

## 9. Land Use

### ***Introduction***

The Land Use Element provides existing land use characteristics in Bayfield County as well as future land use forecasts for the next 20 years. This chapter includes a review of County land use patterns, public lands, existing land use classifications, future land use classifications, assessed land use values, and design elements.

### ***Land Use Patterns of Bayfield County***

Bayfield County's land area is approximately 1,500 square miles, making it the second largest county (in land area) in Wisconsin. Public lands account for 51.4% of the total County land area. These public lands are comprised of county parks, campgrounds, forests, and national forest lands.

Surface water resources in Bayfield County greatly influence land use patterns. Shoreland development has occurred on Bayfield County lakes that are not incorporated into public holdings or trust lands. Within Bayfield County, shoreland is being converted into permanent and second home type residential development, often at a rapid rate. Without proper design guidelines and preservation standards, the current rate of development around lakes, streams and rivers poses a great threat to the natural resources and long-term health of Bayfield County.

### ***Public Lands of Bayfield County***

#### ***Chequamegon National Forest***

Established by Presidential Proclamation in 1933, the Chequamegon National Forest includes 858,400 acres in six northern Wisconsin counties. Bayfield County's portion of the Chequamegon National Forest is approximately 270,145 acres, which encompasses much of the central and southeastern portions of the County. National Forest lands are managed by the United States Department of Agriculture-Forest Service.

#### ***Porcupine Lake Wilderness Area***

Officially designated in 1984, the Porcupine Lake Wilderness Area encompasses 4,446 acres in central Bayfield County near Drummond.

#### ***Rainbow Lake Wilderness Area***

One of the first wildernesses areas designated through the Eastern Wilderness Act of 1975, the Rainbow Lake Wilderness Area encompasses 6,583 acres of forestlands, unique natural features, abandoned railroad grades and trails. The Forest Service directs management and policy.

#### ***Moquah Barrens Wildlife Management Area***

Part of the Chequamegon National Forest in northern Bayfield County, the Moquah Barrens Wildlife Management Area is a unique ecological preserve which contains remnant pre-settlement pine barren communities. This 7,000-acre area is also managed for a wide range of wildlife and sensitive plant species.

**Moquah Research Natural Area**

One of the oldest research areas in the United States. Established in 1935, this 640-acre tract of publicly owned land serves as an educational and scientific resource and a genetic pool for rare and endangered resources.

**Moquah Wildlife Management Area**

Established in 1950 through a memorandum of understanding between the Forest Service and the former Wisconsin Conservation Department.

**Whittlesey Creek National Wildlife Refuge**

Located in the Town of Barksdale, the refuge was established in October 1999. The purpose of the refuge is for the development, advancement, management, conservation and protection of fish and wildlife resources.

**St. Croix National Scenic Riverway**

A unit of the National Park System, St. Croix National Scenic Riverway encompasses 1,287 acres.

**Apostle Islands National Lakeshore**

Part of a 6,028-acre national park lying at the northern tip of Bayfield County, the Apostle Islands National Lakeshore encompasses both mainland shoreline and the Apostle Islands (Bayfield and Ashland Counties). The National Park Service directs management and policy.

**State-Owned Lands of Bayfield County**

The State of Wisconsin owns and manages about 18,000 acres in Bayfield County. These lands are comprised of lands managed for fisheries, wildlife, natural and park areas, and wild river areas. Primary management and policy on state-owned lands are directed by the Wisconsin Department of Natural Resources. State-owned lands within the County include some of the following areas:

- Bark Bay Slough Natural Area (225 acres)
- Bibon Swamp Natural Area (200 acres)
- Lost Creek Natural Area (200 acres)
- Port Wing Boreal Forest Natural Area (188 acres)
- Totogatic Wildlife Area (750 acres)
- South Shore Fish and Wildlife Area (8,033 acres)
- White River Fishery Area (1,200 acres)

**County-Owned Lands in Bayfield County**

Bayfield County owns and manages approximately 175,500 acres of forestlands, county parks, and public areas. Primary management and policy on County-owned lands is directed by Bayfield County.

**Trends in Land Assessment**

The following is an overview of assessed land use classifications for Bayfield County. While having limitations, this property tax assessment data can be used as a broad indicator of land use change over a period of years.

Table 9.1 compares the change in assessed acreage between 2012 and 2022.

**Table 9.1: Assessed Acreage**

Real Property Class	2012 Acres	2022 Acres	#Δ	% Δ
Forest	199,610	194,132	(-5,478)	(-2.7%)
Agricultural	78,319	76,053	(-2,266)	(-2.9%)
Residential	38,035	35,270	(-2,765)	(-7.3%)
Undeveloped	26,802	31,459	4,657	17.4%
Agricultural Forest	25,175	30,956	5,781	23.0%
Commercial	2,321	2,142	(-179)	(-7.7%)
Other	450	390	(-60)	(-13.3%)
Manufacturing	106	59	(-47)	(-44.3%)
Total	370,818	370,461	-	-

Source: Wisconsin Department of Revenue

**Forest**

Productive forest lands are lands that are producing or are capable of producing commercial forest products. The total 2022 assessed forest acreage in Bayfield County was 194,132 acres, or 52.4% of the total assessed County acreage. Forest acreage in Bayfield County decreased by 5,478 acres, or by 2.7% between 2012 and 2022.

**Agricultural**

Agricultural lands are devoted primarily to agricultural use. The total 2022 assessed agricultural acreage in Bayfield County was 76,053 acres, or 20.5% of the total assessed County acreage. Agricultural acreage in Bayfield County decreased by 2,266 acres, or 2.9% between 2012 and 2022.

The bulk of the County's agricultural lands are found in the towns with less forested areas which are nearest to Lake Superior. Towns with the most agricultural lands include Kelly, Eileen, Mason, and Oulu. These lands are also some of the most suitable lands for agricultural use in Bayfield County.

**Residential**

Residential lands include any parcel or part of a parcel of untilled land that is not suitable for the production of crops, on which a dwelling or other form of human abode is located. The total 2022 assessed residential acreage in Bayfield County was 35,270 acres. This classification accounts for approximately 9.5% of the total 370,461 assessed land area in Bayfield County. The total residential acreage in Bayfield County decreased by 2,765 acres, or 7.3% between 2012 and 2022.

**Undeveloped**

Undeveloped lands include bog, marsh, lowland brush, uncultivated land zones as shoreland or other nonproductive lands. The total 2022 assessed undeveloped acreage in Bayfield County was 31,459 acres, or 8.5% of the total assessed County acreage. Undeveloped acreage in Bayfield County increased by 4,657 acres or 17.4% between 2012 and 2022.

**Agricultural Forest**

Agricultural forest lands are producing or are capable of producing commercial forest products if the land is contiguous to a 100% agricultural parcel, located on a parcel that contains agricultural land, or located on a parcel where 50% of the acreage was converted to agricultural land. The total 2022 assessed agricultural forest acreage in Bayfield County was 30,956 acres, or 8.4% of the total assessed County acreage. Agricultural forest acreage in Bayfield County increased by 5,781 acres or 23.0% between 2012 and 2022.

**Commercial**

Commercial lands are devoted to buying and reselling. The total 2022 assessed commercial acreage in Bayfield County was 2,142 acres, representing approximately 0.6% of the total assessed county acreage. Commercial acreage in Bayfield County decreased by 179 acres, or 7.7% between 2012 and 2022.

Communities with the most commercial lands include the Towns of Barnes, Cable, Namakagon, and Hughes.

**Other**

Other means buildings and improvements, including any residence for the farm operator's spouse, children, parents, or grandparents, and the land necessary for the location and convenience of those buildings and improvements. The total 2022 assessed other acreage in Bayfield County was 390 acres, representing approximately 0.1% of the total assessed County acreage. Other acreage in Bayfield County decreased by 60 acres, or 13.3% between 2012 and 2022.

**Manufacturing**

A manufacturing operating establishment is engaged in the assembling, processing, fabricating, making, or milling of tangible personal property for profit. The total 2022 assessed manufacturing acreage in Bayfield County was 59 acres, representing approximately 0.02% of the total assessed county acreage. Manufacturing acreage in Bayfield County decreased by 47 acres, or 44.3% between 2012 and 2022. Most towns in Bayfield County have no land currently assessed for manufacturing purposes.

**Existing Land Use**

Existing land use in Bayfield County was documented, analyzed, and mapped using current aerial imagery, tax parcel GIS data, field reconnaissance, and consultation with local municipalities and residents. Existing land use was classified using the categories and descriptions listed below (Table 9.2).

**Table 9.2: Existing Land Use**

Land Use	Acres	% of Total Acres
Agricultural	60,472.6	6.4%
Commercial	1,857.6	0.2%
Conservation	468,620.2	49.9%
Forestry & Open Space	358,673.8	38.2%
General Mixed Use	3,689.6	0.4%
Industrial	660.7	0.1%
Red Cliff Reservation	12,812.2	1.4%
Residential	18,688.5	1.99%
Right-Of-Way	13,334.0	1.42%
Total	938,809.1	100.0%

Source: Bayfield County & Northwest Regional Planning Commission

**Agricultural**

Suitable lands allocated for future agricultural uses, including aquaculture. Typically, 5-40 acres in size.

**Commercial**

Suitable lands allocated to accommodate consumer-oriented retail and service businesses. Includes (for-profit) outdoor recreation oriented commercial uses.

**Conservation**

Lands reserved for conservation and public recreation. Future non-development areas. Includes parks and public (non-commercial) recreation areas. May also include private non-development areas.

**Forestry & Open Space**

Recreation, conservation, forest products, cabins, and year-round homes. This category includes woodlands, wetlands and open space, residences, & recreational development. Typically, 5-40 acres in size.

**General Mixed-Use**

Suitable lands allocated for a mix of residential, commercial, governmental, utilities and institutional uses, commonly associated with unincorporated rural communities. Typically occur within or adjacent to communities.

**Industrial**

Suitable lands allocated to accommodate industrial (manufacturing) and other employment-oriented uses. Also includes gravel pits and salvage operations.

**Red Cliff Reservation**

Lands of the Red Cliff Band of Lake Superior Chippewa

**Residential**

Suitable lands allocated for residential housing on individual small lots. Typically occur within or adjacent to communities.

**Right-of-Way**

The area needed for traffic lanes, shoulders, ditches, etc.

***Factors Influencing Development Patterns***

Several factors have influenced the way in which developments have occurred in the County. These factors are a combination of market/ economic forces, public infrastructure, personal desires, and natural amenities (topography, vegetation, water resources).

**Economic Trends**

Since the late 1980s, the value of and price paid for area land has seen a steady increase. This increase is not expected to slow, except for minor dips related to the national economy.

**Public Infrastructure**

Public infrastructure, especially the transportation and water and sewer utilities network, contributes to the overall development pattern of the County as the network provides access to buildable land.

**Proximity**

Bayfield County is in close proximity to the Duluth-Superior Metropolitan Area and the Twin Cities Metropolitan Area. Growth pressure from both of these places will be prevalent over the next 20 years.

**Natural Amenities**

Bayfield County has an abundance of natural and recreational areas. People want to live near these amenities.

***Land Use Regulation***

Overall, zoning ordinances should be based on a land use plan in order to be effective and protect the public interest. The development of a Comprehensive Plan for Bayfield County provides the County Board with a document upon which the County has provided input and stated desires regarding future land use decisions. This planning document will form a basis for the development of an updated Zoning Ordinance. The current zoning map districts are found on Map 9.2.

**Assessment of Future Conditions**

The use of land is the most important factor in managing the future growth of any community. Land use trends indicate what changes are occurring regarding type, location, and intensity of land uses over time. It is these changes that have to be managed in a manner that is beneficial to area residents and the environment.

Future land use activities and their resulting change to the landscape over the next 20-year period are difficult to predict. Changes in the local or national economy, natural disasters, and the overall change in year-round residents are some of the factors that will influence how land use activities may change in the future. Future land use changes for the period 2022 to 2042 have been developed to assist in predicting future development activities relating to residential, agricultural, commercial, and industrial land use (Table 9.3). According to the US Census, the County will experience a small increase in total housing units and only a small increase in the total number of households, therefore, no significant land use changes are anticipated.

Wisconsin Chapter 66.1001 requires local communities to explore and plan for redevelopment options and identifying potential smart growth areas. "Smart Growth Areas" are areas with existing infrastructure and services in place, where development and redevelopment can be easily directed. These areas may also be recently developing land contiguous to existing development that will be developed at densities that will have relatively low public service costs.

**Table 9.3: Land Use Projections**

Land Use	2022	2027	2032	2037	2042
Residential	18,688.5	19,234.1	19,882.2	20,523.2	21,160.8
Agricultural	60,472.6	60,789.3	60,715.4	60,394.9	60,140.6
Commercial	1,857.6	1,801.8	1,748.3	1,679.3	1,606.3
Industrial	660.7	660.7	660.7	660.7	660.7

Source: Bayfield County & Northwest Regional Planning Commission

**Future Land Use**

The desired future land use pattern in Bayfield County is identified through individual Town future land use maps utilizing a standardized future land use classification system. Each map was developed based on existing and future land use assumptions, a review of demographic and background data, trends in land use over the past several years, and the community's desires for future development. The future land use maps are intended to serve as guides to the County Board in matters concerning land use activities. The future land use maps for the 25 Towns in Bayfield County are found in Appendix B.

Future land use was classified using the categories and descriptions listed below.

**Agricultural**

Suitable lands allocated for future agricultural uses, including aquaculture. Typically, 5-40 acres in size.

**Forestry and Open Space**

Recreation, conservation, forest products, cabins, and year-round homes. Typically, 5-40 acres in size.

**Residential**

Suitable lands allocated for residential housing on individual small lots. Typically, less than 5 acres in size.

**General Mixed Use**

Suitable lands allocated for a mix of residential, commercial, governmental, utilities and institutional uses, commonly associated with unincorporated rural communities.

**Rural Residential**

Suitable lands for residences on large-lot agricultural, open lands, or forestry parcels. Typically, 2-5 acres in size.

**Commercial**

Suitable lands allocated to accommodate consumer-oriented retail and service businesses. Includes (for-profit) outdoor recreation-oriented commercial uses.

**Industrial**

Suitable lands allocated to accommodate industrial (manufacturing) and other employment-oriented uses.

**Conservation**

Lands reserved for conservation and public recreation. Future nondevelopment areas. Includes parks and public (non-commercial) recreation areas. May also include private nondevelopment areas.

**Opportunities for Redevelopment**

Specific opportunities were not discussed and will be handled on an as needed basis. Decisions on redevelopment will be based on the zoning ordinance and Comprehensive Plan.

**Smart Growth Areas**

The County has not identified any specific areas as "Smart Growth Areas", but recognizes the municipality centers as critical to the future growth of the area. These areas include the Barnes Business Park and the Iron River Business Park.

**Land Use Conflicts**

As a means of mitigating future land use conflicts, the County will seek to update the zoning ordinance to be in conformance with the Bayfield County Comprehensive Plan.



### **Boundaries of Service Area of Public Utilities**

The boundaries for the public utilities mirror the County limits shown on the land use maps.

### **Future Development and Preserving Bayfield County**

The long-term health of Bayfield County will depend greatly on the land use decisions that are made in the short-term. By balancing growth with preservation and conservation, the County is ensured a bright and sustainable future. Based upon input received during community meetings, steering committee meetings and stakeholder discussions, there are three main planning and design elements that will greatly impact how the County is developed, redeveloped, and preserved into the future. These elements include:

- Conservation development and design management and preservation.
- Agricultural preservation and large lot fragmentation.
- Develop a unique sense of place.

### **Conservation Development and Design**

Simply stated, a conservation development is one in which portions of the total gross developable area is designated as permanent open space. There are many advantages of conservation or cluster development including the preservation of natural areas, lower infrastructure costs for developers by reducing length of roads and utilities as well as preserving view-sheds within key areas. Above all, conservation development and design standards allow open space to be preserved while still allowing a balance of growth and development. To this end, large-lot fragmentation is eliminated and clustered lot development is substituted.

### **Shoreland Management**

#### **Inland Lakes, Rivers, and Streams**

Clean and fresh lakes, rivers and streams provide residents, tourists and visitors to Bayfield County with boundless opportunities for fishing, boating, sailing or simply marveling at the natural beauty. With clear and enforceable policies related to shoreland management the very essence of the County will be preserved.

Wisconsin's Shoreland Management Program established statewide standards for shoreland development. The statewide minimum standards are found in Chapter NR 115, Wis. Admin. Code.

#### **Lake Superior**

Coastal resources of Bayfield County are a significant part of the natural environment. This vast network of tributaries, estuaries, lagoons, coastal and inland wetlands communities, and shoreline provides habitat to many unique species of plant and animals, some of which are threatened or endangered. Coastal resources and the quality of coastal environment are intimately linked to land use, and land use decisions directly impact the quality and sustainability of coastal resources. Factors such as

shoreline erosion/recession, sedimentation, pollution, and habitat loss jeopardize the health and vitality of coastal resources.

Managing and protecting 86 miles of Lake Superior shoreline requires creative management tools. Between 2006 and 2010 building setbacks were established using past recession rates, soil types, bluff heights and slopes, vegetative management, and surface water flow. These factors were scientifically formulated and assigned. These designations identify 154 individual segments with each segment having its own setback criteria. This will enable landowners to best utilize their property for generations to come while reducing the erosion and recession hazard.

### ***Creating a Sense of Place***

No two places are alike. Creating and preserving a sense of place within Bayfield County needs to occur at several planning, design, and preservation levels. The first level is a general understanding of the values that Bayfield County holds. This is considered the 30,000-foot elevation. This is the level where general terms like preservation, clean water and conservation are practiced. These three values are seen throughout the entire county and need to be included when developing a sense of place.

The second level is understanding a town's place within the context of the County. This is considered planning at a 10,000-foot elevation. It is at this elevation where understanding the impacts of other areas is necessary. For example, it is important to understand that the land use decisions near a stream or river within the County will not only impact the town, but also the towns, cities, and counties down river. Developing a sense of place must include the insight of how development and design will impact other surrounding areas as well.

The third level is a design review at ground level. Clearly, the Town of Oulu is contextually different than the Town of Cable. Therefore, a sense of place for Oulu must be understood in a different light than that of Cable. It is critical that land use decisions in Oulu be treated differently than those in Cable, et. al. Developing a sense of place at a ground level must include an observation of topographic features, existing conditions, and future considerations like rate of growth and development capacity. By developing specific design standards at town level, a clear and distinctive understanding of "sense of place" can be established.

**Map 9.1: Existing Land Use**

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**Map 9.2: Zoning Districts**

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