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## CHAPTER I

### INTRODUCTION

#### PROJECT DEVELOPMENT: A NEED FOR PRESERVATION?

Last summer while gathering information for the Washington Island Planning Committee I was amazed by the sheer numbers of visitors to the Island especially during the summer season. In 1975 the number of visitations to Washington Island was reported at 53,785 with a projection of 71,500 visitations by 1985, a major increase from the 1960 figure of approximately 13,500.

Why do people come to Washington Island and its sister Rock Island (State) Park? People I had talked with last summer remarked on the natural beauty, the open spaces, the clean landscape. Door County has long boasted of being "north of the tension line," and indeed the 45 minute ferry ride to the island (across 7 miles of open water) does force one to relax.

As more and more subdivisions take over the open spaces outside cities, areas like Door County will be increasingly sought after as havens of retreat. But how long can these "natural areas" last? How long before they are loved to death?

Tourism is big business in Wisconsin, and much is done to encourage and promote the industry. The Washington Island Tourist Bureau (now the Chamber of Commerce) along with the Planning Committee spend most of their efforts in how-to lure more people to the Island. While the numbers of visitors increase the recreational facilities have not. More hotel-type accommodations have been built with a few more eating-establishments, but no land has been added to the existing park areas in years.

Of Washington Island's total 14,438 acres approximately 163 acres can be considered open to public access. The remainder of the island is privately owned. A look at how land is used is important in planning future economic development, and if tourists come to an island to see its natural beauty then open space land will be important to them. The public-access land category is broken down as such:

<u>Area</u>	<u>Acreage</u>
Airport	87.91
* Schoolhouse Beach	33.9 (includes cemetery)
Red Barn Coffeehouse	13.33
* East Side County Park	5.31
* Mountain Lookout Park	5.0
Ball Park	4.4
Community Center	4.33
* Sand Dunes Beach	4.0
Little Lake Museum	2.45
Fishing Museum & dock	1.5
Art & Nature Center	1.0
Detriot Harbor access	.5
(Rock Island State Park	906.0)

*Ridges ???*

*Since the study  
Farm museum zones*

These numbers and areas are somewhat deceiving for there is a difference between recreation areas where a visitor can do his/her own recreating, and areas open to public access (such as museums, community center). There is limited access to the shore considering that one is visiting an island. Over the years Rock Island (which requires a ferry ride from Jackson Harbor) has been the answer for those interested in hiking and serious nature study (as well as camping). This island is included in the tax base of the Town of Washington although it it is tax-exempt as federal and state property. Hence, there has been little incentive for the community to bear a social-cost of providing additional open recreational areas when the benefit of tourism falls primarily to those operating the ferries, hotels, restuarants, and campground.

People who live in a relatively natural area or rural area have a different idea of "recreation/leisure" time than people from the cities. The Islanders enjoy the privacy of island living, but their associations with the natural world are much more practical (farming, fishing, woodcutting) than the aesthetic reasons urban people find in an undeveloped area. To the Islander the tourist season lasts the summer season, and when that season ends there is not the option to commute to another town for a job without making a major move. Since one cannot eat-the-scenery the Islanders have encouraged more people to come and visit - working on the premise that there is more money in volume. Yet people by their sheer numbers are slowly crushing the Island's natural environment.

Often visitors are so entranced with the Island that they will buy land and build a place of their own. This is hoped-for by the 5 realtors on the Island and the 4-6 families involved in the home-building trade. But this also means that more open land is subdivided, property values rise and consequently so do property taxes, until finally Islanders are selling the "back forty acres" to pay taxes.

So far several issues have not been dealt with in an attempt to find a more stable economic future for the island. What is the carrying capacity of the island given the limited landmass and the use of private wells and waste-water treatment? How can the island's unique environment be preserved so visitors will return? (Many people have been coming to the Island for generations and are concerned about the changes they have seen.) How can the volumes of tourists be controlled? How will these issues affect future land-use decisions?

The island is a microcosm of most hometown communities. Within its limited land base of 36 square miles the community must maintain clean water supplies, waste-water treatment (both private and public), and landfills for garbage. They do not have the option of annexing additional land. Most people do not understand the need or role of land-use planning, for they hear only the word "control." But increases in population (visitors or residents) will also increase the need for clean water, waste treatment and landfills. What is needed is an effective way to increase the awareness of visitors and Islanders on these types of environmental issues, issues which too often have political, social and economic overtones. Urban and rural people have different perceptions.

I am interested in the process of environmental education as a means of making people aware of how the major issues really do affect their lives, especially on the hometown level. Everyone wants clean, safe water yet few people understand the connection between wetlands (as ground-water recharge areas) and the water-table where their well draws from. If they understood the wetland's role in water-purification they may have a different attitude toward a swamp instead treating it like a garbage dump.

Roy Bedichek, the late Texas naturalist, once wrote: "It sometimes happens that even the person quite indifferent at home becomes suddenly alive to the animate world as soon as he gets out on the road." My experience as administrator of the Island's Art & Nature Center last summer bears this observation out. When a person is on vacation, she/he sees everything with new eyes.

Quite often a visitor will startle us with an observation on something which is so common-place to us. People who will drive 5 hours or 250 miles from Chicago in order to have a weekend on an island because of its natural beauty are really saying something: one, that the city is not necessarily the place for them to "recharge" themselves, and secondly, that the island's beauty is enough. There does not need to be movies or nightclubs, aesthetics is a reason in itself.

I've talked with many people about the island, and have found that very few know much about the natural environment. I've been asked, "What's that bright orange flower on the side of the road?" or similar questions many times to realize that people are curious about a natural world they most likely see so little of in the cities or hometowns. I know that it was the same for me when I first moved to the island in 1976, and then returned to my childhood stomping grounds in northern Illinois and found many wildflowers I hadn't "seen" before. It seemed to me that one way to educate people about the natural world, and unoffensively too, would be through wildflowers. I have taught several friends on the island what I have learned over the years and often discussions would follow on the plight of the various ecosystems in the face of future development. If no more natural areas are set aside now, what will attract people to the Island? Certainly an island full of homes would not.

With this in mind I began to formulate the best way to present information on natural history for the general public. I am most familiar with wildflowers and once I began to pay closer attention to where I found them, with whom and when I also began to see other patterns emerge. Many people have encouraged me to do a book on the wildflowers, but I wanted the information to be focused on environmental education and the process of environmental awareness.

#### THE WILDFLOWER CALENDAR GUIDE

The Wildflower Calendar Guide which I have prepared and included in my project is the method I have chosen. The basis for how the information is set up was to keep it general and easy to relate to. I think that often people are afraid to learn about the environment because they do not have a degree in one of the related fields, or they don't have the time to pursue the background reading. They merely want a quick answer to their question, "What is it?" Many people who visit the island are riding in cars or on bicycles. Their view of the natural world is almost "windshield" tourism since there are not many

parks on the island of any size, and other than Rock Island State Park no one park includes the varied elements of the ecosystems found on Washington Island.

My feeling is that if I cannot convey the information I have learned to people who ask me questions then I have learned nothing. Knowledge should be shared, and sometimes curiosity must be sparked. Perhaps if a person looks up one plant blooming during that one week they are on vacation, they will also look to see what else may be in bloom then, at another time, or in another place. Hopefully, they will look around when they go back home, and though that may not have a direct positive impact on the island, it may help make another person aware of their home environment, and begin to look at issues concerning it.

I am not interested in merely trading information with other specialists (although it is helpful for me to learn more) I want people to experience the same sense of wonder that overcomes me when I find a new wild plant or make a new connection. I have found in researching other projects from wetland protection to hazardous waste landfill siting that for the most part the general public is un-informed, and without information they cannot assess environmental issues and how they will affect their lives.

It is my intention to publish the Wildflower Calendar Guide by next summer, and begin work on a children's book about wild plants. My ultimate project will be a photography book which will include all the uses, lore and other trivia I can find on wildflowers. My background in environmental planning has proven most useful - for by understanding the ecosystems of wild flowers I can then also understand how land-use practices and decisions affect the habitat of these wild plants.

#### OTHER RESOURCES

Also included in this project is a paper on the natural history of Washington Island which gives additional background on the role of geology (and glacial activity) and soils in plant communities. An interest in these fields grew out attempting to understand why certain plants grew in sandy soils or in the protected area of the Jackson Harbor Ridges. While in pursuit of wildflowers I also became fascinated by the varied shore types surrounding the island. As I studied plant associations closer other patterns emerged about the different ecosystems.

In discussing land-use the role of soils becomes quite important and adds

another dimension in the preservation of such unique habitats such as Coffee Swamp (with its bog-like environment) or the Jackson Harbor Ridges with its wet meadows and rare plants. Filling in wetlands to make way for homesites has created problems in other areas by blocking natural drainage, or destroying wildlife habitat or ground-water recharge areas. Location of septic fields or restrictions on their use are dependent on several soil factors.

Also included are scripts to two slide shows on wildflower ecology. The first shown at Lincoln Memorial Garden was arranged to show the viewers the range of some of the flowers common to both the island and the Garden. It included trivia on plants, common names, history or their uses. The slide show was followed by an interpretative hike through the Garden, pointing out some of the plants shown.

The second slide show, shown as part of the final project, was the study of two plant communities found on Washington Island. Each community was given a seasonal review of plant associations found in the mixed-hardwood forest, and in the boreal forest. A quick look was made of the specialized plant community found in Coffee Swamp. The purpose was to shore what little remains of native species, and how easily an established community can be destroyed by human intervention.

The Methods and Research section discusses the process of gathering information for this project. During the summer of '83 I participated in two field courses on the island: Island Botany and Island Geology which gave me a good review in the former and new insights in the latter. They were helpful in organizing my own information.

The final chapter covers some of the issues facing the Washington Island Planning Committee. From an environmental point of view it does not address the ecosystems. As in the case of many planning committees there was more interest in economic development than in the carrying-capacity of the Island as the starting point for discussion. It did provide a chance to look at how many people make the island their home, and the demographic make-up of the island's population. What was not addressed was what brings people to the island. It is included to show how complex environmental issues can become, and why compromises must be made. However, without environmental base-data many questions cannot be adequately answered, nor can human impact of construction, use be assessed either immediately or in the future.

CHAPTER VI

WASHINGTON ISLAND:

LAND-USE PLANNING

## PREFACE

The information in this chapter was compiled during the summer of '83 and at the request of the Town of Washington (Island) Planning Committee. At that point I had been concentrating on compiling such information to serve as background data for the Planning Committee. However, after submitting the enclosed preliminary report to the Planning Committee I received no feedback on its contents nor any further information (including the survey) from them.

A second factor helped to suspend this part of the project for me, namely, I moved from the island to Texas. I no longer was connected to the island in the manner I had been before and therefore, felt I could not make fair assessment of the future goals and objectives of the community. My future was no longer tied to that community.

While living in Texas I reevaluated my initial motives for wishing to pursue a land-use study of Washington Island. I did not view the no-response from the committee as a failure, but rather a difference in our intents. The Planning Committee was trying to address economic development, while I tried to assess the carrying capacity of the island. Both have a part in a thorough plan. However, given the political and social nature of economic development, and the unidentified issue of "social costs vs. social benefits" which tourism raises in such communities I decided to back-up and re-address the environmental issues via environmental education.

The island has become bound to tourism, but not everyone benefits from the presence of thousands of visitors during the summer season. At the end of summer Islanders will once again pick up the roadside litter, empty trash-barrels from the parks, fix the roads that a thousand extra cars rolled over and deal with numerous other sanitation problems - costs that are borne by the entire community, not just the hotel and restaurant owners. The community's infrastructure of roads, utilities, medical and public services are geared to the maximum number, not to the actual residents. But it is the



landowners' taxes that support this system. How do you address these problems?

Environmental problems may force the issue. Field-spreading of wastewater from septic holding tanks can not continue forever. Concern has been raised on whether the island will need a waste-water treatment plant in the near future. Another community social cost for the benefit of the tourist trade (the social benefit may be the freedom of risk from contaminated water supplies.)

Ultimately, all land-use decisions will involve a closer look at the environment. It is my intent then to help address this information gap. It may be a slower process, but it will accomplish much more than force-feeding environmental scare-tactics. If the people can come to understand and cherish their island environment, perhaps they will also develop a truer sense of stewardship over the natural resources of the island for the benefit of both Island residents and visitors.

Scenic beauty will matter little if the water supply is contaminated. The island-mystic will matter little if there is no natural beauty to enjoy. A healthy community will maintain proper growth to match its resources.

## WASHINGTON ISLAND: LAND-USE PLANNING

### INTRODUCTION

The following report is a preliminary study of land-use planning on Washington Island, Door County, Wisconsin. The information contained in this report is in response to questions submitted by the Town (of Washington) Planning Committee, and is intended to serve as background data. The accuracy of the information relies heavily on what was available on the Island, and the willingness of private individuals to volunteer such details. Information was gathered through personal contact or by phone conversations during the summer and early fall of the 1983.

As information was sought for the following questions, new questions were raised. When appropriate additional information is presented in an attempt to further the perspective of the Planning Committee regarding related topics or issues.

At present, I have been able to research about half the questions posed by the Committee. During the next 6 months I will look into the remaining questions.

Respectfully submitted,

Susan M. Sander

October 1983

*Carrying capacity*

DATA BASE: WASHINGTON ISLAND, VI

Town Planning Commission

<u>Source</u>	<u>Information</u>
Town records	1. Number of full year residents
Town records	2. Number of summer residents
Ferry Line records Tourist Bureau	3. Approximate number of summer tourists Day only Overnight
Zoning Map	4. Island total acreage
Zoning Map	5. Number of houses on the Island
Zoning Map	6. Number of building sites now available
Zoning Map <i>Resorts</i>	7. Number of building sites potentially available under current zoning
Zoning Map	8. Acreage zoned commercial
Zoning Map	9. Acreage zoned residential
Zoning Map	10. Acreage zoned agricultural
Town records	11. Acreage currently under Forest/Woodland Crop Law
Town records	12. Acreage and shore frontage owned by town/State/Federal government for general public use
Tourist Bureau	13. Tourist rooms presently available/number of people that can be accommodated
Tourist Bureau	14. Camp sites presently available/number of people that can be accommodated
Tourist Bureau	15. Public dining seats currently available
Town records	16. Number of farms
Meeting	17. Number of people the Island can support using <u>present</u> waste disposal methods
DEA	18. Number of people the Island can support on <u>present</u> Electrical capacity
Meeting	19. Cost of lagoon system for various capacities 1000 users 2000 users 5000 users

*Call under businesses residents hotels campground*

*max #*

<u>Source</u>	<u>Information</u>
Meeting	20. Size of lagoon system - acreage including reasonable buffer zone
Meeting	21. Normal problems encountered with lagoon systems
Meeting	22. Alternate disposal systems and the costs
Meeting	23. Number of people the Island can support using present garbage disposal system
Meeting	24. Methods and costs for added garbage disposal capacity.
REA	25. Expansion possibilities/costs for additional electric capacity
Meeting	26. Why mound system is controlled by permit (What is the problem?)
Meeting	27. Toxic/contamination efforts of garbage disposal *Underground water contamination) Old asbestos siding tiles, old lead paint cans; spent fuel, antifreeze
Meeting	28. Other sources/likelihood of public contamination of open water and underground water - Marina, docks, fuel tanks, *old gas station storage tanks; farms (pesticides, old DDT)
	29. Vehicles presently on Island (Arbutus - Lic. plates)
Ferry Line records	30. Vehicles on Island during peak summer period
	31. Number of boats/number of aircraft EA (Jack Cornell)
Meeting	32. Growth problems encountered in other communities
Meeting	33. Methods used by other communities to retain essential character of a town; size of building sites, cluster housing, cost and style of housing. Are there others?
Meeting	34. How do you avoid forcing people to subdivide their land due to high taxation.

Recycling center  
 \$ to offset operation

Move toward cooperative town ownership of major businesses used by tourists (ferry, campground)

Motel-hotel tax for utilities (i.e. wastewater), roads landfill

Low impact/high quality  
 \* Best tourist industry = Stevens Loom + Art Classes (steadier than day tourist gives a chance to educate visitor, they visit  
 WAA/fundlays watercolor workshops.

## POPULATION

The population of Washington Island is made up of two significant groups, full-year residents and summer residents. For the purpose of this study the two groups will be defined as follows: Full-year residents are those people who are registered voters of the Town of Washington, and minor children of these voters. Summer residents are those people who own property on the Island, but who do not consider the Island as a permanent or legal residence.

### Question 1: Number of full-year residents.

According to 1980 Census Data, the total number of residents was 558, reflecting an increase of 25.1% over the 1970 census of 446. (Updated census information places the 1983 population at 587.) While the increase represents a significant change in itself, Figure 1 shows that the present population is roughly 60% of the 1920 census when commercial fishing was going strong. Since that time the Island has been experiencing a steady decline in population, with the 1980 census marking the first significant increase in 50 years. Whether this trend will continue is yet to be seen.

However, by studying the population make-up more relevant information can be had. Using the "Age-Sex Distribution" chart found in A Comprehensive Plan for Washington Island, Door County, Wisconsin (1970, p. 17) comparison was made with 1980 data. As shown in Figure 2, there has been a dramatic shift in the population make-up. In 1940 only 8.2% of the population fell into the 65 and over age bracket with more males than females. 1960 saw an increase to 18.6% in this category. By 1980 this age group made up 26.5% of the population with a shift to more females. If one includes people 60-65

POPULATION OF WASHINGTON ISLAND, WISCONSIN  
 ACCORDING TO CENSUS RECORDS

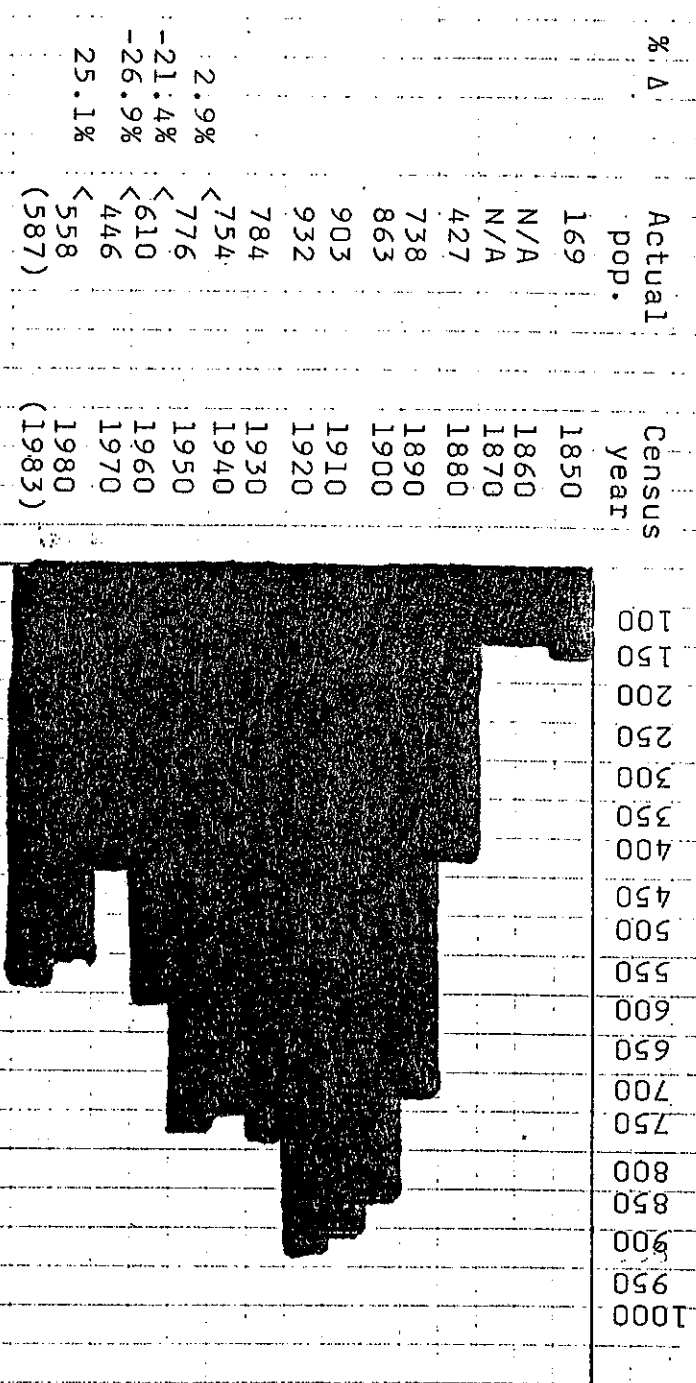
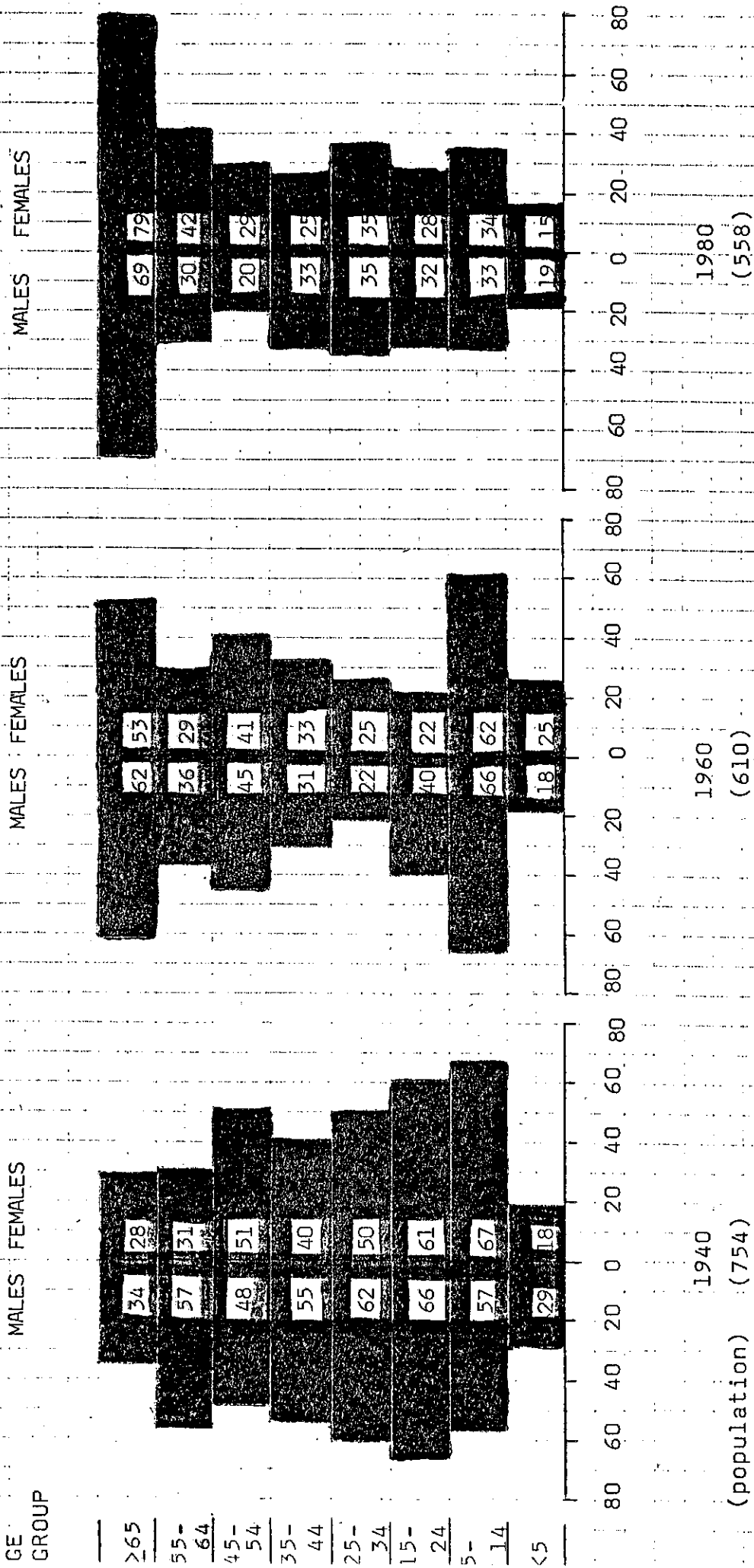


Figure 1:

Figure 2:

WASHINGTON ISLAND AGE-SEX DISTRIBUTION



Source: U.S. Census of Population: 1940, 1960 and 1980 prepared by Dept. of Local Affairs and Development

the percentage increases to 35% of the total population.

Such distribution graphs can readily show age groups and their relation to each other. A more common grouping would resemble a Christmas tree in shape, with a small group in the "under 5" category and the largest groups in the mid 20s-30s (labor force), tapering to the smallest group in the retirement years. Such information also shows that at the present trend the fertility rate (based on the number of women in their child-bearing years) of the Island is steadily declining. As explained in the earlier comprehensive plan, increases in the children groups will be primarily a result of immigration (younger families moving to the Island) rather than Island born children. This trend is further reflected in the rising median age of the Island's population of 43.3 (40 for males and 47.2 for females.) School attendance has also experienced a steady decline since 1965 as reported in the 1970 Comprehensive Plan.

Table 1: School Attendance on Washington Island, 1965-1970.

	1965-66	1966-67	1967-68	1968-69	1969-70	1983
High School	55	44	46	36	30	> 88
Grade School	83	81	73	69	54	
Pre School						20
	<u>138</u>	<u>125</u>	<u>119</u>	<u>105</u>	<u>94</u>	<u>108</u>

Updating the information for Table 1 would provide useful information particularly in assessing the needs of the Island school district in the future.

Another interesting shift in the 1980 Census Data was in the area of the education level of the Island population. In the 1960 Census high school graduates (age 25 and over) comprised 33.6% of the total population. In 1980 65% of the population were high school



graduates. More dramatically was the percentage of college graduates which rose from 1.8% of the population in 1960 to 13.57% in 1980. Such shifts may be a result of the number of retired persons with professional backgrounds, and new families and school teachers. It is doubtful that such a shift would be the result of Island high school graduates who might have gone on to college, graduated and returned to the Island.

A somewhat more disturbing trend is the increase in the number of women that live alone. According to 1980 Census Data there were 35 non-family female householders age 65 and over. Of the Island's total population there were 52 single female householders, and 8 family householders with "no husband present" as opposed to 3 family households with "no wife present." Out of a total of 243 households, 146 were married-couple families.

In the future, the Island community will need to address the needs of the various age groups represented in the population, and in particular, those people in the over 65 age group. People living alone in this age group will require special consideration. Velkommen, Inc. provides housing for a small percentage of this group. Medical services are a major concern, as well as the physical and psychological effects of isolation, particularly felt during the winter, of Island life. Severity and duration of winter curtails many activities for most elderly people. Maintenance of individual homes becomes costly and a physical hardship (plowing, trips to store) forcing many to close up homes and winter in warmer states. Assessment of the goods and services of this age group will be needed in considering the future growth of the Island. Needs will differ between those with family on the Island, and those who moved to the

Island for retirement, without the emotional support group in place. With the shift towards more retired people, there will be less and less of a labor force to provide the goods and services that may be demanded. People looking into retiring on the Island may start to take this into consideration speculating on their own future on the Island. Should the community begin to specialize in one area i.e. retirement community, other parts of the community may suffer (i.e. school district). Providing certain services such as increased medical care for elderly, may place an unfair social-cost on the rest of the community. However, as the population shifts there may be less discussion.

Question 2: Number of summer residents.

The 1980 Census Data supplies information about the number of residents within a community, and while not directly giving information on non-residents inferences can be made. Several sources were investigated in order to determine the summer resident population, and are approximations at best. According to 1980 Census Data 269 housing units were "held for occasional use." In addition, there were 8 for sale, 19 for rent, and 4 other "vacant." (See Question 5.) According to Tess Rainsford, postmistress, there are 250 year round boxholders, and 440 during August. One can speculate that on the average, most summer residents are families with children, If one works with an average family group of 4 persons, the summer resident population would be 1076, or almost double the permanent population. The Island Medical Committee uses a population of 3,000 in determining the need for a physician in residence. Few summer residents are on the Island all summer; however, a large number of high school and college age people do find employment in the tourist businesses for at 6-8 weeks of the summer.

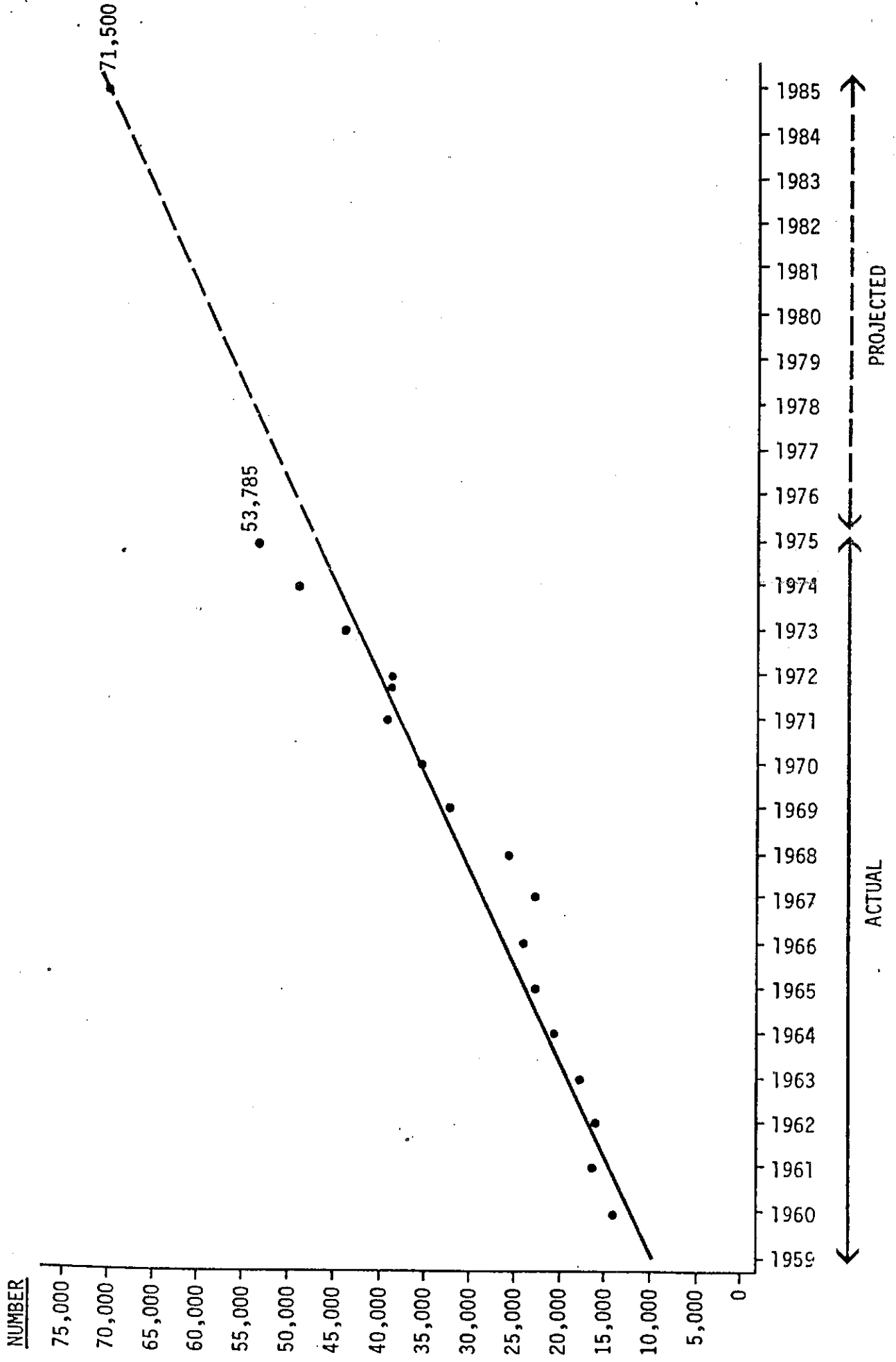
Another problem in assessing the number of summer residents is the number of additional people staying with a family, such as relatives, friends, etc. Often summer homes are rented to friends from back home. It is important for the Planning Committee to have some firm base of the number of people on the Island during peak periods of summer in order to assess future needs, such as fire and police protection, recreational areas, landfill capacity, and possible waste water treatment. While summer residents can enjoy the amenities of Island living, conflicts arise when permanent residents must bear the cost of the additional population without much benefit.

Question 3: Approximate number of summer tourists: Day/Overnight.

Even harder to assess than the summer residents is the number of people who make use of the Island as part of their recreational/vacation needs. Without access to the Washington Island Ferry Line records (unavailable when I called), no definite number can be had. Another possibility might be to contact the Wisconsin Department of Transportation in Madison.

Day traffic has increased tremendously in the last ten years, as evidenced by new and bigger ferry boats, more runs/day, an increase in the number of tour trains and buses (as well as charter buses), and the growing number of cyclists. Information gathered for the Grand Traverse Islands proposed park system (Figure 3) showed 53,785 visitors to the Island during 1975, projecting 71,500 visitors during 1985. During the peak 6-8 weeks of July-August, additional boats run with full capacity. Long lines at both ferry docks (Gills Rock on the mainland, and the Island) result in increased congestion.

ACTUAL AND PROJECTED VISITATION TO WASHINGTON AND ROCK ISLANDS



SOURCE: Dept. of the Interior, BOR; Washington Island Ferry Line, Inc.; Charles Voight Marine; BLRPC

The largest impact of such volumes of people is in sanitation needs. One estimate of day traffic was at 3,000 people during a peak weekend. Without publically provided rest areas, individual businesses are pressured into providing a public service without necessarily receiving any compensation. Even if public restrooms were provided, it would be the result of a social cost on all taxpayers of Washington Island who may indirectly, if at all, benefit from the visitors. Conventional toilets require 5 gallons of clean water for each flush. Holding tanks or even outhouse pit toilets require pumping out and disposal at another site on the Island - the method used being field spreading. (To be discussed later.)

As will be discussed in Questions 13 & 14, the majority of the estimated 80,000 visitors during the summer season will be day traffic. Their recreational needs will be different than those people staying overnight or longer. It seems self-evident that there are enough visitors in terms of volume during the summer peak months, whether these people are staying long enough, or finding services or goods that encourage them to buy is the major issue. Can the community as a whole pay the price of such volumes of tourists remains to be seen.

#### LAND USE ON WASHINGTON ISLAND

Historically, Washington Island has been used for logging, farming, and as a base for commercial fishing. Only recently, has tourism and second-homes become the major land use. In researching those factors that affect Washington Island one must also look at the sister Islands as they are included in the tax base of the Town of Washington. Land use is a socially imposed use on the land, and

does not necessarily represent the best use of the land by environmental standards. Logging practices of the past left abandoned fields of stumps, which became farmland when cleared. Zoning is a formalized statement of the socially imposed use of the land. In responding to the Questions on number of acres in each zoning category, it was found that such information is not available in that form. Rather land parcels were categorized by how they were assessed, which roughly equates to how the land was being used.

Question 4: Island total acreage.

The Town of Washington has a tax-base which takes in Detroit Island, Rock Island, Plum Island and the lesser islands. Table 2 breaks down the acreage according to the Islands.

Table 2: Town of Washington, Islands

<u>Island</u>	<u>Size/acres</u>	<u>Ownership/Details</u>
Washington Island	14,438	Mostly private
Detroit Island	649	Private - seasonal residences
Plum Island	266	Federal - Coast Guard Station
Rock Island	906	Federal (129)/State (777)-Park
Pilot Island	4	Federal - lighthouse
Hog Island	2	Federal - Wildlife Sanctuary
Fish Island	1.5	(mostly under water)
	16,266.5	

\*Taken from Recreation Alternatives for the Grand Traverse Islands, Bay-Lake Regional Planning Commission, Green Bay, Wis. 1976, p.39.

Question 5: Number of houses on the Island.

As any future development will occur only on Washington Island only this Island will be discussed. According to 1980 Census Data there were 628 housing units, out of which 543 were considered year-round units. Of the 543, only 243 were occupied, leaving 300 homes vacant. As mentioned previously, 269 housing units were "held

for occasional use." Of the 243 occupied units, 42 were renter occupied, the majority (25) occupied by one person. 13% of the full-year residents are renters.

A breakdown of year-round housing units by plumbing facilities indicates that out of the 543 units, 489 have complete plumbing and 54 lack complete plumbing. Of the units that were occupied 230 had complete plumbing and 13 were found lacking. The implications of incomplete plumbing facilities could warrant concern in a community which depends on well water, and uses individual septic systems (or mounds/holding tanks).

Questions 6 & 7: Number of building sites available.

According to Duane Jacobsen, Town Assessor, there are at present the potential of 1600 parcels suitable for building sites. In addition, there would 320 parcels should the forty-acre parcels within the A-2 (5 acre minimum) districts on the Island. There are few parcels that could be divided within the A-4 (20 acre minimum) district, as a 39 acre parcel could not be divided into a 20-acre and a 19-acre parcels.

A review of the number of building permits during the last five years shows modest growth in terms of new home construction. Very few new constructions are the result of new land sales, but rather a result of improving on an investment already made. Table 3 is a breakdown of building permits for new construction.

Table 3: New Construction Building Permits, 1979-1983.

<u>Year</u>	<u># of Permits</u>	<u>Permanent Residence</u>	<u>Second Home</u>
1979	8	1	7
1980	7	2	5
1981	6	2	4
1982	9	2 (1 not started)	8
1983 (October)	1		1

This table does not include building permits for construction of commercial establishments (Koyen Kollection, Gateway Lodge, Matso-luhus, Mann's Hardware) which, it should be noted, are businesses owned and operated by full-year residents, although the businesses may be seasonal in nature.

Questions 8-12: Acreage of each land use type.

As eluded to earlier, land parcels are assessed not by the zoning district in which they are located. Zoning districts can be changed rather easily by variances or redistricting. Zoning defines the type of uses (permitted or conditional). In the Environmental Impact Statement conducted under the Wisconsin Department of Natural Resoucrs (WDNR) in 1978, land use on the Island was rated as follows:

Residential	33%
Recreational	7%
Commerical	1%
Agricultural	51%
Conservancy	7%

Forestry and industrial uses were not found on the Island. A few zoning changes have been made since that time, but are relatively insignificant. Table 4 further defines the land use categories.

Table 4: Land Uses by Area and Percent (1978).

<u>Type</u>	<u>Area (hectare)</u>	<u>Percent</u>
Residential	396 ha	6%
Commerical	9	<1%
Industrial	16	<1%
Transportation	221	3%
Communications/Utilities	7	<1%
Institutional/Governmental	20	<1%
Outdoor Recreation	72	1%
Agricultural/Silvacultural	1,619	24%
Natural Areas	<u>*4,268</u>	64%
	6,628 hectares	

\* Includes unused wooded lands.

Taken from Bay-Lake Regional Planning Commission, 1978.



If one should multiply the number of hectares by 2.471, the area being considered is 16,377 acres, an area which includes all the surrounding islands. The natural area category is misleading as it does not denote defined areas, such as parks, but rather wooded land left in a natural state, Rock Island, which is a state park and a separate island, accounts for a total of 72 hectares under "outdoor recreation."

The division of land-use by assessed parcels reveals a somewhat different ratio. The information in Table 5 was taken from the 1982 tax roles by Duane Jacobsen.

Table 5: Washington Island Property Tax Assessments, 1982.

<u>Category</u>	<u># of parcels</u>	<u># of improvements</u>	<u>Acres</u>
Residential	1,337	532	5,680.79
Commerical *	83	51	288.8
Agricultural	132	55	3,618.79
Swamp & Waste	8	-	263.60
Productive Forest	122	18	3,664.94
Assessed Land =	1,682	656	13,516.92
Forest Crop & Woodland			576.
Tax Exempt			1,484.12
			<u>15,577.04</u>

\*In the case of resorts, individual cottages/buildings are not counted as separate improvements.

In defining land use by assessment categories, several things must be kept in mind. If the land is not in the same 40 acre section then one is talking parcels, even if the land is contiguous. Home businesses are separated into residential and commerical. A residence may be located in a commerical zone with a home business but would not be counted as commerical if it is primarily a residence. A farm may have 20 acres in woodland, and be assessed as productive forest rather than agricultural. Counted improvements include barns, houses, garages (if separate from house) or buildings

with foundations. Under swamp and waste are gravel pits, Coffee Swamp and the Big Marsh. Forest crop land are 40-acre parcels which are assessed at 20¢/acre, while woodland crop are 10-acre parcels assessed at 40¢/acre. Tax-exempt lands include federal properties (Rock Island, Plum Island and Hog Island = 397.21 acres); state lands (Jackson Harbor boat dock, Rock Island, and 8 acres on Detroit Island = 788.99 acres); the county East Side Park (5.31 acres); church properties; and Town properties (airport, 87.3 acres; old and new landfill/dumps, 50 acres; REA, American Legion, School; cemetery and Schoolhouse Beach Park, 42.3 acres; and parks and museums, about 58.86 acres) totaling 244.97 acres.

Of the total land on Washington Island the following are available for public use:

Table 6: Lands available for public use.

<u>Facility</u>	<u>Acres</u>	<u>Ownership</u>
Airport	87.91	Town
Schoolhouse Beach	33.9	Town
Art/Nature Center	1.	Town
Little Lake Museum	2.45	Town
Ball park	4.4	Town
Community Center	4.33	Town
Sand Dunes	4.0	Town
Red Barn	13.33	Town
Detroit Harbor Access	.5	Town
Mountain Park	5.0	Town
Jackson Harbor Ridges	n/a	Town - small beach area, Scientific Research Area not intended for public recreational use.
Fishing Museum, Dock	1.5 (?)	Town
	158.32 approximately	
East Side Park	5.31	Door County
Rock Island State Park	788.99	State
	109.	Federal
TOTAL	1,061.62	

These numbers and areas are somewhat deceiving, for there is a difference between recreation areas for public use and public access to facilities. Tourists would not be able to use the airport or Community Center for their recreation needs, nor the Red Barn Coffee House. For being an island (which is the main attraction for visitors) there is limited access to shoreline once on the Island. In order to experience the Island, one needs to ride the ferry either to Washington Island or Rock Island. Schoolhouse Beach offers the most shore frontage and swimming area for public use on the north shore. At Jackson Harbor (northeast corner) there is roughly 30 feet of sand beach with shallow water, but its proximity to the Scientific Area warrants not advertising the location. East Side Park serves as a picnic area, and never has been known as a swimming spot. The Sand Dunes along the southeast shore serves as the primary swimming area (along with Schoolhouse beach with its cobble beach) for the entire Island. There is a small beach across from the Red Barn (Dolphin Beach) for swimming, however, the shoreline is overgrown with weeds and does not look inviting. There is no public access to the shore along the east side of the Island, other than about 50 feet of cliff for viewing sunsets at People's Park. The smaller areas are not located on tourist maps.

As more and more development is taking place on the Island, public access to the shore is being severely restricted for both visitors and Island residents. Once the shoreline has been developed, there may be little internal development as the mystic of island living will remain elusive for those unable to see its shore.

Question 13: Number of tourist rooms available/number of guests.

Each resort owner was contacted personally or over the phone. In addition to information on the number of rooms/ guests each were asked the number of weeks in which they were 80-90% full (by rooms) during the season. For the majority, this amount to roughly 6-8 weeks during July -August. For the well established resorts and cottages at least 80% of their summer guests are returning people, many of whom had made reservations for the next season. Concerns were raised on the shortness of the season, homes that were rented (and therefore competing) on a weekly basis, the increased number of fishermen whose early bookings for next season forced steadier returning guests to look elsewhere and changed the nature of the "family resort" setting. Table 7 is a break down of the accommodations available on Washington Island during 1983.

Table 7: Washington Island Accommodations.

<u>Establishment</u>	<u># Rooms/cottages</u>	<u>Max. # people</u>	<u>Season</u>
Cedar Lodge	11 + 4	31+22 = 53	May - Oct.
Dor-Cross Chalet	7	23	May - Nov.
Flath's Cottages	7	28	June -Oct.
Gibson's West Harbor	9 + 3	22+32 = 54	May - Oct.
	(7 rooms yr round, 16 people)		
Findlay's Holiday Inn	31 + 3	102+16 =118	May - Oct.
* Viking Village 13 (motel)		46	Yr Round
Island Gateway Lodge	16	96	Yr-Round
Island Lodge	7	18	June-Labor Day
McDonald's Cottages	6	34	June-Labor Day
Menefee's Washington Hotel	3 + 1	19 + 5 =23	June-Labor Day
Sunset Resort	11 + 1	36+ 7 = 43	May - Oct.
West Wind	3	10	May- Oct.
Townliner Motel	4	16	Yr Round
	107 Rooms	562 seasonal quests	
	33 cottages/houses	174 year-round quests	

Not included in this list were the smaller, and sometimes unadvertised cottages, such as Clancy's Island Lodge, Landin's cottage, Thor's Farmhouse, Lehman's, Lindgren's Sunrise Cottages, and Homestead Cottages (now rented by the individual owners). Of the 12 resorts listed in the table, 8 are owned and operated by permanent Island residents.

Question 14: Number of Campsites/number of campers.

Only two campgrounds are involved, Rock Island State Park which is operated by the Wisconsin DNR, and Island Camping and Recreation on Washington Island, privately owned by non-residents. Rock Island State Park has 40 camping sites with minimal facilities available. Access to the park is via the Karfi ferry or private boats. A maximum of 5 per site is allowed.

Island Camping, opened in 1975, offers 100 camping sites, 28 with electrical hook-up. A maximum of 400 campers is allowed. Additional facilities, such as showers, washrooms, toilets, and recreation areas, and small store are available on the grounds at the Lodge. Gloria Small, manager, estimated that the campgrounds were 90% full during two months of the summer. Fishermen occupied the lodge and between 40-50 sites during the peak time in July. Concern was mentioned over the disposal of fish guts, and the pressure of fishermen in a family camp-ground. Both camping areas are open from about mid-May until mid-October.

Question 15: Public Dining Seating.

Individual restaurant owners were contacted. Of the 12 eating establishments on the Island, only 3 will be open year-round. Gibson's West Harbor Resort has a dining room, but primarily serves their own guests during the off-season.

Table 8: Public Dining

<u>Restuarant</u>	<u>Max. seating</u>	<u>Season</u>
Albatross Drive-In	outdoor	Memorial Day - Labor Day
Boathouse Rest.	25 w/bar	Memorial Day - Labor Day
Findlay's Holiday	72 (3 meals)	May - late October
Fosco's Fiasco	125 w/beer garden	July - August
Gibson's West Harbor	60-70 (breakfast)	(will serve guests)
Island Inn Rest.	50 (Bkft/Lunch)	Memorial Day - Columbus Day
Ivanhoe Rest.	80 inside 55 deck	Yr-round
Lighthouse-Cellar	51 (lunch/dinner)	Mother's Day-Oct. 15
Bar	40 (sandwiches)	Oct.-May
Maple Grove Steak House	30 (dinner)	May - Labor Day
Matsoluhus	outdoor	Memorial Day - Mid Oct.
Sailor's Pub	30 + 16 bar	Yr-round
Sunset Resort	125 (bkst)	July - August
	759	seasonal
	186	year round

Not included in this list was the KK Fiske store which also serves fish boils (outdoor seating) and sandwiches to-go. The two taverns, Nelson Hall and JB's Tap also offer sandwiches and pizzas, but were not included. Findlay's Holiday Inn will be expanding their dining room before the 1984 season, partly due to the increase in tour bus customers. During the off-season months, visitors may find accommodations to stay, but may find themselves missing a meal due to the reduced hours of year-round restuarants.