

Baileys Harbor Comprehensive Planning Project

Resource Inventory Report

April 2004

Prepared for:
Town of Baileys Harbor

Prepared by:
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Executive Summary

This report represents the results of an inventory conducted by GBH Consulting between October 2002 and January 2004 of the existing resources in the Town of Baileys Harbor. The information contained in this document is drawn from previous technical studies by State and Federal agencies, data collected from other planning and research efforts within the community, census data and reports and resident input. The inventory provides a general characterization of the resources and issues in the Town that should be considered during the comprehensive planning process. The resources described in this report are:

- Physical environment
- Land use
- Housing
- Social and economic environment
- Recreation
- Water
- Air quality
- Contaminated and waste disposal sites
- Biological
- Cultural, historic and archaeological
- Transportation
- Utilities
- Community facilities

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1. Introduction

1.1. Introduction

In May of 2002, the Town of Baileys Harbor hired Goode, Brightman & Hoke Consulting, LLC (GBH Consulting) to work with the Baileys Harbor Plan Commission and citizen volunteers to develop a comprehensive plan for the community. The purpose of this initiative is to establish and implement plans for the long-range development of the Town based upon residents' shared values and goals and projected growth and development needs. The plan will also help the Town fulfill State mandates for long-range planning that require the Town to make land use decisions in accordance with a comprehensive plan, requirements for which have been outlined in 1999 Wisconsin Act 9, otherwise known as the "Smart Growth" legislation (see below).

This report provides an inventory of the existing resources in the Town of Baileys Harbor and will serve as a reference for planning and policy decisions. It provides a review of existing information collected from other planning efforts within the community and technical studies, research and data available from State and Federal agencies.

1.2. Wisconsin's Smart Growth Law

In essence, the Smart Growth legislation states that by January 1, 2010, any Wisconsin municipality that has programs or takes actions that affect land use must have a comprehensive plan in place. This comprehensive plan must serve as the legal basis for community decision-making and must comply with the Wisconsin statutes as to the nine issues or elements outlined therein. These nine elements are:

- Issues and Opportunities
- Housing
- Transportation
- Utilities and Community Facilities
- Agricultural, Natural and Cultural Resources
- Economic Development
- Intergovernmental Cooperation
- Land Use
- Implementation

In the case of a municipality seeking various state grants, the comprehensive plan must also comply with local planning goals outlined in the legislation.

2. Physical Environment

2.1. Location

The Town of Baileys Harbor in the County of Door, Wisconsin is located 66 miles northeast of the City of Green Bay and 22 miles north of the City of Sturgeon Bay. It is bordered on the east by Lake Michigan, on the south by the Town of Jacksonport, on the west by the Towns of Egg Harbor and Gibraltar, and on the north by the Town of Liberty Grove.

2.2. Climate

The climate of the Town of Baileys Harbor is typically continental with some modification by Lake Michigan. About two-thirds of the annual precipitation falls during the growing season (freeze-free period). It is normally adequate for vegetation, although drought is occasionally

reported. The climate is most favorable for dairy farming; the primary crops are corn, small grains, hay and vegetables.

The mean annual temperature is 44.1 F. The mean temperature in winter is 20.0 F, spring, 41.8 F, summer, 66.3 F, and fall, 48.3 F. The freeze-free season is approximately 145 days. The extended length of the growing season at this northern latitude is due primarily to the moderating effect of Lake Michigan. The average day of the last spring freeze is May 12. The first autumn freezes occur in early October, around October 8.

The average annual precipitation is 31.49 inches. Thunderstorms average about 30 per year. Occasional hail, wind and lightning damage are also reported. The first snowfall of consequence, an inch or more, is usually in late November. Average annual duration of snow cover is approximately 111 days. The snow cover acts as protective insulation for grasses, autumn seeded grains, alfalfa and other vegetation. The table below summarizes climate information as collected by the National Oceanic Atmospheric Agency (NOAA) station in Sturgeon Bay, the closet monitoring location to the Town of Baileys Harbor.

Table 2-1
Monthly Climate Summary Sturgeon Bay, Wisconsin
Period of Record 1961-1990

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Avg. Max Temp	24.8	28.4	38.2	51.6	64.5	74.2	79.6	77.4	69.1	57.1	42.8	30.0	53.3
Avg. Min Temp	8.7	11.3	21.8	32.8	41.9	51.4	57.9	56.8	50.0	42.8	29.9	16.7	35.0
Avg. Total Precip	1.53	1.13	2.09	2.65	3.12	3.31	3.36	3.42	3.88	2.66	2.45	1.89	31.49
Avg. Total Snowfall	12.5	7.8	7.5	2.0	0.1	0.0	0.0	0.0	0.0	0.0	2.5	11.7	44.1

Source: Midwest Regional Climate Center Summaries for Sturgeon Bay
(www.mcc.sws.uiuc.edu/html/MWclimate_data_summaries)

2.3. Topography

The Town of Baileys Harbor is characterized by rocky outcroppings, glacial lake basins and depressions and outwash plains, which give way to relatively level and open farmland in the center of the Town.

2.4. Geology

Glacial ice and erosion shaped the landmass that is now known as Door County. It is part of a massive limestone ledge known as the Niagara Escarpment. The Escarpment forms the backbone of the Door Peninsula, arcs through Canada over 900 miles, and finally supports the waters of Niagara Falls.

The Niagara Escarpment is comprised mainly of dolomite; the majority of the surface bedrock in the Town of Baileys Harbor is 400-425 million year old dolomite. Dolomite is a sedimentary rock similar to limestone, but is slightly harder and dissolves more slowly than limestone. Dolomite has a well-developed network of horizontal and vertical crevices that serve as effective paths for the movement of groundwater. The network of paths within the bedrock provides an ample quantity of groundwater to the wells of Baileys Harbor.

2.5. Soils

There are three main soil association types in the Town of Baileys Harbor. The first type was formed by glacial till and is found along the southern shoreline of the Town, in the vicinity of Cana Island and the majority of inland areas. It is characterized as well drained soil that has a sandy loam or loam subsoil over sand loam, fine sandy loam till or dolomite

bedrock (Summerville-Longrie-Omena association). This soil type has only slight to moderate limitations for farming and residential development.

The second type, found on the northern shoreline of the Town, along Moonlight Bay and around Mud Lake, is a deep, poorly drained, nearly level soil that is underlain by fine sand outwash or that has a silt loam subsoil over stratified lake sediments (Deford-Yahara Variant-Carbondale association). The third soil type is found in the inland area north of Kangaroo Lake and along the northern shores of North Bay. It is characterized as very poor drainage, nearly level organic soil (Carbondale-Cathro association). These last two soil association types were most likely formed in slowly permeable silty clay glacial till, outwash sand and gravel or lacustrine sediment. Soils such as these that are slowly permeable, shallow over bedrock, wet or steep have severe limitations for septic tank absorption fields.

2.6. Natural Hazards

The Town of Baileys Harbor is free of most natural hazards such as landslides, wind and earthquakes. The U.S. Geological Service has mapped floodplains within the Town. Given the geological formation of the Town and the nature of the soils, however, flooding is not expected to be significant.

3. Land Use

The existing land use situation in the Town of Baileys Harbor is depicted in this section through tax assessment categories, property values, real estate taxes, parcel sizes and zoning districts.

3.1. Assessed Land Use Categories

The following figure shows the land use assessment categories used by the Wisconsin Department of Revenue and the number of parcels in each category for Baileys Harbor in August 2003. Tax-exempt lands are not included in the assessment categories or number of parcels.

Figure 3-1

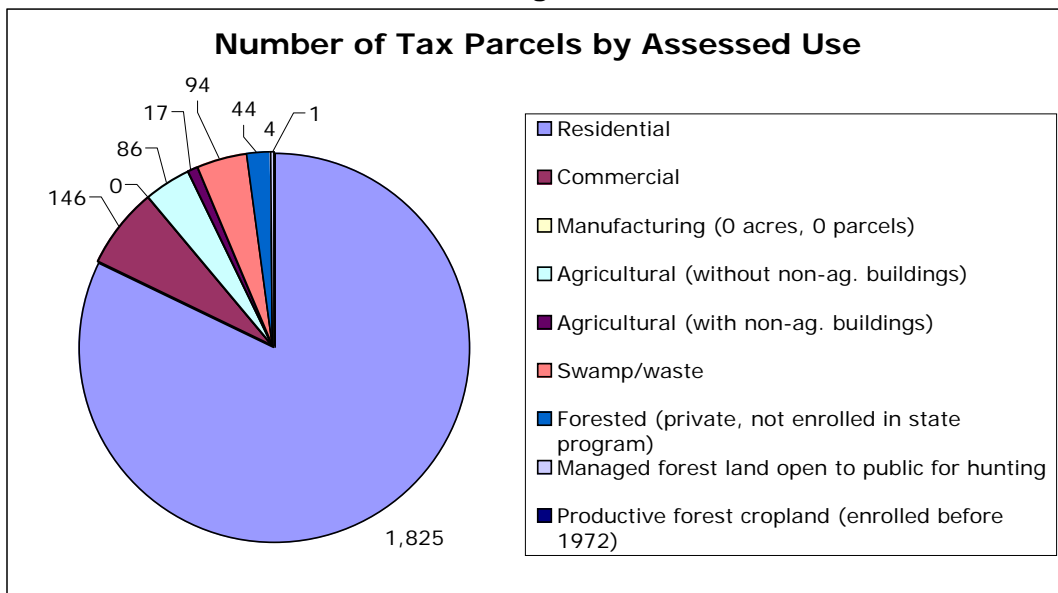
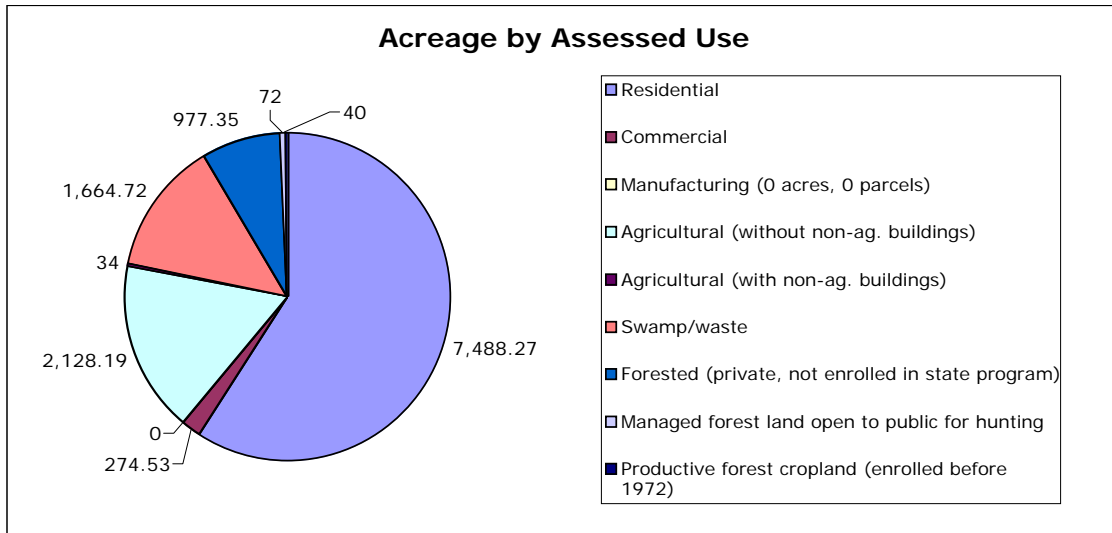


Figure 3-2 depicts the acreage in Baileys Harbor in each assessment category in August 2003.

Figure 3-2



Notes on both of the above figures:

A tax parcel may be assessed in more than one category.

Both types of managed forests are lands that owners have enrolled in a state program.

The productive forest cropland state program no longer exists; when these contracts expire, the owners may, however, enroll the lands in one of the managed forest programs.

Table 3-1 on the following page shows, for each assessment category, improved and unimproved: the number of parcels, the total acres, the percent of the total land area of the Town, the total value of land, the total value of improvements, the total estimated fair market value and the total real estate taxes paid in 2002.

**Table 3-1
Summary of Assessment Categories**

Assessment Category	# of Parcels	Acres *	% Total Land Area of Town	Value of Land	Value of Improvements	Estimated Fair Market Value **	Real Estate Taxes Paid in 2002
Residential, improved	1,046	3,336.20	18.14	\$86,728,600	\$124,548,200	\$237,924,348	\$2,615,205
Residential, unimproved ***	779	4,152.07	22.58	\$42,534,800	---	\$49,193,748	\$540,425
Commercial, improved	138	224.35	1.22	\$8,947,800	\$19,578,000	\$32,123,646	\$353,100
Commercial, unimproved	8	50.18	0.27	\$255,900	---	\$810,134	\$8,903
Manufacturing, improved	0	---	---	---	---	---	---
Manufacturing, unimproved	0	---	---	---	---	---	---
Agricultural (w/o non-ag. buildings), improved	33	765.97	4.16	\$1,093,000	\$2,880,800	\$4,475,002	\$49,183
Agricultural (w/o non-ag. buildings), unimproved	53	1,362.22	7.41	\$1,640,000	---	\$1,846,848	\$20,274
Agricultural (w/ non-ag. buildings), improved	17	34.00	0.18	\$393,800	\$1,316,100	\$1,925,563	\$21,161
Agricultural (w/non-ag. buildings), unimproved	0	---	---	---	---	---	---
Swamp/waste, improved	34	387.45	2.11	\$1,605,100	\$3,253,100	\$5,470,947	\$60,130
Swamp/waste, unimproved	60	1,277.27	6.94	\$2,782,400	---	\$3,133,339	\$34,420
Forested private, improved	4	9.00	0.04	\$99,400	\$337,700	\$492,230	\$5,410
Forested private, unimproved	40	968.35	5.27	\$3,229,400	---	\$3,636,712	\$39,959
Managed forest open to hunting, improved	0	---	---	---	---	---	---
Managed forest open to hunting, unimproved	4	72.00	0.39	\$175,000	---	\$197,072	\$2,166
Managed forest closed to hunting, improved	11	243.53	1.32	\$777,500	\$1,482,900	\$2,545,495	\$27,980
Managed forest closed to hunting, unimproved	16	436.01	2.37	\$267,800	---	\$301,577	\$3,311
Forest cropland, improved	0	---	---	---	---	---	---
Forest cropland, unimproved	1	40.00	0.22	---	---	---	---

* Acres are for those portions of the parcels assessed in each category, not necessarily the total acreage of the parcels.

** Estimated Fair Market Value includes land and improvements. *** "Unimproved" parcels are those with improvement values listed as \$0.

3.2. Current Property Values

All of the information in Section 3.2 was taken from or calculated using the Door County Real Property Listing Office tax parcel information on record on August 22, 2003. All dollar amounts listed are for “value year” 2003, except for real estate and special taxes that were paid in 2002.

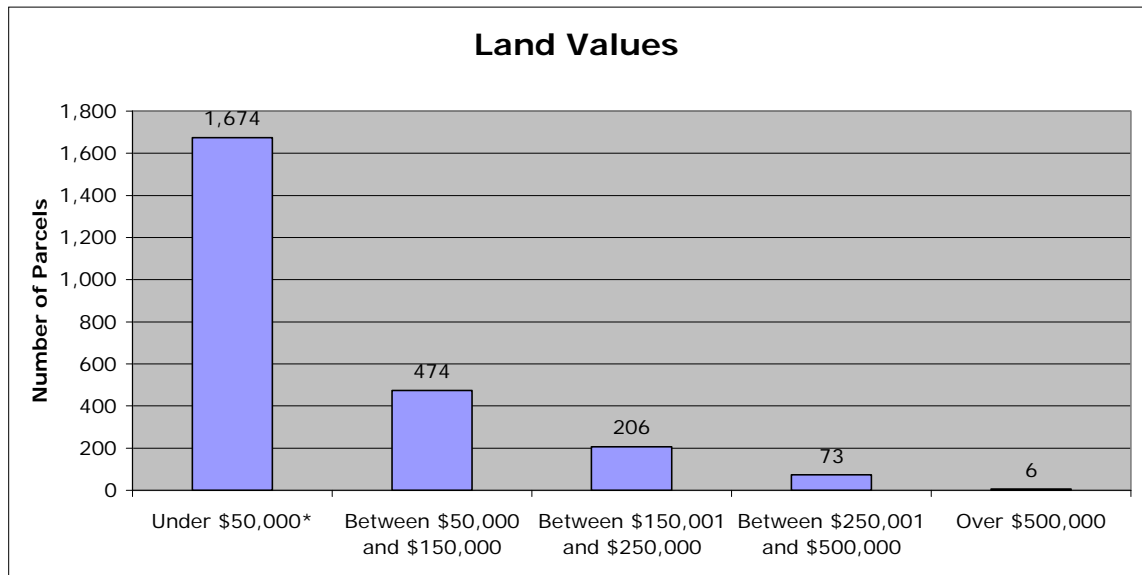
The Town of Baileys Harbor has 2,433 recorded tax parcels. This number includes lots as well as individual condominium “limited common element” areas.

3.2.1. Land Values

The total value for tax purposes of all the land – improvements excluded – in Baileys Harbor is \$142,804,500. Note that no value is included in that figure for tax-exempt lands.

Figure 3-2 illustrates land values of tax parcels in Baileys Harbor.

Figure 3-2



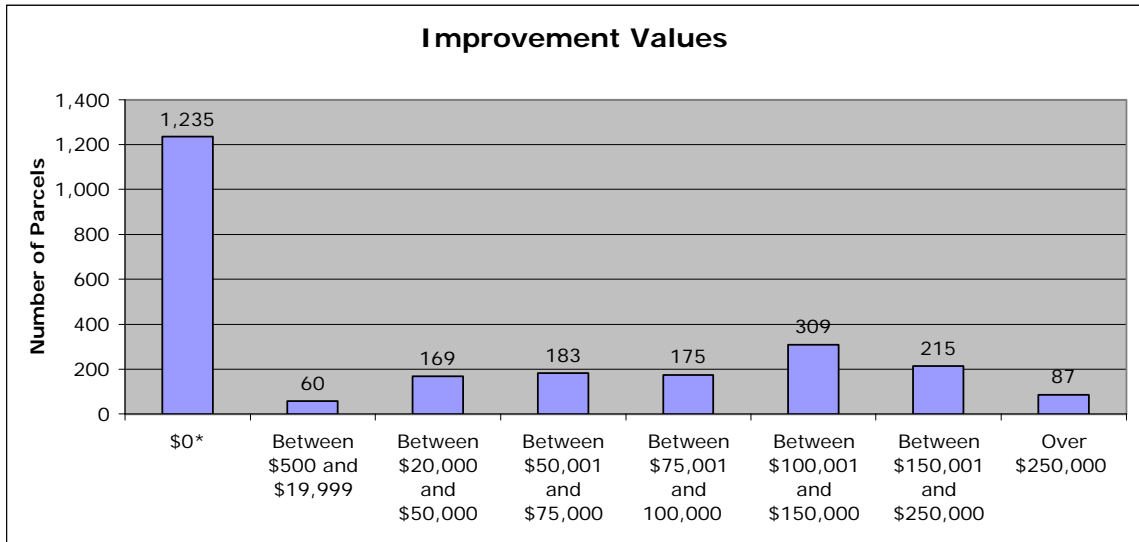
*Includes the 190 tax-exempt parcels and also individual condominium limited common element areas, all of which are considered to have land values of “\$0” for tax purposes.

3.2.2. Improvement Values

The total value for tax purposes of all the improvements – excluding land – in Baileys Harbor is \$145,277,900. (Note: Tax-exempt properties that contain buildings are given an improvement value of \$0.)

Figure 3-3 illustrates improvement values for tax parcels in Baileys Harbor.

Figure 3-3



**Again, the 190 tax-exempt parcels are included in that number.*

3.2.3. Total Property Values

The total value of Baileys Harbor real estate for tax purposes, land and improvements, is \$288,082,400. The estimated fair market value (EFMV) of Baileys Harbor real estate, land and improvements, is \$326,233,299. The difference between the two is \$38,150,899. (Again, these figures exclude tax-exempt land and improvements. Also note that the EFMV listed in the Door County Real Property Listing Office records is typically much lower than the amount actually asked and paid for real estate in the County.)

3.3. Taxes

3.3.1. Overall Real Estate Taxes

The total real estate tax paid by Baileys Harbor property owners in 2002 was \$3,585,536. This includes taxes paid to the State, County, and Town; local school districts; and Northeast Wisconsin Technical Colleges.

Real estate taxes paid in 2002 by non-Door County residents: \$2,099,305
 Real estate taxes paid in 2002 by Door County residents: \$1,486,231
"Residency" determined by zip code to which tax bill is mailed.

3.3.2. Special Taxes

The total amount paid as "special taxes" in 2002 was \$68,473. These taxes include special assessments added to the bill such as delinquent sewer charges.

3.3.3. Tax-Exempt Properties

190 parcels in Baileys Harbor are exempt from property taxes. These parcels comprise a total of 4,757.00 acres. Of that number:

- 2,346.04 acres are owned by the Wisconsin Department of Natural Resources
- 1,098.41 acres are owned by The Ridges Sanctuary
- 774.36 acres are owned by the University of Wisconsin
- 319.51 acres are owned by The Nature Conservancy
- 62.178 acres are owned by the Town of Baileys Harbor, which includes:

the treatment plant (26.82 acres)
 the Town cemetery (2.75 acres)
 the Town Hall (0.81 acres)

Town parks

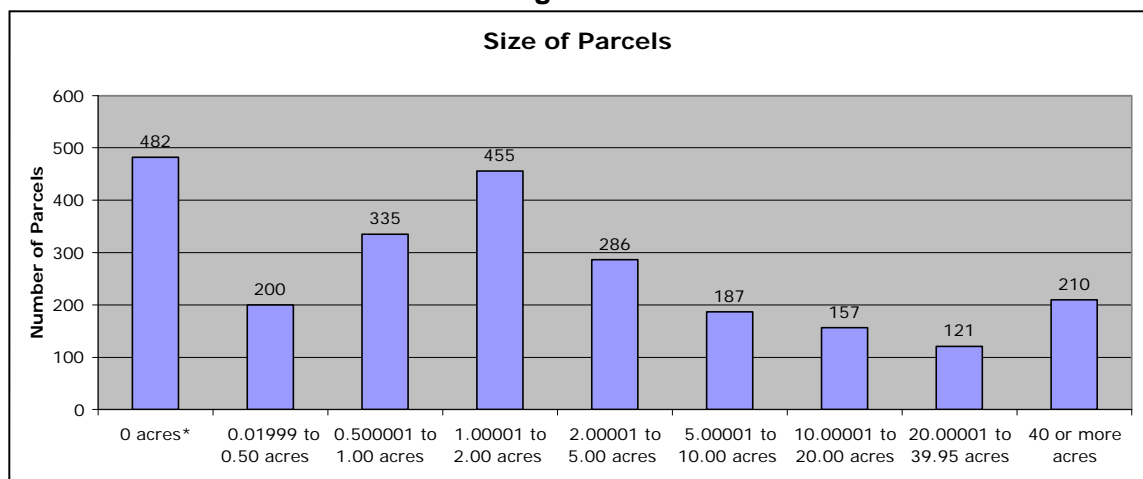
- 57.00 acres are owned by the Girl Scouts
- 56.80 acres are owned by the Door County Land Trust
- 35.03 acres are owned by the County of Door (29.38 acres of that is leased by The Ridges Sanctuary)
- 6.97 acres are owned by churches and private cemeteries
- 0.55 acres are owned by WI RSA#10 Limited Partnership
- 0.15 acres are owned by GTE
- Cana Island is owned by the U.S.A. (no acreage shown in tax records)

3.4. Parcel Size

Baileys Harbor contains 18,391.66 acres. This includes all parcels – exempt and not, lots, and lands in condominium ownership.

360 of the Town’s 2,433 parcels contain 20 or more acres. There are 168 owners of those 360 parcels. There are 89 property owners in the Town that have 40 or more acres. Figure 3-4 illustrates the range of parcel sizes in the Town.

Figure 3-4



**6 are tax-exempt properties; the remainder are primarily individual condominium limited common element sites and platted subdivision lots.*

3.5. Current Zoning Information

The Town of Baileys Harbor has chosen to adopt County zoning. This is the primary tool the Town has used to implement the current Town plan. The County Planning Department, County Board Resource Planning Committee, and County Board-

appointed Board of Adjustment administer the ordinance. Following are the descriptions from the Door County Zoning Ordinance as to the purpose and intent of each of the zoning districts currently found in Baileys Harbor. A copy of current zoning maps may be viewed at either the Baileys Harbor Town Hall or the Door County Planning Department office at the County Courthouse in Sturgeon Bay.

“Wetland (W). This district is intended to prevent the destruction and depletion of Door County's wetlands; to protect water courses and navigable waters and the public rights therein; to maintain the purity of water in lakes and streams and to prevent pollution thereof; and to protect spawning grounds, fish, and habitats for wild flora and fauna. Furthermore, this district is intended to prevent the changing of the natural character of wetlands. Lot sizes of at least 10 acres are required for new lots.

Commentary: Except as may be altered by zoning district amendment, the Wetland district boundaries coincide with the wetland boundaries shown on the most recent version (as of January 1, 1995) of the Wisconsin Wetland Inventory maps for Door County which have been prepared by the Wisconsin Department of Natural Resources.”

“Natural Area (NA). This district is intended to conserve the existing, mostly undeveloped natural areas of Door County. The district may be used in upland areas adjacent to, or surrounded by, wetland areas, or in other areas where natural features are considered significant. To conserve these areas, commercial and industrial uses are disallowed, but general agriculture, very low density residential, recreational, and institutional uses are permitted. Lot sizes of at least 15 acres are required for new lots.”

“Countryside (CS). This district is intended for mostly rural areas of the interior of the county where a mixture of low density residential, agricultural, and rural commercial activity exists or is desirable. The district provides for residential development at modest densities consistent with a generally rural environment and allows for nonresidential uses which require relatively large land areas and/or which are compatible with surrounding rural land. The district also accommodates agricultural uses and, hence, can serve as a transitional district between the Exclusive Agricultural, Prime Agricultural, and General Agricultural districts and more intensely developed areas. Lot sizes of at least 10 acres are required for new lots.”

“Heartland-3.5 (HL3.5). This district is intended for mostly rural areas of the interior of Door County where agricultural activity has been declining, or where a mixture of rural residential and agricultural activity is desirable or existing. The district primarily provides for residential development at modest densities consistent with a generally rural environment and also provides for certain nonresidential uses that require relatively large land areas and/or which are compatible with surrounding residential uses. This district secondarily provides for continued agricultural uses of land. Lot sizes of at least 3.5 acres are required for new lots.”

“Estate (ES). This district is intended to provide for single family residential and planned residential developments on large lots. Lot sizes of at least 5 acres are required for new lots. The low density requirements are intended to provide for

areas where the presence of vegetation and open areas helps create quiet and visually attractive residential areas.”

“Single Family Residential-20,000 (SF20). This district is intended to provide for exclusive single family residential and planned residential development at fairly high densities. Lot sizes of at least 20,000 square feet are required for new lots which are not served by public sewer. Generally, these districts will be located along the waterfront and in or near existing communities where smaller lots are the norm. The permitted uses are restricted in order to maintain the strictly residential character of these areas.”

“Single Family Residential-30,000 (SF30). This district is intended to provide for single family residential and planned residential development at slightly lower densities than in Single Family Residential-20,000 district. Lot sizes of at least 30,000 square feet are required for new lots. Generally, this district will be located along the waterfront and in or near existing communities. The permitted uses are the same as those in the Single Family Residential-20,000 district.”

“Small Estate Residential (SE). This district is intended to provide for single family residential and planned residential development on smaller lots than allowed in the Estate district. Lot sizes of at least 1½ acres are required for new lots. The district is intended for residential areas where high density is inappropriate or undesirable and for transitional areas that are beginning to convert from undeveloped land to residential uses.”

“High Density Residential (HD). This district is intended to provide areas for a variety of residential uses, including multiple occupancy developments, manufactured home parks, and single family residential development at fairly high densities. This district is intended to be located in areas with an existing mixture of residential types, certain regions which are served by public sewer, and other locations where high density residential developments are appropriate. This district is not intended to develop into centers of commercial activity and, thus, most commercial uses are not permitted. Lot sizes of at least 20,000 square feet are required for new lots which are not served by public sewer.”

“Commercial Center (CC). This district is intended to provide centers for commercial and mixed use development and redevelopment. The district permits a wide variety of retail, service, and office uses and is intended to maintain the vitality of Door County's commercial centers. It should be established for the main business districts of existing communities. Lot sizes of at least 20,000 square feet are required for new lots which are not served by public sewer.”

“Mixed Use Commercial (MC). This district permits both residential and commercial uses and is designed to accommodate those areas of Door County with an existing desirable mixture of uses, or where such a mixture of uses is wanted. Typically, this district will be located within or near existing communities, but it is also intended for outlying or smaller nodes of development. In addition, this district can be used as a transition between business centers and strictly residential areas. Lot sizes of at least 20,000 square feet are required for new lots which are not served by public sewer.”

“Recreational Commercial (RC). This district is intended for Door County's resort areas, particularly areas where high concentrations of recreational uses are located or are appropriate. These areas are not intended to develop into business districts and, thus, many retail, office, and service uses are restricted or prohibited in favor of recreational uses such as golf courses, ski resorts, multiple occupancy developments, marinas, and restaurants. Lot sizes of at least 20,000 square feet are required for new lots.”

“Light Industrial (LI). This district is intended to provide for manufacturing, warehousing, and other light industrial operations. It is also intended that this district be used for the location of trade or contractor establishments, commercial storage facilities, and similar businesses. Such uses should not be detrimental to the surrounding area or to the county as a whole by reason of noise, dust, smoke, odor, traffic, physical appearance, degradation of groundwater, or other nuisance factors. Such uses may be subject to requirements which will reasonably ensure compatibility. This district can also be used for industrial or business parks. Lot sizes of at least 60,000 square feet are required for new lots.”

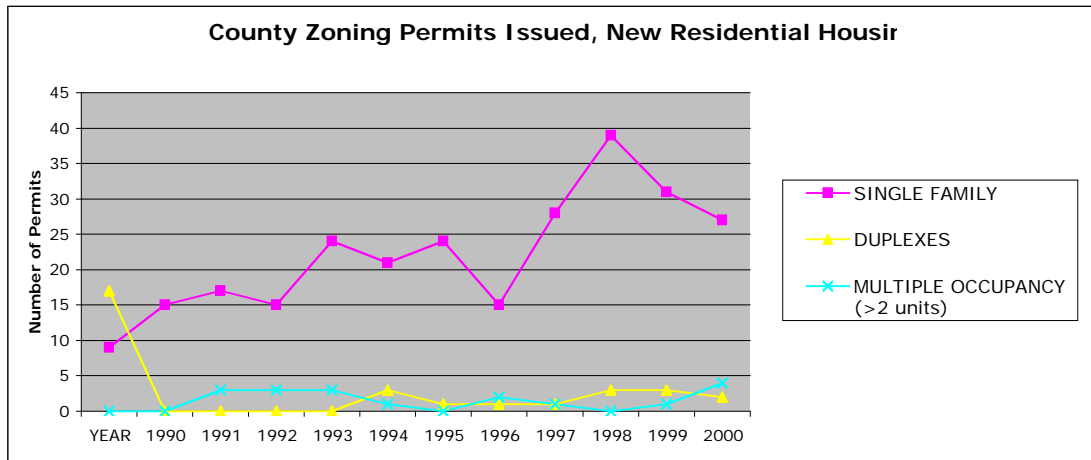
4. Housing

The information in this report on housing was compiled from the records of the Door County Planning Department, the 1990 and 2000 Censuses and the Door County Board of REALTORS Multiple Listing Service records.

4.1. Housing Construction and Units

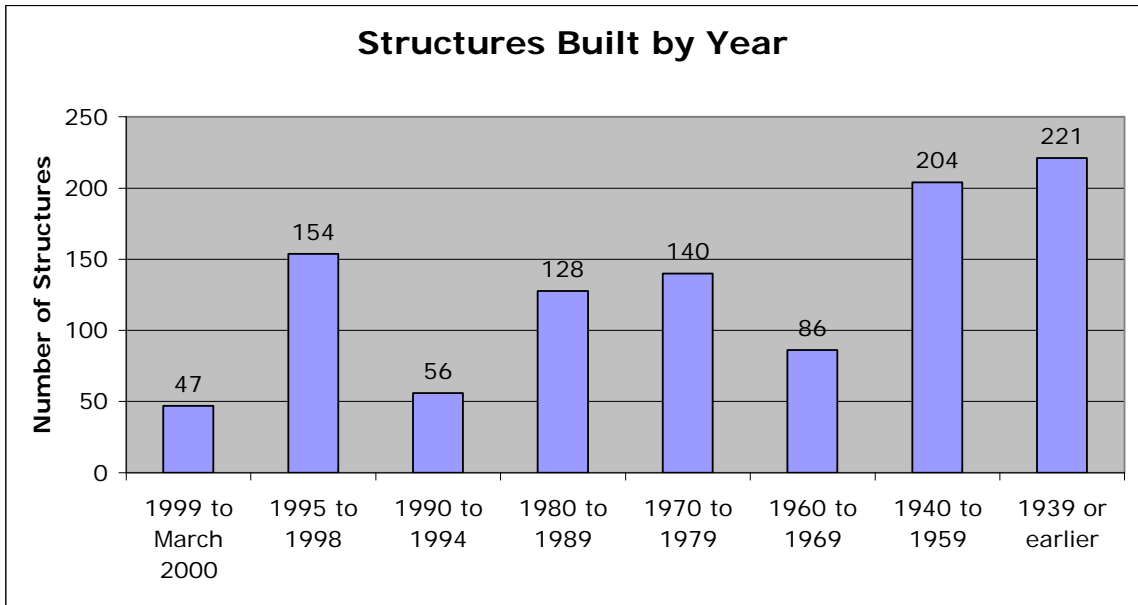
Figure 4-1 represents the number of zoning permits issued between 1990 and 2000 for housing construction, while Figure 4-2 illustrates the years during which Baileys Harbor's housing units were constructed.

Figure 4-1



Note: Many zoning permits issued later expire without the project ever being started. According to census data, actual new housing units constructed each year averaged around ten between 1990 and 2000.

Figure 4-2



4.2. Housing Occupancy and Tenure

In the year 2000, 1,036 of the County's housing units were located in Baileys Harbor. 477 of those units were occupied. Figures 4-3 and 4-4 depict the Town's total number of housing units, occupancy and tenure.

Figure 4-3

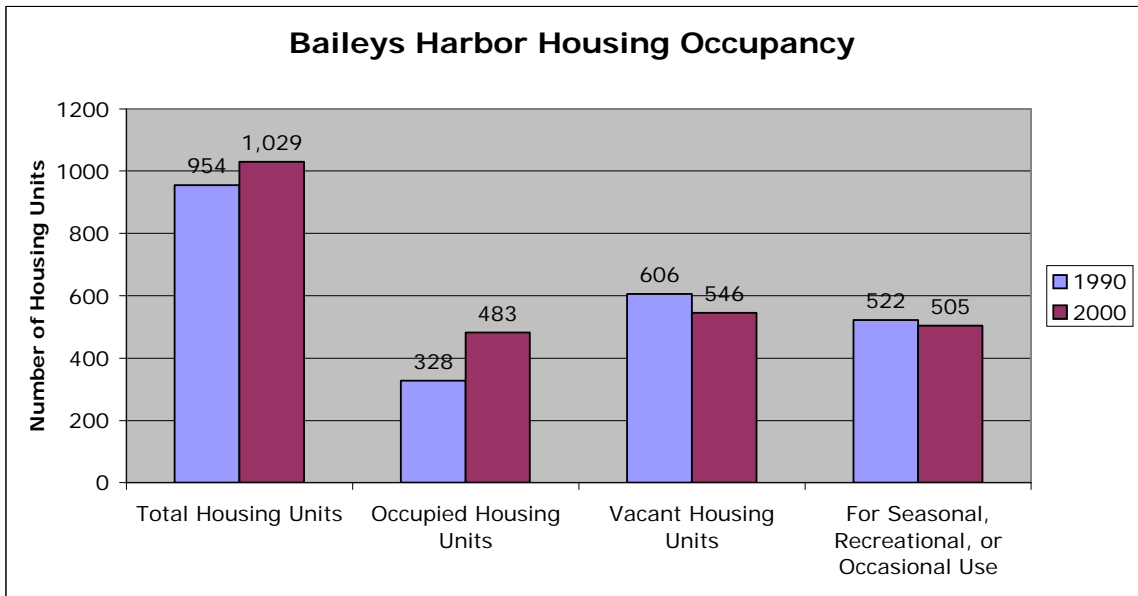
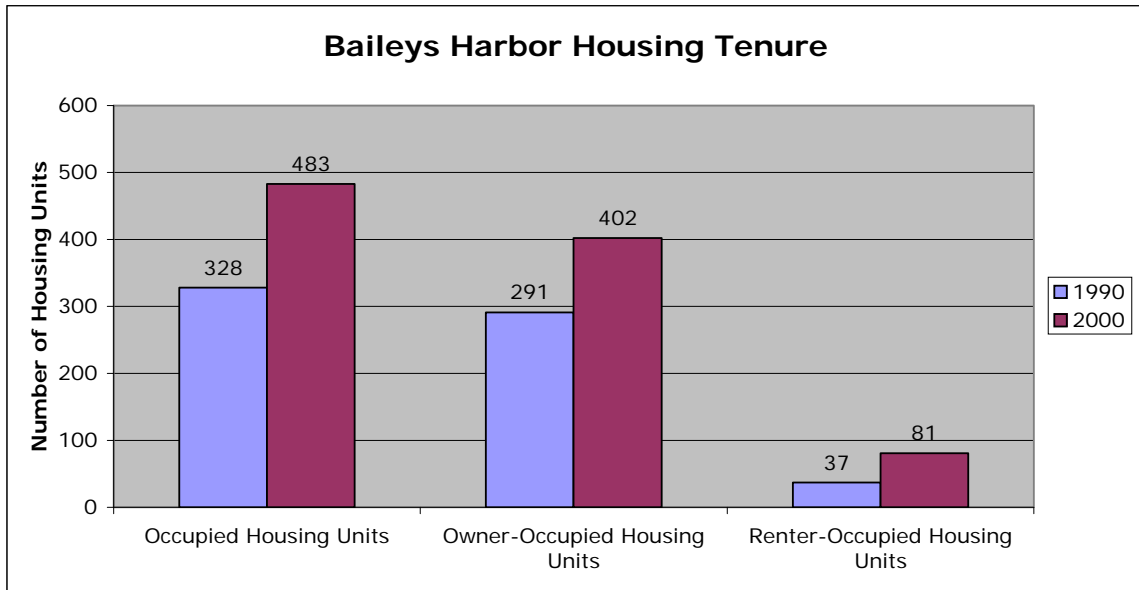


Figure 4-4



4.3. Housing Costs

The following tables illustrate housing real estate sales in Baileys Harbor from 1999 to 2003. *Note: 1999 and 2003 are partial years.*

**Table 4-1
"Residential, Inland" Real Estate Costs**

	1999	2000	2001	2002	2003
Number Sold	6	10	16	15	8
Acres Sold	13.96	61.05	34.14	36.18	14.72
Sold Price Range	\$79,000 to \$285,000	\$54,000 to \$215,000	\$50,000 to \$275,000	\$59,900 to \$302,000	\$122,500 to \$239,900
Median Price	\$148,500	\$143,750	\$170,950	\$149,000	\$179,950
Average Price	\$161,000	\$142,090	\$174,716	\$160,553	\$180,400

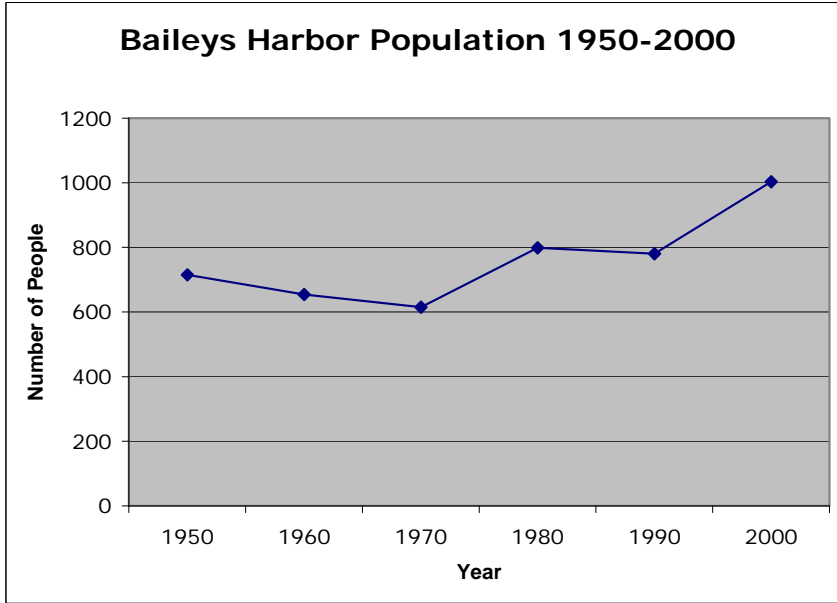
**Table 4-2
"Residential, Waterfront" Real Estate Costs**

	1999	2000	2001	2002	2003
Number Sold	4	5	8	8	3
Acres Sold	7.09	5.77	6.32	3.91	1.75
Sold Price Range	\$345,000 to \$548,500	\$81,000 to \$499,000	\$269,900 to \$717,500	\$145,000 to \$550,000	\$370,000 to \$825,000
Median Price	\$437,000	\$299,500	\$396,250	\$281,200	\$557,500
Average Price	\$441,875	\$308,500	\$433,863	\$314,850	\$584,167

5. Social and Economic Environment

5.1. Demographics

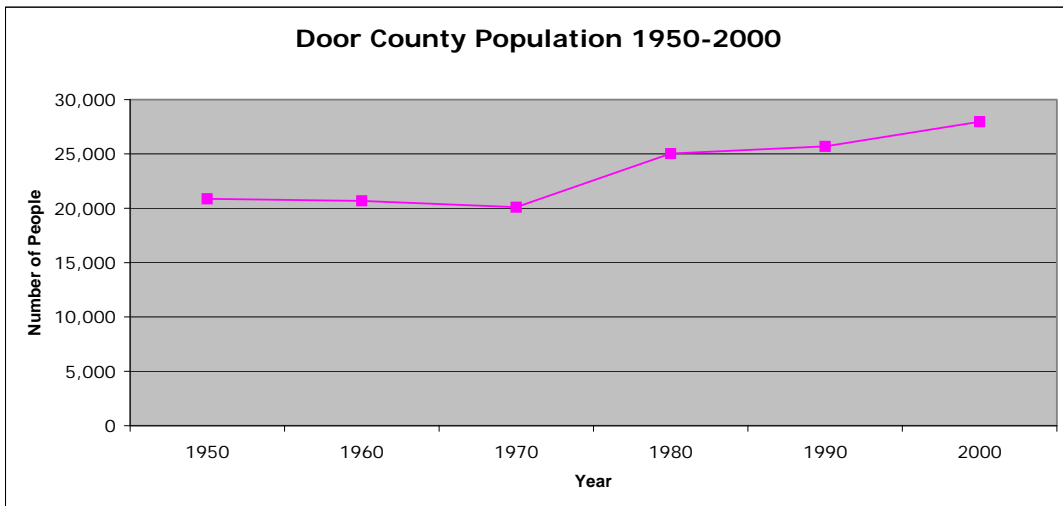
Figure 5-1 illustrates the population levels of the Town from 1950 to 2000.



In Door County between 1990 and 2000, the vast majority of the County's population growth came from in-migration: 2,583 people moved to the County in that decade. The net population increase, though, between 1990-2000 was only 2,271 persons. This is because the number of deaths in the County during that time period surpassed the number of recorded births, meaning that the County actually has had a decline of 313 people in population-based natural increases (births minus deaths).

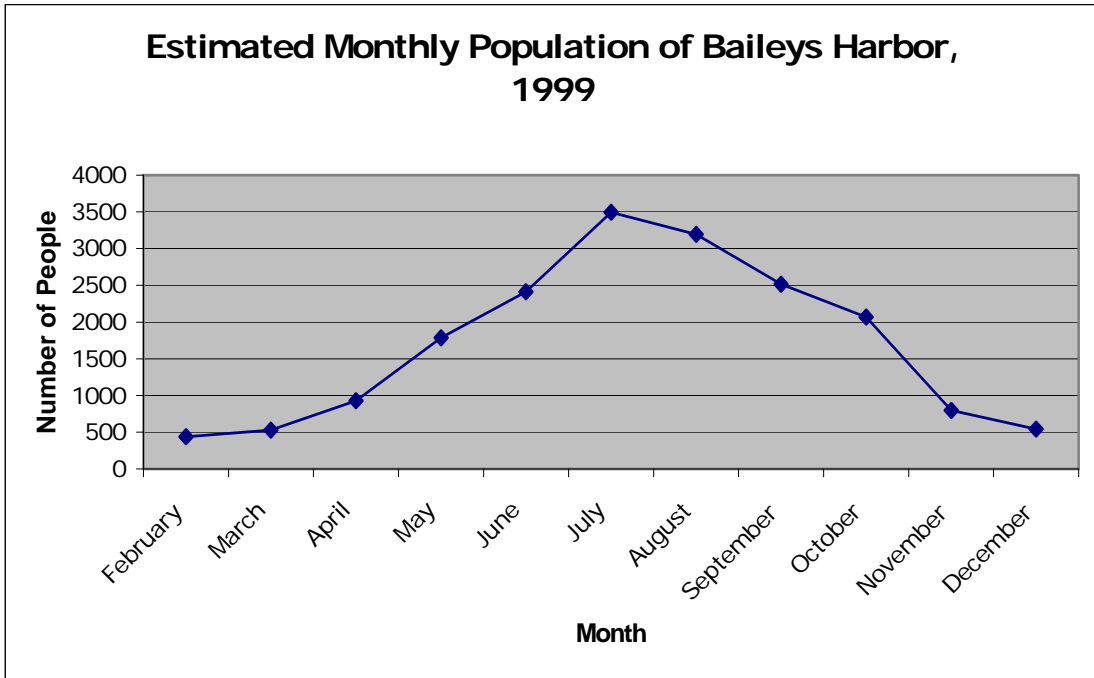
Figure 5-2 illustrates the County's population levels from 1950 to 2000.

Figure 5-2



University of Wisconsin-Extension Door County has calculated rough estimates as to seasonal population by municipality within Door County for the year 1999. The results for Baileys Harbor are shown in Figure 5-3. These numbers should be taken as rough estimates only since they were arrived at through three other estimations: 1) seasonal population of the entire County (based on economic activity), 2) geographic distribution of the seasonal population (based on municipal share of seasonal homes, hotel and motel rooms, and campground sites), and 3) times of the year that the seasonal population is in the County (based on traffic counts).

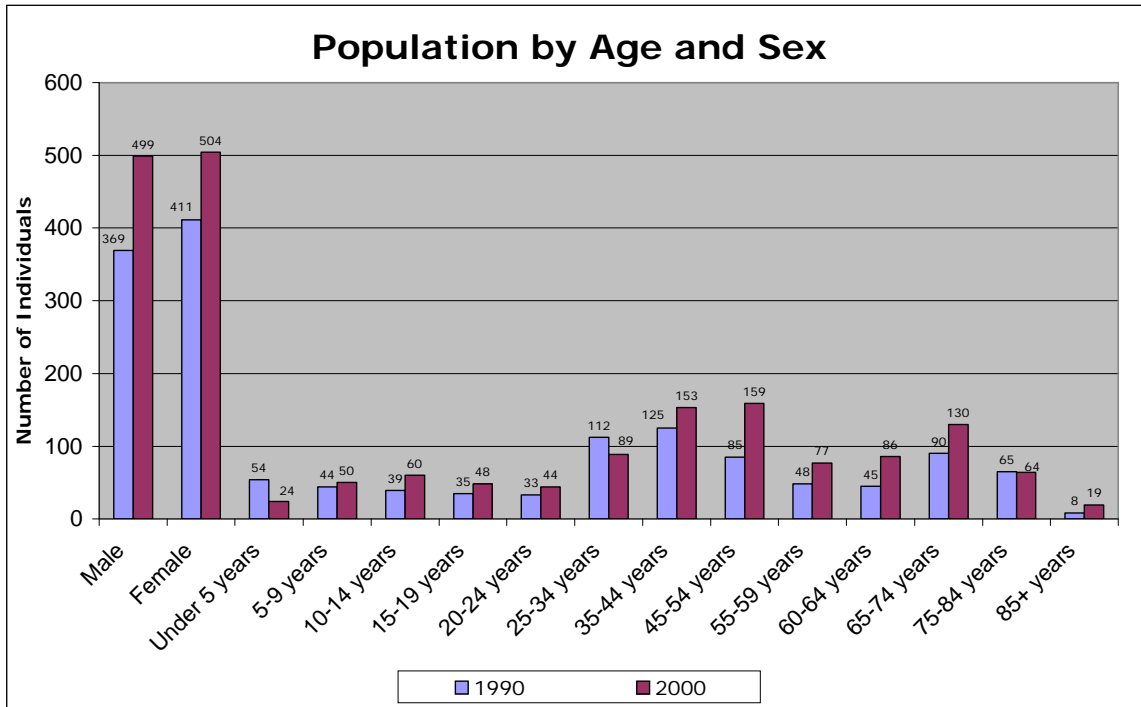
Figure 5-3



What those estimates tell us is that the total population for Baileys Harbor – year-round residents plus seasonal residents and visitors – is closer to between 44% (January) and 350% (July) higher than the number of Baileys Harbor’s year-round residents (year-round residents are not included in the above numbers). *(Again, these numbers should be considered rough estimates only.)*

Figure 5-4 shows the number of male and female residents for Baileys Harbor in 1990 and 2000 and the age distribution of the Town’s residents for those same years.

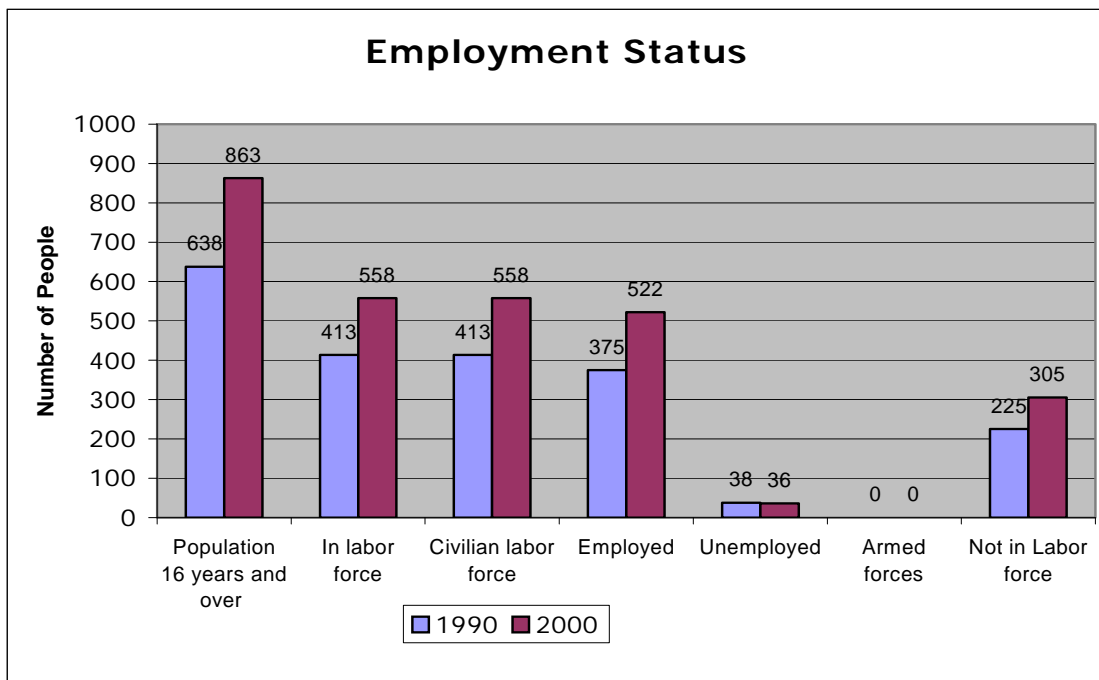
Figure 5-4



5.2. Employment, Occupations and Industries

The following shows the employment status for Bailey's Harbor residents for 1990 and 2000.

Figure 5-5



The next figure shows occupations of Baileys Harbor residents who were 16 years and over and employed in the year 2000. The figure immediately following shows the same information for the year 1990. (The two are not depicted together and compared due to different wording in the 1990 and 2000 Censuses.)

Figure 5-6

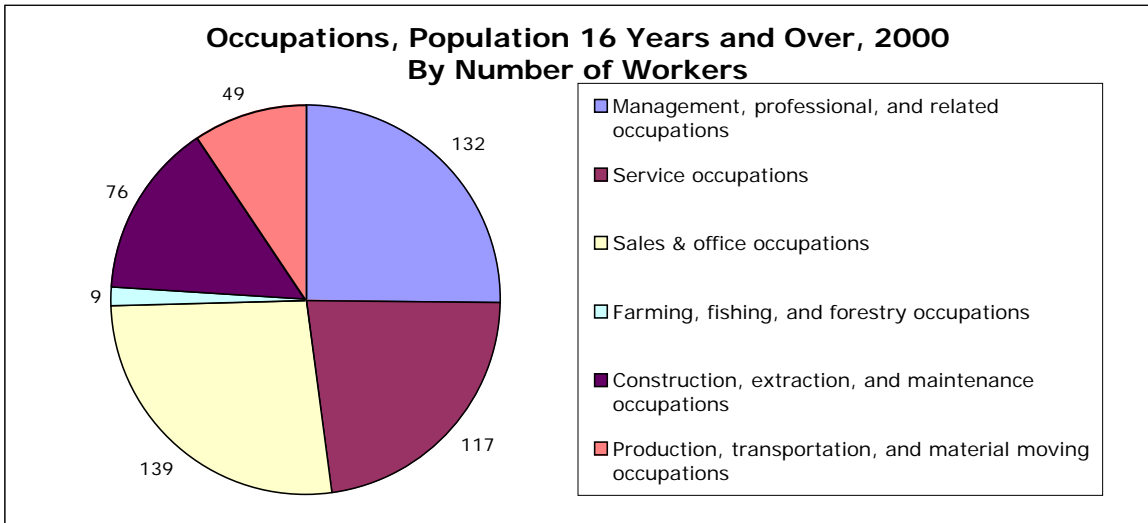
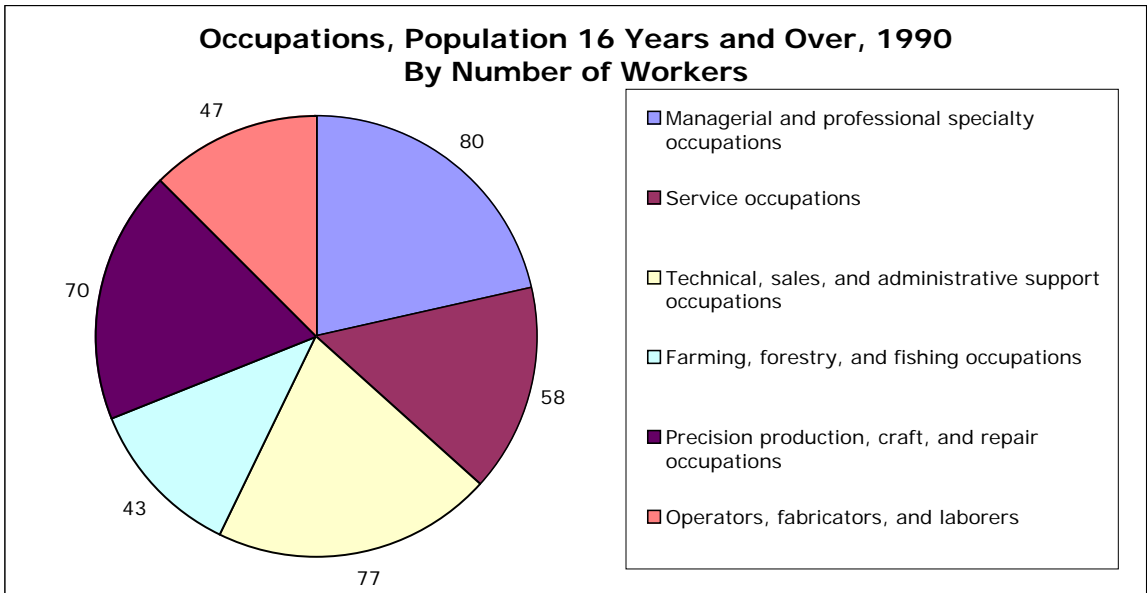


Figure 5-7



The subsequent two figures depict the industries in which employed Baileys Harbor residents 16 years and over were employed in 1990 and 2000. (Again, the data are not grouped together due to different Census wording.)

Figure 5-8

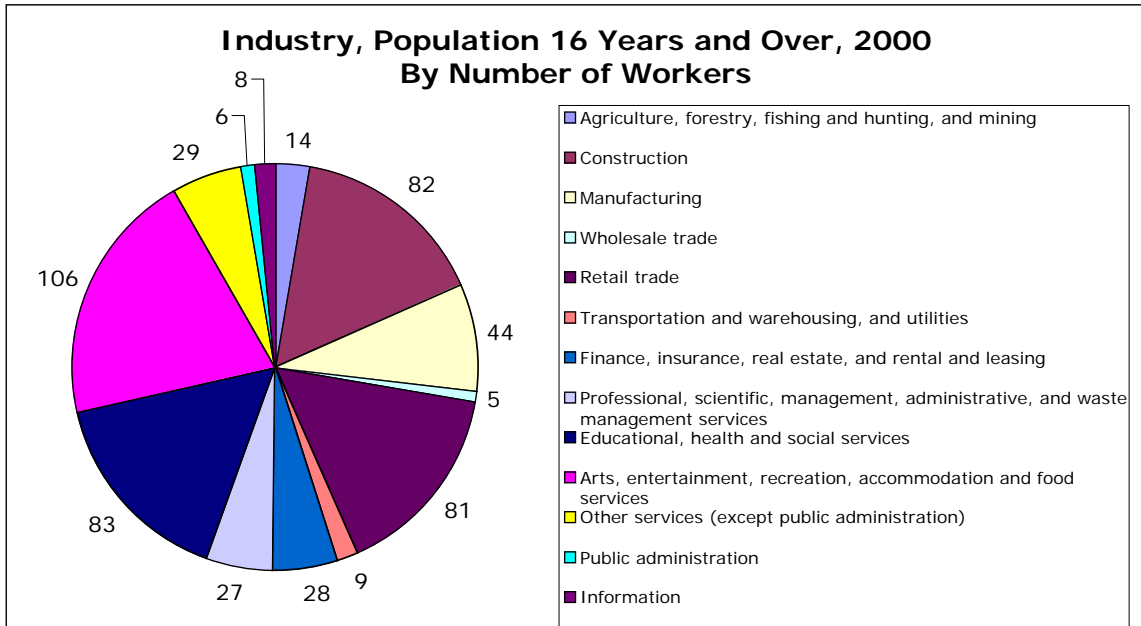
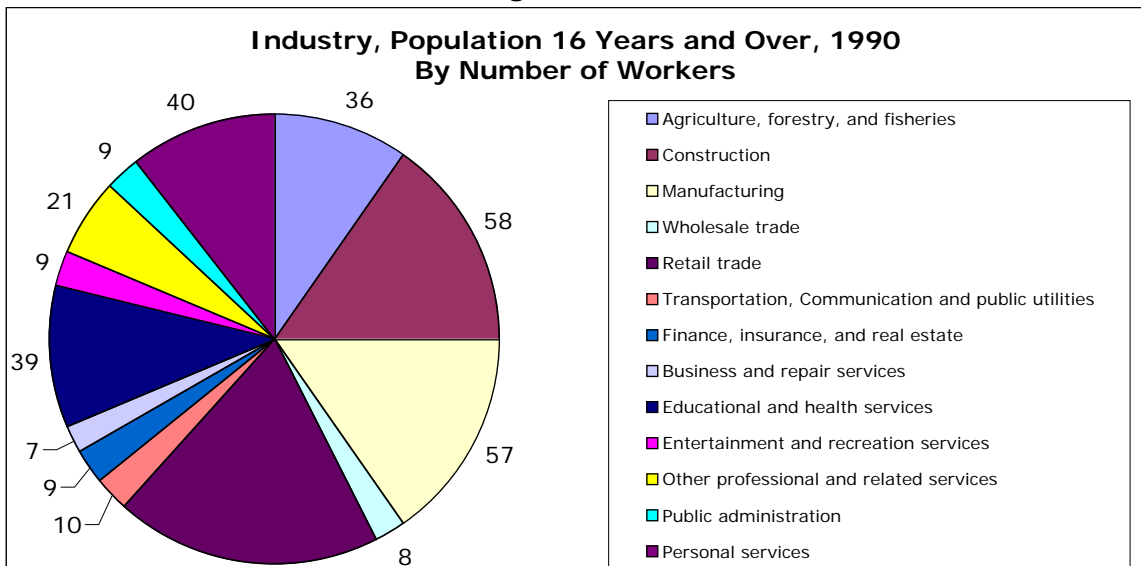


Figure 5-9

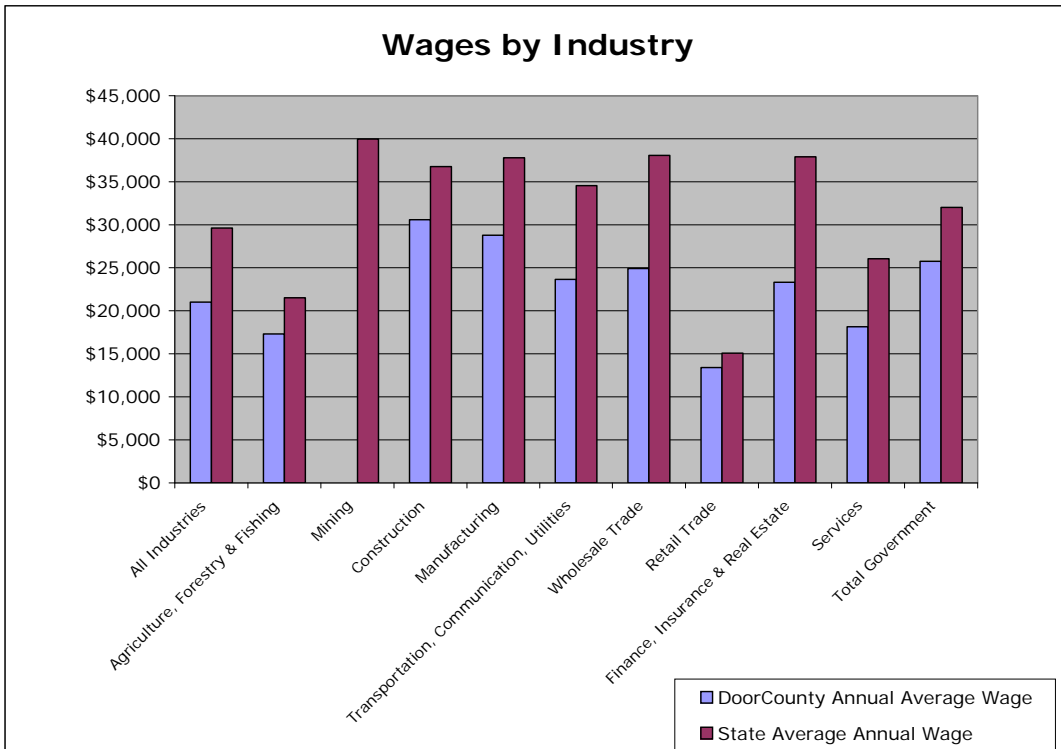


5.3. Wages

An examination of County and State wage levels for year-round full-time workers can provide insight regarding the industries within which Baileys Harbor's residents are employed. (Such data are not available at the Town level.)

The figure below shows Door County and State average wages for the different industries in 1999. (Please note that the industry categories differ slightly in some cases from Census data groupings.) Note that the average annual wage in 1999 for all industries in Door County was 70.9 percent of Wisconsin's overall average. In fact, Door County's annual average wages in 1999 were lower for all industry categories than those of the State.

Figure 5-10



The highest annual average wages for Door County workers are found in the construction and manufacturing industries, where a combined total of 23.9% of the County’s workers were employed. In the year 2000, 24.1% of Baileys Harbor’s workers (16 and over) were employed in these industries.

The lowest annual average wages for Door County workers are found in the retail trade; agriculture, forestry and fishing; and service industries. In the year 2000, 15.5% of Baileys Harbor’s workers were employed in the retail trade industry, and 2.7% in agriculture, forestry and fishing. (Due to different industry groupings/labels, no accurate comparison can be made between the 1999 category of “services” with any of the year 2000 Census industry statistics for Baileys Harbor workers.)

The following table shows the number of weeks and the hours per week worked, while Figures 5-11 and 5-12 illustrate overall earnings, median and mean earnings of Baileys Harbor workers in 1999.

**Table 5-1
Work Status of Baileys Harbor's Workers, 1999**

	All Workers	Males	Females
16 years and over, worked in 1999	630	303	327
50 to 52 weeks	377	194	183
48 and 49 weeks	28	18	10
40 to 47 weeks	75	33	42
27 to 39 weeks	49	21	28
14 to 26 weeks	63	22	41
1 to 13 weeks	38	15	23
Usually worked 35 or more hours per week	456	240	216
40 or more weeks	384	217	167
Usually worked 15 to 34 hours per week	124	46	78
40 or more weeks	82	23	59
Usually worked 1 to 14 hours per week	50	17	33
40 or more weeks	14	5	9

Figure 5-11

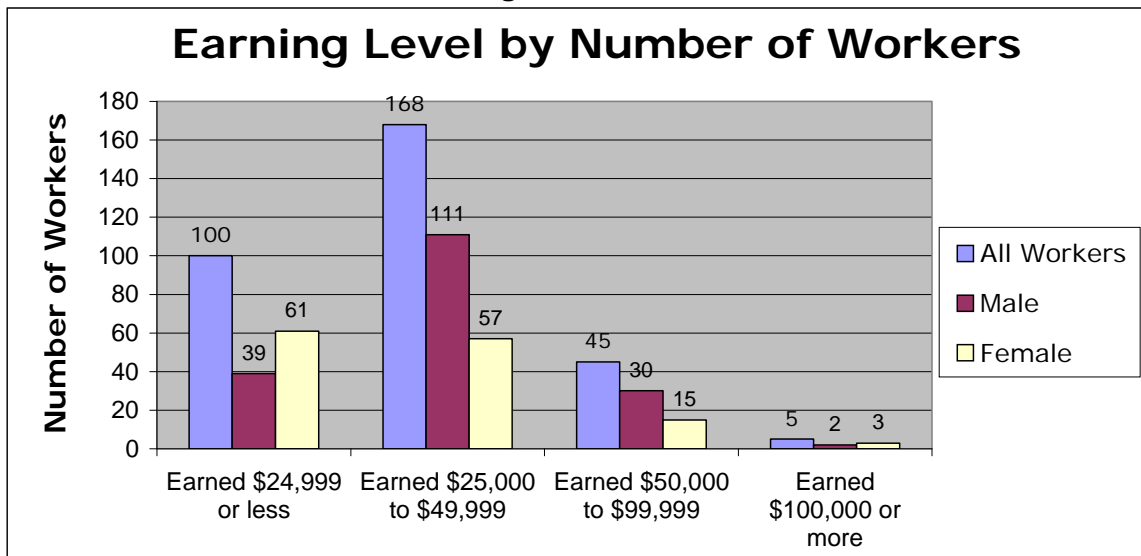
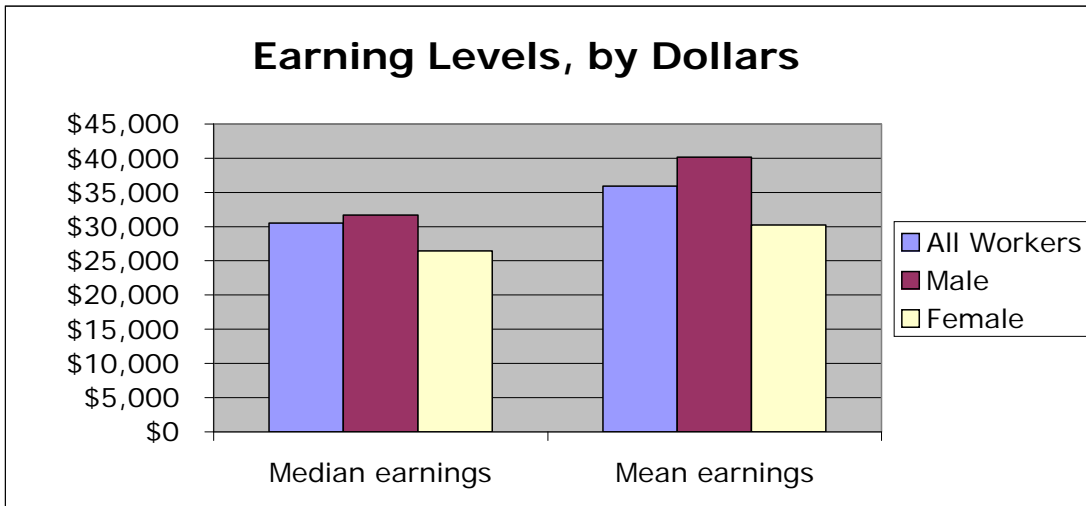


Figure 5-12



5.4. Income

The following two figures show income levels for Baileys Harbor households for 1999 and 1989 and the number of households earning supplemental income.

Figure 5-13

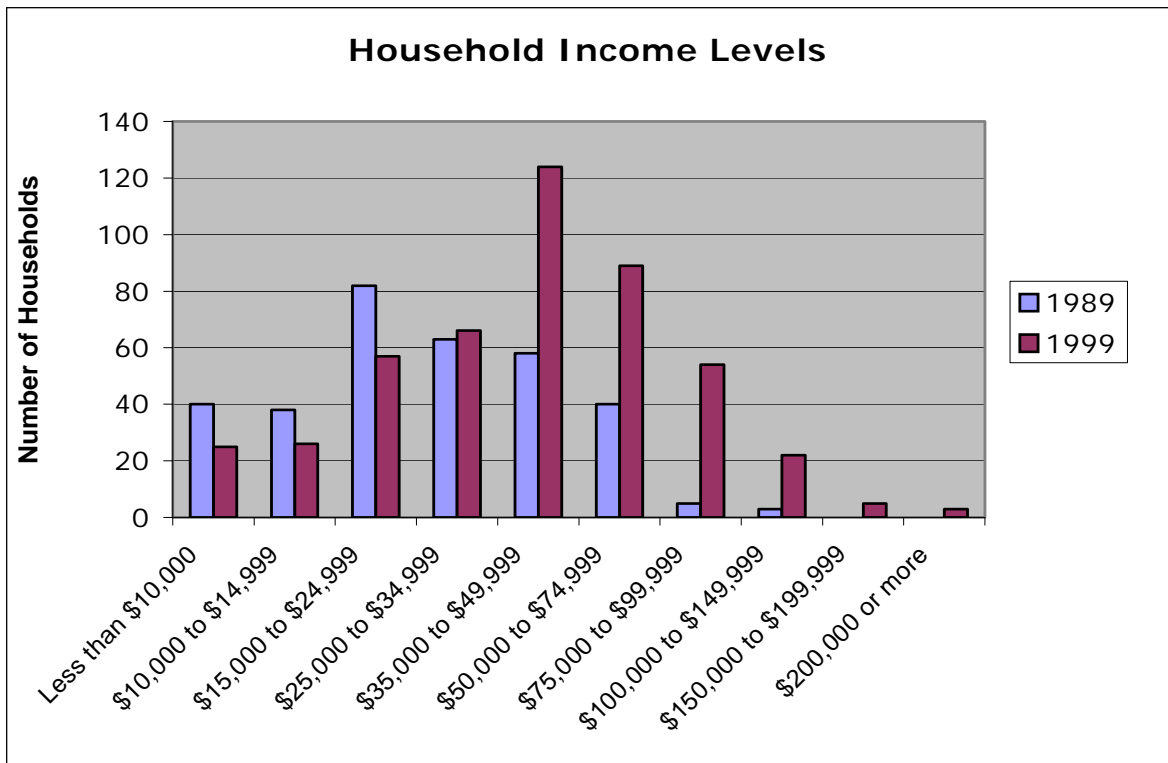
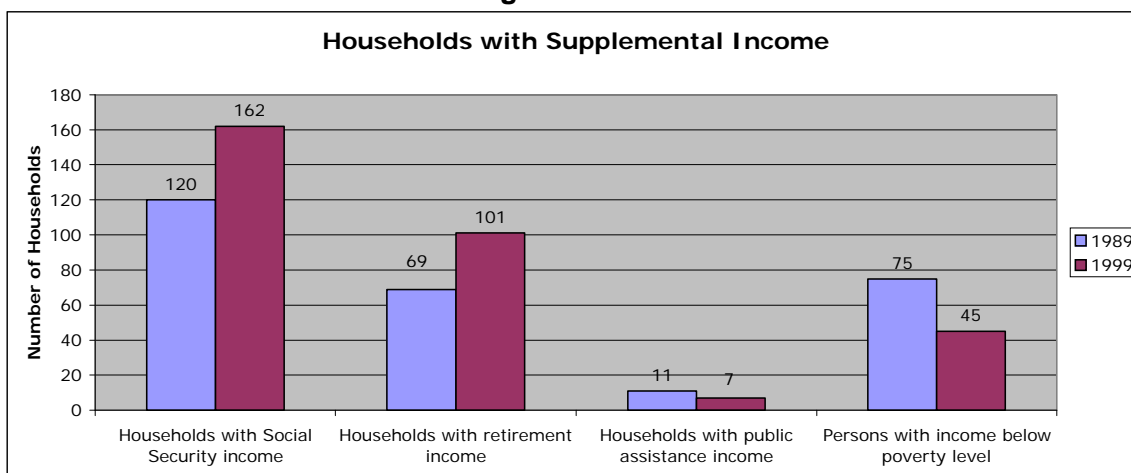


Figure 5-14



Door County has generally had per capita income levels at or above State averages since 1979. Door County's median household income, however, is consistently lower than the Wisconsin median, and was around \$10,000 below the Brown County median for all years between 1995 and 1998. Baileys Harbor's income levels, in comparison with State and County levels, have fluctuated.

In 1989, the median family income in Wisconsin was \$35,081 and in Door County, \$30,913 – both were higher than Baileys Harbor's 1989 median family income of \$29,453. By 1999, however, the median household income for Door County was \$38,812, which was lower than both the median household income and median family income levels for Baileys Harbor that same year (\$41,350 and \$49,250, respectively). In 2001, the Average Gross Income per income tax return filed for Baileys Harbor residents was \$32,838 and for Door County as a whole, \$35,978.

In 1999, Door County's net earnings as a component of total personal income were a much lower percentage than the State or Nation. That same year, income from dividends, interest, rent and from transfer payments comprised higher percentages of total personal income for Door County residents than for the State or Nation.

According to the 2000 Census, in Door County in 1999, 6.4 percent of the population was below the poverty level, compared with 4.5 percent for Baileys Harbor. (Other sources have estimated the 1998 County poverty rate at closer to 8%, with a child poverty rate of just over 12%.) In 1991, the number of AFDC recipients per 1,000 residents in Door County was just over 20, while in 1998, less than 5 residents per 1,000 received W2 payments. (Wisconsin Work 2 Welfare was implemented during that time span.)

6. Recreational Resources

6.1. Overview

Recreation and access to recreational activities is an important aspect of the economy in the Town of Baileys Harbor. Fishing, hunting, snowmobiling, boating, cross-country skiing and wildlife viewing are some of the popular outdoor activities offered in the Town.

6.2. Parks and Recreation Areas

Currently, there are four public parks within Baileys Harbor. Three are owned by the Town and one by the County. These parks vary widely in size, scope of services and facilities offered.

6.2.1. Anclam Park

Anclam Park is a .65-acre waterfront park, which includes a small passive recreation area onshore, and a peninsula extending approximately 320 feet into the water. Facilities at the park include:

- Information sign
- Restrooms
- Asphalt drive
- Playground equipment
- Flagpole

6.2.2. Recreation Park

Recreation Park is a 37-acre community park located approximately one mile west of the business district. Facilities at the park include:

- Two baseball/softball diamonds
- Bleachers and backstops
- Restrooms
- Multi-purpose recreation building (concession stand)
- Lights
- Playground equipment

6.2.3. Kendall Weisgerber Memorial Park

The Kendall Weisgerber Memorial Park is a small memorial park located behind the Town Hall. The park provides an excellent site amenity to the Town Hall and forms a linkage between the Town Hall and Fire Station. Facilities at the park include:

- Playground equipment
- Shelter
- Memorial plantings and seating areas

6.2.4. Ridges County Park

Ridges County Park, located off Ridges Road, is over 30 acres and has one of the largest public sand beaches in Door County. There are seven miles of hiking trails and two miles of sandy beach for hiking and swimming. It abuts the Ridges Sanctuary.

6.3. Privately-Owned Natural Areas with Public Access

6.3.1. The Ridges Sanctuary

The Ridges Sanctuary is comprised of 1070 acres and contains a diversity of unusual habitats, resulting in one of the greatest concentrations of rare plants in the Midwest. The preserve, recognized as a National Natural Landmark, was established in 1937 as Wisconsin's first area set aside to protect native flora. The list of rare species found at The Ridges includes Dwarf Lake Iris and 25 species of orchid. The largest population of the federally endangered Hine's emerald dragonfly is also found here.

The natural area consists of seventeen narrow, crescent-shaped sandy ridges, formed over the past 2400 years by wind and the wave action of adjacent Lake Michigan. Each ridge represents a former beach line of Lake Michigan and took an average of 150 years to form. The narrow ridges are forested with black spruce, white spruce, balsam fir and white pine, with wet swales between the ridges. Swamp conifers occupy some of the swales; others are filled with marsh and bog flora. Sections of the forest can be classified as boreal and are similar to, but far too disjunct from, the northwestern Wisconsin boreal forests near Lake Superior. The cool waters of Lake Michigan heavily influence the local climate, allowing many northern species to thrive.

The Ridges is owned by the private conservation organization The Ridges Sanctuary, Inc. Self-guided tours on an extensive walking trail and boardwalk system are available to the public for a small donation fee. Wildflowers bloom in The Ridges from late April to mid-October. A nature center with displays, information and a store are open to the public during the flowering season.

6.3.2. Toft Point

Toft Point is comprised of about 686 acres, containing several outstanding native plant communities concentrated on a one-mile-wide peninsula along the Lake Michigan shoreline. The natural area is bordered on the north by Moonlight Bay and on the south by Baileys Harbor. There are more than two miles of Lake Michigan shoreline, with areas of wave-cut dolostone cliffs. Stretches of limestone cobble beach, mixed with marly soil, are exposed during periods of low lake levels. The vegetation of the eastern shoreline, influenced by the cooling effects of Lake Michigan, consists of a narrow strip of boreal forest dominated by balsam fir and white spruce.

The majority of the peninsula is wooded with a mesic forest of sugar maple, yellow birch hemlock, balsam fir and scattered white pine. The natural area provides habitat for more than 440 vascular plant species and one of the most diverse bryophyte (mosses and liverworts) floras in the State. Several orchid taxa and many rare species find refuge here.

The University of Wisconsin-Green Bay and the Wisconsin Chapter of the Nature Conservancy own Toft Point.

6.4. Sport Fishing

Baileys Harbor and the water surrounding it provide many recreational fishing opportunities. Fishing for brown trout and salmon in early spring, along with steelhead and salmon fishing in the deeper waters of Lake Michigan, are the most common.

**Table 6-1
Sport Fish & Seasons**

Common Name	Time of Year
Brown Trout	Early April - October
Rainbow Trout	Late April – September
Brook Trout	Late April - September
Smelt	Late April - May
Walleye	Late April - October
Yellow Perch	Late April - October
Small Mouth Bass	Early May - September
Chinook salmon	Late May - October
Lake Trout	Late May – Late August
Northern Pike	May - October

6.5. Hunting

The fall deer and the wild turkey hunts provide an influx of visitors to the Town of Baileys Harbor. Statistics are currently unavailable at this time for the number of deer or turkey killed annually in the Town.

6.6. Snowmobiling

Snowmobiling is a popular sport in the Town of Baileys Harbor both with local residents and visitors to the area. The Northern Door County Snowmobile Club maintains a network of trails in and around Baileys Harbor.

6.7. Boat Launches

Boating is a very popular recreational activity in the Town of Baileys Harbor. The table below lists the boat launches in the Town.

Name	Location	Fee
Baileys Harbor Town Marina	Downtown Baileys Harbor	Fee
Bues Point	North Bay	Fee
Anclam Park	Downtown Baileys Harbor	No
Kangaroo Lake	Kangaroo Lake Road	No

7. Water Resources

7.1. Lake Michigan Shoreline

Baileys Harbor has nearly 25 miles of Lake Michigan shoreline, providing a tremendous natural and recreational resource to residents and visitors. The coastal areas surrounding the Town, including North Bay, Moonlight Bay and Baileys Harbor itself, support a great variety of sport and forage fish communities.

7.2. Streams

7.2.1. Hibbards Creek

Hibbards Creek originates in Thorp Pond, two miles west of Kangaroo Lake, and outlets to Lake Michigan just north of Jacksonport. It is 5.4 miles long and the gradient is 7.6 feet per mile. The stream is predominantly bordered by wetlands. The drainage area is 17 square miles. Emergent wetlands, conifer swamps, dry

mesic woodlands, and ridge-swale complexes are characteristic of the stream corridor. The stream supports a native brook trout population and provides habitat for stocked rainbow trout, with 2.8 miles classified as Class II trout waters.

The fishery consists primarily of warm water species such as northern pike, yellow perch, smallmouth bass, and fewer numbers of sunfish and black bullheads. It supports rainbow and brook trout runs as well. Macroinvertebrates collected in 1987 indicate fair to good water quality. Those collected in the fall of 1990 indicated fair water quality.

Hibbards Creek is the only stream in Door County monitored by the USGS under the National Water Quality Assessment Program (NWQA). Under this program, Hibbards Creek is used to compare other streams with similar physical setting.

7.2.2. Heins Creek

Heins Creek, the outlet of Kangaroo Lake, flows through sand dunes before reaching Lake Michigan. It is designated as a Class II trout stream, but has naturally occurring problems related to water level fluctuations, which limit its potential use. Occasionally, fish are trapped in the creek when flows decline and rubble builds up at the mouth from Lake Michigan wave action. This promotes water temperature increases and low dissolved oxygen concentrations. Fisheries management personnel believe there is not enough flow to support a Class II trout fishery, but conditions may be sufficient for it to be considered as a Class III trout stream. In the spring and summer, salmon and trout use the stream for spawning. Macroinvertebrates collected in 1985 indicate fair water quality.

7.2.3. Peil Creek

Peil Creek originates from a series of small springs located in a 40-acre basin about 2.5 miles above Kangaroo Lake. The creek then flows through a wooded corridor before entering Kangaroo Lake. A lowland forest composed of white cedar and black ash is located just north of Kangaroo Lake and borders Peil Creek north to its headwaters.

7.3. Inland Lakes, Swamps and Marshes

7.3.1. Kangaroo Lake

Kangaroo Lake is the largest lake in Door County, with a surface area of 1,123 acres. It has a maximum depth of 12 feet. It is a clear, high quality lake with low algae productivity. Its large size and shallowness allow wind action to re-suspend sediments, which occasionally results in high turbidity. The fishery is composed of smallmouth bass, largemouth bass, walleye, northern pike and panfish.

7.3.2. Mud Lake

This shallow (no deeper than one foot), 155-acre drainage lake is located in a large swamp between North Bay and Moonlight Bay. A spring-fed stream enters from the north and flows through to Moonlight Bay. The lake is accessible from Lake Michigan during high water. The bottom is comprised primarily of marl. A limited panfish fishery is present, but the lake suffers from winterkill and fluctuating water levels.

The State currently owns approximately 1,900 acres of primarily wooded wetland in the area and manages it as a State wildlife area. It is one of the few remaining natural waterfowl production areas in Door County.

7.3.3. Voecks Marsh

Voecks Marsh is a shallow (maximum depth 2 feet), 19-acre swampland depression. A narrow outlet flows from Voecks Marsh to Moonlight Bay. Over 850 acres of timbered swamp border the lake. The area surrounding Voecks Marsh is somewhat unique in that the dominant vegetation is marsh horsetail (*Equisetum palustre*).

7.4. Groundwater Quality

Groundwater is the source of potable water for all residents within the Town of Baileys Harbor. There is no municipal water system; all residents rely on individual wells. The majority of the groundwater has historically been drawn from the upper limestone aquifer, the Silurian Formations. However, as demand for water has increased and water table levels have fluctuated, water levels within many shallow wells have declined in recent years. Consequently, more new wells are now routinely being drilled into deeper areas below the Silurian Formations.

Geologically sensitive areas with high bedrock and thin soil cover have a limited ability to filter surface contaminants prior to water entering drinking water aquifers and are highly susceptible to contamination. These areas are also the points of recharge for the aquifer systems. The Door Peninsula, including the Town of Baileys Harbor, is identified as being moderately to mostly susceptible to groundwater contamination.

Door County and the Town of Baileys Harbor have had special well casing requirements since 1957 to attempt to address this problem. There are areas in the County where the aquifer is contaminated such that greater casing requirements do not solve the problem. Installation of water treatment devices may be the only option available to consistently provide safe drinking water in these areas. New regulations proposed by the Environmental Protection Agency (EPA) may require installations of treatment devices in sensitive areas such as Door County. Information is needed to better estimate how many systems may be impacted by this rule. In addition, information is needed to better define the risk and actual occurrence of illnesses due to contaminated groundwater consumption.

8. Air Quality

Air quality is currently monitored by the U.S. Environmental Protection Agency with two stations in Door County. Air quality does not appear to be a primary issue at this time for the Town of Baileys Harbor.

9. Contaminated and Waste Disposal Sites

The Wisconsin Department of Natural Resources has identified six waste disposal sites within the Town of Baileys Harbor. There are currently no contaminated sites that have not undergone remediation or have not been cleaned to the satisfaction of the DNR.

**Table 9-1
Waste Disposal Sites within the Town of Baileys Harbor**

Facility Name	Legal Description
Town of Baileys Harbor	SW NW S05 30N 28E
Parent, Inc. – One Time Disposal	NW SE S10 29N 27E

Source: Registry of Waste Disposal Sites in Wisconsin, Wisconsin DNR.

10. Biological Resources

10.1. Aquatic Species

The waters of Lake Michigan and the rivers and streams that empty into it support approximately 150 species of fish. Popular sport fisheries for perch, northern pike, walleye and smallmouth bass in the nearshore waters and nationally renowned sport fisheries for stocked trout and salmon in the offshore areas draw tens of thousands of anglers to Door County and many to Baileys Harbor.

10.2. Birds

More than 90 species of birds have been recorded as potentially breeding within the Town of Baileys Harbor.

**Table 10-1
Birds Breeding in the Town of Baileys Harbor
Data Collected 1995-2000**

Species	Breeding Status	Species	Breeding Status
Green Heron	Confirmed	Red-breasted Nuthatch	Probable
Canada Goose	Confirmed	White-breasted Nuthatch	Confirmed
Wood Duck	Confirmed	House Wren	Confirmed
Mallard	Confirmed	Winter Wren	Probable
Blue-Winged Teal	Confirmed	Marsh Wren	Confirmed
Northern Harrier	Probable	Blue-grey Gnatcatcher	Probable
American Kestrel	Probable	Eastern Bluebird	Confirmed
Ring-necked Pheasant	Probable	Wood Thrush	Probable
Ruffed Grouse	Confirmed	American Robin	Confirmed
Wild Turkey	Probable	Gray Catbird	Confirmed
Sora	Probable	Brown Thrasher	Probable
Sandhill Crane	Confirmed	European Starling	Confirmed
Killdeer	Confirmed	Cedar Waxwing	Confirmed
Spotted Sandpiper	Probable	Yellow Warbler	Confirmed
Upland Sandpiper	Confirmed	Chestnut-sided Warbler	Probable
Common Snipe	Probable	Black-throated Green Warbler	Probable
American Woodcock	Probable	Black-and-White Warbler	Probable
Rock Dove	Confirmed	American Redstart	Confirmed
Mourning Dove	Confirmed	Ovenbird	Probable
Black-billed Cuckoo	Probable	Northern Waterthrush	Probable
Yellow-billed Cuckoo	Probable	Mourning Warbler	Probable
Great Horned Owl	Confirmed	Common Yellowthroat	Probable
Whip-poor-will	Probable	Eastern Towhee	Confirmed
Ruby-throated Hummingbird	Probable	Chipping Sparrow	Confirmed
Belted Kingfisher	Confirmed	Clay-colored Sparrow	Probable
Red-headed Woodpecker	Confirmed	Field Sparrow	Confirmed
Downy Woodpecker	Probable	Vesper Sparrow	Probable

Hairy Woodpecker	Confirmed	Savannah Sparrow	Confirmed
Northern Flicker	Confirmed	Grasshopper Sparrow	Confirmed
Pileated Woodpecker	Probable	Song Sparrow	Confirmed
Eastern Wood-Pewee	Probable	White-throated Sparrow	Probable
Alder Flycatcher	Probable	Northern Cardinal	Confirmed
Willow Flycatcher	Probable	Rose-breasted Grosbeak	Confirmed
Least Flycatcher	Confirmed	Indigo Bunting	Confirmed
Eastern Phoebe	Confirmed	Dickcissel	Confirmed
Great Crested Flycatcher	Confirmed	Bobolink	Confirmed
Eastern Kingbird	Confirmed	Red-winged Blackbird	Confirmed
Yellow-throated Vireo	Probable	Eastern Meadowlark	Confirmed
Warbling Vireo	Confirmed	Western Meadowlark	Confirmed
Red-eyed Vireo	Confirmed	Yellow-headed Blackbird	Confirmed
Blue Jay	Confirmed	Common Grackle	Confirmed
American Crow	Probable	Brown-headed Cowbird	Probable
Purple Martin	Confirmed	Baltimore Oriole	Confirmed
Tree Swallow	Confirmed	Purple Finch	Confirmed
Northern Rough-winged Swallow	Probable	House Finch	Confirmed
Cliff Swallow	Confirmed	American Goldfinch	Confirmed
Barn Swallow	Confirmed	House Sparrow	Confirmed
Black-capped Chickadee	Probable		

Source: Wisconsin Breeding Bird Atlas, Wisconsin Society for Ornithology

10.3. Protected Species

The following table of protected species in Baileys Harbor is compiled from information gathered by the Wisconsin Natural Heritage Inventory Project. Species can be listed on Federal, State or both registers for protection.

**Table 10-2
Protected Species in Baileys Harbor**

GROUP	SCIENTIFIC NAME	COMMON NAME	FEDERAL	STATE
Butterfly	EUPHYES BIMACULA	TWO-SPOTTED SKIPPER		Special Concern
Butterfly	EUPHYES DION	DION SKIPPER		Special Concern
Community	BOREAL FOREST	BOREAL FOREST		N/A
Community	EMERGENT AQUATIC	EMERGENT AQUATIC		N/A
Community	GREAT LAKES ALKALINE ROCKSHORE	GREAT LAKES ALKALINE ROCKSHORE		N/A
Community	LAKE--SHALLOW; HARD; DRAINAGE	LAKE--SHALLOW; HARD; DRAINAGE		N/A
Community	NORTHERN SEDGE MEADOW	NORTHERN SEDGE MEADOW		N/A
Community	NORTHERN WET-MESIC FOREST	NORTHERN WET-MESIC FOREST		N/A
Community	OPEN BOG	OPEN BOG		N/A
Community	SPRINGS AND SPRING RUNS; HARD	SPRINGS AND SPRING RUNS; HARD		N/A
Dragonfly	CORDULEGASTER OBLIQUA	ARROWHEAD SPIKETAIL		Special Concern
Dragonfly	EPIAESCHNA HEROS	SWAMP DARNER		Special Concern
Dragonfly	LESTES EURINUS	AMBER-WINGED SPREADWING		Special Concern
Dragonfly	SOMATOCHLORA ELONGATA	SKI-TAILED EMERALD		Special Concern
Dragonfly	SOMATOCHLORA	HINE'S EMERALD	Endangered	Endangered

	HINEANA			
Fish	FUNDULUS DIAPHANUS	BANDED KILLIFISH		Special Concern
Plant	BOTRYCHIUM LUNARIA	MOONWORT GRAPE-FERN		Endangered
Plant	BOTRYCHIUM SPATHULATUM	SPOON-LEAF MOONWORT		Special Concern
Plant	CAKILE EDENTULA	AMERICAN SEA-ROCKET		Special Concern
Plant	CALAMINTHA ARKANSANA	LOW CALAMINT		Special Concern
Plant	CARDAMINE PRATENSIS	CUCKOOFLOWER		Special Concern
Plant	CAREX CONCINNA	BEAUTIFUL SEDGE		Threatened
Plant	CAREX CONCINNA	BEAUTIFUL SEDGE		Threatened
Plant	EUPHORBIA POLYGONIFOLIA	SEASIDE SPURGE		Special Concern
Plant	GEOCAULON LIVIDUM	NORTHERN COMANDRA		Endangered
Plant	IRIS LACUSTRIS	DWARF LAKE IRIS	Threatened	Threatened
Plant	LEUCOPHYSALIS GRANDIFLORA	LARGE-FLOWERED GROUND- CHERRY		Special Concern
Plant	OPHIOGLOSSUM VULGATUM	ADDER'S-TONGUE		Special Concern
Plant	OROBANCHE UNIFLORA	ONE-FLOWERED BROOMRAPE		Special Concern
Plant	PARNASSIA PARVIFLORA	SMALL-FLOWER GRASS-OF-PARNASSUS		Endangered
Plant	PLATANThERA HOOKERI	HOOKEr ORCHIS		Special Concern
Plant	PLATANThERA ORBICULATA	LARGE ROUNDLEAF ORCHID		Special Concern
Plant	PRIMULA MISTASSINICA	BIRD'S-EYE PRIMROSE		Special Concern
Plant	PTEROSPORA ANDROMEDEA	GIANT PINEDROPS		Endangered
Plant	RIBES HUDSONIANUM	NORTHERN BLACK CURRANT		Special Concern
Plant	SELAGINELLA SELAGINOIDES	LOW SPIKE-MOSS		Endangered
Plant	SOLIDAGO SIMPLEX VAR GILLMANII	STICKY GOLDENROD		Threatened
Plant	TANACETUM HURONENSE	LAKE HURON TANSY		Endangered
Plant	TRISSETUM MELICOIDES	PURPLE FALSE OATS		Endangered
Plant	ARETHUSA BULBOSA	SWAMP-PINK		Special Concern
Plant	CALAMAGROSTIS STRICTA	SLIM-STEM SMALL- REEDGRASS		Special Concern
Plant	CAREX CAPILLARIS	HAIR-LIKE SEDGE		Special Concern
Plant	CAREX CRAWEI	CRAWE SEDGE		Special Concern
Plant	CAREX GARBERI	ELK SEDGE		Threatened
Plant	CAREX GYNOCRATES	NORTHERN BOG SEDGE		Special Concern
Plant	CAREX LIVIDA VAR RADICAULIS	LIVID SEDGE		Special Concern
Plant	CAREX VAGINATA	SHEATHED SEDGE		Special Concern
Plant	DESCHAMPSIA CESPITOSA	TUFTED HAIRGRASS		Special Concern

Plant	ELEOCHARIS QUINQUEFLORA	FEW-FLOWER SPIKERUSH		Special Concern
Plant	EPILOBIUM PALUSTRE	MARSH WILLOW-HERB		Special Concern
Plant	EQUISETUM PALUSTRE	MARSH HORSETAIL		Special Concern
Plant	EQUISETUM VARIEGATUM	VARIEGATED HORSETAIL		Special Concern
Plant	GENTIANOPSIS PROCERA	LESSER FRINGED GENTIAN		Special Concern
Plant	MALAXIS BRACHYPODA	WHITE ADDER'S-MOUTH		Special Concern
Plant	PLATANATHERA DILATATA	LEAFY WHITE ORCHIS		Special Concern
Plant	SCIRPUS CESPITOSUS VAR CALLOSUS	TUSSOCK BULRUSH		Endangered
Plant	SOLIDAGO OHIOENSIS	OHIO GOLDENROD		Special Concern
Plant	TRIGLOCHIN MARITIMUM	COMMON BOG ARROW- GRASS		Special Concern
Plant	TRIGLOCHIN PALUSTRE	SLENDER BOG ARROW- GRASS		Special Concern
Snail	COCHLICOPA MORSEANA	APPALACHIAN PILLAR		
Snail	HENDERSONIA OCCULTA	CHERRYSTONE DROP		Threatened
Snail	PARAVITREA MULTIDENTATA	DENTATE SUPERCOIL		Special Concern
Snail	STRIATURA FERREA	BLACK STRIATE		Special Concern
Snail	VERTIGO HUBRICHTI	MIDWEST PLEISTOCENE VERTIGO		Endangered
Snail	VERTIGO IOWAENSIS	IOWA PLEISTOCENE VERTIGO		Special Concern

Source: Wisconsin Department of Natural Resources

11. Cultural, Historic and Archeological Resources

11.1. Brief Early History of Baileys Harbor

Although Native Americans presumably lived in the area for centuries, the earliest recorded history of the Town begins with the arrival of white settlers.

In 1848, Captain Justice Baileys was caught in a severe storm on Lake Michigan while transporting immigrants westward from Buffalo, New York on a schooner owned by Alanson Sweet of Milwaukee. He took shelter in the harbor which today bears his name.

Captain Baileys briefly explored the area while waiting out the storm. Knowing his employer Alanson Sweet was an aggressive businessman involved in the sale of stone and lumber to building contractors, Captain Bailey brought samples of limestone from Baileys Harbor back to Milwaukee.

The following year, Mr. Sweet sent a crew, under the supervision of Solomon Beery, to build a pier, sawmill and stone quarry in Baileys Harbor. The pier was completed the winter of 1849-50. In addition, the first road in Door County was built, running from Baileys Harbor to the waters of Green Bay (the road is known today as County Trunk Highway F). During the winter of 1849-50, Mr. Beery's crew cut and milled

2500 cords of wood for shipment and before the end of another year, there were six log cabins in the tiny settlement.

In 1851, Mr. Sweet induced the United States government to build a lighthouse under his supervision, on the east side of the harbor. This lighthouse was in use until 1870 when it was discontinued to upgrade the navigation lights to a range light system. The lighthouse was abandoned and remained unused until the U.S. Government decided to sell it. A deed dated June 24, 1926 shows that it was sold to W. Mahler for \$500. The property has remained privately owned ever since.

Also during 1851, Mr. Sweet convinced the Wisconsin State Legislature to grant County status to the peninsula and to make Baileys Harbor the first County seat under the name Gibraltar. However, no official business was transacted and in 1858 the name Baileys Harbor was again given to the area, through the citizens' preference, and Sturgeon Bay became the County seat. Mr. Sweet, suffering from financial difficulties, withdrew from Baileys Harbor.

Limekilns, sawmills, shipping, tourism and stone quarrying were important activities in the Town during the last half of the nineteenth century:

- Mr. A. K. Lee built six limekilns along the bluff. (The remains of these kilns may still be seen on the bluff behind the old Baileys Harbor School, at Toft's Point and many other spots around the Town.)
- William Higgins and his son Allen built a large pier one mile south of the settlement.
- Mr. J.W. Lowell built a sawmill on the shore near Higgin's Pier.
- Mr. J.T. Wright built the Peninsula House Hotel nearby.
- The steam ship Ludington of the Goodrich Steamship line called once a week to unload passengers and freight.
- Kreston Toft came to Baileys Harbor in 1870 and worked at the stone quarry in Mud Bay until the early 1890's when the Sturgeon Bay canal was dredged, making it easier for ships to load in Sturgeon Bay. The quarries at Garrett Bay and Mud Bay then ceased operations.

During the late 1800's and early 1900's, settlers came in from Norway, Sweden, Finland, Denmark, Poland, England, Germany, Scotland and Ireland. As they came to Baileys Harbor, they cleared more land and farming became the prominent economic activity. Steamers took the place of schooners on the lake and by 1901 there were few members of the "winged fleet" to be seen.

11.2. Sites on the State and/or National Historic Registers

The National Register is the official national list of historic properties in the U.S. worthy of preservation and is maintained by the National Park Service in the U.S. Department of the Interior. The State Register is Wisconsin's official listing of state properties determined to be significant to Wisconsin's heritage and is maintained by the Division of Historic Preservation at the Wisconsin Historical Society. Both listings include sites, buildings, structures, objects and districts that are significant in national, state or local history, architecture, archaeology, engineering and culture. Table 11-1 describes the seven properties in the Town of Baileys Harbor currently on the State and/or National Historic Registers.

**Table 11-1
Properties on the State and/or National Historic Registers**

Historic Name	<i>Bailey's Harbor Town Hall / Mc Ardle Library</i>
Address	2392 County Trunk Highway F
Certification	Listed in the National and State Register
Certification Date	04/21/00 (NRHP) 10/22/99 (SRHP)
Historic Function	Government, Education
Architectural Style	Colonial Revival
Area of Significance	Architecture, Education, Politics/Government
Period of Significance	1937-1938
Historic Subfunction	City Hall, Library
Architect	Schmitt, Sylvester J.

Historic Name	<i>Baileys Harbor Range Light</i>
Address	Roughly CTH Q, Ridges Rd., and STH 57
Certification	Listed in the National Register
Certification Date	9/21/89 (NRHP)
Historic Function	Domestic, Defense
Architectural Style	No style listed
Area of Significance	Transportation, Architecture
Period of Significance	1869-1939
Historic Subfunction	Single Dwelling, Coast Guard Facility
Architect	Breitbach, Andrew

Historic Name	<i>Cana Island Lighthouse</i>
Address	East side of Cana Island
Certification	Listed in the National and State Register
Certification Date	11/21/76 (NRHP) 01/01/89 (SRHP)
Historic Function	Domestic, Transportation
Architectural Style	No style listed
Area of Significance	Transportation, Maritime History
Period of Significance	1900-1924, 1875-1899, 1850-1874
Historic Subfunction	Single Dwelling, Water-Related
Architect	Breitbach, Andrew

Historic Name	<i>Frank O'Connor (bulk carrier/shipwreck)</i>
Address	Lake Michigan
Certification	Listed in the National Register
Certification Date	7/1/94 (NRHP)
Historic Function	Transportation
Architectural Style	No style listed
Area of Significance	Engineering
Period of Significance	1900-1924, 1875-1899
Historic Subfunction	Water-Related
Architect	Davidson, James

Historic Name	<i>Globe Hotel</i>
Address	8090 State Trunk Highway 57
Certification	Listed in the National and State Register
Certification Date	1/28/82 (NRHP) 01/01/89 (SRHP)
Historic Function	Domestic
Architectural Style	Greek Revival
Area of Significance	Commerce, Politics/Government, Architecture
Period of Significance	1875-1899, 1850-1874
Historic Subfunction	Hotel
Architect	

Historic Name	<i>Zahn, Albert, House / Bird's Park</i>
Address	8223 State Trunk Highway 57
Certification	Listed in the National and State Register
Certification Date	5/11/00 (NRHP) 10/22/99 (SRHP)
Historic Function	Domestic
Architectural Style	Late 19 th and 20 th Century American Movement
Area of Significance	Architecture
Period of Significance	1924-1950
Historic Subfunction	Single Dwelling
Architect	Zahn, Albert

Historic Name	<i>Zahn, August, Blacksmith Shop and Residence</i>
Address	8152 State Trunk Highway 57
Certification	Listed in the National and State Register
Certification Date	5/5/00 (NRHP) 10/22/99 (SRHP)
Historic Function	Domestic, Commerce/Trade
Architectural Style	Late 19 th and 20 th Century Revival
Area of Significance	Architecture, Industry
Period of Significance	1905-1949
Historic Subfunction	Single Dwelling, Specialty Store
Architect	Zahn, August

11.3. Shipwrecks in and around Baileys Harbor

The first permanent settlement in Baileys Harbor was founded by sailors. The shipwrecks in and around Baileys Harbor provide an important link to the Town's past. Most of the ships listed were completely destroyed, although some of these wrecks are still visible. The following table lists and describes each of the known shipwrecks that have occurred in Baileys Harbor.

**Table 11-2
Shipwrecks in and around Baileys Harbor**

Vessel Name	Vessel Type	General Location	Wreck Date	General Details
Janette	Schooner	Baileys Harbor	May 1, 1851	In a late snowstorm, the ship mistook Baileys Harbor for Mud Bay and ran aground, eventually breaking apart.

Forest Queen	Unknown	Baileys Harbor	November, 1860	Bound for Buffalo from Milwaukee, the ship ran aground in a storm and broke apart.
Agnes Wille	Unknown	Baileys Harbor	November 4, 1862	Bound from Green Bay, the ship capsized seven miles off of Baileys Harbor. She drifted ashore and was a total loss.
H. Mitchell	Schooner	Baileys Harbor	May, 1863	The ship went ashore at Baileys Harbor. The crew was able to escape to shore.
J.C. Fremont	Schooner	Baileys Harbor	June 26, 1865	The ship sank in the fog after a collision with the barque <i>American Union</i> . The crew was rescued by the <i>American Union</i> .
Lewis Cass	Schooner	Baileys Harbor	September, 1865	The ship went ashore on the reef opposite the lighthouse. A tug from Milwaukee was unable to pull her off.
Ocean Wave, #18912	Schooner	Baileys Harbor	September 23, 1869	The ship struck a piece of wreckage or floating timber and sank fifteen or twenty miles south east of Baileys Harbor and twelve miles offshore.
Fairfield, #1995	Schooner	Baileys Harbor	September 30, 1869	The ship ran up on the reef off the north point on her way to pick up a cargo of wood. After an exhaustive rescue effort she was abandoned and eventually broke apart.
Unnamed	Sailboat	Cana Island	September, 1872	Captain Jackson of the Cana Island Lighthouse was out for a sail with several others when the boat capsized and they were forced to swim for shore. The boat presumably sank.
Joseph Cochrane, #12755	Schooner	Baileys Harbor	October 23, 1873	Traveling from Michigan to Chicago, the ship began taking on water. She was able to make Baileys Harbor, but became stranded on the reef. The crew was rescued, but the ship broke apart within two weeks.
Illinois, #12082	Schooner	Baileys Harbor	October 29, 1873	The ship ran aground and sank in a gale near Smith's Pier.
Warren, #26223	Schooner	Baileys Harbor	November 21, 1879	The ship ran ashore while trying to set sail with a cargo of wood. She was leaking badly and was allowed to sink.
Free Democrat, #9310	Schooner	Baileys Harbor	December 13, 1879	The ship hit a boulder on the east side of the harbor, punching a large hole in her bottom. She was declared a total loss. The crew was rescued and taken to Chicago.
William Livingstone, Jr., #80411	Tugboat	Cana Island	October 4, 1880	The ship sank off Cana Island when her shaft broke and opened a fourteen-inch hole in her hull. The crew escaped in the two barges she was towing.
Ebenezer, #7518	Schooner	Mud Bay	October, 16, 1880	The vessel was totally wrecked during the "big blow".
Josephine Lawrence, #12976	Schooner	Baileys Harbor	October 16, 1880	The ship was driven ashore during the "big blow", about a half-mile east to the range lights. She eventually worked her way down into the sand and was abandoned.

