

GULF ISLANDS NATIONAL SEASHORE WILDERNESS EDUCATION PLAN

INTRODUCTION

Wilderness is a place where human impact is significantly unnoticed, where natural processes rather than human activity are the primary influences. The Wilderness Act of 1964 was passed by the U. S. Congress to restrict grazing, mining, timber cutting and mechanized vehicles in federally-designated wilderness areas. These areas valued for ecological, historic, scientific, and experiential resources are protected for future generations. The National Wilderness Preservation System is managed by the National Park Service, Forest Service, Fish and Wildlife Service, and the Bureau of Land Management, but all citizens have a role and responsibility for protecting designated wilderness areas.

In 1978 the U. S. Congress designated Horn Island and Petit Bois Island as wilderness areas. Located approximately ten miles offshore, these two barrier islands parallel the Mississippi coastline at its eastern end, part of a longer string of barrier islands defining the Mississippi Sound.

This Wilderness Education Plan specifically addresses ways that Mississippi Gulf Coast residents and visitors can be better informed about these wilderness barrier islands and their own role in protecting and preserving them.

BACKGROUND

Past and Present Wilderness Interpretation Practices

Gulf Islands National Seashore has employed a variety of interpretive practices to educate the public about the wilderness barrier islands, with past and present interpretive practices ranging from public programs to media events.

Each November is Wilderness Month, featuring special programs on wilderness at Davis Bayou featuring speakers such as John Anderson (son of well-known regional artist Walter Anderson, whose art celebrated Horn Island and other coastal treasures) and Ed Zahniser (son of Howard Zahniser, who wrote the Wilderness Act passes by Congress in 1964). Earth Day 2002 featured traveling “*Leave No Trace*” trainers presenting programs at Davis Bayou and offsite on low-impact wilderness visits. Information about the wilderness barrier islands is included in the press release which announces Wilderness Month activities each November.

Interpretive staff have contributed to an exhibit on Horn Island at the George Ohr Art Museum, to interpretive programs on Horn Island as reflected in the artwork of

Walter Anderson, and to exhibits of local artists' Horn Island works at the Davis Bayou Visitor Center.

Visitors to Davis Bayou may learn more about the wilderness barrier islands through information on the wilderness islands in the current park brochure, through the more comprehensive 8-page brochure "*Camping on a Wilderness Barrier Island*," and through a focus on the wilderness barrier islands in Davis Bayou's orientation videos shown in the Visitor Center auditorium. Children participating in the annual summer Junior Ranger program learn about wilderness and the wilderness barrier islands.

Gulf Islands National Seashore sponsors press trips to Horn Island every other year, providing news reporters and still and video photographers the opportunity to report on the wilderness barrier islands. Participation in these trips by local and regional media have made first-hand information on the wilderness barrier islands available to television audiences and newspaper readers across Mississippi, Louisiana and Alabama. Articles in **Mississippi Outdoors Magazine** (1997) and **Coast Magazine** (1998) and short segments on Horn Island suitable for use between programs on *Mississippi ETV* have also been coordinated by park staff.

To reach a broader audience of children, a wilderness activity trunk with an accompanying wilderness curriculum teachers' guide is currently being prepared and will soon be available to teachers across the region.

Origins and Activities of Wilderness Barrier Island Visitors

Gulf Islands law enforcement and resource management rangers indicate that the majority of visitors to the wilderness barrier islands are local residents. Biloxi and Ocean Springs boaters frequently use the central and western end of Horn Island. Gautier and Pascagoula boaters frequently use the eastern end of Horn, as well as Petit Bois. Petit Bois, particularly its eastern tip, sees a number of Alabama boaters from communities like Mobile, Bayou Le Batre and Dauphin Island. The islands are also visited by people from upstate Mississippi cities like Hattiesburg, Laurel and Jackson, though with less regularity than local boaters.

A number of visitors to the wilderness barrier islands are persons who visit the islands repeatedly. Of the several hundred boats that may anchor off the west tip of Horn Island on a particular summer weekend, or of the dozens of boats that may anchor there in other seasons, many are repeat visitors.

Visitors generally relax on board or on the beaches, swim or fish. Wade fishing on sand flats is a popular activity for island visitors.

FUTURE PROJECTIONS ON WILDERNESS BARRIER ISLAND USE

Interviews with law enforcement and resource management rangers indicated a belief that most visitors to Horn Island and Petit Bois Island come from western Harrison County MS, Jackson County MS or eastern Mobile County AL. Based on this assumption, U.S. Census Bureau data were examined for four counties in closest geographic proximity to Horn Island and Petit Bois Island: George County MS, Harrison County MS, Jackson County MS, and Mobile County AL. Populations of these four counties for 2000 were compared with population projections to determine expected rates of population growth over the next ten years.

Populations and Population Projections Selected Coastal Counties

<u>County</u>	<u>1990</u>	<u>2000</u>	<u>2010</u>
George County MS	16,673	19,144	22,650
Harrison County MS	165,365	189,601	203,095
Jackson County MS	115,243	131,420	153,013
Mobile County AL	378,643	399,843	444,448
Mississippi	2,573,216	2, 844,658	3,118,171

*Population figures based on U.S. Census Bureau data

**Population projection figures bases on Mississippi Institutions of Higher Learning data

Population Increases and Rate of Growth Selected Coastal Counties

<u>County</u>	<u>Actual Growth 1990-2000</u>	<u>Projected Growth 2000-2010</u>
George County MS	2,471 14.8%	3,506 18.3%
Harrison County MS	24,236 14.6%	13,494 7.1%
Jackson County MS	16,177 14.0%	21,593 16.4%
Mobile County AL	21,200 5.6%	44,605 11.2%
Mississippi	271,422 10.5%	273,513 9.6%

*Population figures based on U.S. Census Bureau data

**Population projection figures bases on Mississippi Institutions of Higher Learning data

Populations and Population Projections

As indicated in the accompanying table, “Populations and Population Projections, Selected Coastal Counties,” populations in all four counties between 1990 and 2000 rose and are projected to continue to rise between 2000 and 2010. As indicated in the table “Population Increases and Rate of Growth, Selected Coastal Counties,” the rate at which growth occurs is expected to increase slightly in George and Jackson Counties, decrease in Harrison County, and more than double in Mobile County.

In George and Jackson Counties, increases in population over the current decade (2000 –2010) are expected to be slightly more than the increases in population seen in the 1990’s in those two counties. In other words, George and Jackson Counties are expected to continue to grow as they have since 1990.

While the rate of growth in Harrison County over the current decade (2000-2010) is expected to fall to half the growth rate of the 1990's, the actual number of persons added to the population is still significant. Harrison County added 24,235 more people between 1990 and 2000 and is projected to add another 13,494 between 2000 and 2010. In other words, while Harrison County's rate of growth is slowing, the population of this largest Mississippi coastal county is expected to continue to rise significantly between 2000 and 2010.

Of the four counties in closest geographic proximity to the wilderness barrier islands, Mobile County is expected to experience the greatest increase in rate of growth between 2000 and 2010. While its 1990-2000 growth rate was low in comparison to the faster-growing Mississippi coastal counties, Mobile County's growth rate between 2000 and 2010 is expected to more than double. Because its current population is larger than the combined populations of all of Mississippi's coastal counties, this increase is significant for projections of future wilderness barrier island use.

Combining population figures for all four counties, growth patterns are significant. In 1990, there were 675,924 people living in the four counties closest to the wilderness barrier islands. In 2000, there were 740,008 people in those four counties. The 2010 projected population of the four counties is 823,206. These changes represent a 9.5% rate of growth between 1990 and 2000, and a 11.2% rate of growth between 2000 and 2010.

Demographic Projections

According to demographic projections made by the Center for Policy Research and Planning of Mississippi's Institutions of Higher Learning, there are not expected to be significant demographic changes. White-to-nonwhite ratios are expected to remain relatively stable over the current decade (9:1 in George County, 3:1 in both Harrison and Jackson Counties, and 3:2 in Mobile County). Although Harrison County has a somewhat younger population, George and Jackson Counties both currently have larger cadres of people in their late teens and early twenties and in their forties. As these populations age, age-related bulges in the population of these counties by 2010 are expected to reflect larger cadres of people in their twenties and fifties.

Implications of Population and Demographic Data

In summary, what do current and projected population and demographic data indicate for future wilderness barrier island use? Local, regional and state populations will continue to rise, with continued concentrations of young and middle-aged persons dominating the age curve. Overall, the local population (from which many wilderness visitors come) has grown by nearly 10% over the last decade and is expected to grow by more than 10% over the current decade.

Given the extent of recent population growth and the projections for future growth, it is logical to extrapolate that the number of wilderness visitors will also increase. In fact, estimates made by NPS of the number of visitors to the wilderness barrier islands support such an extrapolation. While recent changes in the NPS accounting formulas for determining the number of park visitors make exact comparisons difficult, counts clearly show significantly increased numbers of visitors.

<u>Estimated Numbers of Park Visitors:</u>	<u>1980</u>	<u>2000</u>
Total visitors for entire park	577,649	750,394
Island campers on all islands	12,675	6,329
Visitors to Horn Island	18,050	32,459
Visitors to Petit Bois Island	9,634	17,459

Even with changes in the accounting formulas employed, these estimates indicate that more people visited the wilderness barrier islands in 2000 than in 1980, a trend likely to continue as area populations continue to increase.

With increased use of the wilderness barrier islands come increased problems, unless there is a corresponding increase in wilderness education efforts.

PROBLEMS FACING THOSE CHARGED WITH MANAGING AND PROTECTING THE WILDERNESS BARRIER ISLANDS

A number of problems, both geographic and societal, face those charged with managing and protecting the wilderness barrier islands:

1. Not all Coast residents and visitors know that Petit Bois and Horn Island are federally-designated, protected wilderness areas.
2. Not all Coast residents and visitors know that federally-designated wilderness areas are managed and protected by a federal agency like the National Park Service.
3. Not all Coast residents and visitors understand that federally-designated wilderness areas exist so that people can experience wild places without disturbing or destroying natural processes at work there, thus keeping wilderness wild for future visitors.

4. Not all Coast residents and visitors understand that federally-designated wilderness areas are protected and valued for ecological, historical, scientific and experiential reasons that make them important to everyone.
5. Not all Coast residents and visitors have a land ethic that causes them to act in ways that help protect the wilderness barrier islands.
6. Not all Coast residents and visitors understand how to visit wilderness barrier islands without disturbing or destroying them.
7. Not all Coast residents and visitors understand how their actions can lead to damage and even loss of wilderness.
8. Not all Coast residents and visitors understand that everyone has a role in protecting the wilderness barrier islands.
9. Over the past decade, both the resident population of the Coast and the number of visitors to the Coast have risen sharply, a trend expected to continue in the future. These increases mean that more people will impact the islands, either directly through visits to the islands or indirectly through ecological changes on the mainland that impact the islands and the surrounding Mississippi Sound.
10. Most visitors to the wilderness barrier islands do not funnel through a central entry point where contact with them can be made and where they can be educated about responsible use of wilderness areas. Instead, efforts to reach and educate visitors to the wilderness barrier islands must begin by reaching them wherever they are.
11. Distributing printed material such as pamphlets or brochures to educate visitors to the wilderness barrier islands may in fact add to the litter problem on and around the islands. Other vehicles for educating visitors may be more effective and less impacting.
12. Some next-generation wilderness barrier island visitors are learning negative behaviors by observing their elders misuse wilderness areas, rather than learning positive behaviors. Thus, the threat that uninformed or uncaring visitors pose to wilderness barrier islands may be perpetuated in future generations.

METHODS FOR EDUCATING THE PUBLIC ABOUT THE WILDERNESS BARRIER ISLANDS

Goals

- To spread the word to local residents and visitors that we have federally-designated wilderness areas right here on our own doorstep.

- To impart a land ethic to local residents and visitors that leads them to act in way that protect and preserve wilderness barrier islands.
- To educate local residents and visitors about positive, low-impact use of wilderness barrier islands.

Audience

- Local Coast residents, particularly the boating public
- Tourists, both one-time visitors and returning visitors
- Children who can help to educate parents

Methods for Consideration

Staff-intensive methods:

Establish a cadre of specially-selected and specially-trained park volunteers to support and supplement rangers specifically for the wilderness barrier islands. The growing pool of retired or semi-retired persons in the population should provide an ever-increasing source for this specially-selected group; many people who might not otherwise volunteer might respond to the appeal of volunteering on a wilderness barrier island. These specially-trained volunteers would then work with rangers to reach the public in ways such as the following:

1. Rangers or park volunteers can offer weekend walking tours of a wilderness barrier island, providing the opportunity to interpret the importance of wilderness and practices that preserve it. These walking tours will reach private boaters who visit the islands on weekends, particularly those with children aboard who are likely to participate because they see the walking tour as a positive experience for their children.
2. Rangers or park volunteers in small watercraft such as the Boston Whalers can move from boat to boat around the wilderness barrier islands on weekends, interacting in an educational capacity rather than a law-enforcement capacity to educate island visitors. For instance, environmentally-friendly litter bags imprinted with good wilderness practices might be distributed on these boat-to-boat visits.
3. Rangers or park volunteers can offer flotilla day-trips to a wilderness barrier island, available to people in small private boats who might want to visit one of the islands but who might not feel comfortable making the trip alone. These flotilla trips would provide the opportunity to interpret wilderness concerns and positive practices.
4. Rangers or park volunteers can form a Speakers Bureau, making themselves available to local civic groups, schools, etc., to let people know that we have federally-designated wilderness areas right here on our own doorstep. Rotarians, Chamber of Commerce members, Sierra Club members, etc., form a population of persons who might

think of wilderness only as places as far away from us as Jackson Hole or one of the western parks. Learning to think of our wilderness barrier islands as federally-designated wilderness will help to change attitudes about their use.

5. On boat trips provided by Incidental Permit Holders licensed to carry passengers to the islands, rangers or park volunteers can interpret the importance of wilderness areas and the practices that help to protect and preserve them.

Media-centered methods:

Use the public media, including newspapers, radio and television, to inform Coast residents and visitors about our wilderness barrier islands and the practices that preserve and protect them. Specifically, radio, television and newspapers could be employed in the following ways:

6. Prepare a short video-taped presentation that a) builds the understanding that Petit Bois and Horn Island are federally-designated wilderness areas, b) celebrates the value of these areas and the need to preserve and protect them for future generations, c) teaches what practices do and do not disturb or destroy these areas, and d) imparts a land ethic that leads people to act in ways that preserve and protect the wilderness barrier islands. This videotape would be modeled on “Conviction of the Heart,” though shorter and specific to our wilderness barrier islands. The video tape could be used in a multitude of places, including:

- as a continuous loop video program at the Colmer Visitors’ Center
- as a continuous-loop video program on board the Ship Island ferry (perhaps in the snack room on-board)
- on the tourist-information television channel
- during public-service time provided by local television channels (WLOX, Fox, METV)
- at meetings of civic groups
- in schools

7. Prepare a thirty-second or one-minute spot that celebrates the fact that we have wilderness on our own doorstep. For instance, the spot might open with scenes of what people typically think of as wilderness—a western mountain range, an Alaskan snowfield, etc.—and the howl of a wolf or other sound-effect that evokes typical images of wilderness. A voice-over could then say, “*Wilderness—it’s something we all need. But is it necessarily far away?*” Then the western or northern image could fade to waves, then sea birds flying, then a shot of a barrier island, and the howl of the wolf could fade to the sound of waves crashing and sea birds calling. The voice-over could then say, “*It’s right here on our own doorstep. Horn Island, Petit Bois. Our wilderness barrier islands. They’re here for everyone. Take care of them.*” This thirty-second or one-minute spot could run as public-service time on local television stations, as local access programming (Channel 13 on Cable One), or on the tourist information minute recently initiated by WLOX.

8. Prepare a related thirty-second sound recording using the same format as described in #7 above. Air this sound spot on public-service time on local radio stations.

9. Interest “Mississippi Outdoors” on METV in a program devoted to Petit Bois and Horn Island as wilderness barrier islands right here in Mississippi.

10. Interest local and regional newspapers in doing a feature article on Petit Bois and Horn Island as wilderness barrier islands right here in Mississippi. Include Coast newspapers like the SUN HERALD and MISSISSIPPI PRESS, and regional newspapers like the HATTIESBURG AMERICAN, MOBILE PRESS REGISTER, CLARION LEDGER, etc.

11. Interest COAST MAGAZINE and other local magazines in articles on the wilderness barrier islands. Promote this idea by emphasizing that we have right here what people often travel far away to find.

12. Prepare a “boiler-plate” piece to be added to any or all NPS press releases, highlighting the barrier islands as federally-designated wilderness areas.

Printed-material distribution methods:

Distribute printed information about the wilderness barrier islands and their protection in the form of materials that are of use to recipients, in order to minimize the chance that brochures and pamphlets simply end up as litter adding to the problem rather than helping to solve it.

13. Design an environmentally-friendly litter bag that shows the NPS logo, a message like “Protect your wilderness barrier islands,” and a short set of basic rules for low-impact visits to wilderness barrier islands. Distribute these at the Colmer Visitors’ Center and at bait shops and other places where boaters fill up prior to trips.

14. Design a waterproof boating/fishing map that shows the barrier islands, latitude and longitude lines, selected GPS numbers for key spots such as the buoy at the western end of Horn Island, the horseshoe on Horn Island, popular nearby fishing reefs, etc. On the back of the map, print the NPS logo, a message like “Protect your wilderness barrier islands,” and a short set of basic rules for low-impact visits to wilderness barrier islands. Distribute these at the Colmer Visitors’ Center and at places frequented by boaters and fishermen, such as:

- sport fishing association meetings
- fishing rodeos and tournaments
- bait shops
- boating and marine supply stores
- outboard boat and motor sales stores
- fishing-license bureaus

15. Design a 3"x8" leaflet that includes the NPS logo, a message like "Protect your wilderness barrier islands," and a short set of basic rules for low-impact barrier island visits. Establish a partnership with the MS Department of Wildlife, Fisheries and Parks to distribute these small leaflets along with boat registrations mailed to boat owners in coastal and adjacent counties. The leaflet could include a brief "Did you know...?" section that identifies the islands as wilderness barrier islands and a brief "If you go..." section listing the basic rules for low-impact island visits.

Miscellaneous other methods:

16. Design a sign which can be erected at the high-use launch ramps that open onto the Sound. Similar to signs at trailheads in other parks, this sign could carry the message "Protect your wilderness barrier islands," the NPS logo, and a short set of basic rules for low-impact visits to wilderness barrier islands. For most wilderness barrier island visitors, the area's most popular launch ramps are their entry points to wilderness.

17. Add an educational component to the Coastwide Clean-Up, with rangers or park volunteers speaking briefly to those who gather to help in the clean-up. Distribute the litter bags described in #13 above and/or the fishing/boating map described in #14 above as thank-you's. Although this is "preaching to the choir," the clean-up volunteers may learn something new and may pass on these materials to others.

18. Distribute to schools a small, inexpensive curriculum pack, which includes a copy of the video-taped presentation described in #6 above, along with several primary, several intermediate, and several middle-school level lesson plans to accompany the video-tape. Children who understand the importance of preserving wilderness may reach their parents with this message.

19. Establish a partnership with the Department of Marine Resources to include information on the wilderness barrier islands in the boating safety course required for all persons born after 1980.

20. Prepare a web page on the wilderness barrier islands, including maps and photos as well as basic rules for low-impact visits, and establish links to it from governmental and business web sites including local-area Chambers of Commerce, coastal county tourism departments, DMR, boat charter and boat sales businesses, etc.

CONCLUSIONS

Local, regional and statewide populations are growing and will continue to grow. With population growth comes increased use of the wilderness barrier islands. Increased use brings increased risks to these fragile islands, demanding intentionally more intensive wilderness education efforts.