

NATURAL, AGRICULTURAL, AND CULTURAL RESOURCES

Introduction

This element includes an inventory and analysis of the natural, agricultural, and cultural resources in the Town of Sherman. Within the following narrative, various components of the community resource base are examined at a broad level or “planning scale”. The purpose of this examination is to provide the community with the necessary information to make informed decisions about future growth and development.

5.1 NATURAL RESOURCES

The protection of sensitive natural resources is necessary for the welfare of people and the environment. By allowing natural processes, such as the hydrologic cycle/system, to function without impediment, property, water supply, and environment are protected. The protection of natural resources also preserves important ecological communities. Certain natural resources have more than merely aesthetic and recreational activity values. They are essential to long-term human survival and the preservation of life, health, and general welfare. As such, the protection and/or management of these natural resources clearly are in the public interest. Thus, the analysis of those natural resources found within the study area is done for the purpose of directing development away from specific areas not intrinsically suitable for a particular use and given the physical characteristics found within the study area, to at least guide development in a direction that is least disruptive.

Location

The Town of Sherman is located within the northern highland geographic province, a pitted out-wash plain of heavily forested terrain with many lakes, potholes, and wetlands. The topographic features of the town are resultant from the last glacial age that occurred about 15,000 years ago. The town lies within the highland lake district of northern Wisconsin, an area with some of the highest lake densities in the world. The town lies within six watersheds with most lands draining to the Bear River and the Turtle-Flambeau Flowage.

The lakes region of southern Iron County has seen a rapid increase in the development of recreational homes, cottages, and cabins. Development pressure within the Town of Sherman is presently concentrated in the lakes cluster at the town center. Many lakes and rivers in the town are located on public lands. The Turtle-Flambeau Scenic Waters Area contains several thousand state-owned acres of water and miles of undeveloped shoreline.

Topography & Slope

Topography is considered generally level to rolling., with elevation ranging from 1,512 feet above sea level at the Flambeau River in Section 7, T41N-R2E to 1,706 feet, near Sister Lakes in Section 7, T41N-R3E. Elevation and Topography in the Town of Sherman are depicted in Map 5.1.



Steep slopes are considered to be sensitive areas due to the potential for soil erosion, slope instability and increased runoff velocity. As a general rule, slopes in excess of 15-20 percent are considered ‘steep’. Development in these areas often requires costly engineering and site

preparation/mitigation measures to minimize potential adverse impacts. Development in these areas should be avoided, and a natural state maintained.

Slope evaluation should be used to in conjunction with the examination of other physical factors such as geology, soils and local drainage patterns). Town of Sherman slopes are depicted in Map 5.2.

Ecological Landscapes and LandTypes

Ecological Landscapes are broad ranging areas with similar ecological potential and geography. The Town of Sherman is located primarily within the Northern Highlands Ecological Landscape (EL). This landscape is characterized by pitted outwash plains, kettle lakes, large peatlands and extensive forests.) The North Central Forest EL encompasses the areas west of the Turtle-Flambeau Flowage. This Landscape is a heavily forested region with numerous small drainages and lakes that characterizes much of northern Wisconsin.

Ecological Landscapes are comprised of many individual Landtype Associations (LTA's). LTA's are classified and mapped based on the associations of biotic and environmental factors that include climate, physiography, water, soils, air, hydrology, and potential natural communities. Landtype Associations can be interpreted to provide land information useful for planning and development. Iron County EL's and LTA's are depicted in Map 5.3.

Ecological Landscape → Landtype Association *Increasing detail and specificity*

LTA's of the North Central Forest Ecological Landscape in the Town of Sherman

1) Chequamegon Washed Till and Outwash (212Xa03)

This LTA encompasses part of the southwestern corner of the town, west of the Turtle-Flambeau Flowage. The characteristic landform pattern is rolling collapsed moraine and outwash plain complex. Soils are predominantly well drained and moderately well drained loamy and sandy soils with a sandy loam surface over non-calcareous loamy sand till, along with very poorly drained nonacid organic soils. Soil Associations include the Padus-Keweenaw-Sarwet-Pence-Lupton, Worcester-Manitowish-Vilas-Croswell, Rosholt-Cress-Antigo Associations.

LTA's of the Northern Highlands Ecological Landscape in the Town of Sherman

1) Northern Highland Outwash Plains (212Xb01)

This LTA encompasses most of southeastern Iron County, and a large portion of the lakes region of Vilas, Oneida, and Lincoln Counties. The characteristic landform pattern within this LTA is undulating pitted and unpitted outwash plain with swamps, bogs, and lakes common.. Soils characteristics include well-drained, moderately well drained, and somewhat poorly drained loamy and sandy soils with a sandy loam surface over non-calcareous gravelly sand outwash, along with very poorly drained acid and nonacid organic soils. Soil associations include Padus-Pence-Loxley-Seelyeville-Manitowish-Worcester, Vilas-Rubicon-Croswell associations.

2) Vilas-Oneida Sandy Hills (212Xb02)

The characteristic landform pattern is rolling collapsed outwash plain with bogs common. Soils are generally excessively drained and well drained sandy soils with a loamy sand, sand, or sandy loam surface over non-calcareous gravelly sand or sand outwash or loamy sand till, along with very poorly drained acid organic soils. Soil associations include Sayner-Karlin-Rubicon-Loxley-Keweenaw-Pence Associations.

3) Vilas-Oneida Outwash Plains (212Xb03)

The characteristic landform pattern is nearly level pitted and unpitted outwash plain with bogs and lakes common. Soils are generally excessively drained, somewhat poorly drained, and moderately well drained sandy soils with a sand surface over non-calcareous sand outwash, along with very poorly drained acid organic soils. Soil associations include the Rubicon-AuGres-Croswell-Loxley, Padus-Pence Associations.

4) Powell Marsh (212Xb04)

LTA occurs on the far eastern edge of the Town of Sherman, extending eastward into Vilas County. The characteristic landform pattern is nearly level bog with common small sandy islands. Soils are predominantly very poorly drained acid muck with a peat surface over muck or sand outwash. Soil associations include Loxley-Dawson, Croswell-Rubicon-AuGres Associations.

Soil Characteristics

An understanding of local soils is an important part of land use planning. Soil factors such as wetness, drainage capacity, strength, and depth to bedrock all influence soil suitability for land uses. The soils of Sherman are derived primarily from the weathering of glacial deposits. Local soils can be generally characterized as medium coarse textured soils with high-medium permeability.

Soil associations in Iron County have been mapped by the Natural Resources Conservation Service (NRCS). Soil associations are landscapes that have a distinctive proportional pattern of soils. They provide a generalization of soils found within a large geographic area and are not suitable for site-specific analysis. More detailed mapping of county soils is currently being compiled by the NRCS. Town of Sherman Generalized Soils are depicted in Map 5.4.

Descriptions of Soil Associations in the Town of Sherman (Generalized Soil Areas, USDA-SCS, 1972)

Iron River-Padus Association (Ir-Pa), 6-20% slopes

Sloping and moderately steep. Well drained loam and sandy loam soils with loamy sand or sand and gravel in the substratum. Ground moraines and outwash plains are the major landforms. Nearly level and gently sloping wet soils and steep ridges are included. Surface stones are few to common. Few wet depressions are included. Present vegetation is mixed northern hardwoods and conifers with some areas of cultivated crops. This association occupies about 14 percent of Iron

County. About 60 percent is Iron River soil, 30 percent is Padus soil and the remaining 10 percent is minor soils. The sloping to moderately steep Iron River soils are well drained. These soils are on low ridges and rolling uplands with convex slopes. Cobblestones and surface stones are common. The surface layer is gray or black sandy loam or loam about 3 inches thick. The subsoil is dark brown and reddish brown sandy loam and loamy sand about 56 inches thick. They are underlain by reddish brown loamy sand. Small pockets of sand and gravel are included in the substratum. Padus soils are well drained and sloping. The surface layer is dark reddish brown loam or sandy loam about 3 inches thick. The subsoil is brown, dark brown or reddish brown loam or sandy loam about 35 inches thick. They are underlain by reddish brown sand and gravel at 20 to 40 inches below the soil surface. There are few surface stones. Some of the minor soils are wet during some periods of the year. Other soils are steep and gravelly or are sloping and underlain with fine sandy sediments.

Most commonly used for woodland. These soils are well suited for woodland and limited residential development.

Vilas-Omega Association (Vi-Om), 0-3% slopes

Nearly level and gently sloping somewhat excessively drained sandy soils. Pitted outwash plains are the major landforms. Shallow wet depressions are common to many. Few drainageways are present. Surface water rapidly infiltrates into the soil. Few surface stones are present. Present vegetation is mixed northern red oak and conifers.

This soil association occupies 6 percent of Iron County. About 30 percent is Vilas soil, 30 percent is Omega soil and the remaining 40 percent is minor soils. The nearly level and gently sloping Vilas soils have formed in acid sandy outwash with very few stones. The surface layer is black loamy sand about 1 inch thick. The subsoil is dark reddish brown and reddish brown loamy sand or sand about 20 inches thick. They are underlain by light reddish brown sand. The rooting zone is shallow.

The nearly level and gently sloping Omega soils have formed in acid sandy outwash with very few stones. The surface layer is black loamy sand about 1 inch thick. The subsoil is light reddish brown loamy sand or sand about 10 inches thick. They are underlain by light reddish brown sand. The rooting zone is very shallow. The minor soils are nearly level with a seasonal high water table, nearly level very acid organic soils or gently sloping with very fine sandy sediments in the substratum.

These soils are used for woodland. They are well suited for residential and low intensity recreation developments.

Organic Soil Association (Or), 0-2% slopes

Nearly level poorly drained organic soils and poorly drained fine sandy alluvial soils are in this association. Lake basins, lake beaches and broad flood plains are the major landforms. Potholes, oxbows and narrow sandy ridges are common. Present vegetation is lowland hardwoods, sedges and alderbrush. This soil association occupies about 15 percent of Iron County. About 70 percent is organic soil and the remaining 30 percent is minor mineral soils.

The nearly level poorly drained organic soils have formed in more than 20 inches of partially decomposed organic material. These soils are on broad, nearly level lake basins. The organic material is woody or sedge plant remains. They are very acid to neutral. The minor soils in the association are either poorly drained mineral soil on flood plains or gently sloping somewhat poorly drained sandy ridges adjacent to floodplains. These soils are used for wildlife, recreation and commercial wild rice production. They are well suited for wildlife and recreation.

Vilas-Pence Association (Vi-Pe), 0-12% slopes

Nearly level to gently sloping somewhat excessively drained sandy soils. Pitted outwash plains, remnant lake shore beachlines and eskers are the major landforms. Wet depressions are steep-sided and common. Few drainageways are present. Surface water rapidly infiltrates into the soil. Surface stones are common on eskers. Present vegetation is mixed northern upland hardwoods and conifers. This soil association occupies about 6 percent of the county. About 60 percent is Vilas soil, 20 percent is Pence soil and the remaining 20 percent is minor soils. The gently sloping and sloping Vilas soils have formed in acid sandy outwash with very few stones. The surface layer is black loamy sand about 1 inch thick. The subsoil is dark reddish brown and reddish brown loamy sand or sand about 20 inches thick. They are underlain by light reddish brown sand. The rooting zone is shallow. Vilas soils are on pitted outwash plains and remnant beachlines. The sloping and moderately steep Pence soils have formed on sandy and gravelly eskers. Stones and cobblestones are common. The surface layer is dark reddish brown loam or sandy loam about 3 inches thick. The subsoil is reddish brown and dark reddish brown sandy loam and loamy sand about 35 inches thick. They are underlain by reddish brown sand and gravel. The minor soils are either gently sloping or sloping sandy soils that are underlain with fine sand, silt and clay, steep-sided drainageways or depressions with seasonal high water tables. These soils are used for woodland and wildlife. The nearly level and gently sloping soils are well suited for farming. Steeper soils are well suited for woodland. Vilas soils are good sources of sand. Pence soils are a good source of sand and gravel.

Geology

Subsurface geologic conditions can strongly influence future development potential. Improper land use can result in contaminated water supplies, septic tank failures, and damaged roads. Undifferentiated crystalline rocks underlie the Town of Sherman. Glacial deposits cover bedrock at depths of 50 to 100 feet. Outwash covers most of the southern portion of Iron County.

Geologic Units found in the Town of Sherman

Biotite schist
Mafic metavolcanic
Post-tectonic granitic rocks

Map 5.5, Geology, Mineral Deposits, Availability and Status depicts the generalized bedrock geology within the Town of Sherman.

Legacy Places

Legacy Places are Wisconsin's most important areas in meeting the states conservation and recreation needs for the next 50 years. The Wisconsin Department of Natural Resources defined 228 legacy places statewide in the 2002 report "Wisconsin Land Legacy Report: An Inventory of Places Critical in Meeting Wisconsin's Future Conservation and Recreation Needs". Within the Town of Sherman, the WDNR has identified the Turtle-Flambeau Flowage as a Legacy Place.

The Turtle Flambeau Flowage is a 13,545 acre reservoir with 211 miles of predominantly wilderness shoreline. The flowage is a popular recreation destination for those seeking fishing and wilderness camping experiences. The environmental and recreational values associated with the Flowage are primary reasons this resources is classified as a Legacy Place, specifically the Flowage:

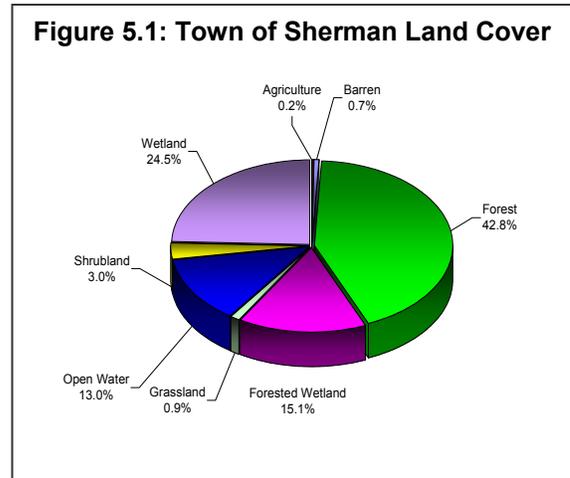
- is one of northern Wisconsin's most popular backcountry areas
- is surrounded by an abundance of public land
- provides habitat for numerous wildlife species
- provides old-growth hemlock and pine habitats in surrounding woodlands
- provides many recreational opportunities (boating, fishing, camping) to the public

The protection of legacy places is critical from both a local and statewide perspective. The ties between demand for recreational opportunities and the quality of the natural environment are strong. Local economies in Iron County are strongly dependant upon these resources to provide the recreational opportunities needed to generate revenue within the community. Local policy, planning, and the development of appropriate strategies for the future will ensure that these resources remain viable for future generations.

Existing Land Cover

Land cover information was obtained through analysis of the WISCLAND ` based on 1991-1993 Landsat satellite imagery. This information can be used to develop a generalized local land cover profile, and to quantify the relative proportion of individual vegetation cover types on the landscape.

The dominant land cover types are forest and wetlands, which comprise nearly 80 percent of the total land area in the Town of Sherman. The primary forest species are aspen (*Populus spp.*), sugar maple (*Acer saccharum.*), and jack pine (*pinus banksiana*). The forest community in the Town of Sherman includes many other coniferous and deciduous species occurring at varying local densities throughout the town. Woodland cover plays a key role in the function and value of sensitive environmental areas like steep slopes, wetlands, and floodplains. Regulation of the removal of woodland vegetation is necessary to protect scenic beauty, control erosion, and reduce effluent and nutrient flows into surface water bodies/courses. Forest products and processing are vital components of the Iron County economy. According to the Wisconsin Department of Natural Resources 2000 Summary of County Economic Sectors, Iron County Forest Products & Processing had \$39,000,000 in industry output, employed 415 people, and accounted for \$11,000,000 in employee compensation. Forest cover is depicted in Map 5.6, Forest Cover Types.



Aspen	23.1%
Jack pine	5.1%
Mixed deciduous/coniferous	9.9%
Mixed/other broad-leaved deciduous	11.9%
Mixed/other coniferous	5.9%
Red pine	0.7%
Sugar maple	17.5%
Forested Wetland: broad-leaved deciduous	2.8%
Forested Wetland: coniferous	8.2%
Forested Wetland: mixed deciduous/coniferous	15.1%
Source: WISCLAND	100.0%

Wetland communities in the Town of Sherman consist of three dominant types, emergent/wet meadow, scrub/shrub, and forested wetlands. Dominant plant species found in local open bog land communities includes tamarack (*Larix laricina*), black spruce (*Picea mariana*), leatherleaf (*Chamaedaphne calyculata*), and tussock cottongrass (*Eriophorum vaginatum*), and sphagnum moss. Other wetland plant species

associated with local wetlands include small cranberry (*Vaccinium oxycoccos*), bog rosemary (*Andromeda glaucophylla*), bog laurel (*Kalmia polifolia*), bog sedge (*Carex oligosperma*), tawny cottongrass (*Eriophorum virginicum*), sphagnum mosses (*Sphagnum spp.*), and wool grass (*Scirpus cyperinus*). Wetland species associated with the coniferous swamps of the region commonly include northern white cedar (*Thuja occidentalis*), yellow birch (*Betula alleghaniensis*), black ash (*Fraxinus nigra*), speckled alder (*Alnus incana ssp. rugosa*), along with many sedges and flowers. The wooded swamps of the region are commonly associated with black ash (*Fraxinus nigra*), lake sedge (*Carex lacustris*), ostrich fern (*Matteuccia struthiopteris*), and marsh marigold (*Caltha palustris*). Many other species ferns, grasses, sedges, and flowers also inhabit these environments.

Small, scattered pockets of grassland, barren land, and shrubland are also found throughout the town. These land cover types account for less than five percent of the vegetative cover in the Town of Sherman

Historic Land Cover

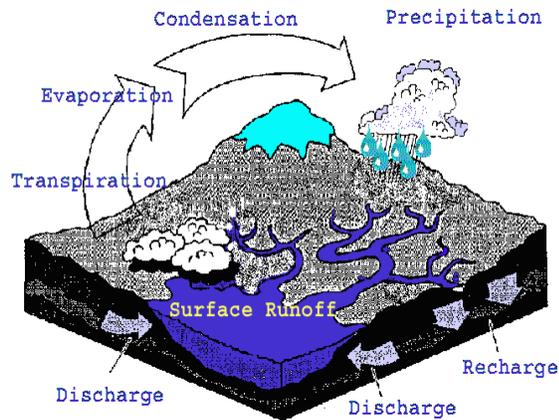
Historic land cover was derived from “Finley’s Presettlement Vegetation” GIS coverage for Wisconsin. The original or pre-settlement vegetative cover in the Town of Sherman consisted of wetland vegetation (swamp conifers) and a deciduous-coniferous mixed forest. Isolated pockets of boreal forest also occurred on the landscape.

Surface Water Resources and Wetlands

Water resources are an important component of the natural landscape. These dynamic resources provide many benefits to both humans and wildlife. Lakes, rivers, streams, and groundwater aquifers are part of a natural cycle called the hydrologic cycle, in which water is cycled through the environment via natural processes (see diagram).

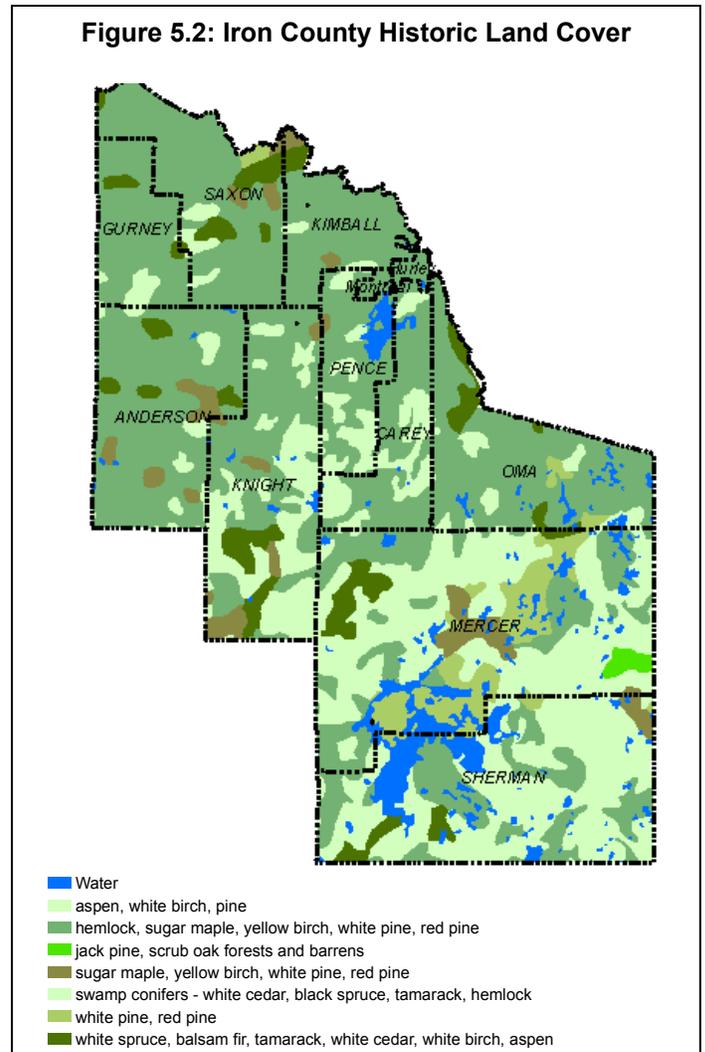
The quality and quantity of these resources is strongly dependant upon how land is used.

Figure 5.3: Hydrologic Cycle



Source: WDNR

Figure 5.2: Iron County Historic Land Cover



Activities on the landscape can introduce sediments and pollutants, affecting the usability of water for drinking and harming wildlife. Activities that disrupt the natural flow of water systems, such as dams and diversions, can alter natural processes and cause habitat loss.

Arguably, the most significant concern facing northern lakes is overuse and development. Over the past 30 years, nearly two-thirds of all lakes ten acres and larger were developed in northern Wisconsin. Continuing pressures are being placed on water resources and the number of people using these resources continues to grow annually.

Recently, changes have occurred in the way we view water resources. The Wisconsin Department of Natural Resources has taken a *watershed* approach to planning, because it focuses stakeholders on what a particular lake, river, or wetland needs and what they can do collectively to meet that need.

Watersheds

By definition, a *watershed* is an interconnected area of land draining from surrounding ridge tops to a common point such as a lake or stream confluence with a neighboring watershed.

The Town of Sherman lies entirely within Mississippi River Drainage Basin (Upper Chippewa Water Management Unit – Figure 5.5). Surface water drainage is accommodated via five major watersheds (Figure 5.6), including:

Upper North Fork Flambeau River
Upper South Fork Flambeau River
Flambeau Flowage

Bear River
Manitowish River

These major watersheds are composed of numerous subwatersheds, or drainage areas for individual lakes and streams. Land use planning is best conducted at the subwatershed scale, where it is recognized that stream quality is interconnected to local land use and impervious surface cover. See Map 5.7, Water Resources and Watersheds for local watershed boundaries.

Figure 5.4: Iron County Basins

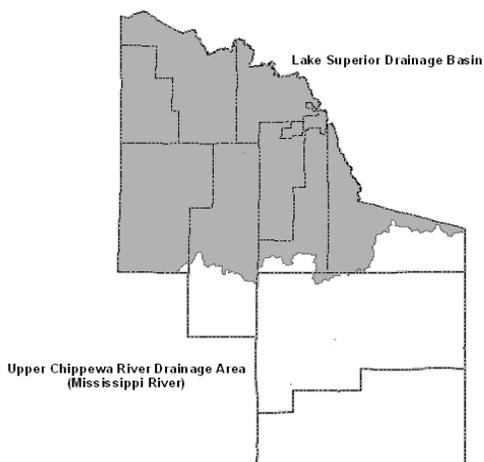
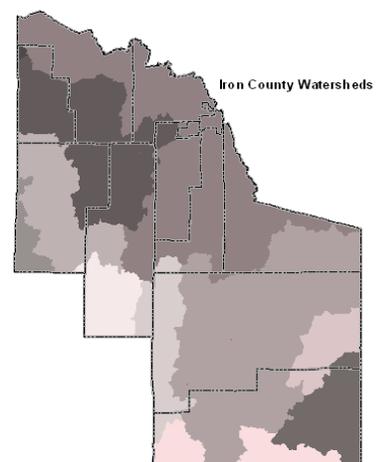


Figure 5.5: Watersheds



General Quality of Surface Waters

The quality of surface waters in the Town of Sherman is generally considered very good to excellent.

Impaired Water Bodies

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

This impairment is the result of a high concentration of mercury, entering the lake through atmospheric deposition (dust, rain, snow). Mercury is a toxic metal released by both natural and man-made processes. Although it does occur naturally, human activities have greatly increased its concentration in the environment. Mercury is able to travel great distances in the atmosphere contaminating lakes far removed from the source. Because the impairment of these water bodies is primarily the result of atmospheric deposition, and the transport of air toxic substances is transboundary in nature, the state of Wisconsin will not establish Total Maximum Daily Loads (TMDL's) for these resources. A TMDL is a plan to reduce the amount of specific pollutants reaching an impaired lake or stream.

The Wisconsin Department of Natural Resources has issued a fish consumption advisory (FCA) for both water bodies as a result of the elevated mercury levels.

ORW's and ERW's

Surface water resources have been evaluated and rated for water quality, fish, wildlife, and aesthetic values by the Wisconsin Department of Natural Resources. High quality resources were classified as either ***Outstanding Resource Waters (ORW's)***, or ***Exceptional Resource Waters (ERW's)***. An ORW is defined as a lake or stream having excellent water quality, high recreational and aesthetic value, high quality fishing, and is free from point source or non-point source pollution. An ERW is defined as a stream exhibiting the same high quality resource values as an ORW but may be impacted by point or non-point sources of pollution or has the potential for receiving a wastewater discharge from a non-sewered community in the future.

Town of Sherman ORW's

North Fork Flambeau River
Turtle Flambeau Flowage

Town of Sherman ERW's

Manitowish River

Lakes

Lakes are vital components of the community natural resource base. These resources provide unique habitats for wildlife, including a number of threatened and endangered species and communities. Lakes are also important, recreational, social, and economic resources that characterize northern Wisconsin. Like across much of the state, lakes in Iron County are under ever increasing development pressure.



Iron County has 214 named lakes comprising 28,586 acres. There also exist 280 unnamed lakes in the county, occupying an additional 418 acres. The Town of Sherman has nearly 3,000 acres of surface water (excluding Turtle-Flambeau Flowage) in 55 lakes. Excluding the flowage, the town has 79 miles of shoreline, with 13 miles classified as public. The largest water body in the town is the Turtle-Flambeau Flowage, a man-made reservoir created in 1926 by the damming of the Turtle and Flambeau Rivers. The Flowage is the largest publicly owned water resource in the State of Wisconsin. See Table 5.2 for more details.

Table 5.2: Lake Characteristics (Named Lakes)

Name	Class	T	R	S	Acres	Max Depth	Miles Shoreline*	Miles Public Shoreline*	Percent Private Shoreline*	S.D.F.‡	Lake Type†
Bass	2	41	4	29	15.6	20	0.7	0.00	100	1.27	S
Bearskull	1	41	3	25	77.1	27	2.5	0.15	94	2.03	D
Big Pine	1	41	3	36	632.4	22	4.5	0.00	100	1.28	D
<i>Birch</i>	1	41	4	11	63.2	12	1.5	0.00	100	1.35	D
<i>Black</i>	2	41	4	24	29.3	20	1.0	0.00	100	1.32	SP
Boot	2	41	3	8	177.2	16	3.9	0.00	100	2.09	S
Cap Henry	2	41	4	20	48.1	61	1.7	0.00	100	1.75	S
Charnley	2	41	3	20	71.3	30	1.8	0.00	100	1.52	S
<i>Cranberry</i>	2	41	4	34	63.8	8	1.8	0.00	100	1.61	SP
Cub	2	42	4	21	11.7	17	0.5	0.50	0	1.04	S
<i>Doud</i>	2	41	4	24	21.5	13	0.9	0.00	100	1.39	SP
Duck	2	41	4	31	13.4	15	0.9	0.00	100	1.76	D
East Reimer	2	41	4	6	5.5	5	1.0	0.15	85	3.01	D
Emerson	2	41	3	24	4.6	23	0.5	0	100	1.67	D
Ess	2	41	3	16	55.0	12	2.1	0.00	100	2.02	S
<i>Fat</i>	2	41	4	24	98.8	23	1.9	0.00	100	1.36	S
Fawn	2	41	3	5	20.0	16	1.0	0.00	100	1.59	S
Ferry	2	41	3	23	72.5	48	2.2	0.00	100	1.84	S
Flambeau Flowage	1	42	2	34	13545.0	50	211.0	200.00	5	12.94	D
French	2	41	3	17	91.9	16	3.1	0.00	100	2.30	S
Goose	2	41	3	14	11.3	3	0.6	0.60	0	1.29	S

Table 5.2: Lake Characteristics (Named Lakes)

Name	Class	T	R	S	Acres	Max Depth	Miles Shoreline*	Miles Public Shoreline*	Percent Private Shoreline*	S.D.F.‡	Lake Type†
Grant	2	42	3	14	107.0	10	2.9	0.00	100	2.00	D
Grey	2	41	4	24	34.5	61	1.5	0.00	100	1.82	S
Hourglass	2	41	3	24	4.5	18	0.5	0.00	100	1.68	S
Island	2	41	2	13	56.0	5	1.8	1.80	0	1.72	SP
Leach	2	41	3	12	4.4	12	0.5	0.50	0	1.70	S
Lehto	2	41	4	19	53.2	10	1.7	0.75	56	1.66	SP
Little Bear	2	42	4	22	3.7	5	0.4	0.40	0	1.49	D
Little Cap Henry	2	41	4	20	20.1	21	0.9	0.00	100	1.43	S
Little Muskie	2	41	3	29	47.2	32	1.5	0.01	99	1.56	S
Lost	2	41	4	36	5.0	11	0.4	0.00	100	1.28	S
Lower Springstead	1	41	3	28	95.1	25	2.4	0.00	100	1.76	D
Marty	2	41	3	32	13.2	30	0.8	0.00	100	1.57	D
McDermott	1	41	3	30	83.7	21	2.4	0.01	100	1.87	D
Minette	2	41	4	35	90.0	50	-	-	-	-	-
Mirror	2	41	4	7	57.5	7	2.0	0.95	53	1.88	S
Mud	2	42	4	23	55.7	7	1.4	1.40	0	1.34	SP
Munnomin	2	41	4	26	21.2	1	0.9	0.00	100	1.39	SP
Muskie	1	41	3	22	80.6	20	1.8	0.00	100	1.43	D
Mystery	2	41	3	19	13.2	43	0.7	0.00	100	1.38	S
Negani	2	41	4	27	17.7	30	0.9	0.00	100	1.53	S
Norma	2	41	3	19	6.9	15	0.5	0.00	100	1.40	S
North Sister	2	41	3	7	9.7	30	0.9	0.00	100	2.06	S
Otter	2	41	2	13	7.4	9	1.0	.9	90	2.63	D
Randall Lake	1	41	3	17	114.7	10	2.3	0.85	63	1.53	D
Reservation Line	2	41	4	34	47.3	12	1.3	0.00	100	1.35	S
Rice	1	41	3	26	15.3	3	0.9	0.00	100	1.64	D
Roberts Springs	2	42	4	25	27.1	7	1.2	1.20	0	1.64	SP
Sandy Beach	1	42	4	22	111.7	7	2.2	2.20	0	1.49	D
Sherman	2	42	3	4	123.0	19	-	-	-	-	-
South Sister	2	41	3	7	6.1	10	0.5	0.00	100	1.45	S
Stone	1	41	3	21	82.0	20	1.7	0.00	100	1.34	D
Teal	2	41	3	15	24.5	13	1.1	0.00	100	1.59	S

Table 5.2: Lake Characteristics (Named Lakes)

Name	Class	T	R	S	Acres	Max Depth	Miles Shoreline*	Miles Public Shoreline*	Percent Private Shoreline*	S.D.F.‡	Lake Type†
Town Line	2	41	3	35	9.0	17	-	-	-	-	-
<i>Thomas</i>	2	41	4	22	14.5	5	0.7	0.00	100	1.31	S
Upper Springstead	1	41	3	21	126.2	23	2.8	0.00	100	1.78	D
West Randall	2	41	4	18	9.3	10	0.7	0.70	0	1.64	D
West Reimer	2	41	3	11	11.9	14	0.7	0.70	0	1.45	S

Source: Iron County Lakes Classification

* * Multiple sections

* These figures represent acres, miles of shoreline and miles of public shoreline of entire water body, which may cross jurisdictional boundaries.

† Lake Types: D=Drainage, SP= Spring, S= Seepage

‡ The shoreline Development Factor (S.D.F.) is a method of expressing the degree of irregularity of shoreline compared to surface area. A S.D.F. of 1.00 indicates a perfectly round circle; lakes cannot have a S.D.F. of less than 1.00. Lakes with higher S.D.F. have more shoreline in relation to surface area thus are more vulnerable to development pressures per linear foot of shoreline that is developed.

• Lake information in above table that are shown in *Italic's* are inside the Lac Du Flambeau Tribal Reservation

• Several unnamed lakes in the Town are not included in above table

Lake Sensitivity

The quality of lake water is highly dependant upon the type of activities that occur within it's drainage area. People far from the resource can have an effect on the water quality because of their activities on the land. The overall size of the watershed determines how much surface runoff will enter the lake basin. This, in turn, will determine the extent to which sediment and nutrients will impact the lake. As a general rule, a lake with a large watershed area relative to lake area is most sensitive.

The lakes' natural ability to flush and circulate water is also a function of watershed size. Nutrient loading rates tend to be lower in lakes with smaller watersheds, however longer retention times (flushing rates) common to these lakes may also lead to more nutrient accumulation. The longest retention times occur on seepage lakes with no surface outlets

10 Largest Lake Watersheds in the Town of Sherman

Lake	Watershed (sq/mi)	
Unnamed 25-5	1.1	Bearskull 2.6
Upper Springstead	1.3	Randall 4.2
Lower Springstead	1.8	Grant 4.5
Rice	2.3	Big Pine 6.5
West Randall	2.5	Flambeau Flowage 647

Requirements

Under the Public Trust Doctrine, the State of Wisconsin has the responsibility to manage waterways for the benefit of all, and the Wisconsin Department of Natural Resources regulates

most activities on navigable waterways within the state. Chapter NR 115 of the Wisconsin Administrative Code requires all counties to zone, by ordinance, all shorelands within their respective unincorporated areas. These areas include all lands within 1,000 feet of a lake (including ponds and flowages) and within 300 feet of a navigable stream or landward extent of the floodplain (whichever is greater). Shorelands in Iron County are regulated under the county shoreland zoning ordinance, which meets the minimum state standards outlined in NR 115.

In 1998, Iron County adopted a two-class lake and stream classification system with varying shoreland dimensional development standards and lake access (keyhole/backlot development) standards. Under this system, a Conditional Use Permit (CUP) is required for keyhole/backlot developments. (Keyhole/backlot developments are where off-water parcels gain access to a lake or river through an on-water parcel). See Map 5.8, Lake and River Classification, Town of Sherman.

Table 5.3: Iron County Lakes Development Standards

Lakes Class	Lot Size	For Each Single Family Dwelling Unit Lot Width	Shoreline Setback	Lot Depth	Vegetation Removal
Class I	40,000 ft ² 80,000 ft ²	200ft/400ft ^(a)	75ft	200ft	30ft corridor within 35 ft of shore
Class II	90,000ft ² 180,000ft ²	300ft/600ft ^(a)	75ft	300ft	30ft corridor within 35 ft of shore

Source: Iron County Zoning Code

^{a)} = Standards for Two Family Dwelling Units

Rivers and Streams

Like lakes, river and stream resources support a wide range of species and habitats, including many threatened and endangered species and communities. These resources are important natural sediment transport systems that move runoff and materials downstream. Activities on the landscape directly impact the quality and quantity of water in rivers and streams and, ultimately, the water bodies to which they flow.



The Town of Sherman has nearly 78 miles of perennial streams. There are also many unnamed intermittent streams found in the town. Perennial streams flow 365 days a year in a normal year. Intermittent streams have short or lengthy periods of time when there is no flow in a normal year. Intermittent streams are significant to the overall drainage regime, especially following major precipitation events and spring snowmelt. Perennial streams found in the Town of Sherman include:

- Bear River
- Beaver Creek
- Cedar Creek
- East Fork Hay Creek
- Flambeau River
- Hay Creek
- Island Creek
- Little Bear Creek
- Lost Creek
- Manitowish River
- Otter Creek
- Pine Creek

- Randall Creek
- Reimer Creek
- Rice Lake Creek
-
- Springstead Creek
- Sugarbush Creek
- Thompson Creek

Requirements

Under NR 115, Wisconsin counties are required to zone, by ordinance, all shorelands within their respective unincorporated areas. This includes all lands within 300 feet of a navigable stream or landward extent of the floodplain (whichever is greater). Rivers and streams in Iron County are regulated under the county shoreland zoning ordinance.

Table 5.4: Iron County Rivers and Streams Development Standards

Class	Lot Size	For Each Single Family Dwelling Unit Lot Width	Shoreline Setback	Lot Depth	Vegetation Removal
Rivers and Streams	90,000 ft ² 180,000 ft ²	300ft/600ft ^(a)	75ft	300ft	30ft corridor within 35 ft of shore

Source: Iron County Zoning Code
^(a) = Standards for Two Family Dwelling Units

Northern Rivers Initiative

The Northern Rivers Initiative (NRI) is a shoreland habitat protection project spearheaded by the Wisconsin Department of Natural Resources in cooperation with over 225 participants from various federal and state agencies, tribal and local units of government, non-profit conservation organizations, industry, educators, and individuals. The mission of the NRI program is to provide protection options for northern Wisconsin streams and rivers that have high ecological significance, outstanding natural scenic beauty, or special recreational values. The program’s goal was to identify streams and rivers with the greatest risk of over-development or other threats and prioritize this list for the purpose of implementing protection options. Nearly 1,500 stream segments within 20 counties of northern Wisconsin were evaluated based on their individual natural resource, recreational, and cultural values. Stream segments were then ranked based on the following scoring evaluation criteria.

NRI Scoring Criteria

Natural Resource Values

1. Natural condition of the stream corridor (16%)
2. Road density (4%)
3. Dam impacts (6%)
4. Point source discharge impacts (4%)
5. Threatened, endangered and sensitive species (15%)
6. Fish community structure and habitat (15%)
7. Wildlife (9%)
8. Scenic quality (9%)

Recreational Values

1. Fishing (3%)
2. Canoeing/kayaking (3%)
3. Wildlife viewing (3%)
4. Hunting/trapping (3%)

Cultural Resource Values

1. Subsistence harvesting (5%)
2. Historic structures & archaeological sites (5%)

The NRI can be used by local units of government to establish local river and watershed protection priorities.

Table 5.5: NRI Streams in the Town of Sherman

Stream	Segment	Basin Rank	Overall Rank (1493)	Total Score	Basin	MCD's
Bear River	All	16	51	71.75	UC	Sherman
Flambeau River	T-F Flowage to Upper Park Falls Flowage	7	27	74.86	UC	Sherman, Mercer
Flambeau River	T-F Flowage to County line	162	868	43	UC	Sherman
Hay Creek	All	99	529	50.92	UC	Sherman
Manitowish River	Rest Lake Dam to T-F Flowage	18	55	71.43	UC	Sherman, Mercer
Springstead Creek	All	101	557	50.31	UC	Sherman

Source: WDNR

The above table shows NRI listed streams in the Town of Sherman. In the table, the *segment* heading identifies that portion of the stream which was selected and ranked based on specific data and subjective analysis related to the stream’s biological integrity, scenic and recreational values, and potential threats. The *basin rank* heading indicates the stream ranking within a particular basin (Lake Superior or Upper Chippewa* in Iron County). There were 210 identified streams within the Lake Superior Basin and 301 in the Upper Chippewa Basin. The heading titled **overall rank** indicates the stream’s relative ranking among the 1,493 streams identified within 20 counties in northern Wisconsin. The **total score** is the sum of the individual value scores under each of the three headings (natural resource, recreational, and cultural). The full individual scoring report for each stream can be found in the publication titled “Northern Rivers Initiative: An Integrated Ecosystem Management Project for Shoreland Habitat Protection”, produced by the Wisconsin Department of Natural Resources.

Groundwater

Groundwater is fresh water from rain or melting ice and snow that soaks into the soil and is stored in the tiny pores between rocks and particles of soil. Groundwater is the primary source of all household water in the Town of Sherman.

Groundwater Quantity

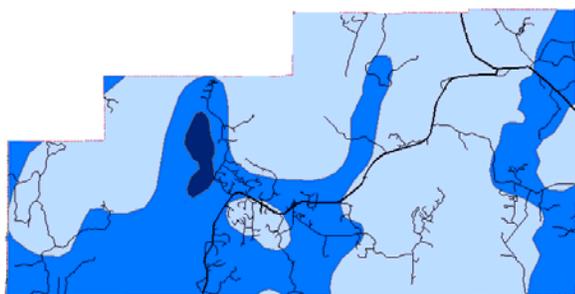
Ample supplies of groundwater are found under most of Iron County. Under natural conditions, a balance existed between the volume of water entering an aquifer and the volume of water being discharged from an aquifer. With the development of water wells, the natural balance between recharge rates and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

* The Upper Chippewa basin is a WDNR Water Management Unit (WMU), a hydrologically based subdivision of the larger Major Basin. The Upper Chippewa is a subdivision of the Mississippi River Basin.

Groundwater Quality

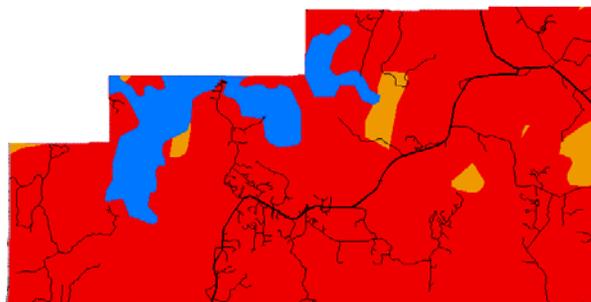
The quality of natural groundwater varies by location. As groundwater passes through natural sediments, naturally occurring chemicals may become deposited in the water. While naturally occurring groundwater contamination is generally mild, human-induced contaminants can make groundwater supplies unusable. The quality of groundwater is directly related to land use activities. The application of fertilizers, chemical spills, urban runoff, and non-point pollution can contribute to decreased quality of groundwater reserves. The chemical composition of groundwater throughout the county is generally very good; although, instances of localized problems such as mineralization, hardness, and high iron content do occur. Pollution from human

Figure 5.6: Depth to Water Table



Depth to Water Table
 0 to 20 feet
 20 to 50 feet
 Greater than 50 feet

Figure 5.7: Groundwater Contamination Susceptibility



GWCS
 Not susceptible
 High
 Moderate - High
 Low - Moderate
 Low

Source: NWRPC GIS Analysis

activities is not a significant problem in the Town of Sherman or in Iron County.

Wetlands

In 1978, the Wisconsin State Legislature officially defined wetlands as “an area where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic (water-loving) vegetation and which has soils indicative of wet conditions.



Wetland environments sustain a diverse range of plants and animals, including several threatened, endangered and sensitive species. These areas are significant habitat resources for migratory waterfowl and are primary nesting and breeding areas for species such as mallard, black duck, wood duck, blue winged teal and green winged teal. Wetlands are also habitat for furbearing mammals such as beaver, muskrat, mink and otter.

Wetlands provide a variety of important ecological “services”, such as water quality improvement through sediment and contaminant removal. Wetlands also absorb and store excess water by releasing water more slowly than they gain it, reducing costly flood damage from storms, snowmelt, and runoff. Wetlands also stabilize shorelines and reduce erosion by reducing the impact of wave action.

The Wisconsin Department of Natural Resources categorizes wetlands into five prominent types: aquatic bed, marshes, sedge or wet meadows, scrub/shrub, and forested wetlands.

- **Aquatic Bed** Plants growing entirely on or in a water body no deeper than six inches. Plants may include pondweed, duckweed, lotus, and water lilies.
- **Marshes** Characterized by standing water and dominated by cattails, bulrushes, pickerelweed, lake sedges, and/or giant bur-reed.
- **Sedge or "Wet" Meadows** These wetlands may have saturated soils rather than standing water, more often than not. Sedges, grasses, and reeds are dominant but may also contain blue flag iris, marsh milkweed, sneezeweed, mint, and several species of goldenrod and aster.
- **Scrub/Shrub** Bogs and alder thickets are characterized by woody shrubs and small trees such as tag alder, bog birch, willow, and dogwood.
- **Forested** 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.

The Wisconsin Wetland Inventory (WWI) was completed in 1985. The inventory identified all wetland areas in Iron County larger than two acres. The WWI indicates that 31.8 percent of Iron County is classified as a wetland, the third largest percentage of any Wisconsin County. Please refer to Map 5.9, Wetlands, for WWI wetlands in the Town of Sherman.

Class	Acres
Emergent/wet meadow	886.5
Forested	19,917.8
River	33.3
Scrub/shrub	13,430.7
Grand Total	34,268.2

Source: Wisconsin Department of Natural Resources

Wetlands account for more than 34,000 acres, or 40 percent of the total acreage of Town of Sherman (Wisconsin Wetlands Inventory –WDNR). The three dominant wetland types found locally are emergent/wet meadow, aquatic bed, scrub/shrub, and forested wetlands. A patterned peat land bog is located in the Boot Lake Wildlife Area. This bog community is extremely rare in Wisconsin but is common in northern Minnesota and Ontario, Canada. Wetland ecosystems are sensitive natural resources, which provide vital environmental functions such as water purification, flood control, groundwater recharge, as well as providing habitat for numerous plant and animal species.

Requirements

The use and development of wetlands in Wisconsin is regulated under local, state, and federal requirements.

Iron County

Wetlands in Iron County are regulated under the Iron County Shoreland Zoning Ordinance (W-2 Shoreland-Wetland District). This district is comprised of shorelands that were designated as wetlands (five acres and greater) on the Wisconsin Wetland Inventory maps adopted by Iron County.

State of Wisconsin

NR115 and 117: *Shoreland and wetland zoning regulations* provide minimum wetland protection requirements for lands within 1,000 feet of the ordinary high water mark of waterways and requires local units of government to adopt and enforce local zoning ordinances.

NR30 and 31: *Navigable waters protection requirements* regulate construction and waterway alteration in and adjacent to navigable waters, including dams, filling, water diversion, grading, and dredging.

NR103 and 299: *Water quality certification standards* which the Wisconsin Department of Natural Resources uses to approve or deny permits after the Army Corps of Engineers approves them.

Wisconsin Act 6: *Isolated Wetland Protection Law* authorizes the WDNR to administer the water quality certification program for projects in those isolated wetlands that are currently not protected under the Clean Water Act.

Federal

Section 404 of the Clean Water Act regulates discharges to "waters of the U.S." including fill in any wetland.

Section 10 of the Rivers and Harbors Act of 1899 regulates activities in navigable waters of the U.S.

Floodplains

Areas that are subject to periodic inundation by water are considered floodplains. The physical floodplain boundaries were determined by the Federal Emergency Management Agency (FEMA) and are portrayed in the National Flood Insurance Program (NFIP) maps.



Physical development within designated floodways is strongly discouraged. However, some uses within this zone are appropriate. Agricultural practices, parks, and open space are generally

considered to be appropriate uses within these areas. Within the flood fringe (exterior limits of the floodplain) more intensive uses are generally permitted.

FEMA has determined areas of flood susceptibility in the Town of Sherman. The Flood Hazard Boundary Map (FHBM) series for Iron County depicts these flood zones as shaded areas, referred to as the Special Flood Hazard Area (Zone A). Areas labeled as Zone A are subject to inundation by a 100-year flood. Because detailed hydraulic analyses have not been performed, no base flood elevation or depths are depicted. Federal Law mandates that federally connected lending institutions require flood insurance on loans involving buildings on property located partially or wholly within these areas.

Floodplains in the Town of Sherman are mapped on series numbers 550182 0008A, 550182 0009A, and 550182 0010A. Flood hazard areas are defined along several lakes, and the main channels of many rivers and streams. The area within the Lac du Flambeau Indian Reservation has not been mapped by FEMA. Copies of Floodplain maps are available for review at the Iron County Zoning Office.

Rivers and Streams with Mapped Floodplains

Bear Creek, to Sugarbush Creek	Springstead Creek
Beaver Creek	Sugarbush Creek
Flambeau River	Thompson Creek
Hay Creek, Hay Lake to Hay Creek Flowage	Tributary to Flambeau River, Section 7
Island Creek	T41N-R2E
Lost Creek	Unnamed, Rice Lake to Barksull Lake
Little Lost Creek	Unnamed , Section 29, T41N-R4E to Duck
Manitowish River	Lake
Otter Creek	Unnamed, Section 32, T41N-R4E to Duck
Randall Creek	Lake
Rice Lake Creek	

Lakes with Mapped Floodplains

Bearskull Lake	Mud Lake
Big Pine Lake	Muskie Lake
Duck Lake	Otter Lake
Ess Lake	Randall Lake
Grant Lake	Rice Lake
Hay Lake	Stone Lake
Lake Nine	Teal Lake
Lehto Lake	Turtle-Flambeau Flowage
Little Muskie Lake	Upper Springstead Lake
Lower Springstead Lake	West Randall Lake

Section 87.30 Wisconsin State Statues and Chapter NR 116 of the Wisconsin Administrative Code define the states regulations with respect to floodplains. Iron County adopted floodplain

zoning maps (FIRM Flood Insurance maps), prepared by the U.S. Department of Housing and Urban Development dated April 1, 1988. Zoning Ordinance regulates uses within county floodplains. Determination as to whether a building site is located in a flood plain must be made through zoning office review of flood plain maps or through field verification of flood boundary.

Threatened, Endangered and Sensitive Species and Communities

Ospreys inhabit portions of the Turtle-Flambeau Flowage along with the largest concentration of bald eagles in the State of Wisconsin. Occasional moose sightings are reported near the Turtle-Flambeau Flowage. Gray wolves, a threatened species in Wisconsin, may also be present in the town. Lands within the town, particularly within the TFSWA, contain suitable habitat for many species of threatened or endangered wildlife not currently known to exist in this area.

Wisconsin's Natural Heritage Inventory Program (NHI) focuses on locating and documenting occurrences of rare species and natural communities, including state and federal endangered and threatened species. NHI data is exempt from the Wisconsin Open Records Law due to the vulnerable nature of these sensitive resources. Determination of the specific locations of sensitive resources within the Town of Sherman will require coordination between the town and the Wisconsin Department of Natural Resources. Map 5.10, Sensitive Resources, Town of Sherman depicts the general locations (by section) of resources listed in the public access database. This list is not all-inclusive, and extremely sensitive and vulnerable resources are only listed at the countywide level.

Iron County (Countywide) NHI Data

Protection category designated by the Wisconsin DNR. END = endangered; THR = threatened; SC = Special Concern. Bold items indicate those found in the congressional (Town-Range) townships which comprise the Town of Sherman, as listed in the NHI database. Some elements found within these areas are too sensitive to display at the town level.

Birds

Northern Goshawk	SC
Swainson's Thrush	SC
Evening Grosbeak	SC
Black-Throated Blue Warbler	SC
Cape May Warbler	SC
Yellow-Bellied Flycatcher	SC
Merlin	SC
Gray Jay	SC
Black-Backed Woodpecker	SC
Boreal Chickadee	SC
Trumpeter Swan	END
Bald Eagle	SC
Osprey	THR

Butterflies

Jutta Arctic	SC
Bog Fritillary	SC
Freija Fritillary	SC
Dorcas Copper	SC
Bog Copper	SC
West Virginia White	SC

Caddisflies

A Bizarre Caddisfly (Lepidost Sherman libum)	SC
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Communities

Boreal Forest

Dry Cliff
Moist Cliff
Northern Dry Forest
Northern Dry-Mesic Forest
Northern Mesic Forest
Emergent Aquatic
Ephemeral Pond
Hardwood Swamp
Lake--Deep; Soft; Seepage
Lake--Deep; Very Soft; Seepage
Lake--Shallow; Soft; Drainage
Lake--Shallow; Soft; Seepage

Communities con't.

Lake--Soft Bog
Lake--Unique
Northern Sedge Meadow
Northern Wet Forest
Northern Wet-Mesic Forest
Open Bog
Patterned Peatland
Shrub-Carr
Spring Lake
Stream--Fast; Hard; Warm
Stream--Slow; Hard; Cold
Stream--Slow; Hard; Warm

Dragonflies

Mottled Darner	SC
Lake Darner	SC
Arrowhead Spiketail	SC
Splendid Clubtail	SC
Least Clubtail	SC

Fish

Lake Sturgeon	SC
Bloater	SC
Greater Redhorse	THR
Pugnose Shiner	THR
Weed Shiner	SC

Invertebrates

Eastern Elliptio	SC
Riffle Snaketail	SC
Round Pigtoe	SC
Least Clubtail	SC

Mammals

Lynx	SC
<u>Other</u>	
Bat Hibernaculum	SC

Plants

Maidenhair Spleenwort	SC
Little Goblin Moonwort	END
Pale Sedge	SC
Male Fern	SC
Fragrant Fern	SC
Russet Cotton-Grass	SC
Giant Rattlesnake-Plantain	SC
Limestone Oak Fern	SC
Broad-Leaved Twayblade	THR
Large-Leaved Sandwort	END
One-Flowered Broomrape	SC
Chilean Sweet Cicely	SC
Pale Beardtongue	SC
Pale Green Orchid	THR
Large Roundleaf Orchid	SC
Braun's Holly-Fern	THR
Northern Black Currant	SC
White Mandarin	SC
Oregon Woodsia (Tetraploid)	SC
Swamp-Pink	SC
Fairy Slipper	THR
Showy Lady's-Slipper	SC
Marsh Willow-Herb	SC
Variigated Horsetail	SC
White Adder's-Mouth	SC
Farwell's Water-Milfoil	SC
Algae-Like Pondweed	THR
Common Bog Arrow-Grass	SC
Purple Bladderwort	SC
Northeastern Bladderwort	SC

Snails

Appalachian Pillar	UNK
Cherrystone Drop	THR
Mystery Vertigo	SC

Stoneflies

A Perlid Stonefly	SC
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Turtles

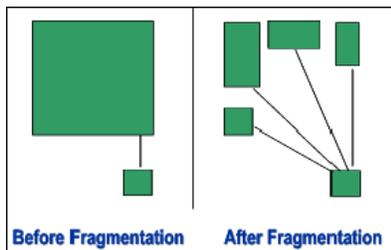
Wood Turtle	THR
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Wildlife Resources



Wildlife and wildlife habitat are fundamental components of natural ecosystems. The health and relative 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 strive to protect and enhance them.

There are three primary issues of concern related to wildlife habitat planning: fragmentation, invasive/exotic species and pollution.



Source: USDA Natural Resources Conservation Service

Fragmentation is the breaking up of large contiguous tracts of habitat into smaller pieces. This process increases the amount of linear edge areas, creating more “edge habitat”. These areas favor species that prefer these areas 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.

Invasive/exotic species pose serious threats to wildlife populations. These species, once established, 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.

An exotic species of concern for Iron County is the Gypsy Moth, which has been steadily progressing westward since its introduction to the United States in 1869. It is estimated that by 2005, the gypsy moth could spread into parts of north central Wisconsin, including Iron County. Other exotics of concern in Iron County include the mute swan (bird), zebra mussel (mussel), purple loosestrife (plant) and Eurasian water milfoil (aquatic plant).



Photo: University of Illinois-Extension

Pollution is also a major concern for wildlife populations. The introduction of contaminants such as mercury, sulfur dioxide (associated with acid rain), and ozone can have local, regional and even global impacts.

Contaminants in the environment may also cause reproductive harm to wildlife species, and may even cause direct mortality. Environmental contaminants can also travel to the local community from sources located outside of the area via rain, dust, and wind.

Wildlife habitat is abundant in the Town of Sherman. The relative abundance of forests, lakes, rivers and wetlands provides opportunities for many species to thrive. The large public land base provides provide exceptional habitat opportunities due to,

Low road density	Natural connectivity, connected biological reserves
Low population density	
Large core areas/ less habitat fragmentation	Managed for wildlife

The **Turtle-Flambeau Scenic Waters Area** is a 19,000 acre tract of state owned lands located in the Towns of Mercer and Sherman. This resource provides a rich diversity of wildlife habitat and is an important resource for migratory birds and waterfowl. The rich upland vegetation and wetland communities provide for the needs of many species of birds and mammals, including many threatened and endangered species.

The **Hay Creek Hoffman Lake State Wildlife Area**, a 13,424 acre wildlife preserve, provides habitat for species such as ruffed grouse, deer, woodcock, bears, loons, waterfowl, beavers, otters, fishers, coyotes, bobcat, muskrats, ospreys, eagles, timber wolves. This area is popular for bird watching.

A patterned peat land bog is located in the **Boot Lake Wildlife Area**. This bog community is extremely rare in Wisconsin but is common in northern Minnesota and Ontario, Canada. Wetland ecosystems are sensitive natural resources, which provide vital environmental functions such as water purification, flood control, groundwater recharge, as well as providing habitat for numerous plant and animal species.

The **Northern Highland-American Legion (NAHL) State Forest**, which comprises a portion of the Town of Sherman, is the largest state owned property at over 220,000 acres. Within the state forest area, the Northern Highland State Forest was created in 1925 and the American Legion State Forest was created in 1929. It was not until 1968 that the two state forests were combined into one management unit. Within the NAHL, there are a total of 902 lakes of which 26 are located in Iron County.

Protecting habitat is critical to species preservation. The preservation of habitat not only benefits wildlife, but also provides benefits to humans, including: the preservation of open space, recreational opportunities, aesthetic benefits, and improved air/ water quality.

Planning Principals for Habitat Protection

- Maintain large, intact patches of native vegetation by preventing fragmentation of those patches by development.
- Establish priorities for species protection and protect habitats that promote the distribution and abundance of those species.
- Protect rare landscape elements. Guide development toward areas with more common landscape elements.

- Maintain connections among wildlife habitats by identifying and protecting corridors for movement.
- Maintain significant ecological processes such as fires and floods in protected areas.
- Contribute to the regional persistence of rare species by protecting some of their habitat locally.
- Balance the opportunity for public recreation with the habitat needs of wildlife.

Metallic and Nonmetallic Minerals and Mining

Iron County has a rich mining heritage. The Penokee-Gogebic Range in north-central Iron County was a major source of iron from the 1880's through the 1960's. Evidence of the county's mining history can be seen in the several abandoned prospects and past producing mines located throughout the highlands of the range. According to the US Geological Survey Mineral Resources Data System database, there are no existing or former metallic mining sites in the Town of Sherman.



Regulations

A metallic mine in Wisconsin is subject to many rules and regulations. Before a mine can be developed, Wisconsin requires a metallic mining permit and approved plans for environmental monitoring, mining, and reclamation, a risk assessment, and a contingency plan. An Environmental Impact Statement (EIS) must be prepared by the WDNR in order to assess the potential impacts of the proposed mine. The WDNR is also responsible for monitoring construction, mining, and reclamation activities.

The Wisconsin mining statutes state that the local municipality within which a metallic mine site is located has zoning approval authority over a proposed metallic mine. Before a proposed metallic mine can receive approval from the state, the local municipality must have granted its approval under its zoning or land use ordinances or have entered into a legally binding agreement with the mining proponent.

Non-Metallic Mineral Resources

Per Iron County Zoning records, Non-metallic mining sites (sand and gravel) in the Town of Sherman include 7 past producing operations and 12 raw prospects, as follows:

Lower Springstead Lake Pit (Raw Prospect)
Muskie Lake Pit (Past Producer)
Mirror Lake Pit (Raw Prospect)
Sherman Road Pit (Raw Prospect)
Ferry Lake Pit (Raw Prospect)
Stone Lake Pit (Raw Prospect)
Beaver Creek Pit #1 (Raw Prospect)
Beaver Creek Pit #2 (Raw Prospect)
Sandy Beach Lake Pit (Past Producer)
Powell Pit #1 (Past Producer)

Powell Pit #2 (Past Producer)
Sherman Lake Pit #1 (Raw Prospect)
Sherman Lake Pit #2 (Past Producer)
Fred Losby Pit (Raw Prospect)
Cecil Lovell Pit #1 (Raw Prospect)
Cecil Lovell Pit #2 (Raw Prospect)
Springstead Pit (Past Producer)
Little Muskie Lake Pit (Past Producer)
Boot Lake Pit (Raw Prospect)

Regulations

Chapter NR135 of the Wisconsin Administrative Code requires that all counties develop and adopt a **non-metallic mining reclamation ordinance**. NR 135 ensures that all nonmetallic mining sites are reclaimed in compliance with the uniform statewide reclamation standards by providing the detailed requirements and reclamation standards for local ordinances. Article F, Section 9-1-101 of the Iron County Zoning Ordinance also regulates quarries and mines as special uses.

Land Management

Land ownership influences development patterns and land use, management, policy, and public use/access. Public lands are important economic and social resources for local communities. These lands generate revenue for local units of government through the harvest and sale of timber; they also support recreation and tourism activities such as hunting, fishing, snowmobiling, ATV's, and fall color tours, which also generate local revenue.

Publicly Managed Lands

Overall Land Base	87,334 acres
State Lands	30,843 acres
FCL Lands	8,400 acres
MFL Lands	109 acres

Other Managed Lands

Lac du Flambeau I.R. 14,532 acres

Managed lands are depicted in Map 8.4, Land Management, Town of Sherman.

Forest Crop Law

Program Highlights

- ❖ Law passed in 1927, enrollment closed in 1986
- ❖ Current statewide enrollment of 1.4 million acres
- ❖ Required at least 40 acres of adjoining forest land
- ❖ Public access
- ❖ Management schedule

Managed Forest Law

Program Highlights

- ❖ Enacted in 1985
- ❖ 25 or 50 year contract period
- ❖ Requires at least 10 acres of contiguous forestland
- ❖ Productive capacity requirements
- ❖ Landowner payments 83 cents per acre for open land and \$1.95 per acre for closed land.
- ❖ Cutting and reporting requirements

Program Benefits

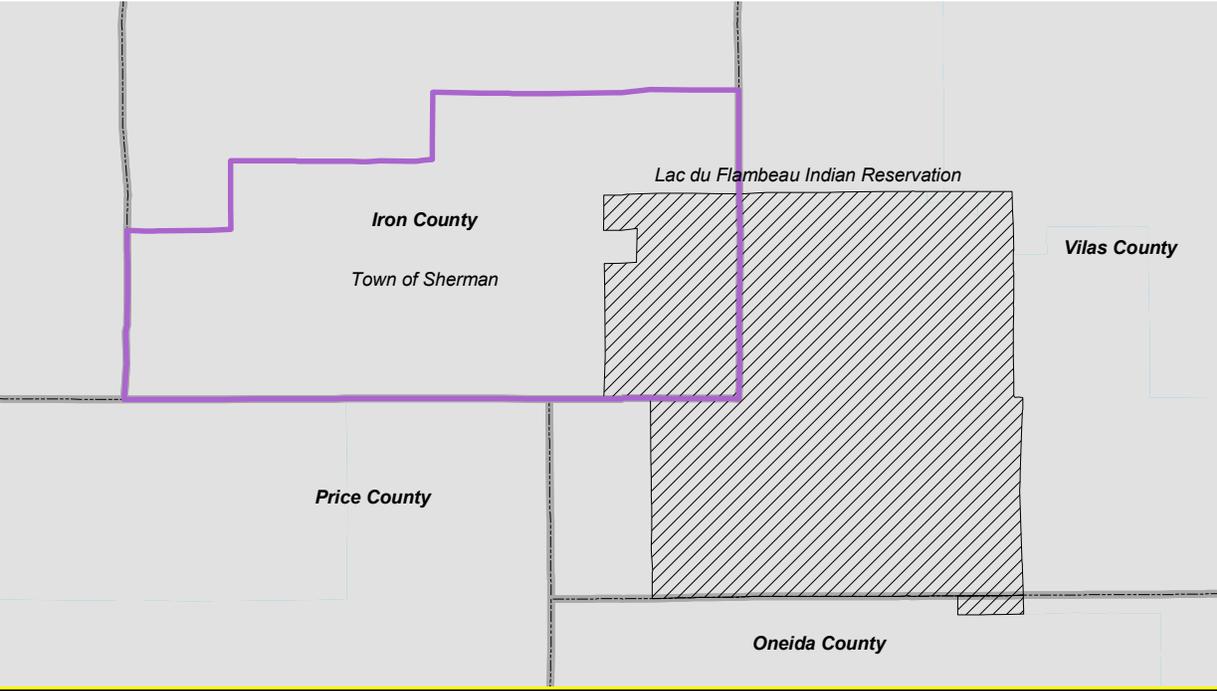
- ❖ management plan
- ❖ protection against overcutting
- ❖ protection against annual tax hike
- ❖ low property tax
- ❖ deferred tax until harvest
- ❖ landowners' right to close up to 80 acres of their lands to the public
- ❖ technical assistance
- ❖ permits rollover from FCL through January 1, 1998
- ❖ predictable taxes
- ❖ long-term investment
- ❖ encourages woodland expansion
- ❖ minimum land area requirement of only 10 acres

Lac du Flambeau Band of Chippewa Indians

The Lac du Flambeau Indian Reservation occupies 86,630¹ acres in Iron, Vilas and Oneida Counties of northern Wisconsin. Of this total, nearly 14,000 acres lie within the Town of Sherman. See Figure 5.9 below. The Treaty of 1854 defined the Reservation and established the formal boundaries. The Lac du Flambeau tribe has 3,056 enrolled members, governed by a 12-member Tribal Council.

The Reservation is situated in an area rich in water, forest and other natural resources. These resources are important to the people of the Lac du Flambeau for cultural, spiritual, and subsistence purposes. Natural resource management is the primary responsibility of the Tribal Natural Resources Department (TNR) an agency, which provides the manpower, materials, supplies equipment and facilities necessary to manage the reservation's natural and cultural resources.

Figure 5.8: Lac du Flambeau Reservation Boundaries



¹ Total lands within Reservation boundary. Of this total, 44,946 acres are held in trust for Tribe or Tribal members (BIA, January 2001)

5.2 AGRICULTURAL RESOURCES

Agricultural land comprises a very small proportion of the overall land base in the Town of Sherman. According to land cover estimates, about 1.2 percent of the 117.9 square mile land base is actively used for either row crops or grassland.



According to the Wisconsin Town Land Use Data Project (UW-Madison 2001), the Town of Sherman had no farms in 1990 or 1997. Throughout Iron County there were only an estimated 56 farms in 1990 and 58 in 1997. Agricultural assessments in the Town of Sherman dropped from 118 acres in 1990 to 0 by 1997. The 2003 Statement of Assessments (Wisconsin Department of Revenue) states that 0 acres were assessed agricultural.

The Iron County Zoning Map shows a significant number of parcels zoned as Agricultural. As of January 2005, there is only one 32 acre parcel in the Town of Sherman being used as Agricultural land. The remaining parcels zoned Agriculture are not being used as such.

Agricultural suitability within the Town of Sherman is limited due to soil, environmental and economic conditions, including

- Large public land base
- Poor soil conditions
- Short growing season
- Proximity to markets

The 1982 Iron County Farmland Preservation Plan identified NO areas within the town of Sherman as farmland preservation areas.

5.3 CULTURAL AND HISTORIC RESOURCES

Cultural and historic sites and features are important community resources. These resources provide a critical link between the present and the past. The Town of Sherman values its cultural and historic resources and is committed to work to retain their intrinsic value for future generations to enjoy.



The Wisconsin Historical Society was instrumental in the development of the Cultural and Historic Resources section of the Town of Sherman Comprehensive Plan. The following information was provided courtesy of WHS

The official historic resource catalog for the State of Wisconsin is the Wisconsin Architecture and Heritage Inventory (AHI). The AHI is a search engine that contains a documentation of 120,000 properties in the State of Wisconsin. The Wisconsin Historical Society, based in Madison, Wisconsin, maintains this database.

It is important to note that the AHI is not a comprehensive listing of Wisconsin’s historic resources. It is likely that other historic properties and resources exist within the Town of Sherman but have yet to be identified or published.

Properties listed in the AHI, Table 5.7, are not given any special status or increased level of protection.

Table 5.7: Town of Sherman AHI

AHI #	T-R-S	Type	Location & Recent Name	Historic Name
31640	4103E-21	Post office	Hwy 182 – Springstead Historic District	Springstead Post Office
79670	4103E-18	Hunting house	French Lake Rd – The Last Resort	Seifert's Glenwood Resort
79671	4103E-18	Hunting house	French Lake Rd – The Last Resort	Seifert's Glenwood Resort
80372	4202E-28	Hunting house	French Lake Rd – The Last Resort	Seifert's Glenwood Resort
80378	4202E-28	Hunting house	French Lake Rd – The Last Resort	Seifert's Glenwood Resort
80379	4202E-28	Hunting house	French Lake Rd – The Last Resort	Seifert's Glenwood Lodge
80381	4202E-28	Tavern/bar	French Lake Rd – The Last Resort	Seifert' Glenwood Lodge
80383	4103E-18	Tavern/bar	Hwy182 & Flowage Rd	Current Frontier Inn
80385	4103E-16	Tavern/bar	Boot Lake Rd-The Birches Resort	Boot Lake Lodge
80386	4103E-16	Hunting house	Boot Lake Rd-The Birches Resort	Boot Lake Lodge
80388	4103E-16	Shed	Boot Lake Rd-The Birches Resort	Boot Lake Lodge
80389	4103E-16	Hunting house	Boot Lake Rd-The Birches Resort	Boot Lake Lodge
80391	4103E-16	Hunting house	Boot Lake Rd-The Birches Resort	Boot Lake Lodge
80392	4103E-16	Hunting house	Boot Lake Rd-The Birches Resort	Boot Lake Lodge
80393	4103E-16	Hunting house	Boot Lake Rd-The Birches Resort	Boot Lake Lodge
80394	4103E-16	Hunting house	Boot Lake Rd-The Birches Resort	Boot Lake Lodge
80395	4103E-16	Hunting house	Boot Lake Rd-The Birches Resort	Boot Lake Lodge
80397	4103E-16	Hunting house	Boot Lake Rd-The Birches Resort	Boot Lake Lodge
80405	4103E-16	Hunting house	Boot Lake Rd-The Birches Resort	Boot Lake Lodge
80408	4103E-16	Hunting house	Boot Lake Rd-The Birches Resort	Boot Lake Lodge
80409	4103E-16	Hunting house	Boot Lake Rd-The Birches Resort	Boot Lake Lodge
80425	4103E-16	Shed	Boot Lake Rd-The Birches Resort	Boot Lake Lodge

80451	4103E-21	House	Hwy 182 – Springstead Historic District State Highway 182	Springstead French Canadian Cabin
80452	4103E-21	Garage	Hwy 182 – Springstead Historic District State Highway 182	Springstead PO Garage/general store
80453	4103E-21	Barn	Hwy 182 – Springstead Historic District State Highway 182	Springstead Livery
80454	4103E-21	House	Hwy 182 – Springstead Historic District State Highway 182	Springstead caretaker's cabin

Source: Wisconsin Historical Society

National Register of Historic Places

The National Register of Historic Places is the nations official list of cultural and historic resources worthy of preservation. The five buildings (shown in table above) at the Springstead Historic District are the only property in Sherman listed in the register.

Archaeological Sites and Cemeteries

Our lives are influenced by what we learn from our own experiences and by the events that have shaped the communities we live in and the institutions and organizations we encounter. Our history gives us a sense of place and a framework to understand the world. It provides continuity and meaning in our lives and it can be a basis for economic development through preservation programs and Heritage Tourism.

People have been living in the area for as long as any one can remember, with hunting, fishing, farming, and forestry playing a central role in people’s lives. This story of agriculture, resource use, and land stewardship is preserved in archaeological sites, buildings, landscapes, written accounts, photographs, governmental records, and the thoughts and ideas people remember and pass along by word of mouth. Planning can play a critical part in protecting these resources and in learning from this wealth of experience. Land-use planning and land-use decisions will directly impact historic buildings, archaeological sites, 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.

The Wisconsin Historical Society (WHS) maintains a list of archaeological sites and cemeteries referred to as the Archaeological Site Inventory (ASI) a component of the Wisconsin Archaeological and Historic Resource Database (WisAHRD). The Archaeological Site Inventory (ASI) is the most comprehensive list of archaeological sites, mounds, unmarked cemeteries, marked cemeteries, and cultural sites available. The **ASI does not** include all of the

sites and cemeteries present in the state, however. It includes **ONLY** those sites that have been reported to the Wisconsin Historical Society. The information in the ASI is a compilation of reports covering a period of 150 years. The information for each entry varies widely and WHS has not been able to verify all of the entries. Few of these sites have been evaluated for their importance. The ASI is changed and updated on a daily basis and recommendations about site importance may change, as new information becomes available. The attached site list will become quickly out of date and a procedure for updating the list should be developed.

This ASI information is confidential and is not subject to Wisconsin's open records law (Wis. Stats. §§ 44.48 and 157.70). This information is also protected by Federal law (Section 304 of the National Historic Preservation Act, Section 9(a) of the Archaeological Resources Protection Act of 1979). This caution not only helps protect archaeological sites but also protects landowners since private landowners own the majority of archaeological sites in the Town.

Under Wisconsin law, Native American burial mounds, unmarked burials, and all marked and unmarked cemeteries are protected from intentional disturbance. If you have any questions concerning the law, please contact the Coordinator of the Burial Sites Preservation Program at the Wisconsin Historical Society, Dr. Leslie Eisenberg at 608-264-6503.

Archaeological Sites and Cemeteries in the Town of Sherman

The Wisconsin Historical Society maintains a list of archaeological sites and cemeteries referred to as the Archaeological Site Inventory (ASI).

Since only a small portion of the Town has been surveyed for the presence of archaeological sites and cemeteries, the sites listed in the inventory represent only a fraction of the sites that are actually present. Local residents and American Indian communities who have and do live and work in the area possess much additional information on other archaeological sites and cemeteries. Steps should be taken to have this information incorporated into the land use plan.

Up to this point in time, 1 archaeological site has been reported for the Town. This site is at the Springstead Historic District and has the following types of buildings:

Sugar bush
Cabin/homestead

Clearly this sample of sites does not reflect the rich history of the area. Many more sites are present in the area. No sites are listed on the National and State Register of Historical Places, but many sites in the Town certainly may be eligible and important.

Where are archaeological sites going to be located? Using the results of archaeological surveys, relevant historical and environmental data, the following high priority areas were designated:

- higher, dryer areas adjacent to rivers, streams, creeks, lakes, wetlands
- higher, dryer areas adjacent to **older abandoned** rivers, streams, creeks, lakes, wetlands

- rock outcrops and upland ridges
- areas adjacent to older historic features such as trails, early roads, rail corridors, and earlier communities

Cemeteries, Burial Mounds, and Other Burials

Cemeteries and burial areas have been set aside as special areas throughout Wisconsin history and they have been given special protection under the law.

Under Wisconsin law, Native American burial mounds, unmarked burials, and all marked and unmarked cemeteries are protected from intentional disturbance. If anyone suspects that a Native American burial mound or an unmarked or marked burial is present in an area, the Burial Sites Preservation Office should be notified. If human bone is unearthed during any phase of a project, **all work must cease**, and the Burial Sites Preservation Office **must be contacted** at 1-800-342-7834 to be in compliance with Wis. Stat. 157.70 which provides for the protection of all human burial sites. **Work cannot resume until the Burial Sites Preservation Office gives permission.** If you have any questions concerning the law, please contact the Coordinator of the Burial Sites Preservation Program at the Wisconsin Historical Society, Dr. Leslie Eisenberg, 608-264-6503.

At the present time, no cemeteries or burials have been identified in the Town. Since a systematic survey of the county has not been completed, cemeteries and burials may be present. As part of the planning process all cemeteries and burials in the Town should be cataloged under Wis. Stat. 157.70 to provide for the maximum protection of these important sites and to clearly define their boundaries.

How do we know which archaeological sites need preservation? Under Wisconsin law Native American burial mounds, unmarked burials, and all marked and unmarked cemeteries are protected. In addition to these, a wide variety of archaeological sites may be worthy of preservation. Through the use of the State and National Register of Historic Places a procedure for identifying important sites is available. The criteria include: a good local example of an architectural style and period; association with a person important in our past; represent an important period, movement or trend in local, state or national history; or have the potential to yield important information about our past through archaeological investigations.

Protecting Important Archaeological Sites

The wide variety of methods used to protect natural resources can also be used to protect archaeological sites. For example, land purchases, easement purchases, zoning, and the state operates a 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.

Under Wisconsin law, Native American burial mounds, unmarked burials, and all marked and unmarked cemeteries are protected from intentional disturbance.

How are archaeological sites and cemeteries identified and evaluated?

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.

Table 5.8: Archaeological sites and cemeteries in the Town of Sherman

State Site # / Burial Code #	Site Name / Type	Cultural Study Unit	Town-Range-Section
IR-0037	Springstead 1. Sugar bush 2. Cabin/homestead	1. Historic Indian 2. Historic Euro-American	41, 3, E, 21

Source: Wisconsin Historical Society

Resources for Historic Preservation

Iron County Historical Society

The Iron County Historical Society (ICHS) is the prominent authority on local history. The ICHS Office is located at 202 Iron Street in Hurley.

Gogebic Range Genealogy Society

The Gogebic Range Genealogical Society has developed a historical database of residents of the Gogebic Range of Iron County, Wisconsin and Gogebic County, Michigan. This organization provides access to historical resources through a subscription based web page.

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.

Books containing historical information about the Town of Sherman

Several books have been published that contain significant historical information about Springstead and the Town of Sherman. These books are as follows and may be sold out:

1. Reflections of Powell and Springstead by Charlotte Holbrook Morrill
2. Memories of Springstead by Norman Pripps
3. Rooted in Resources – funded by Iron County, edited by Cathy Techtmann, UWEX
4. 100 Years On The Flambeau 1889-1989

5.4 NATURAL, AGRICULTURAL AND CULTURAL RESOURCE PROTECTION PROGRAMS

The Town of Sherman in the implementation of this comprehensive plan may use the following list of programs. This list is not comprehensive; and many other local, state, and federal programs may also exist. It should be noted that many of the natural resource protection programs could also be applied to agricultural resources.

Natural Resource Programs

Runoff Management Programs

The Wisconsin Department of Natural Resources administers two grant programs to support both the implementation of source-area controls to prevent runoff contamination and the installation of treatment systems to remove pollutants from runoff. The Targeted Runoff Management Program (TRM) provides a 70 percent cost share, up to \$150,000 to target high-priority resource problems.

- Construction of urban and rural BMP's
- 2 year grant period
- Site-specific

The Urban Nonpoint Source & Storm Water Management (UNPS&SW) Grant Programs are used to control runoff in urban areas, with a population density of 1,000 people per square mile.

Lake Planning Grants

The Wisconsin Department of Natural Resources administers a number of lake management financial assistance programs designed to assist local units of government.

Small Scale Lake Planning Grant

Available to local units of government, including public inland lake protection and rehabilitation districts, town sanitary districts, and other local governmental units as defined in Wis. Stats. Ch. 66.0301.

- Funds may be used to collect and analyze information needed to protect and restore lakes and their watersheds.
- 75 percent cost share
- Total project cost not to exceed \$3,000

Self-help Trend Monitoring Grant

- Total project cost not to exceed \$3,000
- Grantees provide voluntary labor (130 hours) for lake monitoring activities
- WDNR provides materials and laboratory analysis

Large Scale Lake Planning Grants

Available to local units of government, including public inland lake protection and rehabilitation districts, town sanitary districts, and other local governmental units as defined in Wis. Stats. Ch. 66.0301.

- 75 percent cost share project
- Total cost not to exceed \$10,000
- Funds can be used for collecting lake data, analysis of land uses, analysis of ordinances, resource assessments, or developing components of a lake management plan.

Lake Protection Grants

Administered by the Wisconsin Department of Natural Resources, the Lake Protection Grants Program is designed to fund large-scale lake protection projects.

- Available to local units of government, including public inland lake protection and rehabilitation districts, town sanitary districts, and other local governmental units as defined in Wis. Stats. Ch. 66.0301.
- 75 percent cost share
- Maximum award of up to \$200,000

Eligible projects include:

- Purchase of land or easements
- Restoration of wetlands or shoreland
- Development of ordinances or regulations
- Implementation of lake management plan projects

Wisconsin Forest Landowner Grant Program (WFLGP)

This is a state program administered by the WI Department of Natural Resources (DNR). Cost shares up to 65 percent are available for:

- Development of management plan
- Tree planting (site prep, planting stock, planting, etc.)
- Timber stand improvement
- Fencing

Stewardship Incentives Program (SIP)

This federal program, administered by WI DNR and Farm Service Agency (FSA), provides up to 65 percent cost share for:

- Development of management plan
- Tree planting (site prep, planting stock, planting, etc.)
- Timber stand improvement
- Fencing

Conservation Reserve Program (CRP)

This federal program, administered by FSA and Natural Resources and Conservation Services (NRCS) with WI DNR inputs, provides annual payments and up to 50 percent cost share for:

- Development of management plan
- Tree planting (site prep, planting stock, planting, etc.)

- CRP is currently focused on wildlife enhancement and does not allow solid plantations SRIC Poplars. The State of Wisconsin currently does not allow hybrid poplar to be planted under any CRP contract because it is not native to the area. However, pure cottonwoods are acceptable. Allowable species varies with each state. Please consult your local NRCS and/or FSA office for details.

Forestry Incentives Program (FIP)

This federal program, administered by NRCS with DNR inputs, provides up to 65 percent cost share for:

- Development of management plan
- Tree planting (site prep, planting stock, planting, etc.)

Managed Forest Law (MFL)

This Wisconsin state program is entirely administered by the WDNR and provides the landowner a significant property tax reduction. The actual property tax paid will depend upon if the land is open or closed to the public. Upon harvest, a stumpage tax must be paid to the state, based on the average stumpage price. The program is targeted towards:

- Development of management plan
- Tree planting (site prep, planting stock, planting, etc.)
- Timber stand improvement

Wildlife Habitat Incentives Program (WHIP)

This federal program, administered by NRCS with WI DNR inputs, provides up to 75 percent cost share with emphasis towards:

- Wildlife practices and plantings
- Wetland restoration
- Farmstead shelterbelts
- Grazing systems

Environmental Quality Incentives Program (EQIP)

This federal program is administered by NRCS with WI DNR inputs and provides up to 75 percent cost share for:

- Priority areas
- Tree planting for erosion control, ag waste management, stream buffers, ecosystem management, etc.

Agricultural Resource Programs

Wisconsin Department of Revenue Farmland Preservation Programs

Wisconsin's Farmland Preservation Credit Program seeks to preserve Wisconsin farmland by means of local land use planning and soil conservation practices and to provide property tax relief to farmland owners. To qualify for the credit, farmland must be 35 acres or more and zoned for exclusive agricultural use or be subject to a preservation agreement between the farmland owner and the state.

The Farmland Tax Relief Credit Program provides direct benefits to all farmland owners with 35 or more acres. The credit is computed as a percentage of the first \$10,000 of property taxes up to a maximum credit of \$1,500.

Wisconsin Farmland Protection Program (FRPP)

Farm and Ranch Lands Protection Program keeps productive farmland in privately owned agricultural use by assisting states, tribes, and local government or non-profit entities with the purchase of conservation easements or development rights on productive farmland and on farms containing significant historical or archaeological resources. Under this program, the Natural Resources Conservation Service will provide up to 50 percent of the purchase cost for perpetual easements on eligible farmland.

Cultural and Historic Resource Protection Programs

Wisconsin Historic Preservation Fund Subgrants (Tax Credits)

Historic Preservation Fund (HPF) subgrants are administered by the Wisconsin Historical Society's Division of Historic Preservation (DHP). These grants are in the form of income tax credits for income-producing historic buildings, historic homes, and archaeological sites. These credits are available to all local units of government in the State of Wisconsin and to non-profit organizations.

Wisconsin Humanities Council Historic Preservation Grants

The Wisconsin Humanities Council offers grants of up to \$10,000 for projects that enhance appreciation of the need for historic preservation and/or increase public awareness of the importance of particular historic buildings or decorative art works in Wisconsin. Preference is given to small towns and rural communities with populations under 30,000.

Wisconsin Coastal Management Grants Program

The Wisconsin Coastal Management Grants Program provides nearly 1.5 million dollars to enhance and restore coastal resources. Historic preservation is an eligible use of WCMP grant program funds. Projects under \$50,000 require 50 percent matching funds and projects over \$50,000 require 60 percent matching funds.

National Trust for Historic Preservation/Jeffris Preservation Services Fund (PSF)

This fund was established in 1998 by a gift from the Jeffris Family Foundation to the National Trust. The PSF provides funding to small towns to use in the planning stages of historic preservation projects. Eligible expenses include costs for professional consultants and educational activities. A dollar for dollar match is required for these grants.

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

A set of recommended goals, objectives, and actions steps has been developed to assist the Town of Sherman in the area of natural, agricultural, and cultural resources. Implementation of the identified actions will assist in achieving the overall goal.

NATURAL RESOURCES

GOAL: PROTECT AND MAINTAIN THE ENVIRONMENTAL QUALITY AND SCENIC BEAUTY IN THE TOWN OF SHERMAN.

Objective 1: Cooperate with other units of government to protect resources.

Action 1: *Identify resources where cooperation with other government units is necessary.*

Objective 2: Support efforts to protect and improve water resources, wetland and forests.

Action 1: *Encourage formation of Lake Associations on more lakes.*

Action 2: *Encourage formation of Woodland Property Owners Group..*

AGRICULTURAL RESOURCES

GOAL: SUPPORT FORMS OF AGRICULTURE, WHICH LEND THEMSELVES TO ONGOING OPERATION IN THE TOWN'S ENVIRONMENT.

Objective 1: Support development of alternative agricultural crops and products.

Action 1: *Contact UW-Extension, WI Dept. of Agriculture and other state agencies to determine if they have programs in place that further this objective. If so, publicize these programs in the Town..*

CULTURAL AND HISTORIC RESOURCES

GOAL: PRESERVE AND PROTECT HISTORICAL AND CULTURAL RESOURCES.

Objective 1: Develop a plan to collect and display historical photos/artifacts about the Town.

Action 1: *Find or establish a group or individual with interest in history to lead this effort.*

Objective 2: Support community based cultural events and activities.

Action 1: *Inventory current events and activities to determine cultural and/or historical content and significance. Assess public interest in these activities and events to determine how they can be best supported.*