obstacles to land and infrastructure development. Soil factors such as wetness, drainage capacity, strength and depth to bedrock all influence soil suitability for land uses. In order to evaluate soil suitability for land uses, soil criteria for each use must be well defined and the suited soil regions must be identified.

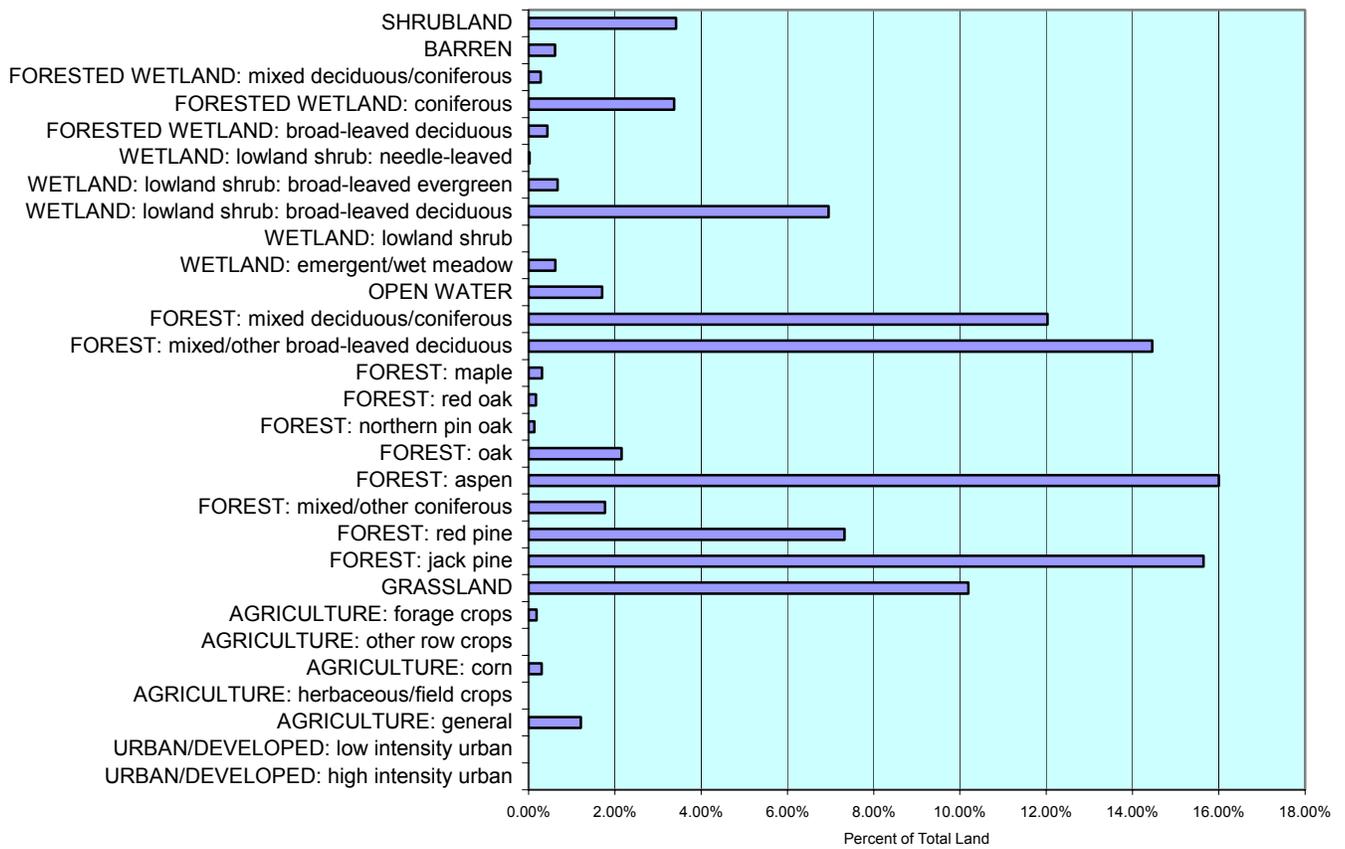
Soil properties which limit land uses or restrict land use activities are referred to as ‘limitations’ or ‘limiting factors’. Different soil types vary widely in terms of their distribution and limitations for specified uses. The spatial distribution of soils in the Town of Springbrook have been inventoried and mapped by the Natural Resource Conservation Service (NRCS), and soil properties identified. Soil limitations for specified uses are defined as “slight”, “moderate”, or “severe”. Soils rated with severe limitations have one or more properties that are generally considered unfavorable for the specified land use or activity. A “severe” rating implies that substantial cost may be incurred through special designs or construction practices, remediation, or soil maintenance practices in order to overcome the limitation. Soils that exhibit these limitations should therefore generally be avoided, and development should be guided into more appropriate locations.

While soil inventory and interpretation does provide an accurate representation of soil characteristics at the local level, this data should not supplant the evaluation of individual site soil characteristics; therefore, the following soil information should be used as a general guide for local officials, planners, citizens, and developers. Soil types are portrayed in Map 5.2 and soil limitations are depicted in Map 5.3.

Land Cover

Land cover information for the Town of Springbrook was obtained from the WISCLAND (Wisconsin Initiative for Statewide Cooperation on Land Cover Analysis and Data) data set. This data represents surface vegetation, open water, and urban area delineation based on interpretation of dual year satellite imagery. The data presents a generalized view of community land cover, and should not replace individual site examination. WISCLAND land cover is broken down by percentage in Figure 5.1 and depicted in Map 5.4.

FIGURE 5.1: Town of Springbrook Land Cover Class by Percent of Total Area

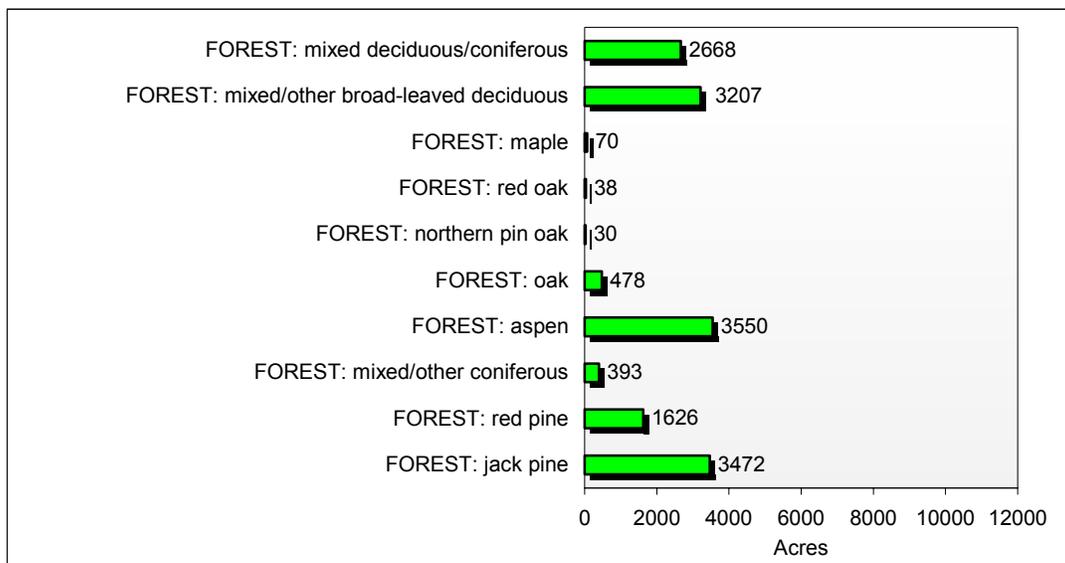


Source: WISCLAND data set

Forest Resources

Forests are one of the most defining characteristics of northern Wisconsin. These resources represent significant cultural, social, environmental and economic assets to citizens and communities. Forests provide a range of benefits including wildlife habitat, forest products, recreational opportunities, aesthetics, and other benefits. They are also very important to protect and enhance water quality.

Figure 5.2: Forest Cover Types¹, Town of Springbrook



The dominant forest cover type in the Town of Springbrook is aspen forest, which comprises over 3,500 acres of the total forested area. Jack Pine includes the second largest forest cover type, which is almost 3,500 acres. Close to half of the forestland in the Town of Springbrook is currently under private ownership. There are 1,250 acres of industrial forestland acres in the town.

County Owned Forest Lands

There are approximately 6,900 acres of county-owned lands in the Town of Springbrook.

State Owned Forest Lands

There are approximately 400 state owned acres in the Town of Springbrook.

Federally Owned Lands

There are currently approximately 1,700 acres of federally owned land in the Town of Springbrook, most of which is around the Namekagon River.

¹ Information obtained through GIS analysis using WISCLAND data set

Mineral Resources

At the time of this writing, there were no mineral resource sites identified in the Town of Springbrook.

Surface Water Resources

Water resources in the Town of Springbrook are environmentally, socially, and economically significant. These resources represent unique and complex environments, supporting a wide range of biological diversity. The aquatic influence extends beyond the confines of the lake or stream, and impacts the diversity of surrounding terrestrial communities.

Surface water resources represent central components of natural environmental corridors, creating a natural organizational framework for Washburn County, linking communities to each other and to the environment. The corridors are centered on the water bodies, wetlands, and woodlands, and contain some of the most critical plant and animal habitat in the county. Water resources represent one of the most significant factors in defining the “Northwoods” character of northern Wisconsin. Results of the Comprehensive Planning Survey indicate that water resources are important recreational assets. Lakes, rivers, and streams provide residents and visitors with recreational opportunities and provide economic benefits through tourism and development. Over the past 30 years, nearly two-thirds of all lakes 10 acres and larger were developed in northern Wisconsin. Continuing pressures are being placed on water resources, and the number of people using these resources continues to grow annually. Surface water resources for the Town of Springbrook are depicted in Map 5.5.

The quality and quantity of surface water resources is correlated to land use activities, and land use change is a primary factor causing water quality and habitat degradation in northern Wisconsin’s surface waters. The intensity of the activity is also a vital land use characteristic related to water quality as issues such as livestock density, septic system density, traffic density, or proportion of impervious surfaces can influence the quality of surface water resources.

In 1987, Wisconsin initiated a surface water protection policy after a federal judge ordered the state to comply with the revised federal Clean Water Act, which instructed states to protect their most outstanding lakes, flowages and streams from the dumping of polluted wastewaters.

Water Quality

Surface water resources were evaluated and numerically rated for water quality, fish, wildlife, and aesthetic values by the Wisconsin Department of Natural Resources. Some water bodies were proposed for designation in Chapter 102, Wisconsin Administrative Code, (*Water Quality Standards for Wisconsin Surface Waters*), as Outstanding Resource Waters (ORW). Such a designation allows for special protection under NR 102. ORW resources were rated as having high quality values associated with water quality, fish, wildlife, and aesthetic characteristics. Exceptional Resource Waters (ERW) resources are similar to ORW’s in characteristics, but did not score as high in the ranking system, and were not included in NR 102 revisions. ORW waters get the highest protection possible under Wisconsin law, with no water degradation allowed in the future. Any discharges into ORW waters must be as clean as the background water quality. See Table 5.1 on the following page for a listing of all designated ORW and ERW waters located in Washburn County.

Table 5.1: ORW & ERW Waters Located in Washburn County		
Water Resource	Status	Municipality
Bass Lake (T40N-R10W-Sec. 17)	ORW	Bass Lake
Beaver Brook	ORW	Beaver Brook
Long Lake	ORW	Long Lake
Middle McKenzie Lake	ORW	Casey
Namekagon River	ORW	Bass Lake-Chicog-Springbrook-Trego
S. Fork Bean Brook	ORW	Stone Lake
Sawyer Creek	ORW	Bashaw
Dago Creek	ERW	Evergreen
Shell Lake	ORW	City of Shell Lake
Stone Lake (T39N-R10W-Sec. 24)	ORW	Stone Lake
Chippanazie Creek Tributary (T41N-R10W-Sec. 9 to 16)	ERW	Stinnett
Chippanazie Creek	ERW	Stinnett
Crystal Brook	ERW	Madge
Dahlstrom Brook	ERW	Bashaw
Godfrey Creek	ERW	Stone Lake
Gull Creek	ERW	Springbrook
Little Bean Brook	ERW	Bass Lake
McKenzie Creek	ERW	Casey & Chicog
Namekagon River Tributary (T41N-R13W-Sec. 18)	ERW	Casey, Chicog, & Brooklyn
Shell Creek	ERW	Minong
Spring Brook	ERW	Springbrook
Whalen Creek	ERW	Trego
Yellow River Tributary (T38N-R13W-Sec. 4)	ERW	Bashaw
Yellow River Tributary (T39N-R12W-Sec. 31)	ERW	City of Spooner

Source: Wisconsin Department of Natural Resources

Section 303(d) of the federal **Clean Water Act** requires the State of Wisconsin State periodically prepare a list of all surface waters in the state for which beneficial uses of the water – such as for drinking, recreation, aquatic habitat, and industrial use – are impaired by pollutants. These are water quality limited lakes, rivers and streams that do not meet surface water quality standards, and are not expected to improve within the next two years.

Waters placed on the 303(d) list require the preparation of **Total Maximum Daily Loads** (TMDLs), a key tool in the work to clean up polluted waters. TMDLs identify the maximum amount of a pollutant allowed to be released into a waterbody so as not to impair uses of the water, and allocate that amount among a variety of sources.

Currently, five lakes in Washburn County are classified as 303(d) waterbodies, based on elevated levels of mercury. These lakes include:

- Gilmore Lake (Minong Twp.)
- Harmon Lake (Madge Twp.)
- Minong Flowage (Minong Twp.)
- Silver Lake (Brooklyn Twp.)
- Spring Lake T40 R11W S25 (Springbrook Twp.)**

Spring Lake in the Town of Springbrook has been identified as being a 303d water body. Each of these water bodies has a low priority ranking under the State of Wisconsin Priority Watershed Program, which provides grants to local governmental units in both urban and rural watersheds selected for priority watershed projects.

Watersheds

A watershed can be defined as interconnected area of land draining from surrounding ridge tops to a common point such as a lake or stream confluence with a neighboring watershed. The Wisconsin Department of Natural Resources has transitioned its resource management approach to utilize watershed boundaries rather than political or social boundaries. The Trego Lake/Middle Namekagon River watershed encompasses the entire Town of Springbrook, and it is located within the St. Croix River Basin. Washburn County watersheds are depicted on Map 5.6.

Town of Springbrook, Lake Characteristics

Within the Town of Springbrook exist 12 named and 28 unnamed lakes encompassing approximately 167 surface acres, and a little over 6 miles of shoreline. Town lakes are relatively shallow, with the average maximum lake depth of less than 10 feet, and maximum depth of (Green Lake) of 30 feet.

Table 5.2: Town of Springbrook, Named Lakes

Name	Location Sec. T-N R-W	Surface Acres	Maximum Depth	Miles of Shoreline	Miles of Public Shoreline	Percent of Private Shoreline
Earl Springs	18-40-11	0.5	6	0.18	0.18	0
Green Lake	22-40-11	29.4	30	1.05	0	100
Gull Creek Springs	8-40-11	5.0	4	1.09	1.09	0
Spring Creek Springs	10-40-11	2.0	1	0.53	0.27	49
Spring Lake	26-40-11	211.0	24	2.53	0.01	100

Source: Washburn County Lakes Classification
 **Surface acres reflect area of entire lake and are not broken down by municipality

Lakes Classification System

The Washburn County Lakes Classification System was developed as a way to assess county surface water resources based on based on the characteristics of individual water bodies. Lakes in Washburn County were evaluated based on the following criteria:

- Lake surface area

Maximum depth
 Lake Type
 Size of the watershed
 Shoreline Development Factor (SDF)
 Development density

Each one of the evaluation criteria for each lake received a score from 0 to 3, based on the lake characteristics. The total sum of all scores is referred to as the *vulnerability ranking*, which ranges from 0 to a possible score of 24. These rankings are used to then define the lake classification assigned.

<u>Overall Vulnerability Ranking</u>	<u>Lake Classification</u>	<u>Protection Level</u>
Score of 13 and greater	1	Minimum
Score of 10 to 12	2	Moderate
Score of 9 or less	3	Maximum

The Washburn County shoreland zoning ordinance regulates development on all county waterways, including surface waters in the Town of Springbrook.

Name	Score	Class	Lot Area per Single Family Unit	Minimum Lot Area	Minimum Shoreline Setback ²	Vegetation Removal ³	Minimum Side Yard Setback ⁴	Minimum Rear Setback
Earl Springs**	7	3	300'	3 Acres	100' / 125'	30'/75'	30'/90'	40'
Green Lake*	9	2	200'	80,000 ft2	100'	30'/75'	20'/60'	40'
Gull Creek Springs**	7	3	300'	3 Acres	100' / 125'	30'/75'	30'/90'	40'
Spring Creek Springs**	6	3	300'	3 Acres	100' / 125'	30'/75'	30'/90'	40'
Spring Lake**	12	2	200'	80,000 ft2	100'	30'/75'	20'/60'	40'

Source: Washburn County Zoning Ordinance

Lake Types

The named lakes of the Town of Springbrook are classified as “spring lakes”, “seepage lakes” or “drainage lakes”. Table 5.3 above notes how each of the named lakes in Long Lake is classified.

- Spring Lakes**- Groundwater drainage lakes (spring lakes) are natural lakes fed by groundwater, precipitation, and limited runoff. These lakes have a stream outlet and are usually well buffered against acid rain and contain low to moderate amounts of nutrients.
- Seepage Lakes*- Seepage lakes are a natural lake fed by precipitation, limited runoff, and groundwater. These lakes do not have a stream outlet. These lakes are generally acidic, low in nutrients, and susceptible to acid rain.

² Minimum Shoreline Setbacks Class I –100’ lakes, 125’ rivers. Setback averaging per section 271(1) Washburn County Zoning Ordinance applies to Class I and II.

³ Vegetation Removal = Removal Corridor/feet from Ordinary High Water Mark (OHWM)

⁴ Minimum Side Yard Setback = Feet Off One Side/ Feet Total Both Sides

- Drainage Lakes***- Drainage lakes are lakes fed by streams, precipitation, groundwater, and runoff and are drained by a stream. In these lakes the nutrient content is usually high, with water exchange happening quite rapidly. Water quality in these lakes is variable, depending on runoff and human activity in the watershed.

Perennial and Intermittent Rivers, Creeks, and Streams

Riparian surface features such as rivers, creeks, and streams represent unique and diverse natural systems. The quality and quantity of these resources is intimately linked to land use and human activities.

There are two kinds of streams, perennial and intermittent. Perennial streams flow throughout most (>50%) of the year. Intermittent streams usually flow only after rainstorms or snowmelt and are, therefore, dry most of the year. Intermittent streams must be protected because they channel runoff into perennial streams and lakes and may become part of the aquatic ecosystem when water flows in them. Riparian surface features such as rivers, creeks and streams represent unique and diverse natural systems. The quality and quantity of these resources is intimately linked to land use and human activities.

There are approximately 37 miles of rivers, creeks, and streams in the Town of Springbrook. There are two designated trout streams in the Town of Springbrook. Earl Creek and MacKay Creek are both class 2 trout streams. These are high quality trout waters, which have sufficient natural reproduction to sustain populations of wild trout at or near carrying capacity.

Other Named Rivers and Streams in the Town of Springbrook:

- **NAMEKAGON RIVER**
- **BEAN BROOK**
- **HAY CREEK**
- **GULL CREEK**
- **SPRING CREEK**

Floodplains

Floodplains are lands adjacent to rivers or streams, which are subject to periodic, recurring inundation by water. Due to the flood-prone nature of these lands, development and other land use activities within this zone are strongly discouraged. Appropriate land uses for these areas would consist of resource protection and wildlife habitat uses.

Flood Hazard Assessment

The Federal Emergency Management Agency (FEMA) has defined areas of flood susceptibility in the Town of Springbrook. The Flood Hazard Boundary Map (FHBM) series for Washburn County depicts these flood zones as shaded areas. Flood prone areas were determined by statistical analyses of records of river flow and rainfall, information obtained through consultation with the community, floodplain topographic surveys, and hydrologic and hydraulic analyses.

Washburn County has adopted flood plain regulations that apply to all bodies of water in the County. Determination as to whether a building site is located in a flood plain must be made through Zoning Office review of floodplain maps or through field verification of flood boundary. Floodplains in the Town of Springbrook are depicted in Map 5.7.

Groundwater

Groundwater is a critical resource for Washburn County and for Wisconsin. It is the main source from drinking water for 70 percent of Wisconsin residents and 95 percent of Wisconsin communities.

Groundwater Quantity

Under natural conditions, a balance existed between the volume of water entering an aquifer and the volume of water being discharged from an aquifer. With the development of water wells, the natural balance between recharge rates and discharge rates was disrupted. In Wisconsin, the overall groundwater supply has been depleted due to increased discharge. Natural fluctuations in groundwater supply can occur due to droughts or natural seasonal precipitation fluctuations.

Groundwater Quality

The quality of natural groundwater varies by location. As groundwater passes through natural sediments, naturally occurring chemicals may become deposited in the water. While naturally occurring groundwater contamination is generally mild, human-induced contaminants can make groundwater supplies unusable. The quality of groundwater is directly related to land use activities. The application of fertilizers, chemical spills, urban runoff, and non-point pollution can contribute to decreased quality of groundwater reserves.

Groundwater Depth and Contamination Susceptibility

As a general rule, groundwater depths (Map 5.8) in the Town of Springbrook are 20-50 feet south of USH 63, and greater than 50 feet in depth north of USH 63. Groundwater contamination susceptibility corresponds to groundwater depth (Map 5.9), with shallow groundwater depths being the most vulnerable areas for potential contamination. These areas are of significant concern in relation to the installation of conventional septic systems.

Environmental Corridors

Environmental Corridors are defined by the Wisconsin Department of Natural Resources as:

“Linear areas of natural resources that are critical to maintaining water quality and quantity and to providing habitat linkages that ensure biological diversity. Environmental corridors are often associated with rivers and streams.”

Natural benefits provided by environmental corridors include: air filtration, erosion control, and improved water quality. In addition, these natural features benefit the overall quality of life in the area and reduce the need for more expensive man-made solutions to water quality issues.

Many areas within these corridors provide important habitats for land and aquatic plants and animals. Connected habitats are superior to disjointed habitats and larger habitats are better for ensuring the survival of a species than smaller areas. Ensuring these corridors can continue to work as a system, and the relationships between plants, insects, animals, land and water continue

to function properly are critical to environmental health and continued biological diversity. The impacts and benefits of these corridors are not limited to one community or the responsibility of one jurisdiction. These areas follow natural boundaries and do not stop at political boundaries. Coordination among communities/jurisdictions is necessary in order to achieve the environmental, economic, cultural, community building and health benefits, which can be attributed to these natural features.

Wetlands

Wetlands represent one of the most unique and diverse elements of the natural community. Defined by the presence of water and water-loving vegetation, these communities support a range of plants and animals adapted to survive and thrive in this wet environment, including many threatened and endangered species.

These environments provide additional benefits through the services they provide.

- Wetlands act as natural filters, removing nutrients, and chemicals from the water, and are often constructed as bio-engineered water filtration devices, used to treat and cleanse municipal wastewater or urban runoff.
- Wetlands serve as natural flood control devices by intercepting and holding water, a service that reduces flood risk to local communities.
- Wetlands also serve as groundwater recharge supplies for Washburn County communities.
- Wetland vegetation serves to stabilize streambanks and watercourses. This action reduces overall soil erosion and protects water quality by reducing siltation and sediment loads.

The United States Army Corps of Engineers, the Wisconsin Department of Natural Resources, and local zoning codes regulate wetlands. Section 404 of the Clean Water Act establishes a program to regulate the discharge of dredged and fill material into waters of the state, including wetlands, and is the primary Federal regulatory program for wetlands.

Article 27 (Shoreland Regulations) of the Washburn County Zoning Ordinance regulates the use/alterations of wetlands in the county. The regulations contained within this document apply to all lands within one thousand (1,000) feet of the ordinary high-water mark of any navigable lake, pond, or flowage, and those lands within three hundred (300) feet of the ordinary high-water mark of any navigable river or stream. Wetlands have been delineated by the Wisconsin Department of Natural Resources. The Wisconsin Wetland Inventory (WWI) displays all wetland areas within Washburn County, which are less than five acres in size.

Washburn County has 518,236 surface acres, of which 79,140 acres are wetlands. Based on the WWI data, the Town of Springbrook has approximately 2,776 acres of wetlands (five acres and larger).

The majority of wetlands in the Town of Springbrook are classified as *Scrub/Shrub* wetland types. These communities include bogs and alder thicket, and are characterized by woody

shrubs and small trees such as tag alder, bog birch, willow, and dogwood. Also significantly represented in the town are *forested wetlands*, which include bogs and forested floodplain complexes, are characterized by trees 20 feet or more in height such as tamarack, white cedar, black spruce, elm, black ash, green ash and silver maple. Less common are emergent/wet meadow wetland types, characterized by the presence of sedges, grasses, and weeds. Wetland types are listed in Table 5.4 and are depicted in Map 5.7.

Name	Approximate Acres
Forested	1,018
Scrub/Shrub	1,641
Emergent/Wet Meadow	117
Approximate Total	2,776

Source: WWI

Resources of Concern

The Town of Springbrook provides habitat for many species of wildlife, including rare, threatened or endangered species of plants and animals. These critical resources have been documented by the Wisconsin Department of Natural Resources as part of the Natural Heritage Inventory Program. The specific location of endangered resources is confidential.

Plants and animals threatened with extinction are protected under federal and state endangered species legislation. Protection is not limited to only the individual species, but includes protection of habitat critical to the species' survival.

Natural Heritage Inventory List for the Town of Springbrook:

Mammals	Scientific Name	Status
<i>LYNX¹</i>	<i>LYNX CANADENSIS</i>	
Birds		
<i>OSPREY</i>	<i>PANDION HALIAETUS</i>	<i>THREATENED</i>
<i>BALD EAGLE</i>	<i>HALIAEETUS LEUCOCEPHALUS</i>	<i>SPECIAL CONCERN</i>
Fish		
<i>GREATER REDHORSE</i>	<i>MOXOSTOMA VALENCIENNES</i>	<i>THREATENED</i>
<i>GILT DARTER</i>	<i>PERCINA EVIDES</i>	<i>THREATENED</i>
Turtle		
<i>BLANDING'S TURTLE</i>	<i>EMYDOIDEA BLANDINGII</i>	<i>THREATENED</i>
Dragonfly		
<i>BARRENS SNAKETAI</i>	<i>OPHIOGOMPHUS SP 1 NR ASPERSUS</i>	<i>SPECIAL CONCERN</i>

Timber Wolves (*Canis lupus*)

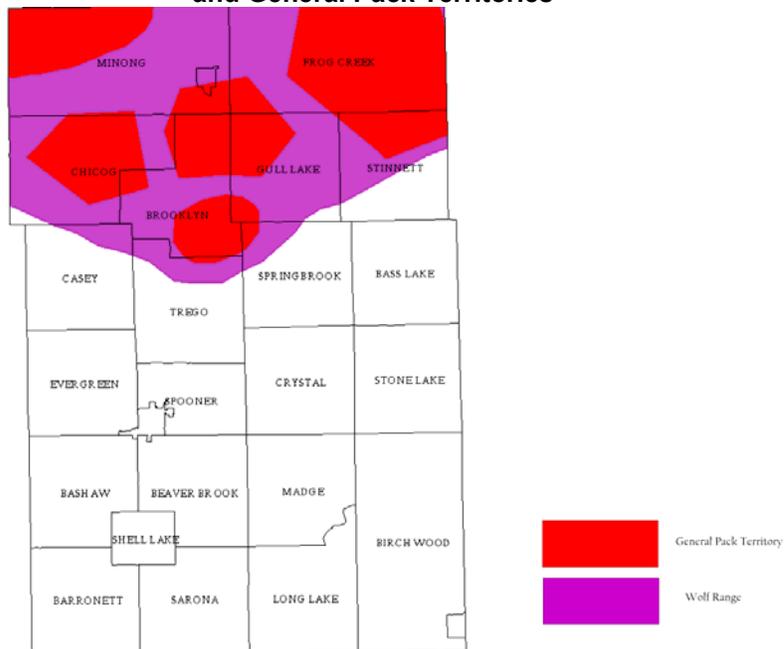
⁵ Based on Wisconsin Wetland Inventory data, 5-acre minimum mapping unit.

¹ Last recorded observation in 1972

Once classified as an endangered species, the Timber Wolf has successfully re-colonized portions of its former home range in northern Wisconsin, including parts of Washburn County. Wolves were officially reclassified to “threatened” status in Wisconsin in 1999, and may be delisted (in Wisconsin) in the near future.

Part of the Town of Springbrook is considered “probable wolf range” according to the Wisconsin Department of Natural Resources⁶. Information regarding **specific** pack ranges is not published and the transient nature of these animals combined with large pack territories make specific population estimates difficult in small areas such as townships. Based on WDNR inventory information, wolf packs are known to have home ranges within at least a portion of the Town of Springbrook. See Figure 5.3 for wolf ranges and general pack territories in the Town of Springbrook and Washburn County.

Figure 5.3: Washburn County Wolf Range and General Pack Territories



Source: Wisconsin Department of Natural Resources

Other endangered, threatened, or rare species or communities may also occur within the Town of Springbrook. Locations of these critical resources are mapped by the WDNR to the section level in order to protect the security of these resources.

⁶ Gray Wolf Distribution in Wisconsin: Winter 2001-2001

5.3 AGRICULTURAL RESOURCES

Productive Agricultural Lands

Agricultural lands play an important role in defining the character of many Wisconsin communities. While not a considerable land use in each Washburn County community, agriculture is an economically and culturally significant activity in some portions of the county. Wisconsin's Comprehensive Planning legislation requires communities to review and analyze their agricultural land base, and to formulate goals, objectives, and policies for preserving prime agricultural lands.

Washburn County Agricultural History

Early agricultural activities in Washburn County were primarily focused on providing food supplies to lumber camps, and by 1935, there were 1754 farms producing on 215,316 acres of cropland. Low yields due to poor soil conditions caused many of these operations to fail, and by 1978, nearly 50 percent of the county's farm acreage had been sold for other uses. The greatest losses occurred between 1949 and 1969, when nearly 95,000 acres of agricultural lands were converted to other uses. Agricultural use trends have continued a downward slide, as reflected by the Agriculture Census for Washburn County, which indicate an additional 2.9 percent decrease in farmland between 1987 and 1997. Agricultural uses have declined countywide, especially in the marginal lands on the sand barrens of the northern and western parts of the county, but remain a viable activity on the more productive lands of the southern parts of the county.

The decrease in overall farmland acreage coincides with an increase in the average farm size. Between the years of 1935 and 1997, the average farm size in Washburn County had increased from 122.8 acres to 276 acres, a net increase of nearly 125 percent. This trend mirrors statewide trends towards farmland consolidation, and reflects the combining of many smaller family farms into larger, more economical units.

Agricultural Trends in the Town of Springbrook

The Town of Springbrook has experienced a net decline in overall farmland acreage from 1967 through 2001. Between the period 1967 and 1976, the town lost 149 acres of farmland. During the same period, the town also lost two farms. From 1977 to 2001, the town lost an additional 190 acres of land assessed as farmland. Further information on this topic is found in the Land Use Element of the *Town of Springbrook Comprehensive Plan*.

Prime Farmland (Washburn County Farmland Preservation Plan)

The Washburn County Farmland Preservation Plan (1982), drafted under the 1977 Wisconsin Farmland Preservation Act, provides detailed statistics, background information, maps, goals, objectives, and policies for farmland preservation. According to the Washburn County Soil Survey, there are no areas considered as 'prime farmland' within the Town of Springbrook.

5.4 CULTURAL RESOURCES

Community cultural resources are a significant element in defining local character. The cultural heritage of the community may consist of many things such as historic buildings, festivals, cultural groups, entertainment, and viewsheds. This element proposes to identify a number of cultural attributes in the Town of Springbrook and propose meaningful objectives to the enhancement and protection of town cultural resources. According to the Architecture and Historic Inventory (AHI), provided by the Wisconsin Historical Society, there are no sites identified in the Town of Springbrook.

Archaeological Sites Inventory

The Wisconsin Historical Society maintains a list of archaeological sites and cemeteries known as the Archaeological Site Inventory Database (ASI). Up to this point in time, 173 archaeological sites and cemeteries have been reported to the Wisconsin Historical Society for Washburn County. These sites cover an extended period of time, which include campsites/villages/communities, cabins/homesteads, sugar mapping sites, cemetery/burial/mounds, trading/fur posts, mill/sawmills, and kilns. Of the 173 present in the county, 13 are reported for the Town of Springbrook and are shown below in Table 5.6.

Table 5.6: Archaeological Sites & Cemeteries in Springbrook

Site Name	Site Type	Cultural Study Unit
N/A	Cabin/homestead Homestead Logging Camp	Historic Euro-American
C.A.I. #17-126-1	Campsite/village	Unknown Prehistoric
C.A.I. #17-126-2	Campsite/village	Unknown Prehistoric
St. Luke's Episcopal Cemetery	Cemetery/burial	Historic Euro-American
St. Mary Magdalene Cemetery	N/A	N/A
Earl Cemetery	N/A	N/A
N/A	Cabin/homestead Foundation/depression	Historic Euro-American
Chittamo Marsh	Isolated finds	Unknown Prehistoric
N/A	Mill/sawmill	Historic Euro-American
N/A	Transportation site	Historic Euro-American
N/A	Homestead	Historic Euro-American
N/A	Foundation/depression	Historic Euro-American
N/A	Homestead	Historic Euro-American Unknown Prehistoric

Source: Archaeological Site Inventory Database, Wisconsin Historical Society

Viewsheds and scenic resources

One of the qualities that characterize the Town of Springbrook are the picturesque views common throughout the general vicinity of the Town. Accessibility to the views may over time be limited or denied due to private development of land. It should be a planning policy to try and ensure that the characteristic natural landscape features are protected and that views remain accessible to the public. Land use design should consider the natural scenic views during the development review process.

5.5 NATURAL, AGRICULTURAL, AND CULTURAL RESOURCES, GOALS, OBJECTIVES, AND ACTIONS

A set of recommended goals, objectives, and action steps has been developed to assist the town in the conservation and promotion of effective management of the local natural, agricultural, and cultural resources. These resources are important to the town.

Significant data and information is available from federal, state, local, and tribal sources pertaining to the importance of the local natural, agricultural, and cultural resources. Throughout this comprehensive plan, information was used to assist in developing goals, objectives, actions, policies, and programs in an effort to be consistent with planning principles and in protecting economically productive areas, where applicable.

Natural Resources

Goal: Conserve, protect, manage and enhance the town’s natural resources.	
OBJECTIVES	Actions
1. Prevent the erosion of riverbanks in the town.	Have information available to river landowners.
	Communicate and demand involvement with appropriate agencies for assistance in disseminating this information
2. Preserve public hunting and fishing and recreational areas.	Lobby appropriate agencies for the protection of these activities in the town.
3. Keep county forest lands in county hands.	Maintain contact with county forestry department to make these views known.
	Provide appropriate comments to county forest department during public hearing and comment periods.
4. Promote affordable septic systems.	Lobby for reasonable septic systems laws that are affordable to town residents.

Goal: Conserve, protect, manage and enhance the town's natural resources.	
OBJECTIVES	Actions
5. Allow WDNR to determine slot limits on lakes.	Relay support of these limit determinations to WDNR.

Agricultural Resources

Goal: Preserve productive farmland for the future.	
OBJECTIVES	Actions
1. Ensure that feedlot regulations are consistently enforced.	Develop or find brochure-type information that can be distributed to feedlot owners.
2. Protect surface waters from surface run-off from present of future agricultural operations.	Communicate with appropriate agencies for help in educating landowners on this problem.
	Have educational materials available addressing this issue.
3. Require a minimum five-acre parcel size for agricultural lands being broken up for residential development.	Develop an ordinance to this effect.

CULTURAL & HISTORIC RESOURCES

Goal: Preserve the historical and cultural resources located in the town.	
OBJECTIVES	Actions
1. Continue to identify historic sites and views.	Maintain inventory of such sites in the town and possibly develop brochure to highlight these areas.
2. Preserve those sites and resources found.	Investigate funding sources for historic site preservation and maintain contact with historical society for help in this regard.