Agricultural, Natural and Cultural Resources

Introduction

This element provides a baseline assessment of the Town of Round Lake's agricultural, natural and cultural resources and covers all of the information required under SS66.1001. Information includes: productive agricultural areas, a natural resource inventory and a cultural resource inventory. This information provides a basis for creating goals, objectives, policies, maps and actions to guide the future development and maintenance of agricultural, natural and cultural resources in the Town of Round Lake.

The Town of Round Lake, like other communities in Sawyer County, has diverse and abundant high-quality natural resources worth protecting for the economic, recreational, aesthetic and ecological needs of current and future residents. Throughout the planning process, specific resources within the Town of Round Lake will become better understood, and goals will be updated to support their protection and maintenance over time.

AGRICULTURAL RESOURCE INVENTORY

The following section details some of the important agricultural resources in Sawyer County. Most farming and agricultural data are not collected at the town level. Assumptions about town resources can be made based on data collected at the county level. The information comes from a variety of resources, including the U.S. Census of Agriculture. Various other relevant plans exist (i.e. – Sawyer County Farmland Preservation Plan, 1982).

Agriculture in Sawyer County

In the mid to late 1880s, with the forest cutover nearly complete, prospective development of farming-cleared land was marketed locally and nationally. Small ready-to-go farms (a home, pigs, chickens, etc) were available to purchase. In 1920, there were 823 farms and farm operations throughout Sawyer County, covering 86,914 acres. By 1930, a total of 1,006 farms and farm operations were in existence covering 102,278 acres. While the number of farms peaked in 1940 at 1,300 farms, total farm acreage peaked in 1950 at 142,584 acres (Sawyer County Farmland Preservation Plan).

Based on 2008 tax assessment data, in the Town of Round Lake a total of 81 parcels are assessed as agricultural, totaling 1,420 acres. By comparison, **Map 8.1**—Existing Land Use Map shows a total of 1,581 acres represented as agriculture on the map. The town's total assessed acreage represents 4.2 percent of the county's total assessed agriculture acreage. Over the period covering 2002 to 2008, total agricultural parcels dropped by two, and total acreage dropped by 117 acres.

Table 5.1 provides information on the number and size of farms in Sawyer County for the years 1997, 2002 and 2007. The total number of farms in Sawyer County increased by 46 farms between 1997 and 2002, but added only one farm from 2003 to 2007. Both the market value of land and buildings increased between 1997 and 2007 in Sawyer County.

Table 5.1: Sawyer County Farms and Lands in Farms 1997-2007

Farms and Land in Farms	1997	2002	2007	Percent Change 1997-2007
Number of Farms	184	230	231	25.5%
Land in Farms (acres)	48,463	54,056	47,093	-2.8%
Average Size of Farms (acres)	263	235	204	-22.4%
Market Value of Land & Buildings				
Average per Farm	$207,326	$460,891	$606,685	192.6%
Average per Acre	$769	$1,986	$2,976	287.1%

Source: U.S. Census of Agriculture, 1997-2007

Productive Agricultural Areas

Productive or prime agricultural lands are defined by the Natural Resources Conservation Service (NRCS) as "land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops. The land must also be available for these uses (cropland, pastureland, forestland, or other land but not water or urban built-up land)."

Prime farmland has the soil quality, growing season and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to acceptable farming methods. While a map depicting prime farmlands was developed as part of the planning process, there is very limited farming in the town. As a result of the very limited farming activities, a map was not included, in large part due to the mapped areas being identified as prime farm lands, farmlands of state significance or prime farmland if drained are in forest use.

Existing Agricultural Protection

The Sawyer County Zoning Ordinance is the primary tool regulating the use of agricultural lands in the rural areas. The Agriculture-1 (A-1) zoning district provides for the continuation of general farming and related activities in those areas best suited for such development, and provides for orderly development of residential, commercial and industrial development. Year-round residences are permitted within this district only when persons engaged in farming activities on the premises occupy these dwellings. The Agriculture-2 (A-2) zoning district provides for light and hobby farming and related activities, and provides for orderly development of residential, agricultural and commercial activities in those areas best suited for development. Non-farm residential development is allowed within this district. Both districts require a minimum lot size of five acres.

NATURAL RESOURCE INVENTORY

The following section details some of the important natural resources in the Town of Round Lake and Sawyer County. This information also comes from a variety of resources including the Wisconsin Department of Natural Resources and the Sawyer County Land and Water Conservation Department. Several other relevant plans and data sources exist and should be consulted for additional information:

- Sawyer County Land and Water Conservation Resource Management Plan
- Wisconsin Land Legacy Report
- Sawyer County Forest Access Management Plan

- Wisconsin Department of Natural Resources
- U.S. Department of Agriculture, Natural Resources Conservation Service
- Couderay Waters Regional Land Trust

Climate

The average growing season for farmers in Sawyer County varies slightly by location but averages between 108 and111 days (Winter Weather Station and Hayward Weather Station, Midwest Regional Climate Center). This is much less than the 140-day growing season that Dane County farms enjoy in the southern part of Wisconsin. The warmest month in Sawyer County is July, with an average daily high of 78.2 degrees Fahrenheit. The coldest month is January, with an average daily low of –5.1 degrees Fahrenheit (Winter Weather Station). Precipitation records reported at the weather stations at Winter and the Hayward Ranger Station report annual precipitation of 32.24 and 32.36 inches, respectively. Annual snowfall totals reported at the Winter Weather Station average 58.1 inches, with 61.6 inches reported at the Hayward Ranger Station. The cold winters and falls, combined with the often-moist air, makes excellent snow conditions for winter recreational activities such as snowmobiling, cross-country skiing, snowshoeing and the annual American Birkebeiner cross-country ski race.

Soils

The general landscape can be described as an undulating plain. This means that it is flat (the elevation in the whole of Sawyer county varies only 652 feet) with light, mild rolling hills in the earth's surface. The soils underneath the mostly forested landscape are acidic. Near Round Lake itself, along the western edge of the town, the soils are sandy, having been deposited by glacial action. The rest of the town' soil is comprised of grayish and sandy loams. The dark-colored stones and boulders that are present in these areas can often identify grayish and sandy loams. **Map 5.1**—Soil Associations designates three soil associations within the Town of Round Lake: Monico-Goodwit Champion, Pence-Champion and Pence-Padus. **Map 5.2**—General Soil Interpretations details soil surface texture for general soil interpretations in the Town of Round Lake.

Land Cover

The Wisconsin Department of Natural Resources produced a statewide land cover data set based off of 1993 satellite imagery. These data are useful for showing general trends of land cover within the state. The following information is from this data set.

The land cover of the town is primarily made up of broad-leaved deciduous forest. This category accounts for 41 percent of the entire town. Within that category, 24 percent is comprised of the mixed/other broad-leaved deciduous forest type. **Map 5.3**—Land Cover shows the land cover in the Town of Round Lake, while **Table 5.2** represents acre by land cover type.

Table 5.2 – Land Cover Types

TYPE	ACRES	PERCENT OF TOWN
Bare Land	1.94	0.00
Cultivated Crops	223.35	0.30
Deciduous Forest	28,777.2	38.08
Developed, High Intensity	0.22	0.00
Developed, Low Intensity	114.4	0.15
Developed, Medium Intensity	7.82	0.01
Developed, Open Space	0	0
Estuarine Emergent Wetland	0	0
Estuarine Forested Wetland	0	0
Estuarine Scrub/Shrub Wetland	0	0
Evergreen Forest	6,958.39	9.21
Grassland/Herbaceous	120.07	0.16
Mixed Forest	11,564.23	15.30
Open Water	6,256.47	8.28
Palustrine Emergent Wetland	341.12	0.45
Palustrine Forested Wetland	13,675.42	18.10
Palustrine Scrub/Shrub Wetland	4,292.47	5.68
Pasture/Hay	1,872.44	2.48
Scrub/Shrub	1,361.01	1.80
Unclassified	0	0
Unconsolidated Shore	0	0
TOTAL	**75,566.55**	**100.00%**

Source: NOAA Coastal Change Analysis Program

Topography and Slope

Surface elevations in the Town of Round Lake range from a maximum of 1,512 feet north of Moose Lake to a minimum of 1,289 feet in the far northwestern section of the town. Steeply sloping lands can present challenges or pose barriers to development. Steepness of topography is commonly expressed as percent slope. As a general rule, slopes in excess of 20 percent are of greatest concern for any land-disturbing activity. Slopes of 10-20 percent also require attention. 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. Steep slopes (>20 percent and >10-20 percent) in Round Lake are shown on **Map 5.4**—Topography & Steep Slope.

Watersheds

The Town of Round Lake is located just south of the continental divide separating the Mississippi River drainage basin and the St. Lawrence River drainage basin. The area covered by these two drainage basins covers much of central North America. A watershed, as defined by the University of Wisconsin-Extension, is "the entire physical area or basin drained by a distinct stream or riverine system, physically separated from other watersheds by ridge top

boundaries." There are five major watersheds that help drain water from the Town of Round Lake into the Mississippi River:

- Upper Namekagon River
- Lake Chippewa
- West Fork Chippewa River
- East Fork Chippewa River
- Couderay River

Map 5.5—Area Watersheds and **Map 5.6**—Watersheds depict the geographic boundary of watersheds. Importantly, Sawyer County is at the headwaters of these watersheds potentially impacting all areas to the south.

Groundwater

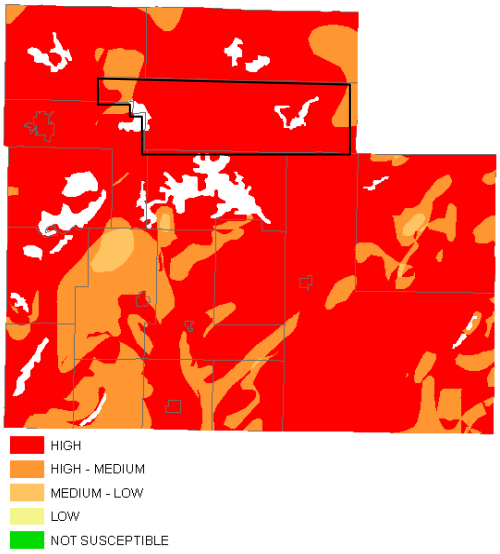
Groundwater is the only source of drinking water in the Town of Round Lake. It is a critical resource, not only because it is used by residents as their source of water, but also because rivers, streams and other surface water depends on it for recharge. Sound planning seeks to preserve both the quality and quantity of groundwater resources.

Groundwater Quality

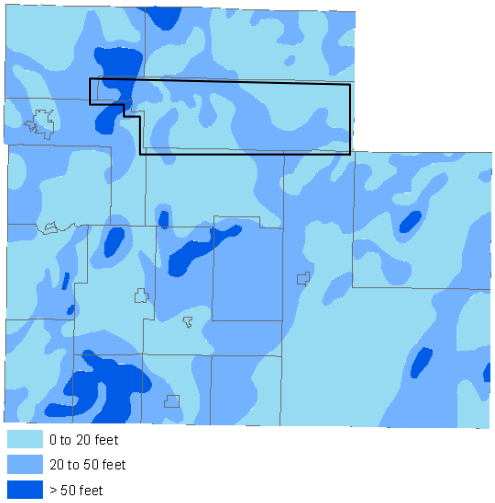
The quality of natural groundwater varies by location. Groundwater contamination is most likely to occur where fractured bedrock is near the ground surface, or where only a thin layer of soil separates the ground surface from the water table. While naturally occurring groundwater contamination is generally mild, human-induced contaminants can make groundwater supplies unusable. The quality of groundwater can be 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. Susceptibility to groundwater contamination is generally high. Groundwater depths, as represented in **Figure 5.1**, in the Town of Round Lake generally range from 20 to 50 feet, although some areas exceed 50 feet. Five physical resource characteristics were identified as important in determining groundwater contamination susceptibility: bedrock depth, bedrock type, soil characteristics, superficial deposits and water-table depth. Based on these factors, **Figure 5.1** represents overall groundwater contamination susceptibility. 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 wells, the natural balance between recharge rates and discharge rates can be disrupted. Natural fluctuations in groundwater supply can occur due to droughts and natural seasonal precipitation.

Figure 5.1: Groundwater Contamination Susceptibility and Depth to Groundwater

Generalized Groundwater Contamination Susceptibility



Generalized Depth to Groundwater



Wetlands

The Town of Round Lake boasts a large number of rich wetland areas. Over 24 percent of the land cover is wetlands greater than five acres. The abundance of wetlands in the area is due to the relatively recent glacial movement in the state (the ice age ended about 12,000 years ago), ample precipitation, and the humid climate.

Glaciers formed lake basins by gouging holes in loose soil or soft bedrock, depositing material across stream beds or leaving buried chunks of ice that later melted to leave lake basins. When these natural depressions or impoundments filled with water, they became lakes.
See Water on the Web - http://wow.nrri.umn.edu/wow/index.html

Like other natural features such as trees or waterways, there are different wetland categories, each with unique characteristics that support their own ecosystems. There are certain traits, however, that all wetlands share.

- First, they have hydric conditions, meaning they have either standing water of variable depth or have saturated soils.
- Second, wetlands act as a holding area for overflow water. Without this storage capability of wetlands, floodplains throughout the watershed would be at a higher risk of disastrous flooding. See watershed **Maps 5.5** and **5.6**.
- Third, wetlands help keep surrounding water bodies healthy by catching and storing extra particles, both pollutant and nutrient, and acting as groundwater recharge areas.

Because wetlands are home to such a thickness and diversity of plant and animal life, they are able to absorb and use excess particles, such as nitrogen and phosphorous, that would otherwise end up as pollution in lakes.

Scientists have recently recognized wetlands as important regulators of global climate, especially bogs. The unique traits of a healthy, rich wetland as it relates to the production of greenhouse gasses are beneficial because these wetlands consume large quantities of carbon dioxide (because of the massive amount of plant matter present). Importantly, these wetlands facilitate a much slower decomposition of the material. The net carbon sequestering resulting from these two processes is complex and unpredictable at small levels. However, research shows that if a large amount of the land cover in an area is comprised of wetlands, it acts as a carbon sink, meaning that it traps more carbon than it releases to the atmosphere in the form of greenhouse gasses. http://dnr.wi.gov/wetlands/function.html

Wetland types are categorized by attributes such as vegetation, soil type and the degree of water saturation or water depth. The Wisconsin Department of Natural Resources defines many types of wetlands:

Aquatic Bed: Plants growing entirely on or in a water body no deeper than six feet, with plants including pondweed, duckweed, lotus and water lilies.

Emergent/Wet Meadows: These wetlands may have saturated soils, rather than standing water, more often than not. Sedges, grasses and reeds are dominant, but look also for blue flag iris, marsh milkweed, sneezeweed, mint and several species of goldenrod and aster.

Forested: These areas, 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.

Scrub/Shrub: These areas include bogs and woody shrubs characterized by alder thickets and small trees such as tag alder, bog birch, willow and dogwood.

In addition to the benefits of wetlands described above, wetlands are also home to a sundry of unique plant and animal species. Here is a brief list of some popular species whose populations would significantly decrease or disappear without the habitat provided by wetlands.

Plants	**Birds**	**Mammals**	**Reptiles**	**Insects**
Cattail	Wren	Mink	Frogs	Beetles
Arrowhead	Crane	Beaver	Snakes	Butterflies
Water Lily	Woodpecker	Mole	Turtles	Dragonfly
Cranberry	Kingfisher	Hare	Salamander	Damselfly
Pitcher Plant	Duck	Otter	Snail	
Mosses	Owl	Bobcat		
Labrador Tea	Hawk	Shrew		
	Oriole			
	Warbler			

http://dnr.wi.gov/wetlands/

Sawyer County has recognized the vast environmental and economical benefits of wetlands and has established ordinances restricting construction on and around wetlands. Section 4.29 from the Sawyer County Zoning Ordinances says that all buildings and structures on lots that abut

wetlands must be set back a minimum of 40 feet from the boundary of a non-navigable wetland, and must be set back at least 75 feet from a navigable wetland. The Sawyer County zoning administrator usually determines the navigability of a wetland, although the WDNR has final authority.

Section 17.9 W-1 of the ordinances is the Wetland/Shoreland One District. This applies to wetlands greater than or equal to five acres. This section speaks primarily to issues regarding when and under what circumstances a permit is necessary for activities such as silviculture, pasturing of livestock, maintenance of roads, construction of duck blinds, and construction of preservation institutions such as fish hatcheries.

The town has a total of 18,393 acres of wetlands according to the Wisconsin Department of Natural Resources inventory (**Table 5.3**). This total is 24 percent of the town, and 11 percent of the county. About two-thirds of these wetlands are under federal or state ownership. **Map 5.7**—Surface Waters and Wetlands shows the wetland types in the Town of Round Lake.

Table 5.3 – Wetland Types, Round Lake

Type	Acres
Aquatic Bed	308.6
Emergent/wet meadow	1,250.9
Forested	11,500.8
Scrub/shrub	5,333.1
Total	**18,393.4**

Floodplains

Floodplains are important and valuable natural resources. They provide wildlife habitat, storm water retention, and serve as groundwater recharge areas. Development in these areas may lead to high construction costs, storm damage repairs and environmental degradation. Additional costs and maintenance can include flood proofing, requirements for flood insurance, and water-related repairs to roads, water mains and sewers.

Due to these limitations, the state requires that cities, villages and towns develop a floodplain/shoreland-zoning ordinance to address the issues above. Development in these areas is usually allowed, but certain design standards and increased setbacks may be required. The floodplain is normally defined as those areas that are subject to inundation by the 100-year recurrence interval flood event. This means that in any year there is a one-percent chance that the area will flood. High-density development in floodplain areas should be discouraged and park and open space encouraged.

Floodplain areas generally overlap wetland areas and are located along the various water features. Digital floodplain maps are currently not available. An effort is underway to develop digital floodplain maps, but is not scheduled for completion until late 2010 or 2011. When these maps become available, they will be added to our database. The Sawyer County Zoning Department also uses regional flood elevation data to determine whether a building footprint would be near or in a suspected floodplain area. For more information regarding floodplains and where they are located, please refer to the county zoning administrator or FEMA's official floodplain maps.

Wild Rice Areas

Wild rice (*Zinna palustrus*) is a natural, annual aquatic grass that produces seed that is a source of food for wildlife and people. The nutty-flavored protein-packed grain has historically been an essential part of the diets of Native Americans throughout the Great Lakes for hundred of years. Wild rice slowly matures each year from August through September and drops rice seed back into the water unless harvested by wildlife or humans. Seeds on a single stalk reach maturity over a 10-14 day period, with the highest seeds maturing first. Wild rice has very specific habitat requirements that include:

- pH of 6.8-8
- Sulfate concentrations of <10 parts per million
- Alkalinity from 5-250 parts per million
- Rooting depth in 10cm to 1 meter of water
- Slow changes in water levels

Only Wisconsin permanent residents and Native Americans can harvest wild rice in Wisconsin. **Map 5.8**—Cultural Resources and Wild Rice Areas shows all of Moose Lake and that portion of the West Fork of the Chippewa River in the Town of Round Lake to be a wild rice area. The total wild rice production of the river begins in Lake Chippewa in Bayfield County and continues to the Chippewa Flowage.

Surface Water Resources

Surface waters are important in maintaining ecological integrity and diversity. The Town of Round Lake has an abundance of surface waters in lakes, ponds, rivers and streams. In all, the town has 140 miles of shoreline, covering approximately 5,780 acres, and 70 miles of rivers and streams. The large amount of shoreline can be attributed to the three main lakes in the town, Round Lake, Moose Lake and Tiger Cat Flowage. These lakes have very irregular shorelines with many inlets and bays. There are 25 named lakes and flowages, as well as numerous unnamed ponds. There also are 12 named rivers and streams and their tributaries. **Table 5.4** and **Map 5.7**—Surface Waters and Wetlands show the surface waters in the town.

Table 5.4: Town of Round Lake, Lake Characteristics				
Lake Name	**Surface Acres**	**Max. Depth**	**Lake Type**	**Lake Classification (Table 5.5)**
Beaver	47.0	20 ft	Seepage	4
Black	129.4	15 ft	Drainage	2
Bulldog Spring	11.1	9 ft	Spring	4
Burd	14.4	6 ft	Seepage	4
Burns	36.8	9 ft	Drainage	2
Callahan/Mud	545.0	16 ft	Drainage	3
Camp Four, East	17	10 ft	Seepage	4
Camp Four, West	27.1	6 ft	Seepage	4
Clear	77.4	32 ft	Seepage	4
Currier	19.3	29 ft	Seepage	4
Davies	20.0	6 ft	Seepage	4
Farnsworth	20.3	25 ft	Seepage	4
Hay Creek Springs	8.4	18 ft	Spring	4
Little Round	243.1	38 ft	Drainage	1
Lovejoy	76.3	20 ft	Seepage	4
McClaine	48.6	15 ft	Drainage	3
Mirror	37.6	27 ft	Seepage	4
Moose	1,601.6	18 ft	Drainage	2
Mosquito Brook Flowage	290	7 ft	Drainage	2
Placid	160.0	30 ft	Drainage	2
Round	2,783.5	70 ft	Drainage	1
Snipe	21.8	7 ft	Seepage	4
Spring	20.5	10 ft	Drainage	4
Teal River Flowage	74.7	9 ft	Drainage	4
Tiger Cat Flowage	224.3	11 ft	Drainage	2

Source: Sawyer County Lakes Classification

Lake Types

Lakes are generally classified into four ecological types, based on their water source and type of outflow.

Seepage lakes are natural lakes 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. Within the town, 11 of the named lakes are seepage lakes.

Groundwater drainage lakes (spring lakes) are natural lakes fed by groundwater, precipitation, and limited runoff. These lakes have a stream outlet. These lakes are usually well buffered against acid rain and contain low to moderate amounts of nutrients. Hay Creek Springs and Bull Dog Springs are classified under this type.

Drainage lakes are lakes fed by streams, precipitation, groundwater and runoff, and 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. In the town, 12 of the named lakes are classified as drainage lakes.

Impoundments (flowages) are manmade lakes created by damming a stream. A stream also drains these lakes. Watershed management is critical for impoundment lakes as the natural movement of the water causes soil and nutrients to collect in the impoundment. In the town, Tiger Cat Flowage, Moose Lake Flowage, Callahan Lake and Mosquito Brook Flowage all utilize dams.

The Department of Natural Resources classifies water bodies as outstanding resource waters (ORW) or exceptional resource waters (ERW) under Chapter NR 102 of the Wisconsin Administrative Code. ORWs typically do not have any point sources discharging pollutants directly into the water (for instance, no industrial sources or municipal sewage treatment plants). No increases of pollutant levels are allowed. If a water body has existing point sources at the time of designation, it is more likely to be designated as an ERW. Like ORWs, dischargers to ERW waters are required to maintain background water-quality levels. These waters have outstanding recreational, cultural, aesthetic or scientific resource value, and therefore have special protection from degradation.

Within the Town of Round Lake, Outstanding Water Resources and Exceptional Water Resources include the following waters (**Map 5.7**—Surface Waters & Wetlands).

Outstanding Resource Waters

- Round Lake
- Teal Lake
- West Fork of the Chippewa River
- Teal River Flowage

Exceptional Resource Waters

- Moss Creek

In addition, there are four creeks that are classified as WDNR trout streams. Wisconsin trout streams are placed into three classes for fish management purposes.

- Class 1 – These are high-quality trout waters that have sufficient natural reproduction to sustain populations of wild trout at or near capacity. These streams do not require stocking and usually contain small or slow-growing trout, especially at the headwaters.
- Class 2 – These streams may have some natural reproduction but not enough to utilize available food and space; therefore, stocking is required to maintain a sport fishery. These streams have good survival and carryover of adult trout, often producing some fish larger than average size.
- Class 3 – These waters have marginal trout habitat with no natural reproduction occurring. They require annual stocking to maintain a sport fishery, with no carry-over of trout from one year to the next.

Classified trout streams in the Town of Round Lake include the following creeks (**Map 5.9**—Trout Streams).

- Moss Creek is designated as a Class 1 trout stream
- Hay and Dead Creeks as Class 2 trout stream
- Venison Creek is classified as a Class 3 trout stream

The Environmental Protection Agency (EPA) requires all states to list water bodies that do not meet specific water quality standards under the Clean Water Act. This list needs to be updated every two years. This 303.d water list represents an inventory of the impaired waters in Wisconsin. The recommended list of identified lakes, according to the WDNR web site (2008) regarding 303.d water bodies, has not formally been adopted by the EPA. The two water bodies on the 303.d list, Callahan/Mud Lake and Moose Lake, have mercury fish-consumption advisories.

Sawyer County Lake Classification

In 1996, Sawyer County assumed the responsibility of formulating a classification system for all the water bodies in the county. The county felt this was important because surface waters constitute significant environmental and economical (recreational) resources to the area. Lakes are divided up into categories. Rivers and streams are another category. Each is based on specific criteria, such as surface area, lake depth, lake type, watershed area, shoreline development factor and amount of existing development. Based on these lakes and rivers classifications, each has specific building and lot standards. Class 1 lakes (minimum protection) have the smallest lot sizes and side yard setbacks, whereas Class 4 has the largest setbacks and lot sizes. **Table 5.5** shows the dimensional requirements for each class.

Table 5.5 – Dimensional Requirements for Sawyer County Lakes

Classification	Lot Size (Square Feet)	For each Single Family Dwelling Unit - Lot Width (Feet)	Shoreline Setback (Feet)	Lot Depth (Feet)	Vegetation Removal	Side Yard Setback for all Structures
General Development 1	20,000	100 *200	75	200	30’ corridor within 35’ of the ordinary high-water mark	10’ minimum - 40’ minimum total
Recreational Development 2	30,000	150 *300	75	200	30’ corridor within 35’ of the ordinary high-water mark	20’ minimum - 50’ minimum total
Natural Development 3	40,000	200 *400	75	200	30’ corridor within 35’ of the ordinary high-water mark	30’ minimum - 60’ minimum total
Wilderness Development 4	217,800 (5 acres)	300 *600	100	500	30’ corridor within 75’ of the ordinary high-water mark	60’ minimum - 120’ minimum total
Rivers and Streams	30,000	150	75	200	30’ corridor within 35’ of ordinary high-water mark	20’ minimum - 50’minimum total

Source: Sawyer County zoning ordinance. *Note: Two family dwelling/duplex.

Lake Data

The following section provides a brief overview of the surface water quality in the Town of Round Lake. Many factors affect water quality of an area, including adjacent land uses (agricultural, residential and commercial development), recreational use of the water body, and physical characteristics of the lake and surrounding area (steep slopes, small lake or watershed, or type of lake). This section examines different water-quality characteristics and how they relate to the water quality of the town.

Background and Existing Data

There has been a moderate amount of background data in the past documenting water quality in Sawyer County and the Town of Round Lake. The first statewide effort to collect water-quality data occurred in the 60's and 70's when the WDNR tested most of the lakes and streams to complete a statewide inventory. The WDNR published "The Surface Water Resources of Sawyer County" in 1969 as part of this initiative. More recently, however, there have been other reports detailing water quality in the area. In 1996, the WDNR published The Upper Chippewa Basin Water Quality Management Plan to address the concerns facing the basin. This plan broke down the basin into watersheds and developed specific recommendations unique to that area. The plan also lists lake and stream data, as well as maps of each watershed. The WDNR is in the process of updating this plan, which will be called "The State of the Upper Chippewa Basin." The WDNR manages the self-help lake-monitoring program that allows residents of lake areas to get involved collecting data on their lake. These data have helped the WDNR keep and update valuable information in documenting changes in Wisconsin's lakes. Many of the lakes in the town have been part of this effort. The county has also completed a Land and Water Resource Management Plan (1999) and will have a revision completed in 2009.

The previous inventory is by no means an inclusive list of the studies and reports of water quality in the area. Many other regional and state reports are available that list both ground- and surface-water quality.

Physical Characteristics of Lakes

Many different chemical and physical characteristics combine to make up the water quality of a lake.

*Phosphorus–An essential nutrient for algae and plant growth. Human activities can lead to high phosphorus levels, which may cause lakes to experience algae blooms, and to become weed choked.

*Nitrogen–The second most important nutrient for algae and plant growth. Local land uses can elevate nitrogen levels and produce unwanted algae blooms and excessive weed growth.

*Oxygen–Most aquatic species require dissolved oxygen to survive. Shallow lakes in Wisconsin may experience oxygen depletion in winter (winterkill). In the Town of Round Lake, at least nine of the lakes experience winterkill along with many of the small unnamed lakes.

*pH/Acidity–pH is a measure of the hydrogen-ion concentration in lakes. A pH of less than 7 is considered acidic; a pH of 7 is neutral and a pH of greater than 7 is alkaline. Wisconsin lakes can vary from a pH of 4.5 in acid bogs to 8.4 in hard water, marl lakes.

∗Alkalinity/Hardness–Closely related to pH is alkalinity and hardness. Hard water lakes tend to produce more fish and aquatic plants than soft water lakes.

∗Water Clarity–Water clarity is not a chemical but a physical property, and is based on two main components: true color (materials dissolved in the water) and turbidity (particles suspended in the water). The color of a lake is dependent upon the type and amount of dissolved organic chemicals it contains. Many lakes contain natural tan-colored compounds (humic and tannic acids) that can color the water. Within the Town of Round Lake, water color ranges from very clear (Round Lake) to very stained (Moose Lake).

∗Turbidity is caused by suspended particles in the water, which can affect the depth at which plants can grow. Runoff can greatly increase turbidity and affect overall water quality. Turbidity can also vary widely with seasonal differences.

∗Trophic state is another indicator of water quality. Lakes are divided into three categories based on their trophic state (**Figure 5.2**), which looks at the nutrient and productivity of the lake. A natural aging process occurs in all lakes, but human activities generally speed up this process by allowing excess nutrients into the water (especially phosphorus and nitrogen) through agricultural activities, and the use oflawn fertilizers and large impervious surfaces such as streets and driveways. The Trophic Status Index (TSI) numbers provide general indicators of a lake's trophic class. These numbers are calculated through three water-quality characteristics:

- Total phosphorus (important for algae growth)
- Chlorophyll A concentration (a measure of existing algae in a lake)
- Secchi disk readings (indicates water clarity)

Figure 5.2 - Aging Process in Lakes

Data Needs

The most common need among Wisconsin communities is the presence of up-to-date, basic water-quality data. This is needed to determine current trends in water quality. Appropriate measures can be applied to reduce developmental impacts. The Wisconsin Department of Natural Resources has developed a long-term monitoring program. At a minimum, the WDNR

recommends testing phosphorus five times a year (once during spring turnover), Secchi disk as much as possible (at least five times a year), and chlorophyll four times a year. This will create enough information to allow a TSI to be developed and will produce a baseline structure for future monitoring. Other data the WDNR recommends include water temperature, dissolved oxygen, pH, fish surveys, macrophyte, phytoplankton, zooplankton and macro invertebrate surveys.

Viewsheds and Scenic Resources

Viewsheds, scenic and natural beauty resources are locally significant and aesthetically pleasing. These areas are visible from a variety of venues, such as walking or driving for pleasure, specific views from water-access points and scenic views from all public trust waters and their shorelines. As development has increased, these viewsheds have been, and continue to be, impacted. These impacts can be somewhat mitigated by employing good design principles and thoughtful development practices. It is important to the overall community that the preservation of the Town of Round Lake's northwoods character and atmosphere be sustained when existing facilities are remodeled and new facilities are proposed.

Table 5.6: Forest Acres

	Acres	Percent
Town Forest	214.3	0.3%
County Forest	2748.8	4.2%
State Forest	385.5	0.6%
Federal Forest	34388.9	53.0%
Private Forest	22845.9	35.2%
Managed Private Forest	4290.3	6.6%
Total Forest	**64,873.7**	**100.0%**

Source: NWRPC GIS Analysis

Dark Skies

Nighttime lighting when designed and applied properly has become a necessary part of our society to reduce unnecessary light pollution in the night sky. Appropriate nighttime illumination can greatly enhance a given area without causing compromise to either safety, the view of the night sky, or flora and fauna in the surrounding areas.

Forests

Forests offer the most defining characteristics of northern Wisconsin and the Town of Round Lake. This resource represents significant cultural, social, environmental and economic assets for citizens and communities. Forests provide a range of benefits, including wildlife habitat, forest products, recreational opportunities, aesthetics and other benefits. According to existing land use data, approximately 64,873.72 acres of land in Round Lake are currently managed by some type of forestry (**Table 5.6** and **Map 5.10**—Forestry Related Land Uses).

Some of the privately owned forested lands are enrolled in the state's Forest Crop or Managed Forest programs (**Map 5.11**-Land Ownership), which give tax incentives to the landowners for properly managing their lands in exchange for public access. The Managed Forest Program replaced the Forest Crop Program in 1986. Owners of forestland enrolled in the Forest Crop Program must allow public access for fishing and hunting activities. Under the newer Managed Forest Program, in addition to hunting and fishing, private landowners may allow public access for cross-country skiing, sightseeing and hiking. http://www.dnr.state.wi.us/forestry/ftax/

Chief River Wildlife Area

Located about 12 miles east of Hayward in the Town of Round Lake, Chief River Wildlife Area is a State-owned property containing approximately 1,100 acres. Chief River Road bisects the property. All Wildlife Areas in Wisconsin, supported by tax revenues on hunting supplies, are open to a full range of traditional outdoor recreational uses. These include hunting, fishing, trapping, hiking, nature study, and berry picking. Dog training or trialing (hunting dog competitions) may be allowed by permit.

Chief River Wildlife Area 10-20-09

The Chequamegon-Nicolet National Forest

One of the most important natural resources in the Town of Round Lake is the Chequamegon-Nicolet National Forest. The Chequamegon-Nicolet National Forest (CNNF), provides many recreational and timber management opportunities for local residents, tourists and businesses and is managed by the U.S. Department of Agriculture Forest Service.

History

The following excerpts are taken from "The History of the Chequamegon-Nicolet National Forest"

The CNNF has approximately 1,519,800 acres of land in 11 northern Wisconsin counties and was initially two separate national forests, the Chequamegon (858,400 acres) and Nicolet (661,400 acres) National Forests. The two national forests were established in 1933 by a Congressional proclamation and were managed separately until 1993 when management of the two forests was combined. In 1998, the Chequamegon and Nicolet National Forests were officially combined and a single entity known as the Chequamegon-Nicolet National Forest emerged.

The creation of the two national forests was initially driven by activities undertaken during America's Great Depression. With the creation of the Depression-era Civilian Conservation Corps (CCC), the Forest Service undertook a massive effort to reforest what had been timberland that had been over-cut and over-farmed. Much of the land ended up in the hands of the county, as immigrant farmers were unable to afford the taxes on these lands, and consequently abandoned or forfeited these properties. In turn, the counties often sold these lands to the federal government in order to shed non-producing tax-delinquent properties from the tax rolls. The accumulation of these lands by the federal government eventually led to the establishment of the two national forests. The reforestation and planting work done by the CCC was instrumental in the development of new forest growth, which is today being managed to increase the diversity of tree species throughout the national forest area. Tree stock in the national forest is relatively the same age as a result of the over-cutting that was done during the late 1880's to the mid 1930's.

More detailed history of the Chequamegon-Nicolet National Forest can be found in a PDF document entitled "The History of the Chequamegon-Nicolet National Forest." This PDF file link can be found at the http://www.fs.fed.us/r9/cnnf/general/history/index.html web page.

Ecological Description of the Chequamegon Portion of the National Forest

The Wisconsin North Central Forest has been designated as an ecological landscape "Legacy Place" in the Wisconsin Land Legacy Report compiled by the Wisconsin Department of Natural Resources in 2006. In its description, the report states that the conservation significance and recreation potential of the national forest are at the highest levels awarded by the study. http://dnr.wi.gov/master_planning/land_legacy/report.html

While the Chequamegon and Nicolet portions of the national forest are similar in geologic origin and forest cover, there are some notable features unique to each. The Chequamegon region, in which the Town of Round Lake is located, contains a portion of the Penokee-Gogebic Range, noted for its steep topography and relatively contiguous northern hardwood forest cover, which provides interior forest habitat for species that require large extensive forests.

The 2004 Chequamegon-Nicolet Forest Plan

In 2004, the United States Department of Agriculture Forest Service developed a forest plan that set forest-wide goals and objectives for the Chequamegon-Nicolet National Forest. Forest goals are broad statements describing conditions the forests will try to achieve. The goals are not amenable to direct measurement and have no specific time frames for achieving them. Objectives on the other hand refer to time-specific statements of planned results or outcomes responding to the established goals.

The 2004 Chequamegon-Nicolet Forest Plan can be found on the Chequamegon-Nicolet Forest Service web site: http://www.fs.fed.us/r9/cnnf/natres/final_forest_plan/lmp2004/index.html

Timber Resources

The Chequamegon-Nicolet National Forest contains 123,805 acres of land within Sawyer County. Although acreage amounts for specific timber species management are not available, general descriptions of the types of forest are available on the "Selected Alternative Management Areas" map that was included in the Final Environmental Impact Statement report completed by the U.S. Forest Service in November 2008. The following are timber species being managed by the National Forest in Sawyer County municipalities:

Town of Round Lake
Early successional aspen, uneven-aged northern hardwoods, and old-growth forest.

Town of Spider Lake
Early successional aspen, early successional mixed aspen-conifer, even-aged hardwoods – oak/pine, and conifer – red/white/jack pine.

Town of Hunter
Uneven-aged northern hardwoods: hardwood-early successional.

Town of Draper
Early successional aspen-hardwood, areas of no vegetative management, and special management areas.

Town of Winter
Early successional aspen, Uneven-aged northern hardwoods: hardwood-early successional, old-growth forests.

Different areas of the forest are being managed in a manner intended to create healthier forest ecosystems, so that a variety of wildlife, flora and fauna can flourish.

Timber Harvesting

The U.S. Forest Service, as a goal in the Chequamegon-Nicolet National Forest Plan, plans to contribute toward satisfying demand for wood products and special forest products through environmentally responsible harvest on National Forest System lands. Their objective is to ensure that harvest levels of special forest products are within sustainable levels.

In the past, local forest harvesters and Forest Service officials have shown frustration over the limited amount of timber harvested within the national forest due to various litigations. The quantity (usually expressed as the average, annual allowable sale quantity) of timber that could be sold from the Chequamegon-Nicolet National Forest was estimated at 130 million board feet

for 2008. The actual sale was 44,634,096 board feet. The timber harvest over the last 10 years averaged 51,387,383 board feet with an average value of $6,018,359. In that 10-year period, 1999 had the highest production of timber sales, 72,497,490 board feet with a value of $7,645,687. (Source: US Forest Service and Sawyer County)

Wildlife and Fish Species

An abundance of wildlife can be found in the Chequamegon-Nicolet National Forest. Typical mammals found in relative abundance include whitetail deer, black bear, coyotes, red and gray fox, river otters, beavers and porcupines. Other species that exist in smaller numbers include the timber wolf, pine martens, fishers, bobcats, elk and cougars.

Many fish species can be found in lakes and streams within the national forest. Some are naturally reproducing populations and others are stocked to maintain viability. Common species in the region include walleye, northern, musky, brook trout, brown trout, large and smallmouth bass, bluegills, black crappies, yellow perch and suckers.

Birds of prey can also be found in the Chequamegon-Nicolet Forest area at particular times and including the peregrine falcon, snowy owl, American kestrel, great gray owl, bald eagle, osprey, great horned owl, and the red-tailed hawk; other bird species are present that provide ample opportunities for bird watching. The various species are not necessarily present throughout the entire range of the national forest, but are located in those areas providing the best habitat for their particular species. (Source: Northern Wisconsin All-outdoors Atlas and Field Guide, 2007)

Management Indicator Species

Several management indicator species such as timber wolves, martens, bald eagles and elk, among others, have been reintroduced or have been targeted for restoration in the national forest and are now establishing populations. Examples and updates of these reintroductions are based on the 2007 Chequamegon-Nicolet National Forest Monitoring and Evaluation Report.

Bald Eagle

"The bald eagle has recovered in the state of Wisconsin far beyond its recovery goals. In 1978, a goal of 360 nesting pairs was set. This goal was achieved in 1991, and bald eagles continue to increase in numbers. The bald eagle has also been removed from the endangered species list as of July 9, 2007."

American Marten

This species was reintroduced into the area in the recent past (1980's-1990) and have dispersed little since that time. The Forest Service continues to work on determining what the important habitat features are for maintaining marten viability in the region.

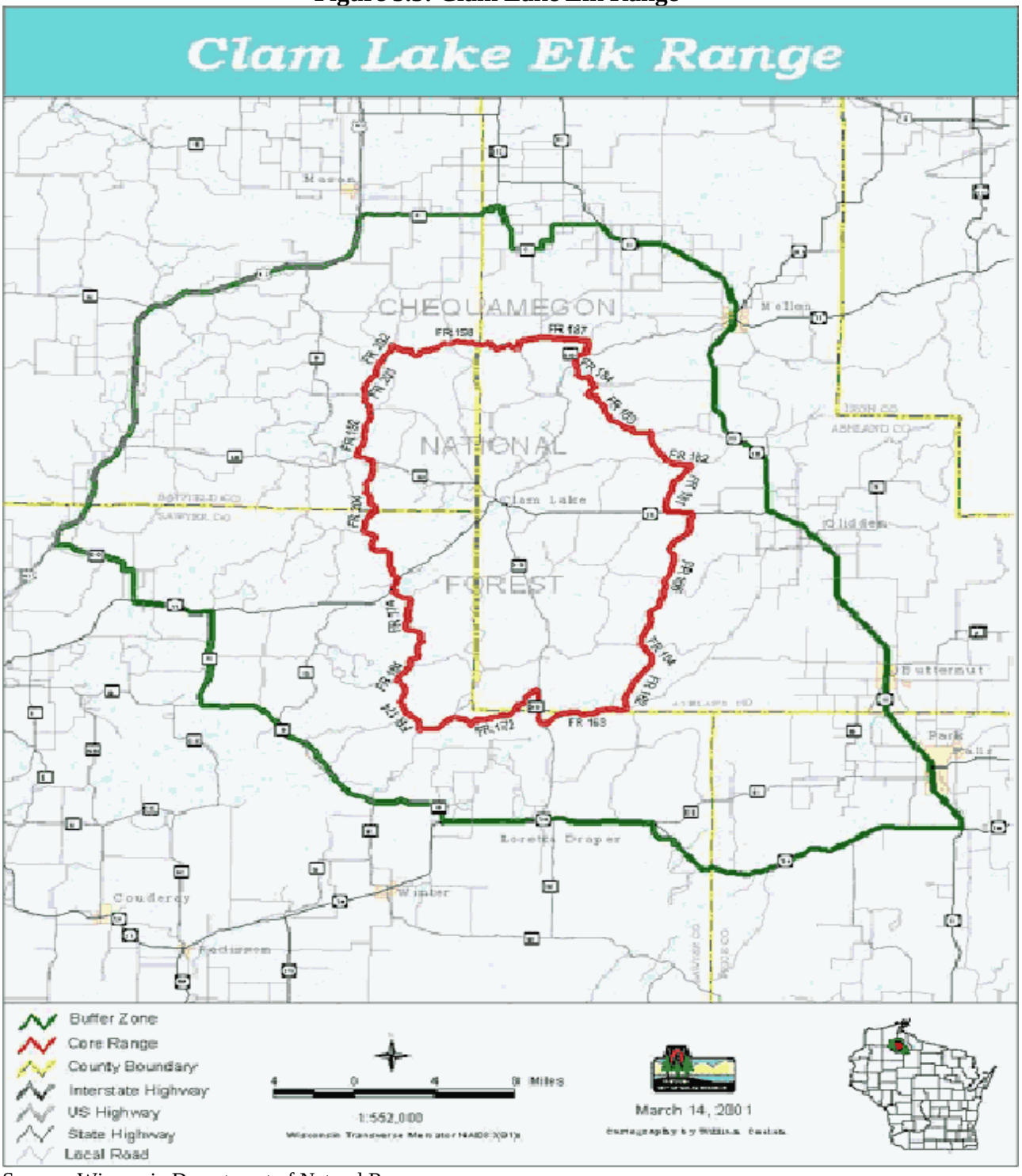
Rocky Mountain Elk

In 1993, the Wisconsin State Legislature authorized the University of Wisconsin-Stevens Point (UW-SP) to evaluate the potential for reintroducing elk to the Great Divide District (GDD) of the Chequamegon National Forest (CNF) near Clam Lake. In the winter of 1994-1995, 25 elk were captured from Michigan's lower peninsula. After an acclimation period and health testing, the elk were brought to Wisconsin in May 1995. The core area of release was in the Chequamegon-

Nicolet National Forest near Clam Lake, at the confluence of Ashland, Bayfield and Sawyer counties. The core area lies entirely within the Great Divide Ranger District of the national forest.Management responsibility of the herd was transferred from the University of Wisconsin-Stevens Point to the Wisconsin Department of Natural Resources in May 1999. The long-term goal is to expand the Clam Lake herd to 1400 elk—about one to two elk per square mile of elk habitat. Much of the present elk habitat lies within Sawyer County and elk sightings are possible, particularly in open areas during the fall mating season.

As of the third quarter of 2008, the elk herd according to WDNR indicates a current level of 146 elk. Many groups and organizations are active in the elk-restoration project, and many different management projects are ongoing. Such groups as the WDNR, the Chequamegon-Nicolet National Forest office, the Rocky Mountain Elk Foundation, University of Wisconsin researchers, and the Bands of Lake Superior Ojibwa have all been participants in making this project a success. Currently there is no hunting season for elk in Wisconsin. Hunting may become an important management tool in the future; however, it will not likely be considered until it is determined the herd can support a hunt. The map (**Figure 5.3**) and **Map 5.12**—Elk and Wolf Range depict the core elk range (red) and the buffer zone (green) of elk movement and/or herd activity. Additional information on the elk herd can be found on the WDNR web site http://www.dnr.state.wi.us/org/land/wildlife/Elk/Latest_CL_Update.htm.

Figure 5.3: Clam Lake Elk Range



Source: Wisconsin Department of Natural Resources

Gray wolf

"The gray wolf population throughout northern Wisconsin has been increasing steadily since 1993. A minimum count over winter 2006-2007 consisted of 540 to 577 wolves. As a result of this increase in numbers, the U.S. Fish and Wildlife Service removed the gray wolf from the endangered species list on March 12, 2007. "**Map 5.12**—Elk and Wolf Range also illustrates 2008 wolf territories and pack names for Round Lake and surrounding area.

ATTENTION: As the result of a ruling by a district judge in Washington, D.C. on September 29, 2008, gray wolves in Wisconsin are again on the federal list of endangered species. This means that landowners no longer have the right to shoot wolves in the act of attacking pets or livestock on their property. Certain authorization or procedures listed under "Guidelines for conducting depredation controls on wolves" or "Wolves in Farm Country" are no longer available. Landowners are no longer able to obtain permits to shoot problem wolves from the WDNR, and government trappers cannot currently trap and euthanize problem wolves. Reimbursement for wolf losses will still be available, and USDA-Wildlife Services will still be available to investigate depredations (1-800-228-1368 in northern Wisconsin, and 1-800-433-0663 in south and central Wisconsin), and Wildlife Services can give advice and assist in non-lethal means to discourage wolves.

Vulnerable and Sensitive Natural and Cultural Resources

Taken together, natural and cultural resources consisting of water, vegetation, geology, wildlife, historic places and sites, scenic by-ways, rustic roads and parks represent environmentally sensitive areas. (See **Table 5.7:** Vulnerable and Sensitive Natural and Cultural Resources and **Map 5.12—**Sensitive Natural and Cultural Resources) These environmentally and culturally vulnerable and sensitive areas deserve and, in some cases, require special consideration. Many of these resources are managed, regulated or owned by various federal, state, county or town entities. Individually, all of these resources are important areas, or “rooms” of natural and cultural activity. They become even more functional when they can be linked together by environmental and recreational corridors. Wildlife, plants, waterways all depend on the ability to move freely within these corridors. Currently, neither the Town of Round Lake nor Sawyer County has established an environmental corridor definition. (see “The Definition and mapping of Environmental Corridors by three Regional Planning Commissions” by Matthew D. Murrell in Research Management Findings, Number 47, January 2003, Bureau of Integrated Services, Wisconsin Department of Natural Resources). This comprehensive plan, in cooperation with adjoining neighbors, calls for such a definition to be developed and mapped in the near future as part of the ongoing two-year plan update process. The sensitive management and protection of these areas and corridors is intended to 1) protect the health, safety and welfare of the

general public, 2) protect water, vegetation, geologic features, wildlife habitats and cultural qualities, 3) reduce damage from flooding and storm water, and 4) maintain and enhance the town's diverse outdoor-recreational opportunities. **Map 5.12**—Sensitive Natural and Cultural Resources depicts some of the environmentally sensitive areas and cultural areas important to the town. **Table 5.7** has been developed to assist in identifying natural and cultural resources and is not all-inclusive of resources within the town. Additionally, there are other maps in the plan representing wildlife and sensitive areas.

Table 5.7: Vulnerable and Sensitive Natural & Cultural Resources

Type of Sensitive Resource & Selected Variables	Authoritative Source	Map or Document Source
WATER		
Outstanding & Exceptional Waters	WDNR	Map 5.7 Surface Waters & Wetlands, Chapter 5, Pages 5-11
Wilderness Lakes	SCZD	Chapter 5, Pages 5-12
Other Public Trust Waters	WDNR	Map 5.7 Surface Waters & Wetlands, Table 5.4, Chapter 5, Pages 5-10
VEGETATION		
Wetlands	WDNR	Map 5.7 Surface Waters & Wetlands, Chapter 5, Pages 5-8
Wild Rice	WDNR	Map 5.8 Cultural Resources & Wild Rice Areas, Chapter 5, Pages 5-9
Threatened & Endangered Plants	WDNR	Map 5.13 Sensitive Natural & Cultural Resources, Map 5.14 Natural Heritage Inventory, Chapter 5, Pages 5-24
Ecological Landscapes	WDNR	"Wisconsin Land Legacy Report" Pages 78-81.
GEOLOGY		
Steep Slopes (10% or greater)	USGS	Map 5.4 Topography & Steep Slope, Chapter 5, Pages 5-24
Floodplains (100 yr)	FEMA	FEMA Floodplain Maps, Chapter 5, Pages 5-9
Undeveloped Islands	NWRPC	Map 8.1 Existing Land Use
WILDLIFE		
Elk Habitat	WDNR	Map 5.12 Elk & Wolf Range
Wolf Habitat	WDNR	Map 5.12 Elk & Wolf Range
Trout Streams	WDNR	Map 5.9 Trout Streams
Threatened & Endangered Animals	WDNR	Map 5.14 Natural Heritage Inventory, Chapter 5, Pages 5-24
Fish Sanctuary	WDNR	Map 5.7 Surface Water and Wetlands
CULTURAL		
Historic Sites	WHS	Map 5.8 Cultural Resources & Wild Rice Areas, Chapter 5, Pages 5-34
Scenic By-ways	USFS	Chequamegon National Forest Master Plan
Rustic Roads	WisDOT	Map 3.1 Transportation, Chapter 3, Pages 12-13
Bike Routes, Tours,Trails and other recreation	Town of Round Lake	Map 3.2 Bike Routes, Map 3.3 Recreation, Chapter 3, Pages 3-13

Threatened and Endangered Species

While the conservation of plants, animals and their habitat should be considered for all species, this is particularly important for rare or declining species. The presence of one or more rare species and natural communities in an area can be an indication of an area's ecological importance and should prompt attention to conservation and restoration needs. Protection of such species is a valuable and vital component of sustaining biodiversity.

Both the state and federal governments prepare their own separate lists of such plant and animal species, but do so working in cooperation with one another. The WDNR's Endangered Resources Bureau monitors endangered, threatened, and special-concern species, and maintains the state's Natural Heritage Inventory (NHI) database. The NHI maintains data on the locations and status of rare species in Wisconsin, and these data are exempt from the open-records law due to their sensitive nature. According to the Wisconsin Endangered Species Law it is illegal to:

1. Take, transport, possess, process or sell any wild animal that is included on the Wisconsin Endangered and Threatened Species List.
2. Process or sell any wild plant that is a listed species.
3. Cut, root up, sever, injure, destroy, remove, transport or carry away a listed plant on public lands or lands a person does not own, lease or have the permission of the landowner.

There are exemptions to the plant protection on public lands for forestry, agriculture and utility activities. In some cases, a person can conduct the above activities if permitted under a department permit (i.e. "Scientific Take" permit or an "Incidental Take" permit). **Table 5.7** lists those elements contained in the NHI inventory for the Town of Round Lake. These elements represent "known" occurrence and additional rare species. These habitats may occur in other locations but are not recorded within the NHI database. For a full list of elements known to occur in Sawyer County and Wisconsin, visit the WDNR's Endangered Resources Bureau. **Map 5.14**—Natural Heritage Inventory displays the location of aquatic and terrestrial information based on visual occurrences by Town/Range Section within Sawyer County.

- Endangered Species—one whose continued existence is in jeopardy and may become extinct.
- Threatened Species—one that is likely, within the foreseeable future, to become endangered.
- Special Concern Species—one about which some problem of abundance or distribution is suspected but not proven.

Table 5.7: Natural Heritage Inventory Data, Town of Round Lake

Group	Common Name	State Status
Plant	Little Goblin Moonwort	END
Mammal	Gray Wolf	SC/P
Plant	Sparse-flowered Sedge	SC
Community	Ephemeral Pond	NA
Bird	Bald Eagle	SC/P
Mammal	American Martin	END
Community	Mesic Cedar Forest	NA
Community	Northern Sedge Meadow	NA
Community	Northern Wet Forest	NA
Community	Shrub-carr	NA
Fish	Lake Sturgeon	SC/H
Plant	Mingan's Moowort	SC
Plant	Fairy Slipper	THR
Fish	Least Darter	SC/N
Fish	Longear Sunfish	THR
Community	Northern Wet-mesic Forest	NA
Plant	Northern Black Current	SC
Bird	Black Tern	SC/M
Dragonfly	Pronghorned Clubtail	SC/N
Community	Spring Pond	NA
Plant	Mountain Cranberry	END
Mussel	Elktoe	SC/H
Fish	Greater Redhorse	THR
Community	Springs and Spring Runs, Hard	NA
Bird	Barn Owl	END

Source: WDNR Natural Heritage Inventory, 7/22/2008
END = endangered; THR = threatened; SC =Special Concern.Special Concern species are those species about which some problem of abundance or distribution is suspected but not yet proved. The main purpose of this category is to focus attention on certain species before they become threatened or endangered.
SC/P = fully protected; SC/N = no laws regulating use, possession, or harvesting; SC/H = take regulated by establishment of open closed seasons; SC/FL = federally protected as endangered or threatened, but not so designated by WDNR; SC/M = fully protected by federal and state laws under the Migratory Bird Act. NA = Not Applicable

Wildlife Resources

Wildlife and the habitat that supports wildlife are vital components of the community natural resource base. The health and abundance of these resources is intimately linked to nearly all other facets of community development. As part of the planning process, it is important for the community to recognize the significance of these resources and to strive to protect and enhance them. Wildlife resources are important components of natural ecological processes. These resources are also important from a recreation standpoint, by providing opportunities for viewing and hunting. Local revenue generated by expenditures related to wildlife is important to the local economy. Finally, wildlife resources are important cultural and spiritual resources, promoting sanctity, health and well being.

There are three primary issues of concern related to wildlife habitat planning: fragmentation, invasive/exotic species and pollution. Fragmentation is the breaking up of large contiguous tracts of habitat into smaller pieces. Fragmentation increases the amount of linear edge areas. These areas favor species that prefer edge habitat such as whitetail deer and ruffed grouse.

An increased amount of edge habitat is accompanied by a variety of negative impacts including increased predation/competition among species and increased range expansion of exotic species. Heavy browsing by an expanding population of whitetail deer can alter the types of plant species that grow in some areas. As a result, some desirable or rare plant species may become threatened. Deer are thriving in many parts of Wisconsin because humans have created large amounts of edge habitat. Core species such as wolves and interior songbirds can be negatively impacted by the loss of interior habitat. Much of the land area within the Town of Round Lake can be classified as wildlife habitat. Diverse habitats are found within the town, including forests, wetlands, water and open areas located on both public and private lands.

Exotic/Invasive Species

Invasive/exotic species pose serious threats to indigenous species. Once established, exotics can decimate native species by out competing them for food and/or habitat. Because exotics are not part of the native ecosystem, they often have no natural (local) predators, thus may become prolific once established. The Wisconsin Department of Natural Resources lists many types of plant and animal invasive species (http://dnr.wi.gov/invasives/animals.asp and http://dnr.wi.gov/invasives/plants.asp). Exotic species of concern for Sawyer County include to following.

- **Eurasian watermilfoil:** a submersed aquatic plant that can grow into dense stands inhibiting recreational uses like swimming, boating and fishing. This species is currently known to exist in at least five lakes in Sawyer County.
- **Curly pondweed:** a perennial submersed aquatic that forms surface mats that interfere with aquatic recreation. At the present time, there are known occurrences of this species in adjacent counties.
- **Purple loosestrife:** Purple loosestrife is a perennial herb three to seven feet tall with a dense bushy growth of one to 50 stems. This species displaces native wetland vegetation and degrades wildlife habitat. By 1997, the western part of Sawyer County was lightly to moderately infected with purple loosestrife.
- **Rusty Crayfish:** This aggressive invader destroys aquatic plants. There is not a tracking program for rusty crayfish in the state, but at least 100 lakes and streams in northern Wisconsin are infested.
- **Gypsy Moth:** This species is among the most devastating of forest pests. The gypsy moth is a defoliating insect that feeds on the leaves of many tree species.

This exotic has not yet established itself within Sawyer County. Gypsy moths are gradually making an eastward progression, and are currently established throughout much of eastern Wisconsin.

- **Emerald Ash Borer:** This is an invasive, wood-boring beetle that attacks ash trees. All ash species in Wisconsin are vulnerable to the Emerald Ash Borer, including white, green, black and blue ash. Mountain ash (Sorbus spp.) is not a true ash and is not affected. While first identified in Wisconsin in 2008, the emerald ash borer is not found in Sawyer County.
- **Cattails:** The broad and narrow-leaf cattails have tremendous capacity to grow, spread and become invasive. The broad-leaf cattail grows in moist soil up to a meter deep. The narrow-leaf cattail grows in disturbed sites with brackish water up to .5 meters and deeper. Cattails, because they are aggressive, can squeeze out other types of macrophytes, including wild rice.
- **Zebra Mussels:** The zebra mussel is a tiny (1/8-inch to 2-inch) bottom-dwelling clam native to Europe and Asia. First identified in the United States in the Great Lakes in 1985 or 1986, the mussel has now been found in inland lakes in Wisconsin, but none in Sawyer County. Once zebra mussels are established in a water body, very little can be done to control them.
- **Spiney Water Flea** Pieter Johnson, Limnology Center researcher, knew that the spiny water flea (Bythotrephes cederstroemi) has existed in the Great Lakes since the early 1990s. The spiny water flea is a large (about ï¿½ inch long) freshwater zooplankton native to northern Europe and the Caspian Sea. It likely arrived in North America in ballast water. During a 64-lake survey in 2003, Johnson found the invader in the Gile Flowage, an impoundment in Iron County." Spiny water fleas are nasty; they eat the smaller forms of zooplankton that fish depend on and they are tough for fish to eat because their barbed terminal spines are sharp enough to puncture the lining of the fish stomach," Johnson says. "They can knock out a food supply and are potentially fatal to fish." In an effort to prevent spiny water fleas from spreading to other Wisconsin lakes, Johnson is working with the Department of Natural Resources to educate boaters that these fleas can be transported in live wells, bilge water, and the eggs can become attached to fishing tackle, anchor lines and mud on boats and anchors. Informational fliers advising lake users of the potential spread of spiny water fleas have been posted at each of Gile Flowage's boat landings and in local bait and boating stores.

Metallic and Non-Metallic Mineral Resources

Mineral resources are divided into two categories, metallic and non-metallic resources. Metallic resources include lead and zinc. There are no metallic mineral mines in Round Lake. Non-metallic resources include sand, gravel and limestone. In June of 2001, all Wisconsin counties were obliged to adopt an ordinance for non-metallic mine reclamation. Sawyer County's Zoning Ordinance, Section 6.0 Regulation of Special Uses, includes regulations dealing with metallic and non-metallic mineral resource development and closure. The purpose of the ordinance is to achieve acceptable final site reclamation to an approved post-mining land use in compliance with uniform reclamation standards. Uniform reclamation standards address environmental protection measures including topsoil salvage and storage, surface and groundwater protection, and concurrent reclamation to minimize acreage exposed to wind and water

erosion. After reclamation, many quarries become possible sites for small lakes. Identification of quarry operations is necessary in order to minimize nuisance complaints by neighbors, and to identify areas that may have additional transportation needs related to trucking. There are eight non-metallic sites within the Town of Round Lake (**Map 8.1**—Existing Land Use).

Cultural Resources

People have been living in this area with hunting, fishing, farming and forestry playing a central role in their lives. The story of agriculture, resource use and land stewardship is preserved in archaeological sites, buildings, landscapes, written accounts, photographs, governmental records, and in the thoughts and ideas people remember and pass along by word of mouth. Land use planning and land use decisions will directly impact archaeological sites, historic buildings and cemeteries.

Archaeological sites include places where people lived, where they worked and where they worshiped. These sites were made by the people who lived at the village, farm, or logging camp located just down the road. Archaeological sites occur figuratively and literally under our feet. Archaeology is well suited for providing important information about the lives of people who are not well represented in the written record. Archaeological sites are non-renewable resources and once a site is destroyed, either by natural or human-related activities, it cannot be reclaimed. Cultural sites and features are important community resources documenting a community's rich history. Countywide, there are over 100 culturally or historically significant landmarks, buildings or areas. There are countless other cultural and historical resources that remained undocumented, such as past fur trader villages or Native American settlements along rivers and lakes. **Table 5.8** and **Map 5.8**—Cultural Resources and Wild Rice Areas represent sites contained in the Wisconsin Architectural and Heritage Inventory (AHI) for the Town of Round Lake.

Table 5.8: Round Lake Architectural and Heritage Inventory

AHI#	TRS	Type	Date Construction	Location	Historic Name
18302	4106w-18	House		Moose Lake Rd, just over Chequamegon National Forest boundary	
18303	4106w-22	Wall		Moose Lake Rd	
18304	4106w-22	House		Moose Lake Rd	
18307	4108w-13	Health Spa	1904	N side of Round Lake off of twin Lake Rd	Idlehurst Lodge
24669	4106w-22	Fire Tower	1936	Forest Rd 164	West Fork Lookout Tower

Source: Wisconsin Historical Society

While not listed on the AHI in **Table 5.8**, the Town of Round Lake has identified other architectural and heritage sites. The icehouse located at the old Kateri Resort on Lower Twin Lake supplied many residents with ice cut from the lake for their refrigeration in the 1940's. A foundation remains on the property. Three very significant heritage sites of cultural and

historical value are located with in the Town of Round Lake. The Battle of the Horsefly historical marker (**Map 5.8**—Cultural Resources and Wild Rice Areas) is near the Moose Lake Bridge over the West Fork of the Chippewa River. The marker denotes the site of a battle between the Chippewa (Ojibwe/Anishinabe) and the Dakota Sioux (Mdewakotan) in 1795. The burial site of the Dakota and Ojibwe warriors involved in the Battle of the Horsefly has been identified and marked by the Lac Courte Oreilles people as Spirit Rock. The CCC camp marked at the intersection of Moose Lake Rd (#164) and Fire Lane #174 (**Map 5.8**—Cultural Resources and Wild Rice Areas) has remnants of fireplaces/chimneys said to be from officer housing. Refer to **Appendix A** for detailed information on these three significant cultural heritages.

CCC camp sign


CCC camp fireplace

The Wisconsin AHI includes historical and architectural information on over 120,000 properties throughout Wisconsin. The AHI contains data on buildings, structures and objects that illustrate unique history of Wisconsin and local communities. The AHI is a permanent record maintained by the Wisconsin Historical Society. The list is not a comprehensive list of all old Wisconsin buildings and structures, as the AHI has been assembled over a period of more than 25 years from a wide variety of sources. In many cases, the information is dated, and in some cases, properties may be altered or no longer exist. The majority of property in the inventory is privately owned. The following photos represent the properties identified in **Table 5.8**.

AHI 18302

Source: Wisconsin Historical Society, AHI #18302, WHS HPPH (year photo taken 1975)

ROUND LOG CONSTRUCTION W/ CORNER NOTCHING
MORTAR CHINKING
HORIZONTAL BOARD IN GABLESWOOD
SHINGLED ROOF W/ ASPHALT PAPER COVERING

AHI 18303

Source: Wisconsin Historical Society, AHI #18303, WHS HPPH (year photo taken 1975)

ROCK GARDEN W/ RUIN/WALL CRUDE ARCHED ENTRANCE TO ROCK GARDEN IN WALL PROBABLY A GROTTO FOLK ART ENVIRONMENT

AHI 18304

Source: Wisconsin Historical Society, AHI #18304, WHS HPPH (year photo taken 1975)

VERY UNUSUAL HOUSE: 1ST FLR W/ DOUBLE DOOR ENTRANCE MANSARD ROOF
2ND FLR W/ BRACKETED FLARED EAVES
SHED ROOF DORMER IN MANSARD
2ND FLR OVER ENTRANCE LARGE CUPOLA
3RD FLR W/ ROUND LOG SIDING SHALLOW BRACKETED HIP ROOF 3RD FLR/CUPOLA W/ LADDER

AHI 18307

Source: Wisconsin Historical Society, AHI #18307, WHS HPPH (year photo taken 1975)

AHI 24669

Source: Wisconsin Historical Society, AHI #24669, WHS HPPH (year photo taken 1985)

A 'site file' exists for this property. It contains additional information such as correspondence, newspaper clippings, or historical information. It is a public record and may be viewed in person at the State Historical Society, Division of Historic Preservation.
DETERMINED ELIGIBLE 6/18/1996. 100' TALL FIRE TOWER.

Protecting Important Archaeological Sites

The wide variety of methods used to protect natural resources can also be used to protect archaeological sites. For example, there are land purchases, easement purchases, zoning, and the state-operated tax-exemption program for property owners. With the 1991 changes to Wis. Stats. 70.11 [see 70.11(13m)], it became possible to provide a property-tax exemption for owners of archaeological sites listed in the national or state register of historic places. To obtain the tax exemption, the landowner has to agree to place a permanent protective covenant for the site area in the deed for the property. The tax-exemption program makes the landowner and subsequent owners stewards of Wisconsin's past. The intent of the program is not to discourage all use of the property containing a site, but to encourage land use planning that protects sites.

Cemeteries and burial areas have been set aside as special areas throughout Wisconsin history and have been given special protection under the law. Native American burial mounds, unmarked burials, and all marked and unmarked cemeteries are protected from intentional disturbance.

Archaeological identification and evaluations are required for a variety of projects that receive federal or state funding, licenses or permits. These projects are automatically forwarded to the Wisconsin Historical Society for review. Local residents frequently report sites and cemeteries. It is not uncommon to find evidence of American Indian villages and other earlier settlements in the form of houses, storage areas, burials and other undisturbed deposits underneath the tilled layer in farm fields or in urban settings.

Resources for Historic Preservation

Sawyer County Historical Society

The Sawyer County Historical Society (SCHS) is the prominent authority on local history. The SCHS office and museum is located at 15715 County Hwy B East in Hayward.

The Wisconsin State Historical Society

The WHS is a both a state agency and a private membership organization. The state office is located in Madison. By state statute, the WHS is responsible for collecting, advancing and disseminating knowledge of Wisconsin.

Wisconsin Historical Society History Center and Archives (HCA)

The HCA serves as the northern field office of the Wisconsin State Historical Society, from its offices at the Northern Great Lakes Visitor Center. The HCA is part of a statewide network of area research centers and is managed by the Society's Division of Historic Sites.

Festivals

Throughout Sawyer County are many cultural and festival-related activities. Examples of area events include:

- American Birkebeiner Race: The Birkebeiner Race is the largest cross-country ski race in the United States. It takes place every year the last full weekend in February. The racecourse runs along the famous Birkebeiner Ski Trail from Cable Airport near Telemark Resort to downtown Hayward, which is about a distance of 52 kilometers. It attracts about 8,000 skiers and thousands of spectators from around the world. The race started in 1973. Besides the main race, the three-day Birkie event includes the opening ceremonies, Elite Sprints, Barnebirkie (children's race), Junior Birkie, Kortelopet (Birkie's 25 kilometer sister race), ski equipment demos, citizen sprints, 8K Family Fun Ski, pasta feed and award ceremony.

- Chequamegon Fat Tire Festival: Since 1982, the Chequamegon Fat Tire Festival has taken place in the Hayward area. Each year in September, 2,500 off-road bicyclists participate in the Chequamegon 40 (40-mile race) and the Short and Fat (16-mile race). This event is the largest gathering of off-road bicyclists in the country. The Chequamegon 40 course runs from the city of Hayward to Telemark Resort, while the Short and Fat course runs from Cable to Telemark. Portions of these racecourses run along the Birkebeiner Trail. The festival attracts bicyclists from around the country. Besides the two cross-country races, the two-day festival includes the Cable Criterium, Rough Stuff Rendezvous, Lumber Jack and Jill Log Pull, Bump the Barrel Obstacle Course, Clunker Toss, and Hammer Slammer Hill Climb.

- Musky Festival: The four-day festival takes place in the city of Hayward on the third weekend in June. It has been held annually for 60 years. The main feature of the event is a fishing contest, which offers several different fish categories. The festival also includes sidewalk sales, arts and craft fair, food and refreshments, music, carnival and a parade.

- Honor the Earth Homecoming Celebration and Pow Wow: This celebration is held in mid-July on the Lac Courte Oreilles Reservation. The event, which is one of the largest of its kind in the Midwest, attracts thousands of participants from across the country and Canada. It has been

held annually for 26 years. Activities at the event include three grand entries, a youth talent pageant, traditional dancing, a softball tournament and a walk/run.

• Lumberjack World Championship: This world famous event takes place at the Lumberjack Bowl in the city of Hayward the last weekend in July. It has been held annually in Hayward for 50 years. The event attracts hundreds of athletes from around the world who compete in traditional lumberjack competitions. Thousands of spectators come each year to watch these competitions.

• National Fresh Water Hall of Fame and Museum: This facility is located in the city of Hayward, near the western shore of Lake Hayward. The hall of fame was founded in 1960. The hall building was constructed in 1975. At the site is displayed a 143-foot long Musky made of fiberglass, and several other smaller fiberglass fish displays. Within the hall of fame and museum includes the freshwater fishing record books, displays of antique fishing equipment and memorabilia, and over 400 fish mounts. On average, about 70,000 individuals visit the facility annually.

Agricultural, Natural, and Cultural Resources Goals, Objectives, and Actions

Agricultural, natural and cultural resources are important to Round Lake. As such, a number of goals, objectives and actions have been developed to assist the town in addressing these resources.

Agricultural Resources

Goal: Preserve and enhance farming as an occupation, future agricultural business and maintain productive farmland while preserving natural resources.

Objective 1: Preserve farming as a business.

Action 1: Encourage the support of "local food systems" to conserve on fuel/energy transportation costs.
Responsible Party – Plan Commission
When – Ongoing

Action 2: Promote farming practices that ensure food safety.
Responsible Party – Plan Commission
When – Ongoing

Action 3: Maintain the integrity and viability of agriculture so that traditional farming practices can occur without creating conflicts between agricultural & non-agricultural users.
Responsible Party – Town Board
When – Ongoing

Action 4: Encourage uniform farm practices that are environmentally sound: emphasizing organic practices.
Responsible Party – Plan Commission
When – Ongoing

Action 5: Promote proper agricultural manure and nutrient management to reduce non-point water pollution.
Responsible Party – Town Board
When - Ongoing

Objective 2: Preserve agricultural land for farming.

Action 1: Support agricultural uses in the Town by preventing fragmentation of agricultural land and maintain agricultural zoning.
Responsible Party – Town Board
When – Ongoing

Action 2: Promote awareness of Agricultural Programs available to agricultural landowners.
Responsible Party – Sawyer County
When – Ongoing

Action 3: Encourage conscientious agricultural practices that are environmentally sound and do not deplete, pollute, or impair the natural resources (air, soil quality, erosion, surface/ground water).
Responsible Party – Town Board
When – Ongoing

Action 4: In agricultural areas, limit the amount of non-agricultural uses.
Responsible Party – Town Board
When – Ongoing

Action 5: Guide development in order to ensure that growth is compatible with continued agricultural production.
Responsible Party – Town Board
When – Ongoing

Action 6: Monitor the development and environmental impact of biofuel agriculture as it occurs in other parts of the state/country.
Responsible Party – Plan Commission
When - Ongoing

Natural Resources

Goal 1: Protect, enhance and promote the sustainable use and management of the Town's environmental diversity, natural resources, natural beauty and northwoods character.

Objective1: Identify and enhance the protection of environmentally sensitive and vulnerable resources.

Action 1: Protect threatened and endangered resources.
Primary Responsible Party – Plan Commission
Responsible Party – Town Board, WDNR
When – Ongoing

Action 2: Foster the identification and elimination of invasive species.
Primary Responsible Party – Plan Commission
Responsible Party – WDNR
When – Ongoing

Action 3: Develop cooperative management agreements (memorandums of understanding) MOU'S with relevant federal, state, regional, county and towns entities to enhance and protect environmental diversity.
Primary Responsible Party – Plan Commission
Responsible Party – Town Board
When – Ongoing

Action 4: Foster working relationships (MOUS) with non-governmental organizations (NGO'S) to help identify, protect and conserve environmentally sensitive areas and resources (e.g. conservancies, lake associations, land trusts).
Primary Responsible Party – Plan Commission
Responsible Party – Town Board
When – Ongoing

Objective 2: Identify and enhance the protection of Natural Resources.

Action 1: Enhance the protection of Wisconsin's public trust waters and shorelines by enforcing and promoting appropriate plans and ordinances.
Primary Responsible Party – Plan Commission
Responsible Party – Town Board
When – Ongoing

Action 2: Identify, map, and protect vulnerable resources such as islands, wetland floodplains, environmental corridors, riparian areas, fish spawning grounds, remnant old growth landscapes, and unique and endangered plants (flora) and animals and birds (fauna).

Primary Responsible Party – Plan Commission
Responsible Party – Town Board, WDNR, NWRPC, Sawyer County
When – Ongoing

Action 3: Identify potentially highly erosive areas to protect water quality fish habitat and recreational use.
Primary Responsible Party – Plan Commission
Responsible Party – NWRPC, County Land Information Department (CLID)
When – Ongoing

Action 4: Foster the preparation of watershed based management plans that enhance and protect water quality, quality fisheries, and diverse recreational boating opportunities.
Primary Responsible Party – Plan Commission
Responsible Party – Town Board, County, NWRPC
When – Ongoing

Action 5: Protect wildlife habitat areas in the town, beyond regulated wetlands, floodplains and shorelands, identifying natural areas in the town using this information:

a. Seek grant-funding sources available through the WDNR and other agencies to help protect wildlife habitat areas for future generations to enjoy.
b. Build partnerships with habitat conservation organizations (Ducks Unlimited, Trout Unlimited, Nature Conservancy, Rocky Mountain Elk Foundation, Loon Watch, etc.) to help with wildlife protection and education.
c. Seek to prevent fragmentation of these habitats by encouraging cluster and conservation-based development.

Primary Responsible Party – Plan Commission
Responsible Party – Conservation Organizations, WDNR
When – Ongoing

Action 6: Foster the preparation of a comprehensive open space and by-ways plan including the identification of potential parks, waysides, water access areas, picnic areas, active recreational areas and a system of multiuse and interlinked trails, paths and roads.
Primary Responsible Party – Plan Commission
Responsible Party – NWRPC, WDNR
When – Ongoing

Action 7: Encourage property owners and lake and riverway users to participate in the preparation and implementation of long-range management plans to protect water quality, environmental diversity, a quality fishery and a quality recreational experience(s).
Primary Responsible Party – Plan Commission

Responsible Party – NWRPC, WDNR
When – Ongoing

Action 8: Protect Wisconsin's Legacy areas and landscapes identified in the WDNR Land Legacy Report.
Primary Responsible Party – Plan Commission
Responsible Party – Town Board, County, WDNR
When – Ongoing

Action 9: Protect exceptional and outstanding waters identified by the WDNR and EPA.
Primary Responsible Party – Plan Commission
Responsible Party – Town Board, WDNR
When – Ongoing

Objective 3: Identify, enhance and promote the protection of natural beauty.

Action 1: Promote and enhance the protection of natural beauty from Wisconsin's Public Trust Waters by enforcing applicable laws and ordinances.
Primary Responsible Party – Plan Commission
Responsible Party – WDNR
When – Ongoing

Action 2: Identify legacy lands that enhance and promote the protection of natural beauty.
Primary Responsible Party – Plan Commission
Responsible Party – Sawyer County, WDNR, NWRPC
When – Ongoing

Action 3: Identify and promote the development of an integrated system of scenic by-ways that enhances access to natural beauty.
Primary Responsible Party – Plan Commission
Responsible Party – Town Board, County, NWRPC
When – Ongoing

Action 4: Develop design ordinances that limits the deployment and type of outdoor advertising along scenic by-ways and public rights-of-ways.
Primary Responsible Party – Plan Commission
Responsible Party – Town Board, Sawyer County
When – Ongoing

Action 5: Develop location and design ordinances that protect natural beauty and optimize the deployment of cell towers and wind energy generation facilities.
Primary Responsible Party – Plan Commission

Responsible Party – Town Board, Sawyer County, Xcel, Jump River Electric, Other Utility Companies and Cooperatives
When – Ongoing

Action 6: Support and promote the development of a comprehensive roadside litter collection program.
Primary Responsible Party – Plan Commission
Responsible Party – Town Board, County
When – Ongoing

Objective 4: Define Northwoods Character.

Action 1: Develop a working and supportable definition for what constitutes Northwoods Character in the Town of Round Lake. (e.g. the presence of old growth forests, wetlands, fall color, USFS lands, public trust waters, historical logging artifacts, native American activities, wild rice beds, forested islands, viewing opportunities of wildlife such as eagles and osprey, wolves, Elk, and deer, local ad restaurants, resorts and the absence of bill boards, big box business, chains, overzealous shoreline development, etc.)
Primary Responsible Party – Plan Commission
Responsible Party – Town Board
When – Ongoing

Action 2: Promote plans, ordinances and design standards that enhance and sustain northwoods character.
Responsible Party – Plan Commission
When – Ongoing

Action 3: Promote outdoor lighting ordinances and design standards that maintain public access to dark skies.
Primary Responsible Party – Plan Commission
Responsible Party – Town Board
When – Ongoing

Goal 2: Preserve the quality of our area's lakes and surfaces waters such as streams, rivers, and springs.

Objective 1: Reduce non-point nutrient and erosion runoff into lakes, streams, rivers and springs.

Action 1: Protect surface water quality by supporting stream bank management, natural shoreline restoration practices, river and stream clean-up initiatives, and use of buffer areas.
Primary Responsible Party – Plan Commission

Responsible Party – Town Board, WDNR, Sawyer County Zoning
When – Ongoing

Action 2: Require construction site erosion control programs designed to improve water quality of the surface waters.
Primary Responsible Party – Sawyer County
Responsible Party – Town Board, WDNR
When – Ongoing

Action 3: Require effective storm water management.
Responsible Party – Town Board
When – Ongoing

Action 4: Encourage the Town of Round Lake to use environmentally friendly products on the roadways for winter safety.
Primary Responsible Party – Town Board
Responsible Party – County Highway Department, WDOT
When – Ongoing

Action 5: Encourage the use of retention ponds/rain gardens for stormwater management.
Primary Responsible Party – Plan Commission
Responsible Party – Town Board
When – Ongoing

Action 6: Encourage the use of riprap in ditches to prevent excessive flow of water within the ditch.
Responsible Party – Town Board
When – Ongoing

Objective 2: Protect sensitive shorelands by identifying and mapping wetlands, river and stream corridors, springs, floodplains and environmental corridors.

Action 1: Limit development near wetlands, river and stream corridors, springs, floodplains, and in environmental corridors.
Primary Responsible Party – Sawyer County
Responsible Party – Town Board, Plan Commission
When – Ongoing

Action 2: Require a buffer of natural vegetation along shorelines and wetlands.
Primary Responsible Party – Sawyer County
Responsible Party – Town Board, Plan Commission
When – Ongoing

Action 3: Require that wetlands remain in its natural condition.
Primary Responsible Party – WDNR

Responsible Party – Town Board, Plan Commission, US Army Corp of Engineers
When – Ongoing

Objective 3: Promote understanding of the importance of water resources through distribution and public discussion of this plan

Action 1: Prepare press items, radio and TV interviews, web site promotion, Town Board presentations, etc to promote the understanding of the importance of water resources
Primary Responsible Party – Plan Commission
Responsible Party – Town Board
When – Ongoing

Goal 3: Protect and improve the quality and quantity of the Town's ground water.

Objective 1: Ensure the protection of the Town's groundwater.

Action 1: Identify potential point and non-point sources of pollution.
Primary Responsible Party – Plan Commission
Responsible Party – NWRPC, County, Town Board
When – Ongoing

Action 2: Systematically evaluate the potential impacts of development proposals on groundwater quality and quantity.
Primary Responsible Party – Plan Commission
Responsible Party – NWRPC
When – Ongoing

Action 3: Assume leadership and coordination of efforts with surrounding Towns to monitor groundwater quality and potential contamination issues.
Primary Responsible Party – Plan Commission
Responsible Party – Town Board, County
When – Ongoing

Action 4: Support a well abandonment program.
Responsible Party – County
When – Ongoing

Objective 2: Ensure that adequate amounts of safe drinking water are available throughout the town.

Action 1: Protect groundwater quality through the proper placement and dispersion of new on-site wastewater systems and through appropriate maintenance and replacement of older systems.
Primary Responsible Party – Sawyer County

Responsible Party – WDNR
When – Ongoing

Action 2: Avoid new development within 1200 feet of open and closed landfills.
Responsible Party – Plan Commission
When – Ongoing

Action 3: Limit excessive irrigation practices.
Primary Responsible Party – Plan Commission
Responsible Party – WDNR
When – Ongoing

Action 4: Support conservation development designs.
Primary Responsible Party – Plan Commission
Responsible Party – Town Board
When – Ongoing

Action 5: Continue working with WDNR to monitor effects of closed dumpsites.
Primary Responsible Party – Plan Commission
Responsible Party – WDNR
When – Ongoing

Goal 4: Manage stormwater runoff

Objective 1: Promote stormwater management practices that reduce property and road damage and ensure a high level of water quality.

Action 1: Promote the use of stormwater management practices to abate non-point source pollution and protect water quality.
Primary Responsible Party – Plan Commission
Responsible Party – Town Board
When – Ongoing

Action 2: Preserve natural open space areas such as wetlands and floodplains that will accommodate floodwater and minimize flooding.
Primary Responsible Party – Plan Commission
Responsible Party – Town Board, County, WDNR, NWRPC
When – Ongoing

Action 3: Maintain town roadside swales/ditches/culverts and other related stormwater facilities for both stormwater quantity and quality control.
Primary Responsible Party – Town Board
Responsible Party – County
When – Ongoing

Action 4: All new or altered ditch slopes shall contain proper stabilization.
Primary Responsible Party – Town Board
Responsible Party – County
When – Ongoing

Action 5: Stormwater management shall be addressed as a requirement of all development proposals with an appropriate level of review based on potential negative impacts caused by construction site erosion and post-construction runoff.
Primary Responsible Party – Town Board
Responsible Party – County
When – Ongoing

Forestry

Goal 1: Preserve, enhance, and promote the sustainable use of forest resources.

Objective 1: Conserve productive forestland by expanding the use of conservation easements, incentives, and voluntary, long-term stewardship of forestlands.

Action 1: Promote the protection of forestlands that are susceptible to development, have the potential to connect to other parcels of forestland, have public importance, and provide critical ecological functions.
Primary Responsible party – Town Board
Responsible party - Plan Commission
When – Ongoing

Action 2: Work with individuals and organizations to prohibit development on critical forestland through the acquiring of conservation easements, purchase of development rights or transfer of development rights on those lands.
Primary Responsible party – Town Board
Responsible party- Plan Commission
When – Ongoing

Action 3: Protect lands identified as Wisconsin Forest Legacy Areas and areas identified in the Land Legacy Report.
Primary Responsible party – Town Board
Responsible party- Plan Commission
When – Ongoing

Action 4: Support efforts by non-profit organizations such as land trusts, private organizations, and private landowners to preserve forestland.
Primary Responsible party – Town Board
Responsible party- Plan Commission
When - Ongoing

Objective 2: Encourage multiple uses of forest resources.

Action 1: Engage all forest users to become involved in the development of forest management policy, which may identify and prevent user conflicts.
a. Co-ordinate enforcement of existing regulations when using the forest trail network.
b. Work with the County, State, and USFS to develop and review future use policy.

Primary Responsible party – Town Board
Responsible party- Plan Commission
When – Ongoing

Action 2: Promote the recreational value of the town's access and use of large amounts of public land.
a. Post existing trail networks on maps at the town hall.
b. Continue to work with, support and cooperate with service clubs and organizations related to the maintenance and development of forest based recreational facilities and activities.

Primary Responsible party – Plan Commission
Responsible party- Town Board
When - Ongoing

Goal 2: Preserve forest integrity.

Objective 1: Promote a healthy vigorous forest.

Action 1: Work cooperatively with Sawyer County as it relates to the Town of Round Lake Comprehensive Plan.
Primary Responsible party – Plan Commission
Responsible party- Town Board, Sawyer County Zoning
When – Ongoing

Action 2: Work cooperatively with the USFS as it relates to the Town of Round Lake Comprehensive Plan.
Primary Responsible party – Plan Commission
Responsible party- Town Board
When – Ongoing

Action 3: Work cooperatively with the Wisconsin Department of Natural Resources as it relates to the Town of Round Lake Comprehensive Plan.
Primary Responsible party – Plan Commission
Responsible party- Town Board
When – Ongoing

Action 4: Use forestry "best management practices" as minimum standards for logging within the Town of Round Lake.
Responsible party – Town Board
When – Ongoing

Action 5: Encourage forest landowners to enroll in Wisconsin's Managed Forest Law program.
Responsible party – Town Board
When – Ongoing

Action 6: Encourage land owners to develop, update and maintain forest management plans.
Responsible party – Town Board
When – Ongoing

Action 7: Encourage the use of native species in plantings and implement control measures to prevent the spread of invasive species that can have negative ecological, economic, and social impacts to forests.
Primary Responsible party – Town Board
Responsible party- Plan Commission, Lake Associations
When - Ongoing

Action 8: Plan for emergency fuel reduction in the event of forest insect or disease outbreak, storm damage, or forest fire event, which may result in large areas of dead, downed, or dying trees.
Primary Responsible party – Sawyer County, WDNR and US Forest Service
Responsible party – Town Board
When – Ongoing

Objective 2: Discourage forest parcelization and isolation.

Action 1: Explore more effective land use controls and incentives for retaining the town's large, contiguous forestry tracts including but not limited to: establishing larger minimum lot sizes, setting maximum residential densities, controlling the location and extent of the non-forestry areas.
Primary Responsible party – Plan Commission
Responsible party- Town Board
When – Ongoing

Action 2: Consult with Tribes and intertribal agencies during decision-making processes.
Primary Responsible party – Town Board
Responsible party- Plan Commission
When – Ongoing

Action 3: Encourage cluster development which reduces further forest fragmentation.
Primary Responsible party – Plan Commission
Responsible party- Town Board
When – Ongoing

Action 4: Support the acquisition of privately owned forestland by WDNR, county, or non-profit organizations.
Responsible party – Town Board
When – Ongoing

Action 5: Encourage the donation of privately owned forestland by private landowners, public utilities, the Wisconsin Board of Commissioners of Public Lands and others for conservation purposes.
Responsible party – Town Board
When – Ongoing

Action 6: Encourage reforestation to protect large contiguous blocks of forest.
Primary Responsible party – Town Board
Responsible party- Plan Commission
When – Ongoing

Action 7: Protect threatened, cultural, and economically significant forest areas within the Town of Round Lake.
Primary Responsible party – Town Board
Responsible party- Plan Commission
When - Ongoing

Metallic Mining

Goal: Assure that any development of metallic resources is done without adversely affecting other natural and cultural resources.

Objective 1: Provide access to metallic resources in a manner consistent with the other goals of this element.

Action 1: Monitor the permitting process for metallic mines.
Responsible Party – Town Board
When – Ongoing

Action 2: Prepare a draft of restrictions, safeguards and other requirements that The Town of Round Lake believes necessary for protecting the public health, safety and welfare of its residents in the establishment and operation of a metallic mining site.
Responsible Party – Town Planning Commission
When – By 2015

Non-Metallic Mining

Goal: Assure an adequate supply of non-metallic resources for local construction purposes while protecting other natural and cultural resources.

Objective 1: Provide access to non-metallic resources in a manner consistent with the other goals of this element.

Action 1: Identify and encourage best-practices operation of non-metallic mining sites.
Responsible party – Town Board
When = Ongoing

Action 2: Monitor conditional use permits of non-metallic sites.
Responsible party – Town Board
When = Ongoing

Action 3: Monitor reclamation plans including the proposed end use of the site.
Responsible party – Town Board
When = Ongoing

Action 4: Identify sites registered as the location of marketable non-metallic resources.
Responsible party – Town Board
When = 2011

Cultural Resources

Goal: Identify, preserve, enhance and promote the town's cultural heritage resources, including historical places, archaeological sites and landscapes.

Objective 1: Identify the town's historic and cultural resources.

Action 1: Work with the Lac Courte Oreilles tribal members to identify and preserve their cultural heritage.
Primary Responsible Party - Plan Commission
Responsible Party – LCO Tribal Government
When – Ongoing

Action 2: Identify and develop a list of any potential or registered historical places in the town.
Primary Responsible Party – Plan Commission
Responsible Party – Sawyer County Historical Society
When – 2012

Action 3: Evaluate local cultural and historic resources in conjunction with developing a local landmark program.
Responsible Party – Plan Commission
When - 2012

Objective 2: Expand knowledge of recognized and newly identified cultural and historic resources.

Action 1: Promote the Sawyer County Historical Society.
Responsible Party – Plan Commission
When – Ongoing

Action 2: Encourage local historians to record oral histories and compile written and pictorial histories.
Responsible Party – Plan Commission
When – Ongoing

Action 3: Work with private landowners on the preservation of historic buildings, farmland, and logging sites.
Responsible Party – Plan Commission
When - Ongoing

Coordination with Other Plan Elements

The development of the Agricultural, Natural and Cultural Resources Element required coordination with all of the required plan elements. For example, when considering economic development strategies, the importance of natural resources was important to consider. Below is a description of the critical issues addressed with respect to the Land Use and Housing Elements. These elements are profiled because their coordination with the Agricultural, Natural and Cultural Resources Element is critical to the success of the plan.

LAND USE

Residents of the town have clearly indicated in our survey results that the preservation of forest and the protection of natural resources is a priority. As a result, when the *Future Land Use Maps* were developed special consideration was given to these two priorities. Likewise, the implementation element will help to ensure that through the enforcement of desired planning, natural resources and forest are protected in the Town of Round Lake.

HOUSING

Housing, if not carefully located and planned for can have a severe impact on natural resources and forest. Housing development can fragment forest and wildlife habitat areas. If not carefully planned, additional traffic, people, and services associated with housing development can quickly destroy the northwoods character. The Town of Round Lake desires a development pattern that protects natural resources and forest, while still accommodating some residential development. To achieve this, the use of conservation subdivisions and other non-traditional techniques will be encouraged in the Town. This strategy for housing development is reflected in the **Map 8.3,** Future Land Use Map.