Chapter Two: DRAFT.9

Natural, Agricultural, & Cultural Resources

Background

This Chapter describes local land and water conditions in detail, as well as agricultural resources and cultural heritage. Considering the patterns and interrelations of natural resources on a broader scale is essential because they do not follow geo-political boundaries. In addition, many of the programs for protecting or mitigating impacts on natural resources are administered at the county, state, or federal level. Thus, an overview of recent county-wide natural resource planning efforts is described below. Natural resources covered in this Chapter include biology, geology, and geography, including terrain, soils, water, forests, wetlands, wildlife, and habitat.

Cultural resources include a community's heritage, archaeological sites and cemeteries, historic buildings and landscapes, historic transportation routes, or traditional cultural properties important to indigenous peoples or other cultural groups. Cultural resources also include arts and the way of life in a community. Cultural resources are those elements around us that signify our heritage and help evoke the sense of place that makes an area distinct.

Previous Plans and Studies

Chequamegon-Nicolet National Forests 2004 Land and Resource Management Plan

The U.S. Forest Service created this plan to identify land management activities on national forest lands in Oneida County. It can be viewed on the U.S. Department of Agriculture's website.

Ecological Landscapes of Wisconsin

According to the Wisconsin Department of Natural Resources (WDNR), Oneida County is in two ecological landscapes: the Northern Highland and the North Central Forest. These two landscapes each have a chapter in the Ecological Landscapes of Wisconsin that can be viewed on WDNR's website. The publication describes the kinds of plants and wildlife that live in the County as well as how state lands are being managed.

Oneida County Land and Water Resource Management Plan, 2020-2029

This Plan was developed by the Oneida County Land & Water Conservation Department with assistance from various local, regional, and state agencies and input from members of the community. It provides a framework for local, state, and federal conservation program implementation efforts. Implementation of this Plan will help protect and improve the valuable water and soil natural resources in Oneida County. Some of the Plan's recommendations include protecting shoreland areas, reducing nonpoint source pollution, replacing failing septic systems, and reducing wildlife conflicts. The Plan can be found at *www.oclw.org.*

Oneida County Outdoor Recreation Plan, 2023-2027

The creation of this Plan is in process, and it involves the County's Forestry, Land, and Recreation Committee. The primary purpose of this Recreation Plan is to provide continued direction in meeting the County's current and future recreation needs. This direction takes the form of an inventory and analysis of outdoor recreational facilities, followed by establishing recommendations to meet identified needs. Adoption of this Plan and its subsequent acceptance by the Wisconsin Department of Natural Resources (WDNR) allows for continued eligibility for financial assistance from the Land and Water Conservation Fund (LWCF), the Stewardship Fund, and many other federal and state funding programs. A copy is available in the Oneida County Forestry Department.

Oneida County Farmland Preservation Plan, 2015

The Oneida County Farmland Preservation Plan is required under Chapter 91 of Wisconsin Statutes. It was developed by the Oneida County Conservation and UW-Extension Education Committee. The Plan's purpose is to guide and manage farmland preservation and agricultural production capacity from 2015 to 2024. The Plan functions as the primary policy document setting forth directions for how the County intends to preserve agricultural production capacity, farmland, soil and water resources, and rural character.

Farmland Preservation Areas - Parcels that meet the Farmland Preservation Plan (FPP) mapping criteria. No non-agricultural development is planned in the next fifteen years for those areas identified.

Criteria for Farmland Preservation Areas:

- Lands depicted on the Soils Map as farmlands.
- Lands depicted on the Land Use Map as agriculture, cranberry bog, open lands, or woodlands.

- Lands depicted on the Future Land Use Map that allow agriculture or forestry to occur.

Lands are excluded if they can be identified as any of the following:

- Local, county, state, and federal lands
- "Planned Out" lands on Map 5 of the FPP
- Parcels less than five (5) acres
- Tax exempt land

Farmland preservation areas cover a significant portion of the County, with areas not designated as farmland preservation areas mainly located adjacent to water bodies Existing agricultural areas within the County are scattered throughout the County.

Oneida County Forest Comprehensive Land Use Plan 2021-2035

The mission of the County Forest is to manage, conserve, and protect the natural resources within the County Forest on a sustainable basis for present and future generations. This Plan is administered by the County's Forestry, Land, and Recreation Committee and it contains information about forest resource planning, outdoor recreation planning, silvicultural practices, aesthetic management zones, trails and access control, biological communities, and wildlife species that exist within the County Forest. A copy is available in the Oneida County Forestry Department.

USGS Protecting Wisconsin's Groundwater through Comprehensive Planning

In a joint effort by the Wisconsin Department of Natural Resources (WDNR), the University of Wisconsin System, and the United States Geological Survey, a website was made available with data and information on geology, general hydrology, and groundwater quantity and quality. The website was developed to aid government officials in their comprehensive plans, including this Plan. The most recent data available for Oneida County was published in 2007. The Oneida County report can be accessed here: *https://wi.water.usgs.gov/gwcomp/index.html*.

Natural Resources Inventory

The County's natural resource base encompasses the geography, topography, soils, surface water, watersheds, floodplains, wetlands, groundwater, woodlands, and environmentally sensitive areas.

Geography

Oneida County is located in northeastern Wisconsin and is bounded on the north by Vilas County, on the east by Forest County, on the south by Langlade and Lincoln Counties, and on the west by Price County.

The County's total area is about 1,217 square miles or 790,700 acres, with about 78,000 acres in surface water according to the County's Land Information Department, leaving about 722,300 acres of land area. The County contains numerous lakes, and about 830 miles of rivers and streams, of which 192 miles are classified as trout stream.

Forests cover about 80% of the County and provide raw materials, wildlife habitat, and recreational opportunities. About 33.7% of the County is publicly owned land, including federal, state, county, local governments, schools, and others. Oneida County owns 82,890 acres of forestland as of 2023, which are managed locally and sustainably. Management balances local needs through integration of forestry, wildlife, fisheries, endangered resources, water quality, soil conservation, and recreational recommendations and practices. Many County trails are found in the County Forests for ATV/UTVs, snowmobiling, cross country skiing, snowshoeing, biking, and hiking. Agriculture is present in some areas of the County, including the Towns of Crescent, Cassian, Stella, and Sugar Camp. Oneida County is also a producer of potatoes.

Topography

The topography of Oneida County is of glacial origin, primarily pitted outwash plain with other areas of glacial till and glacial drift. Glacial deposits in the southern, eastern, and western parts of the County are covered by silty deposits, making them the best suited agricultural soils. Few areas in the world have as many lakes as the northern part of the County.

Oneida County's landscape is the result of several glacial advances and retreats that took place over Northeastern and Central Wisconsin some 12,500 to 20,000 years ago. As a result of this activity, numerous unique geologic and topographic features emerged such as extensive ground moraine in the southeast and southwest parts of the County, a remnant end moraine near Rhinelander, and a number of parallel ridges adjacent to drumlin fields in Forest and Langlade

Counties. Oneida County's physical landscape is defined not only by forest, wetlands, streams, woodlots, hills, and other natural features, but perhaps most by the density of the lake area in the northern part of the County and Vilas County, one of the most extensive lake districts in the world. Elevations in Oneida County range from 1,460 feet above sea level near McCord, in the southwest, to about 1,735 feet above sea level at Squirrel Hill. Steep slopes are defined as slopes greater than 12%.

Soils

Soils exert a strong influence on the way land is used. Soils affect the cost and feasibility of building site development, the provision of public facilities, and agricultural production capabilities. Knowledge of the potentials and limitations of soil types is necessary to determine how they can best be used and managed. For example, development may be limited on soils characterized by poor filtration, slow percolation, flooding/ponding, wetness, steep slope, and subsidence.

A detailed study of the soils of Oneida County was prepared by the U.S. Department of Agriculture, which resulted in the Soil Survey of Oneida County, Wisconsin, 1988. The survey includes a detailed identification of the specific soils found throughout the County, and also provides a grouping of soils into generalized soil associations or predominant soil patterns. Further investigation is required for "site-specific" soil information, as with individual soil tests. Soil tests are completed for each new building site application to determine the site's capability to accommodate the septic loads.

Important to land use planning, the study identifies each soil type's limitations for certain development forms. A soil which exhibits a "severe" limitation is one in which one or more soil properties or site features are so unfavorable or difficult to overcome that a significant increase in construction effort, special design, or intensive maintenance is required. For some soils rated severe, proceeding with development may be challenging.

The soils of Oneida County are primarily sandy or loamy soils which are suited to, and do support, forested/woodland uses. Due to the sandy and droughty nature of the soils, most are of relatively low agricultural value. In addition, the growing season in the County is rather short.

The following provides a general discussion of the general soil associations found within Oneida County. It should be noted, however, that these general descriptions are only guidelines and should be referred to as such.

The majority of the County is dominated by three soil associates - the Padus-Pence (25%), Keweenaw-Vilas (24%), and Sayner-Vilas (24%) associations. These three soil associations each comprise nearly a quarter of the County's coverage and combine to account for nearly three-

quarters (73%) of the County. Most of the soils in these three associations are used as woodlands, as these soils are well suited for trees.

Other soil associations within the County include the Magnor-Cable association (3%), the Goodman-Monico-Cable association (5%), the Greenwood-Dawson-Carbondale association (3%), the Padus-Goodman association (7%), the Au Gres-Crosswell-Kinross association (7%), and the Goodman-Keweenaw association (2%).

Metallic and Nonmetallic Resources

Oneida County contains some significant nonmetallic deposits, and, several quarries are in operation. There are some known metallic deposits within the County, one in the Town of Lynne and two in the Town of Schoepke. Although there was an attempt to develop the Lynne site by Noranda Minerals in the 1990s, the project had been abandoned. More recently, Tamerlane Ventures explored the permitting process, too, but also abandoned those efforts. In 2020, Badger Mineral Exploration LLC did some exploratory drilling in the Town of Schoepke.

Chapter 9, Article 6, Section 9.61, Non-Metallic Mining and Metallic Mineral Exploration, Bulk Sampling and Mining of the Oneida County Zoning and Shoreland Protection Ordinance regulates these activities on all public and private lands, and is approved through conditional use permitting within District 1-A Forestry and District 10 General use. The unzoned Towns of Enterprise, Monico, and Sugar Camp do not require a conditional use permit. The County also has its Chapter 22, Nonmetallic Mining Reclamation Ordinance to assure that lands opened to nonmetallic mining are reclaimed to near pre-mine conditions, or to some other pre-determined final use. The reclamation ordinance applies to all towns in the County. Any new nonmetallic mine (gravel pits) would be subject to the reclamation standards under this Ordinance. Currently, there are 44 approved nonmetallic mining quarries throughout the County that are greater than 1 acre in size. All lands within the County are under the Nonmetallic Mining Reclamation Ordinance.

Surface Water

Oneida County has numerous lakes covering about 68,400 acres, and over 830 miles of streams, of which 192 miles are classified as trout streams, for a total of just over 78,000 acres of surface water. The acreage may fluctuate slightly based on precipitation patterns. Overall, the general water quality is good, however, eutrophication is an issue. During the summer, shallow water

areas contain algae and weeds. The water is predominantly very soft in the seepage, drained, and drainage lakes, but the water is hard in many of the spring lakes and streams.

The largest body of water is the Willow Flowage, an impoundment and a drainage lake, covering 6,306 acres. Most of the lakes are spring lakes or seepage lakes. Lake Tomahawk is the largest natural lake, which covers 3,627 acres. The deepest lake is Clear Lake, which is 100 feet deep.

Below is a summary of surface water totals from the Oneida County Land and Water Conservation Department:

- There are 1,131 waterbodies identified in the Geographic Information System (GIS)
- 616 of these waterbodies are named lakes, rivers, or streams
    - 465 are named lakes
    - 9 are named rivers
    - 142 are named creeks
- 28 lakes are greater than 500 acres (see **Table 2-1**)
- 39 lakes are between 250 and 500 acres
- 87 lakes are between 100 and 250 acres
- 74 lakes are between 50 and 100 acres
- 278 ponds are between 10 and 50 acres
- 125 ponds are between 5 and 10 acres
- 135 ponds are between 2.6 and 5 acres
- 365 ponds are between 0.01 acres and 2.5 acres

Table 2-1: Oneida County Lakes Over 500 Acres		
Lake Name	**Acreage**	**Township**
Big Fork Lake	690	Three Lakes
Big Lake	865	Three Lakes
Big Stone Lake	548	Three Lakes
Buckskin Lake	634	Minocqua
Clear Lake	846	Woodruff
Columbus Lake	670	Sugar Camp
Crescent Lake	626	Crescent
Dam Lake	744	Sugar Camp
Hat Rapids Flowage	650	Crescent
Katherine Lake	590	Hazelhurst
Kawaguesaga Lake	670	Minocqua
Long Lake	620	Three Lakes
Minocqua Lake	1,360	Minocqua
Ninemile Lake, Lower	646	Three Lakes
Pelican Lake	3,585	Schoepke
Pickerel Lake	736	Newbold
Planting Ground Lake	1,012	Three Lakes
Rainbow Flowage	2,035	Newbold
Rhinelander Flowage	1,326	Newbold
Sand Lake	540	Sugar Camp
Sevenmile Lake	503	Three Lakes
Shishebogama Lake	716	Minocqua
Squirrel Lake	1,317	Minocqua
Sugar Camp Lake	545	Sugar Camp
Thunder Lake	1,835	Three Lakes
Tomahawk Lake	3,392	Lake Tomahawk
Two Sisters Lake	719	Newbold
Willow Flowage	6,306	Little Rice
Source: WDNR, Wisconsin Lakes Book		

The following lakes are also over 500 acres, but only a portion smaller than 500 acres is within Oneida County since they cross the County's boundaries:

- Amber Lake (785 acres total between Minocqua and Vilas County)
- Nokomis Lake (2,433 acres total between Nokomis and Lincoln County)
- Upper Post Lake (757 acres total between Schoepke and Langlade County)
- Rice River Flowage (920 acres total between Nokomis and Lincoln County)

The Wisconsin River flows through the center of the County through the Towns of Crescent, Newbold, Pine Lake, Lake Tomahawk and Woodruff, as well as the City of Rhinelander. The Wisconsin River, along with its tributaries, drain most of the County. The most prominent of these tributaries are the Pelican River in the eastern part of the County and the Tomahawk River in the west. The Wolf River flows through the far southeast corner of the County, and the Flambeau River drains the far northeast corner.

Surface water is an important resource to Oneida County, however, it is threatened by both point and nonpoint source pollution. Nonpoint source pollution, often the result of stormwater runoff and erosion, is pollution that cannot be traced to a single source and can come from roadways, parking lots, farm fields, and construction sites. The more impervious surfaces, the greater the runoff carried into the waterways.

The Wisconsin State Legislature created Wisconsin's Nonpoint Source Water Pollution Abatement Program (NPS) in 1978 (§281.66, Wis. Stat.). The goal of Wisconsin's NPS Program is to improve and protect the water quality of streams, lakes, wetlands, and groundwater by reducing pollutants from agricultural and residential nonpoint sources of pollution. The WDNR and DATCP administer the program, which focuses on critical hydrologic units called priority watersheds. The program is implemented through priority watershed projects led by local units of government. Landowners, land renters, counties, cities, villages, towns, sewer districts, sanitary districts, lake districts, and regional planning commissions are eligible to participate.

Impaired Waters

The Wisconsin Department of Natural Resources (WDNR), per requirements of the U.S. Environmental Protection Agency (EPA), maintains a list of water bodies that do not currently meet water quality standards under Section 303(d) of the Clean Water Act (CWA). This list is commonly known as the "CWA 303(d) list," corresponding to the applicable subsection of the CWA. The WDNR is required to update the list every two years.

Oneida County has 43 water bodies appearing on the 2022 CWA 303(d) list. While Slaughterhouse Creek is listed as having chronic aquatic toxicity because of unspecified metals in contaminated sediments, it is also listed as an Exceptional Resource Water (see below for more details). Waste load allocations will be implemented through the Wisconsin Pollutant Discharge Elimination System (WPDES) program for point sources, and through Wisconsin's NPS Program. Most of the lakes are on the list because of mercury contamination from atmospheric deposition, while several are listed for excess algal growth. The WDNR issues fish consumption advisories based upon atmospheric mercury pollution.

Outstanding and Exceptional Resource Waters

The WDNR also maintains a list of Outstanding Resource Waters (ORWs) and Exceptional Resource Waters (ERWs). An outstanding resource water is defined as a lake or stream which has excellent water quality, high recreational and aesthetic value, high-quality fishing, and is free from point source or nonpoint source pollution. An exceptional resource water is defined as a stream that exhibits the same high-quality resource values as outstanding waters, but may be impacted by point source pollution or have the potential for future discharge from a small sewered community. **Table 2-2** contains a listing of all Outstanding and Exceptional Resource Waters within Oneida County. (Note that, according to WDNR, there are an additional 15.74 miles of unnamed streams and an additional 2.3 miles of unnamed springs that are considered ERWs.)

For an interactive map showing the location of surface water bodies in Oneida County, anyone can view the WDNR Surface Water Data Viewer at:
https://dnr.wisconsin.gov/topic/SurfaceWater/swdv

Table 2-2: Outstanding and Exceptional Resource Waters				
Name	**Status**	**Counties**	**Miles**	**Acres**
Bearskin Creek	ERW	Oneida	3.67	N/A
Bearskin Creek	ERW	Oneida	4.09	N/A
Bearskin Creek	ERW	Oneida	2.88	N/A
Big Carr Lake	ORW	Oneida	N/A	209
Clear Lake	ORW	Oneida	N/A	873
Gudegast Creek	ERW	Oneida	2.29	N/A
Howards Creek	ERW	Oneida	1.10	N/A
Jennie Creek	ERW	Oneida	3.43	N/A
Langley Creek	ERW	Oneida	3.54	N/A
Lela Creek	ERW	Oneida	2.15	N/A
Little Pine Creek	ERW	Oneida	2.90	N/A
Little Tomahawk Lake	ORW	Oneida	N/A	163
Little Willow Creek	ERW	Oneida	2.26	N/A
Noisy Creek	ORW	Oneida	3.67	N/A
Outlet Creek	ERW	Oneida	0.68	N/A
Palm Creek	ERW	Oneida	2.37	N/A
Palm Creek	ERW	Oneida	0.71	N/A
Planert Creek	ERW	Oneida	0.46	N/A
Radtke Creek	ERW	Oneida	0.43	N/A
Slaughterhouse Creek	ERW	Oneida	0.70	N/A
Squirrel River	ORW	Oneida	12.89	N/A
Starks Creek	ERW	Oneida	3.36	N/A
Stony Creek	ERW	Oneida	1.06	N/A
Tomahawk Lake	ORW	Oneida	N/A	3,462
Tomahawk River	ORW	Oneida	20.65	N/A
Two Sisters Lake	ORW	Oneida	N/A	719
Upper Post Lake	ORW	Langlade, Oneida	N/A	765
Walczak Creek	ERW	Oneida	3.48	N/A
White Springs Creek	ERW	Oneida	0.76	N/A
Willow Flowage	ORW	Oneida	N/A	4,229
Wisconsin River	ERW	Oneida, Vilas	5.38	N/A
Wisconsin River	ERW	Oneida	13.74	N/A
Wolf River	ORW	Forest, Oneida	18.03	N/A
Source: WDNR				

Wetlands

Wetlands are essential for groundwater aquifer recharge, wildlife habitat, and social functions such as open space, recreation, and aesthetics. They also act as water storage "sponges" in high water by absorbing excess water and slowly releasing it back into the watershed, thereby preventing flooding and minimizing flood damage. Wetlands have valuable ground and surface water purification capabilities since potentially harmful compounds and bacteria in the water are absorbed into plant tissues, thus buffering the adjacent water body. Wetlands occur in areas where the water level is usually near or above the soil surface. Wetlands cover over 237,500 acres of land throughout the County. Wetlands are mapped in Map 2-1: Natural Resources.

Swamps, bogs, marshes, potholes, wet meadows, and sloughs are all considered wetlands. The soils in these areas are usually saturated within a few inches of the surface during the growing season and need artificial drainage to be made arable. In addition to their ecological value, wetlands are an important recreational, educational, and aesthetic resource. Wetlands offer breeding and nesting grounds for waterfowl and many other animals dependent on aquatic habitats. Maintaining these breeding grounds ensures a variety and adequate amount of game for hunting and wildlife observation. Sometimes, a particular chain of wetlands can be home to a rare or endangered species, provoking interest from scientists and educators. Lastly, the visual appearance of the wetlands themselves can constitute a scenic resource.

Historically, the greatest threats to wetlands in the County have been agricultural drainage and urban development. Given their important role, the destruction of wetlands can negatively affect the public in many ways. Developing impermeable surfaces and adding fill materials can destroy the hydrological function of a wetland site while simultaneously increasing flood dangers downstream. The WDNR has promulgated minimum standards for managing wetlands to help reduce the negative impacts of developing in or near wetland areas.

The WDNR identifies the location of wetlands on their Wisconsin Wetland Inventory maps and associated database. According to this database, Oneida County has over 237,500 acres of wetlands, which also includes wooded wetlands. Significant concentrations of wetlands in Oneida County include the Munninghoff Marsh on the Rhinelander Flowage, Rainbow Wetlands State Natural Area, and the Thunder Lake Swamp in the Three Lakes area. Additional wetlands are associated with floodplains and smaller wetlands are scattered throughout the County.

In addition to lakes, rivers, streams, and creeks, which are regulated by the County Shoreland Protection Ordinance, for location of structures, impervious surface area, and other regulations, there are also wetlands and vegetated lakebeds. Wetlands located within 1,000 feet of the

ordinary high-water mark (OHWM) of lakes or within 300 feet of rivers, streams, and creeks are regulated under the County Shoreland Protection Ordinance due to their proximity to surface water. Vegetated lakebeds are mostly adjacent to bodies of water and are regulated by the County Shoreland Protection Ordinance, which specifies requirements for setbacks and other regulations for structures located in these areas.

Floodplains

Floodplains are a natural flood control system that provide an area where excess water can be accommodated. The extent to which a floodplain may become inundated depends upon the amount of water, the speed and distance that the water travels, and the area's topography. Oneida County contains approximately 54,750 acres of floodplain, some of which is also wetlands. Floodplains are mapped in Map 2-1 Natural Resources.

Floods are one of Wisconsin's most common types of natural disasters. Each year Wisconsin communities suffer millions of dollars in flood damages. The Federal Emergency Management Agency (FEMA) designates floodplain areas in the State. These areas are predicted to be inundated with floodwaters in the 100-year storm event (e.g., a storm with about a 1% chance of happening in any given year or a 26% chance of happening in 30 years). Given that these areas are prone to flooding, development in floodplains is usually discouraged. Even so, development does occur in these areas and affects this system's ability to function properly. Oneida County regulates floodplain development through its Chapter 20 Floodplain Ordinance

Chapter NR 116 of the Wisconsin Administrative Code requires all municipalities to adopt reasonable and effective floodplain zoning ordinances for the purpose of protecting individuals, private property, and public investments from flood damage. Floodplain zoning regulates development in the floodway and flood fringe areas, usually by requiring structures to be built above flood levels or be otherwise flood-protected. For regulatory purposes, a floodplain is generally defined as land with a one percent chance of flooding in any year (also known as the 100-year floodplain). Floodplain regulation can also keep communities eligible for the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP). FEMA offers emergency monetary assistance to flood stricken communities provided these areas are in compliance with NFIP requirements and have also completed a Flood Insurance Study. Currently, Oneida County and the City of Rhinelander participate in the NFIP program, have completed the Flood Insurance Study, and have created a Flood Insurance Rate Map (FIRM) that delineates those areas likely to be inundated by a 100-year flood (also known as "A" Zones).

It is important to note that Oneida County is interested in updating flood maps using Lidar technology as existing maps are out of date. This effort is dependent on FEMA's scheduling regarding when they release map updates.

Watersheds

Oneida County is divided into 12 watersheds and two drainage basins. The Subcontinental Divide separates the Mississippi River drainage basin from the Lake Michigan drainage basin. On the eastern side of the divide, water flows into the Wolf River, which leads to Lake Michigan. On the western side of the divide, the water flows into the Wisconsin River on its way to the Mississippi River.

The far southeast corner of the County is within the drainage basin of the Wolf River, the far northeast corner is in Flambeau River basin, which flows into the Chippewa River, and the rest of the County is within the drainage basin of the Wisconsin River. In Oneida County, the Wisconsin River flows generally south through the center of the County, from the Rainbow Flowage, through the City of Rhinelander and leaves the County in the Town of Crescent. Several principal tributaries of the Wisconsin River that are partly in the County include Noisy Creek, Pine Creek, Sugar Camp Creek, and the Pelican River, which joins the Wisconsin at Rhinelander and drains much of the eastern part of the County.

The Tomahawk River, which starts in the Minocqua Chain of Lakes and includes the Willow Flowage, drains much of the western part of the County before joining the Wisconsin at Tomahawk in Lincoln County. The far northwest corner of the County is drained by Amber Creek into the Upper South Fork of the Flambeau River, which flows into the Chippewa River. The far southeast corner of the County drains to Post Lake and the Wolf River and the Lake Michigan basin.

The WDNR issues grants for the implementation of watershed projects through a cost-share approach. The Priority Watershed Program provides financial assistance to local units of government in selected watersheds to address land management activities that contribute to urban and rural runoff. The grantees use the funds to reimburse costs to landowners for installing voluntary Best Management Practices (BMPs).

Groundwater Resources

Groundwater supplies nearly all of the water for residential, commercial, and industrial uses in Oneida County. In general, groundwater use has increased in the County as urban areas continue to grow and development increases around the County's lakes. The increase in rural housing

developments and agricultural irrigation, each with its private well, also places demands on groundwater.

Groundwater is comprised of the portion of rainfall that does not run off to streams or rivers and that does not evaporate or transpire from plants. This water percolates down through the soil until it reaches the saturated zone of an aquifer. The groundwater level generally rises in spring, declines in summer, rises slightly in fall, and declines in winter. Use of groundwater for irrigation has caused a measurable decline in the level only in the immediate vicinity of the withdrawal. The depth to groundwater ranges to over 100 feet beneath the hills on the moraines to as little as 25 feet in lowland areas. Groundwater yields from the glacial deposits vary. Generally, the outwash yields more than the glacial till. The underlying crystalline bedrock yields little or no water.

Natural groundwater generally discharges at streams, marshes, lakes, and springs or as underflow. The continued flow of perennial streams during long dry periods is caused by the natural discharge of the groundwater reservoir. Ensuring an adequate supply of usable groundwater is important for Oneida County.

The quality of the ground water is generally good. The impact of development and agriculture may cause deterioration of the ground water. Typically, the yield of wells varies based on the depth and nature of the underlying glacial deposits. Where the glacial drift is thin, such as near Monico, wells yield only a few gallons per minute. In other areas, such as the hilly moraine areas in the southeast and southwest sections of the County, wells will produce 5 to 50 gallons per minute, and in areas of glacial outwash or of thick deposits of saturated sand and gravel yields can range up to 2,000 gallons per minute. A well at Rhinelander yields more than 1,000 gallons per minute.

Groundwater quality can be impaired by a variety of pollutants including leaking underground storage tanks (LUSTs), landfills, septic tanks, over-application of pesticides and fertilizers, and spills of hazardous chemicals. The most common contaminants in Wisconsin's groundwater are pesticides, nitrates, nitrogen, and volatile organic compounds (VOCs). These contaminants come from many sources, including nitrogen-based fertilizers, septic systems, animal waste storage, feedlots, municipal and industrial wastewater discharges, and sludge disposal. A recent concern related to groundwater is Per- and Polyfluorinated Substances (PFAS). These substances are a group of chemicals often used to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water.

Groundwater contaminants can affect the health of humans, livestock, and wildlife. Because groundwater seeps more slowly than surface runoff, pollution that occurs today may not become evident for several years. Once polluted, the groundwater is very difficult to purify and may take many years to clean itself by the dilution process.

Woodlands

Forest cover is a key environmental, economic, and aesthetic feature. Expansive forest lands provide recreational and aesthetic opportunities for residents and tourists, and also function as sources of commercial timber production. In addition, woodland cover plays a key role in the function and value of sensitive environmental areas like steep slopes, wetlands, and floodplains. Regulations concerning removing woodland vegetation may be necessary to protect natural scenic beauty, control erosion, provide critical wildlife habitat, and reduce effluent and nutrient flows into surface water bodies/courses. Therefore, preserving and protecting forest resources is critical to sustain and enhance the economic and environmental health of Oneida County.

At one time, much of Wisconsin was covered with magnificent stands of pine, hemlock, hardwoods on the highlands and cedar, spruce, and balsam on its lowlands. From 1860 to 1910, these forests provided raw material for a thriving lumber industry. The need to supply lumber for a growing nation and the need for sound forest management resulted in the harvest of the forests and the degradation of the landscape. Immigrants rushed to these newly cleared lands, hungry for a place to farm and build their lives. But in a few years, the soils gave out, catastrophic fires occurred, and many people were forced to seek their fortunes elsewhere. The land was left exhausted and tax-delinquent. Oneida County Forests were created from tax delinquent land in Wisconsin under the County Forest Crop Law.

The pre-settlement composition of forest land in Oneida County primarily included two forest types. Approximately one-half of the County had pine forests composed of white pine and red pine mixtures with few hardwoods. A common belief of pre-settlement forests is that extensive pine forests covered most of Northern Wisconsin. This forest type was minimal even before settlement, with the most extensive block occurring in Oneida and Vilas Counties. The remaining half of the County was comprised of hemlock, sugar maple, and yellow birch with mixtures of white and red pine. This forest type was the largest, most characteristic forest composition type in Northern Wisconsin.

Between the mid-1800s and early 1900s, forests throughout Wisconsin were almost entirely cut. White pine, and to some extent red pine, was the concentration of early logging practices, virtually eliminating the white pine seed source in Northern Wisconsin. The remaining forests

were logged for commercial and industrial purposes or cleared for agriculture. Through the years, Oneida County has regained much of its forest cover, although the species composition is not different from pre-settlement times. Overall, forest cover comprises approximately 80% of the County's total area.

Areas of Critical Environmental Sensitivity

Areas of critical environmental sensitivity are those unique elements/areas of the natural resource base that should be preserved and, therefore, excluded from urban/intensive development. Typically, areas of critical environmental sensitivity include wetlands, floodplains/floodways, critical shorelands, steep slope areas (especially those adjacent to wetlands and shorelands), publicly-owned scientific and natural areas (i.e., fish and wildlife habitats), and identified archaeological sites. The protection of such areas is intended to

1) Protect the health, safety, and welfare of the general public.
2) Protect surface water and groundwater quality.
3) Reduce damage from flooding and stormwater runoff.
4) Maintain important wildlife habitats or recreational areas.

State Natural Areas

State natural areas were acquired to protect the State's natural diversity, provide sites for research and environmental education, and serve as benchmarks for assessing and guiding the use of other lands in the State. Natural areas are defined as tracts of land or water that have native biotic communities, unique natural features, or significant geological or archeological sites. These sites do not have much facility development, though there may be a designated trail on the site. Currently, there are 18 State Natural Areas (SNA) located within Oneida County, and these are listed below:

1. ***Finnerud Pine Forest SNA (No. 31)*** is a UW-Madison Arboretum holding of old growth red pine. Contact the Arboretum at 608-263-7344 for access permission.
2. ***Rice Lake SNA (No. 40)*** is 1,030 acres and located in the Thunder Lake Wildlife Area.
3. ***Holmboe Conifer Forest SNA (No. 79)*** is 32 acres and located in the Town of Pelican.
4. ***Gobler Lake SNA (No. 115)*** is 1,085 acres and located in the Town of Little Rice.
5. ***Stone Lake Pines SNA (No. 185)*** is 65 acres and located within the Northern Highland-American Legion State Forest in the Town of Sugar Camp.

6. ***Wind Pudding Lake SNA (No. 188)*** is 340 acres and located within the Northern Highland-American Legion State Forest in the Town of Lake Tomahawk.
7. ***Patterson Hemlocks SNA (No. 216)*** is 304 acres and located in the Town of Minocqua.
8. ***Atkins Lake & Hiles Swamp SNA (No. 238)*** is 2,644 acres and partially located in the Town of Piehl.
9. ***Upper Tomahawk River Pines SNA (No. 239)*** is 1,040 acres and located in the Town of Minocqua.
10. ***Squirrel River Pines SNA (No. 244)*** is 643 acres and located in the Town of Minocqua.
11. ***Germain Hemlocks SNA (No. 355)*** is 88 acres and located in the Town of Cassian.
12. ***Pat Shay Lake SNA (No. 446)*** is 736 acres and partially located within the Chequamegon-Nicolet National Forest in the Town of Three Lakes.
13. ***Tomahawk Lake Hemlocks SNA (No. 510)*** is 244 acres and located within the Northern Highland-American Legion State Forest in the Town of Lake Tomahawk.
14. ***Two Lakes Pine-Oak Forest SNA (No. 511)*** is 112 acres and located within the Northern Highland-American Legion State Forest in the Town of Lake Tomahawk.
15. ***Big Swamp SNA (No. 512)*** is 2,914 acres and located within the Northern Highland-American Legion State Forest in the Town of Sugar Camp.
16. ***Rainbow Wetlands SNA (No. 513)*** is 2,357 acres and located within the Northern Highland-American Legion State Forest in the Town of Newbold.
17. ***Shallow Lake SNA (No. 514)*** is 103 acres and located within the Northern Highland-American Legion State Forest in the Town of Newbold.
18. ***Spur Lake SNA (No. 537)*** is 71 acres and located in the Town of Piehl.
19. ***Sugar Camp Hemlocks SNA (No. 594)*** is 96 acres and located in the Town of Sugar Camp.
20. ***Enterprise Hemlocks SNA (No. 608)*** is 601 acres and located in the Town of Enterprise.
21. ***One Stone Lake Hemlocks SNA (No. 629)*** is 342 acres and situated along the Northern boundary of Thunder Lake Wildlife Area and the Rice Lake State Natural Area.
22. ***Upper Kaubashine Creek SNA (No. 650)*** is 264 acres and located in the Town of Hazelhurst.

State Wildlife Areas

State Wildlife Areas were acquired to preserve habitat for wildlife. Currently, two State Wildlife Areas exist within Oneida County:

1. ***Thunder Lake Wildlife Area*** is located 1 mile north of Three Lakes and is a public hunting area that consists of 3,000 acres.
2. ***Woodboro Lakes Wildlife Area*** is located about 10 miles west of Rhinelander is a public hunting area that consists of 3,000 acres.

Most of the areas of critical environmental sensitivity within Oneida County are already managed/regulated at the federal, state, and/or county level, such as wetlands, floodplains, shoreland buffer zones, and publicly-owned scientific and natural areas. In addition, the WDNR maintains a listing of all rare, threatened, and endangered species and natural communities within the State.

Public Ownership

As of 2023, 33.70% of all land within Oneida County is publicly owned, and 33.56% of all land within Oneida County currently has reduced taxes due to agriculture, MFL, or other uses. This means that 67.26% of all land within Oneida County is either currently tax exempt or has reduced taxes, leaving only 32.74% of the County's land area as being fully taxable. **See Table 2-3.**

Table 2-3: Percentage of Total County Acreage by Ownership		
Name	**Total Acres**	**Percent of County**
Publicly Owned Land (Tax-Exempt)	**226,197**	**33.70%**
State	121,215	18.06%
County Forest	82,890	12.35%
Federal	11,744	1.75%
County – Other	940	0.14%
Non-profit and Local Government	9,408	1.40%
Land with Reduced Taxes	**225,309**	**33.56%**
Lands enrolled in MFL-FCL	189,855	28.28%
Agricultural Lands	26,007	3.87%
Undevelopable (Wetlands, Soils, etc.)	9,447	1.41%
Fully Taxable Lands	**219,759**	**32.74%**
Source: Wisconsin Department of Revenue (DOR) State Tax Records		

Federal Ownership

Lands in the County owned by the federal government total approximately 11,744 acres (1.75% of land in the County) and are primarily part of the Chequamegon-Nicolet National Forest.

Chequamegon-Nicolet National Forest

Created out of the "cut-over" lands primarily during the 1920s and 1930s, the National Forests and the State and County forests, represent an economic and recreational resource. Today, the Chequamegon-Nicolet National Forest is made up of more than 1.5 million total acres. Operating under a 1986 plan and subsequent revisions, both the Chequamegon and Nicolet units of the National Forest are today dedicated to multiple uses. This principle sees the forest as a source of timber and a protector of water quality and wildlife habitat. It is also a recreational and visitor asset for the counties within its boundaries, including Oneida County.

State of Wisconsin Ownership

The majority of the publicly owned land within Oneida County is owned by the State of Wisconsin with approximately 121,215 acres (18.06% of land within the County) being owned by the State. The majority of State-owned lands within the County are included in the Northern Highland – American Legion State Forest (NHAL).

Northern Highland – American Legion State Forest

The Northern Highland – American Legion State Forest was established in 1925 to protect the headwaters of the Wisconsin, Flambeau, and Manitowish Rivers. Outdoor recreational opportunities are diverse and abundant in the Northern Highland-American Legion State Forest. Visitors are drawn to the forest's water resources. The forest is blessed with one of the highest concentrations of lakes in the world, making sport fishing a significant recreational activity.

In addition to these recreational facilities, the NHAL provides "wild land" for those seeking a pristine and quiet backcountry experience in areas with few support facilities, motorized vehicles, or signs of management activities. The Willow Flowage Scenic Waters Area is described as "almost Canada" because this flowage in Oneida County has a wild flavor. The area has over 17,000 acres, 73 miles of shoreline, 106 islands, and 7 boat landings. Rustic campsites around the shoreline and on the islands offer scenery and solitude. There are abundant walleye, panfish, northern pike, muskellunge, and bass, as well as hunting and hiking opportunities, and wildlife such as deer, bear, ruffed grouse, ducks, loons, and wolves.

The NHAL State Forest provides abundant recreational opportunities and a working forest that provides for timber management and production. The NHAL State Forest is managed using sustainable forestry practices to offer recreational opportunities, timber production, aesthetics, watershed protection, and habitat for various plant and animal species. Ultimately, the management goal is to benefit the people of Wisconsin, both current and future generations. The acquisition of property for inclusion in the NHAL State Forest is based on "willing sellers."

Oneida County Ownership

The Oneida County Forestry and Recreation Department manages 82,890 acres of County Forest. This land is managed for multiple uses and is independently certified as sustainably managed and harvested. Some of the County Forest is closed to motorized vehicles. Permitted recreational activities can include hunting, fishing, hiking, biking, cross-country skiing, snowshoeing, snowmobiling, camping, bough cutting (permit required), firewood collection (permit required), and wildlife observation.

Oneida County has about 1,600 acres of School Forests associated with four school districts. School Forests are open to the public for various recreational and educational uses. School Forests within Oneida County include:

Minocqua, Hazelhurst, Lake Tomahawk (MHLT) School District

- MHLT School Forest, 40 acres, S34 T38N R6E; and
- Minocqua School Forest, 193 acres, S22, 23, & 26 T39N R6E.

School District of Rhinelander

- Rhinelander Junior High School Forest, 39 acres, S4 T36N, R8E;
- Crescent District School Forest, 53 acres, S4 & 5 T36N R8E;
- Pelican School Forest, 79 acres, S3 T36N R9E;
- Clovernook School Forest, 80 acres, S34 T37N R8E;
- Bernstein School Forest, 120 acres, S1 T37N R9E;
- Burkhart School Forest, 120 acres, S7 T37N R9E;
- Cedric A Vig Outdoor Classroom (CAVOC), 160 acres, S10 T36N R9E;
- Lake Creek School Forest, 160 acres, S2 & 11 T37N R9E; and
- Rhinelander High School Forest, 400 acres, S5 & 8 T37N R9E.

Three Lakes School District

- Three Lakes School Forest, 34 acres, S32 T38N R11E;
- Gagen-Piehl School Forest, 40 acres, S29 T37N R11E; and
- Sugar Camp School Forest, 40 acres, S34 T38N R9E.
- Additional 40 acres in Sugar Camp at CTH A.

Woodruff School District

- Arbor Vitae-Woodruff School Forest, 22 acres, S20 T39N R7E.

Privately Owned Lands

It is important to identify how the remaining woodlands in the County are (or are not) managed and the value private landowners place on maintaining their wooded property.

According to state tax tables, in 2023, about 189,855 acres of woodlands were enrolled in the WDNR Managed Forest Law (MFL) program, totaling approximately 28.28% of the County's total acreage. These include lands enrolled in the Forest Crop Law (FCL) program that no longer exists. These programs provide tax relief to landowners of enrolled property in return for the

landowner entering into a contract to manage the land as forest land for a specified time. Property enrolled in these programs will likely remain under management through the planning period and beyond, as many contract agreements associated with these programs are 25 years or longer. Throughout the County there is substantial private forest not enrolled in the program, as well as additional lands with uses like agricultural and wetland that have a reduced tax rate. Altogether, 225,309 acres, or 33.56% of the County, is privately owned with reduced taxes.

Lands that do not have reduced taxes or tax-exempt status comprise about 32.74% of land in the County, meaning that 67.26% of the County's area tax-exempt or tax-reduced. This land typically includes existing intensive development (i.e., residential, commercial, industrial). These private uses may have the largest impact on the County's rural character and quality of natural resources if not properly planned. The remaining private lands, including MFL/FCL lands, are important to supply Oneida County with a sufficient future tax base. When landowners would like to protect wooded areas, MFL/FCL lands are preferred over tax-exempt public lands and/or easements because they have the flexibility to be developed for residential, commercial, and other uses once their existing contracts have been fulfilled in order to contribute to the County's tax base.

In recent years, the demand for private forest land has increased dramatically. The reason for this can be primarily attributed to the decreasing available supply of waterfront property. As the amount of available waterfront property in the County declines, the demand for forest land has been increasing. Private woodland management will continue to have significant impacts in Oneida County.

Private landowners may participate in the Managed Forest Law (MFL) program or engage in some other form of formalized forest management practices, such as the tree farm programs sponsored by the paper companies, to ensure the preservation and health of the County's woodland resources and wildlife habitat and not permanent easements acquired using federal, state, or local tax dollars that will take away tax base.

Threatened and Endangered Species

Oneida County contains a wide range of plant and wildlife habitats. These natural habitats have been greatly affected by rural development and agricultural practices. In most cases, these influences are directly responsible for the endangerment or threatening of certain species. The Endangered Species Act (ESA) requires all federal agencies to conserve endangered and threatened species. The State of Wisconsin has similar statutes.

Wisconsin law prohibits the "taking" of any plant or animal listed as endangered or threatened. Taking is defined as the act of killing, harming, collecting, capturing, or harassing a member of a protected species. The WDNR-Bureau of Endangered species operates the Wisconsin's Natural Heritage Inventory (NHI), which maintains data on the location and status of rare species, natural communities, and natural features in Wisconsin.

WDNR's Natural Heritage Inventory program maintains data on the general location and status of rare, threatened, or endangered plant and animal species in the State. This data is obtained through field inventory. According to that inventory, Oneida County has 595 land sections with occurrences of aquatic and terrestrial plants, animals, and/or natural communities of endangered status as identified in the Wisconsin Natural Heritage Inventory. Each section identified may have several different species or just one species.

Oneida County has 59 species that are listed in the Natural Heritage Inventory. Of these species, 12 are listed as threatened or endangered. The American Marten (Martes americana) and Black Tern (Chlidonias niger) are the only two endangered species listed in Oneida County. There are 10 other species that are considered threatened. **Table 2-4** lists the 12 species listed as threatened or endangered within Oneida County. It is worth noting that the Great Gray Owl (Strix nebulosa), Northern Goshawk (Accipiter gentilis), and the Osprey (Pandion haliaetus) are bird species that are fully protected under the Migratory Bird Act. Also worth noting is that the bald eagle is no longer listed but is now protected by the Bald and Golden Eagle Protection Act. Several other species of plants and animals are listed as rare, but no laws are in place to protect them.

Table 2-4: Threatened or Endangered Species in Oneida County

Common Name	Scientific Name	WI Status	Federal Status	Group
Algae-leaved Pondweed	Potamogeton confervoides	THR		Plant~
American Marten	Martes americana	END		Mammal
Black Tern	Chlidonias niger	END	SOC	Bird~
Calypso Orchid	Calypso bulbosa	THR		Plant~
Large Water-starwort	Callitriche heterophylla	THR		Plant~
Little Brown Bat	Myotis lucifugus	THR		Mammal~
Red-shouldered Hawk	Buteo lineatus	THR		Bird~
Spruce Grouse	Canachites canadensis	THR		Bird~
Tufted Bulrush	Trichophorum cespitosum	THR		Plant~
Upland Sandpiper	Bartramia longicauda	THR		Bird
Wood Turtle	Glyptemys insculpta	THR	SOC	Turtle~
Yellow Rail	Coturnicops noveboracensis	THR		Bird~

Source: WDNR - Natural Heritage Inventory

Agricultural Resources

In 2015, the County adopted a Farmland Preservation Plan. Pursuant to Wis. Stat. §66.1001, the comprehensive planning law, that plan becomes a component of the County's Comprehensive Plan. See the **Oneida County Farmland Preservation Plan** for more detailed information on agriculture.

Growing potatoes and cranberries are two of the main agricultural enterprises in Oneida County. Additional enterprises include beef production, Christmas tree farming, and maple syrup production. The soils of Oneida County are primarily sandy and loamy, suited to, and do support, forested/woodland uses. Due to the sandy and droughty nature of the soils, most are of relatively low agricultural value. In addition, the growing season in the County is relatively short. As such, agriculture in Oneida County is primarily limited to a few areas with expanses of sandy loam soil, primarily in the Towns of Crescent, Cassian, Stella, and Sugar Camp.

Current trends in Oneida County show that potato production will continue as it has for over 50 years, centered around the Town of Sugar Camp. Potato development is supported by the Rhinelander Agricultural Research Station, also known as the UW-Lelah Starks Potato Breeding Farm, located in the Town of Cassian, and two commercial seed potato research farms operated by Frito-Lay, one in the Town of Stella and the other in the Town of Three Lakes. Sowinski Farms has a seed potato farm in the Town of Stella. The machinery, repair services, growing inputs, and crop storage necessary for potato production are available in the Rhinelander area and the Towns of Stella up through Three Lakes in Oneida County. Potato storage exists and is projected to continue in the Town of Sugar Camp into the foreseeable future. All potato processing is projected to continue outside of Oneida County.

Cranberries are grown in the Towns of Newbold, Three Lakes, Cassian, Stella, and Sugar Camp. Oneida County projects that cranberry production will increase wherever beds can be developed, so with much of the County having a shallow depth to groundwater, many places throughout the County are possible for new bogs.

Cultural Resources

Oneida County is located in the northern section of Wisconsin, where the last glacier deposited terminal moraines, eskers, erratic boulders, silt loam, lakes, rivers, and deep forests – a unique geology.

Native Americans inhabited Oneida County when the first European explorers, missionaries, and fur traders traveled into the County. The early inhabitants of the County were of the Lacotah (Sioux) people, gradually displaced by the Ojibway. White settlement began in earnest with the arrival of the Brown brothers in 1882.

Oneida County was established in 1885 and included all of Vilas County and parts of Forest, Langlade, and Iron counties. Its current boundaries were set in 1905. The County population more than doubled from 5,010 in 1890 to 11,234 in 1905. Agriculture grew from 1900 to 1920, and farms peaked in 1940 at 789.

Although forestry, manufacturing, and agriculture continue to play a prominent role in the County's economy, businesses that take advantage of the County's wealth of lakes and natural amenities represent potential for growth in the future.

The history of Oneida County as a visitor destination goes back to the earliest days. Such establishments as Keeler's Resort on Pelican Lake, the Northern Resort on Lake Minocqua, and Drave's Hotel at Lake Tomahawk, founded in the early 1900's, were precursors for today's tourism industry. Forestry, manufacturing, agriculture, and tourism historically have all played prominent roles in the County's economy.

Historical Structures

The practice of preserving historic sites and structures recognizes the architectural, engineering, archaeological, cultural, or historic importance of these assets to a community. In 1994, the Wisconsin Legislature enacted statutes requiring cities and villages with property listed in the National Register of Historic Places or the State Register of Historic Places to enact an ordinance to preserve these places.

The State and National Registers of Historic Places lists properties, historic districts, individual buildings, parks, bridges, locomotives, and archaeological sites. There are 25 buildings and sites listed on either or both registers in Oneida County.

Similar to the State Register of Historic Places, the Architecture and History Inventory (AHI) also provides historical and architectural information. This database contains information on

approximately 120,000 properties in Wisconsin and is maintained by the Wisconsin Historical Society. The AHI contains data on structures that illustrate Wisconsin's unique history and cultural landscape. Inclusion in this inventory affords no special protection to structures nor does it convey special status, rights, or benefits to owners. The largest percentage of the structures in the inventory are located in the City of Rhinelander. In all, there are 713 buildings listed in this inventory.

The Archaeological Site Inventory (ASI) is the most comprehensive list of the archaeological sites, mounds, marked and unmarked cemeteries, and cultural sites in the State. However, it includes only those sites that have been reported to the Wisconsin Historical Society. It only includes some possible sites and cemeteries of archaeological significance in the State. This inventory has been developed over a period of 150 years. Therefore, each entry in the database varies, and the information has yet to be verified in all cases.

As noted earlier, there are 25 historic sites and structures in Oneida County, including the former Texaco Service Station (Minocqua Brewing Company), Boesal and Hagge Boathouses in Minocqua, First National Bank in Rhinelander, the Indianapolis Outing Club and Jollywood in Three Lakes, Mecikalski General Store in Schoepke, the Tomahawk Lake Camp Historic District, six native archeological sites, as well as the Oneida County Courthouse.

There are 713 sites and structures on the Architectural History Inventory (AHI). The City of Rhinelander has more structures listed on the AHI than other municipalities, likely due to its county seat status and growth as the largest community in the County. The City currently has 138 architecturally significant buildings on the state AHI, most of which are homes and commercial buildings.

Goals, Objectives, and Policies

Goal 1: Look for opportunities to improve (incremental improvement) as science and technology develops to conserve and enhance the County's natural features, including lakes, rivers and streams, open space, wetlands, wildlife habitat, woodlands, and unique physical areas. This must be done in an approach that balances property rights/economic and environmental concerns between the natural and human environments.

Objectives:

- ~~Promote development that considers and takes reasonable economic measures to reduce the impact of natural resources balancing property rights with the human and natural environment.~~ Promote development that considers and takes reasonable economic measures to reduce impact on natural resources, considering property rights while balancing the human and natural environments.
- Promote opportunities that consider both natural resource protection and economic development allowing for economic decisions in which the risk to the environment is calculated, minimized, and controlled to benefit the economic decision.
- Balance resource protection efforts with the requirements of human life and economics and identify and enhance the resources to provide economic returns to the County.

Policies:

- Slow the spread of invasive species.
- Examine the impacts of metallic or nonmetallic mining on the County's natural resources.
- Conserve and enhance shoreland areas by minimizing impact from land disturbing activities.

Goal 2: Conserve and enhance Managed Forest Law (MFL) Lands

Objective:

- ~~Promote areas for future development by using existing Managed Forest Law (MFL) lands in private ownership to increase the tax base.~~
- Minimize the conversion of woodlands into other uses.

Policy:

- Discourage the conversion of existing privately owned lands to public lands using federal, state, and local tax dollars to purchase existing MFL lands or purchase easements over them.

Goal 3: Reduce contamination of surface and groundwater resources in the County.

Objectives:

- Promote development that minimizes surface and groundwater impacts from onsite septic systems and other sources.
- Conserve and enhance surface water, groundwater, and shoreline buffer zone quality.

Policies:

- Promote groundwater protection efforts to maintain and lower nitrate, pesticide, and volatile compound pollution.
- Identify and assess the current drainage system in the County.
- Support dam/drainage way repair to minimize flooding in the County.
- Address erosion through sound erosion control mechanisms and retaining walls, etc.
- Promote prevention of PFAS in groundwater including efforts to facilitate remediation of both water and soil.

Goal 4: Encourage and support the conservation of natural areas that minimize flooding, such as grasslands, wetlands, and woodlands.

Objective:

- Increase and improve wildlife habitat.

Policy:

- Work with FEMA to update floodplain maps with new technology.

Goal 5: Allow for needed nonmetallic mining while balancing the interests of adjacent landowners and the County.

Objective:

- Minimize impacts to the County's natural resources from nonmetallic mining.

Policy:

- Promote proper reclamation techniques in the County.

Goal 6: Allow for necessary metallic mining through the County's non-metallic mining and metallic mining exploration, bulk sampling, and mining ordinance while balancing the interest of County residents to comply with state laws.

Objective:

- Minimize impacts to the County's natural resources from metallic mining.

Policy:

- Promote proper reclamation techniques in the County

Goal 7: Work with all state and federal agencies with a presence in Oneida County ~~the United States Department of Agriculture (USDA)~~ regarding ~~National Forest~~ all state and federally owned land planning activities.

Objective:

- County government should be aware of any proposed changes to state and federal lands within Oneida County ~~the National Forest~~.

Policy:

- County staff and/or elected officials shall coordinate and attend planning meetings or similar activities to ensure that the County has a voice regarding state and federally owned land ~~National Forest~~ issues. The County Forestry Land & Recreation Committee shall assign qualified staff to attend state and federal planning meetings or similar activities to ensure that the county has an informed voice when regarding input on these issues.

Goal 8: Conserve and enhance economically productive farmlands.

Objective:

- Work to preserve farming as a viable occupation within the County.

Policy:

- Maintain an updated Farmland Preservation Plan.

Goal 9: Preserve and enhance cultural, historic, and archaeological resources.

Objectives:

- Continue identification and protection of key cultural, historic, and archaeological sites.
- Encourage nomination of sites to the State Historical Society.

Policy:

- Development proposals should be reviewed by the County relative to the potential impacts to the cultural resources of the County.