



SLEEPING BEAR DUNES

National Lakeshore Michigan

Newsletter 4

General Management Plan / Environmental Impact Statement

Spring 2002

ALTERNATIVES INCLUDING THE PRELIMINARY PREFERRED

Dear Friends,

The last time you heard from us regarding the status of the general management plan (GMP) effort for Sleeping Bear Dunes National Lakeshore (Lakeshore) was last spring. We would like to inform you of our efforts since then and invite you to comment on the current set of alternatives including the "preliminary preferred" alternative.

During the past several months we have consolidated your comments from Newsletter 3 (Alternatives Workbook) and the public open houses. Based on your input, and other research, including preliminary environmental analysis, we have consolidated the alternatives and selected a preliminary preferred alternative.

This newsletter contains a lot of information including detailed descriptions of the consolidated alternatives and the preliminary preferred alternative. If you do not have the time to read the entire newsletter please focus on the maps of the alternatives, the table describing the management zones, and the table summarizing the alternatives. We are particularly interested in your observations about the preliminary preferred alternative and we welcome you to submit your comments on the enclosed response form or over the Internet. We will also be hosting a series of open houses (schedule enclosed) where you will have the opportunity to discuss your concerns and ask questions about the GMP process and the alternatives with members of the Lakeshore staff.

The general management plan team continues to work on the production of the Draft General Management Plan / Environmental Impact Statement (GMP/EIS). Your comments on this newsletter will be considered in the preparation of the 200-page plus Draft GMP/EIS document that we propose to complete sometime this coming winter. You then will have the opportunity to review and comment on the Draft GMP/EIS. After your comments are considered, the Final GMP/EIS will be completed in 2003.

On a personal note, I would like to tell you how much I have enjoyed working with the Lakeshore staff over the past eight months and getting familiar with the wonderful resources at the Lakeshore. I also look forward to meeting many of you at the upcoming open houses.

Thank you again for your continued interest and involvement with Sleeping Bear Dunes National Lakeshore.

Sincerely,

Dusty Shultz
Superintendent

If you have any questions or comments at anytime during the planning process, please contact us. Superintendent, Sleeping Bear Dunes National Lakeshore, 9922 Front Street, Empire, Michigan 49630-9417, phone: 231-326-5134.

Please visit the Lakeshore online at www.nps.gov/slbe/.

SUMMARY OF COMMENTS ON NEWSLETTER 3 ALTERNATIVES WORKBOOK

In Newsletter 3 and the public open houses you were presented with four alternatives. We received almost 200 responses on the newsletter and public open houses and we thank you for your interest.

Previous Alternative 1 included six distinct geographic areas (our current planning units), each focusing on a particular theme or set of themes. There was virtually no public support for this alternative.

Previous Alternative 2 emphasized a parkwide theme of preservation of natural features, wildlife, old-growth forest habitat, and visitor experience and enjoyment of an undeveloped land. This alternative (along with Alternative 3) was very popular; however, some wanted more historic preservation in conjunction with the preservation of natural resources. Many favored the day use option for North Manitou Island, a shuttle system for the Stocking Scenic Drive, and acquisition of the Benzie Corridor.

Previous Alternative 3 provided for a variety of recreational opportunities. Activities would be diverse and dispersed. Some highly active types of recreation would be offered in specific areas and Lake Michigan access would be optimized. This alternative was seen as the most “balanced” and diverse alternative. In general, the public supported the primitive zone for North Manitou, acquisition of the Benzie Corridor, and keeping the visitor center in Empire. Boat access comments were divided between keeping current conditions and constructing new facilities.

Previous Alternative 4 had the park unified by comprehensive interpretive themes, integrated throughout the Lakeshore. This alternative was not widely supported, possibly because this alternative was envisioned as turning the Lakeshore into a theme park. Most opposed the tour concept.

Other comments of note include the following topics:

Cemetery Access - There were several concerns about access to cemeteries within the Lakeshore boundary. Cemetery access is covered in National Park Service (NPS) *Management Policies 2001* which states: “The burial of family members in family cemeteries that have been acquired by the Park Service in the course of establishment of parks will be permitted to the extent practicable, pursuant to applicable regulations, until space allotted to the cemeteries has been filled. Family members (or their designees) will be allowed access for purposes of upkeep and commemoration (such as wreath-laying and religious rituals) that do not jeopardize safety or resource protection.” The 1995 Lakeshore policy applies to burial on North and South Manitou Islands. The cemeteries will become inactive when capacity within the original boundary has been reached, after which additional burial requests will be denied. Access will be maintained in accordance with NPS policies.

Hunting - The topic of closing areas to hunting was mentioned by several individuals. As per Lakeshore legislation, hunting is permitted within the Lakeshore in accordance with state and federal laws. No alternative would close areas to hunting that exceed the required closures per the current state and federal regulations. The Superintendent may designate areas where, and establish periods when, no hunting will be permitted for reasons of public safety, area administration, wildlife management, or public use and enjoyment. Lakeshore

staff continually monitor and evaluate hunting activities within the boundaries. If hunting activities warrant closures of specific areas, the Superintendent will take appropriate action, after completing consultations with the appropriate agencies.

Glen Haven Boat Ramp - Comments were divided on the construction of a boat ramp and parking area in the vicinity of Glen Haven. The NPS remains concerned about potential impacts to the federally threatened Pitcher’s thistle (*Cirsium pitcheri*), dune formations, the undeveloped beach, the Glen Haven Historic District, water quality, and conflicts with other park uses such as sunbathing, swimming, and beach walking. Therefore, this action is not included in any of the alternatives. The NPS recognizes the problems Glen Arbor Township faces with the existing boat ramp on Lake Street and offers assistance to find an adequate solution *outside* the Lakeshore boundary.

Additional Platte River Boat Ramp - Comments were divided on the construction of an additional boat ramp and parking area on federal land in the Platte River area. The NPS continues to be concerned about the unacceptable adverse impacts that would likely occur if this project were to be constructed. Of particular concern are the potential impacts to the federally endangered Piping plover (*Charadrius melodus*), the federally threatened Pitcher’s thistle (*Cirsium pitcheri*), state designated critical dunes, water quality, the undeveloped beach, and conflicts with other park uses. Therefore, this action is not included in any of the alternatives.

Parking at Riverside Canoe Livery - Requests have been made by the Riverside Canoe Livery owner to construct parking facilities on federally owned property for the use of Riverside Canoe employees and its customers. The Riverside Canoe Livery is a privately owned business operating on private property. The NPS has attempted to provide some resolution to their long-standing concern of parking for their business. The NPS offered to issue a Special Use Permit (SUP) for the use of parking stalls in the nearby NPS Loon Lake parking lot for Riverside Canoe Livery customers. A suggestion was made for the Riverside Canoe Livery owners to seek permission from the Michigan Department of Natural Resources (DNR) to utilize the DNR fish weir parking site. Another possible solution may be for the Riverside Canoe Livery owners to construct a parking lot on their own undeveloped property near their existing facility. All of the above suggestions would not impose an additional burden on local or federal taxpayers, would not provide commercial benefit to a private business, would not utilize public lands for private benefit, and would recognize the responsibility of a private entrepreneur to support their own business operations by providing adequate parking for their customers and employees. Therefore, this action is not included in any of the alternatives. The NPS would continue to offer Riverside Canoe Livery customers the option of parking at designated locations within the Loon Lake parking area.

THE STATUS OF WILDERNESS AT SLEEPING BEAR

Background

A *Wilderness Recommendation* for Sleeping Bear was completed in 1981. This document was the result of wilderness studies conducted in the 1970s including a *1975 Wilderness Recommendation*. The *1981 Wilderness Recommendation* found approximately 30,000 acres on the mainland and the islands to qualify for congressionally designated wilderness. This recommendation, however, never went through all of the necessary congressional reviews and/or approvals and no wilderness was ever formally designated at the Lakeshore. It was and still is proposed wilderness.

On October 22, 1982 the House Subcommittee on Public Lands and National Parks (96 Stat. 1724, 16 U.S.C. 460x-15) directed the Department of the Interior to maintain the “existing wilderness character and potential” of those areas included in the *1981 Wilderness Recommendation* “for inclusion in the national Wilderness Preservation System”. This act, as well as *NPS Management Policies 2001*, require that the Lakeshore manage all lands contained in the *1981 Wilderness Recommendation* as wilderness, pending future action by Congress.

Management as wilderness includes the following management direction:

- take no action that would diminish the wilderness suitability of an area possessing wilderness characteristics
- make management decisions in expectation of eventual wilderness designation and apply the concepts of “minimum requirements” (for example using only the “minimum tool” necessary to accomplish management actions) for the administration of the area
- seek to remove any existing non-conforming conditions (such as roads) that would preclude wilderness designation
- public use of motorized equipment or any form of mechanical transport will be prohibited in wilderness except as provided for in specific legislation.

Wilderness and the GMP

The alternatives presented in Newsletter 3 included some proposals that would have required (eventual) minor changes to the proposed wilderness boundary. After further review of the 1982 amendments to the Lakeshore legislation, it was determined that the GMP would make no proposals that would require changes to the proposed wilderness boundary. The proposed wilderness boundary will now be “a given” in all of the alternatives. Any proposals in the previous alternatives, which would have required a change in the proposed wilderness boundary, have not been included in the new consolidated alternatives or the preliminary preferred.

Road Closures

In all of the action alternatives (all alternatives except the no action alternative), the NPS would seek to remove roads within potential wilderness areas. This is in keeping with wilderness policy that directs the NPS to “seek to remove any existing non-conforming conditions that would preclude wilderness designation.” The NPS would work with the county road commissions to acquire road rights-of-way, as they become available. Roads that provide access to private inholdings (glossary) or “reservations of use and occupancy” (glossary) would not be closed. Also, roads that are primary commercial, emergency, or bus routes would not be closed. Most roads within potential wilderness areas are seasonal, private, or NPS roads.

Some roads within certain management zones, but not in proposed wilderness, are proposed to be closed in some alternatives. The NPS is concerned about fragmentation of habitat (glossary) due to roads, because some species (such as chickadees, warblers, wood thrush, and veery) require large expanses of roadless areas for their continued survival. Road use also introduces intrusive sounds into wild places and impairs views of the night sky.

OTHER ISSUES

Boundary Adjustments – As part of the planning process, the National Park Service is required to identify and evaluate boundary adjustments that may be necessary or desirable in order to carry out the purposes of the park unit. Boundary adjustments may be recommended to:

- 1 Protect significant resources and values, or to enhance opportunities for public enjoyment related to park purposes;
- 2 Address operational and management issues, such as the need for access or the need for boundaries to correspond to logical boundary delineation such as topographic or other natural features or roads; **OR**
- 3 Otherwise protect park resources that are critical to fulfilling park purposes.

Additionally, all recommendations for boundary changes must meet the following two criteria:

- 4 The added lands will be feasible to administer, considering their size, configuration, and ownership, and hazardous substances, costs, the views of and impacts on local communities and surrounding jurisdictions, and other factors such as the presence of exotic species; **AND**
- 5 Other alternatives for management and resource protection are not adequate.

The public has suggested several areas that could be considered for inclusion within the boundaries of Sleeping Bear Dunes National Lakeshore. In order for these boundary adjustments to be considered, at least one of criteria 1 – 3 must be met, and both criteria 4 and 5 must be met. The suggested areas for inclusion include Fish Town, North and South Fox Islands, Point Betsie Lighthouse, the Crib Light Station, and sites along the Crystal River within lands owned by the Homestead Resort. Four of the five boundary adjustments considered (Fish Town, North and South Fox Islands, Point Betsie Lighthouse, and the Crib Light Station), do not adequately meet NPS criteria, and so have been eliminated from further analysis. The Crystal River/Homestead parcel does meet criteria 1, 4 and 5, and so will be analyzed further.

- Fish Town is a private one-acre cluster of structures on a dock in Leland, Michigan. It is a National Register Property related to the commercial fishing industry, and where fishing activities continue today.
- North and South Fox Islands are located approximately 17 miles northeast of North Manitou Island in Lake Michigan. The islands are a mix of state and private property.
- Point Betsie Lighthouse is located approximately five miles north of Frankfort. The lighthouse is owned by the state of Michigan and leased by Benzie County.
- The Crib Light Station is an operating navigational aid (light station) located equidistant between the mainland and the islands in the Manitou passage. This Coast Guard structure rests on a shallow shoal and has been leased to a private party.
- The 6,300 feet of riparian and upland habitat along the Crystal River provide important habitat for a variety of species within mixed northern forests. This undeveloped corridor provides a natural backdrop for recreational river users. There is a preliminary proposal to exchange acreage along the Crystal River owned by Bayberry Properties (the Homestead Resort) with forested park lands outside the riparian corridor and viewshed. The park lands are adjacent to the north boundary of the Homestead Resort.

Land Acquisition – Property within the boundary of the Lakeshore is a mix of NPS ownership, other federal ownership, other public agencies, Category II (glossary) and Category III (glossary) properties with scenic easements (restricted use), reservation of use and occupancy (with specific expiration dates), life estates (glossary), and private inholdings. The park may obtain additional lands within its boundary, through gift, donation, bequest or purchase from willing sellers. If funds are available, and the owners accept a fair market value, additional land may be acquired on an opportunity basis through the willing sellers. The NPS has “Right of First Refusal” (glossary) within the NPS boundary in the Miller Hill area and Bow Lakes Unit of the Lakeshore for private property which is offered for sale.

Glen Haven Bypass – As a clarification, in all alternatives the NPS would seek to construct a by-pass route on the western edge of Glen Haven Village, as described in the *1992 Development Concept Plan/Interpretive Prospectus* for the Glen Haven area. The NPS believes this bypass is necessary to enhance the cultural landscape and reduce vehicle/pedestrian conflicts in the village while ensuring access to private lands in the area. The NPS would work closely with the Leelanau County Road Commission and Michigan Department of Transportation on this issue.

Ecologically Sensitive Management Zone (yellow zone on maps)

– The fragile environments of the special dune areas are represented as “ecologically sensitive” areas. In these sensitive dune areas, footsteps accelerate plant loss and dune erosion. These areas are also habitat for threatened and endangered Pitcher’s thistle and piping plover. There is a threat to these sensitive areas from the accidental introduction by people of non-native plants such as baby’s breath (*Gypsophila paniculata*), which quickly spreads through the dunes and displaces native plants. These high, active, perched dunes are some of Michigan’s most remarkable natural resources and remain largely undisturbed by actions of humans. In addition, they are one of the primary purposes for the establishment of the Lakeshore. In these areas, “highly restricted visitor use” may include restrictions such as entry by permit only, entry only by permitted researchers, or no entry. Generally, all trails within this zone would be removed, unless they are there to protect the resource or to allow for use of adjacent areas. For example, boardwalks and sand ladders may provide access over this zone to beach areas.

One-Quarter Mile Water Zone – In all alternatives, the Lakeshore boundary encompasses the water surface area of Lake Michigan from the beach to one-quarter mile offshore. Therefore, NPS policies, regulations, and laws, as appropriate, apply to this area. Motorized and non-motorized watercraft use, other than personal watercraft (jet skis), are allowed in this water zone and may access the beach.

Tribal Responsibilities – The Lakeshore has consulted with five federally recognized tribes that are located in the area ceded by the 1836 Treaty between the United States and regional Ottawa and Chippewa peoples. These tribes include the Bay Mills Indian Community, Grand Traverse Band of Ottawa and Chippewa Indians, Little River Band of Ottawa Indians, Little Traverse Bands of Odawa Indians, and the Sault Ste. Marie Tribe of Chippewa Indians.

PURPOSE & SIGNIFICANCE STATEMENTS

Purpose and Significance Statements reaffirm our understanding of Congress' intent in setting the Lakeshore aside as a unit of the National Park System, and confirm the importance of the area to the nation's natural and cultural heritage.

Purpose Statements represent the reasons the Lakeshore was established, and come directly from the Lakeshore's enabling legislation. **Significance Statements** describe the Lakeshore's distinctiveness and help to place it in its regional and national context. **These statements form the foundation for the management of the Lakeshore and the GMP and therefore are repeated in this newsletter.**

Purpose

Preserve outstanding natural features, including forests, beaches, dune formations, and ancient glacial phenomena in their natural setting and protect them from developments and uses that would destroy the scenic beauty and natural character of the area.

Significance

The Lakeshore contains compactly grouped features of continental glaciation, including post glacial shoreline adjustment, dune/swale complex, wind formed dunes, perched dunes, and examples of associated plant succession. These features are of global importance due to their relatively unimpacted state, the variety of features present, their proximity to one another, and their protected status.

The Lakeshore is one of the most scenic and publicly accessible portions of the Lake Michigan shoreline. Its massive glacial headlands, diverse habitats, and superb water resources offer a broad range of recreational, educational, and inspirational opportunities.

The Lakeshore's historic maritime, recreation, and agricultural landscapes are of a size and quality that are unique on the Great Lakes and rare elsewhere on the United States coastline.

The Lakeshore's plants and animals, ecological processes, and habitat structure are representative of pre-Columbian times, and of a scale and quality unique to the Great Lakes shoreline. The Lakeshore also includes regionally important native flora and fauna; some of which have declined to an endangered, threatened, or rare status in the Great Lakes ecosystem.

As all items in the general management plan process, the Purpose and Significance Statements have continued to improve over the past several months. Please let us know if they require further revision.

MANAGEMENT ZONES

Management Zones are the building blocks of the alternatives. These zones describe how different areas of a park could be managed to achieve a variety of resource conditions and visitor experiences. The National Park Service would take different actions in different zones with regard to the types and levels of uses and facilities. These zones could be placed in different locations or configurations on the ground and could be similar to, or quite different from, existing conditions. Each of the alternatives contains a different configuration of management zones to accomplish the overall concept of that alternative. For details on the different zones please refer to the Management Zone table.

EVALUATING THE ALTERNATIVES

In the NPS planning process, we are required to assess alternative future conditions and management for the Lakeshore. Each alternative is built around an underlying concept that describes a possible direction for the future. The accompanying maps illustrate each alternative and show in more detail how the Lakeshore could be managed by the application of the various management zones

As you evaluate the various alternatives and maps, you will note that our planning effort has considered cooperative efforts with entities outside of the Lakeshore in order to assess ways in which resource protection or visitor experience may be enhanced. These are only preliminary ideas and in no way suggest NPS influence over areas or entities outside of the Lakeshore. If these early ideas were adopted as part of the final plan, the Lakeshore would work in a cooperative effort with local units of government, tribes and the private sector to see if they could be implemented. We also recognize that there are both privately owned and leased properties within the Lakeshore boundary. For simplicity of mapping, these parcels have not been excluded from the management zones.

Level of Detail

You will note that, in this newsletter, there is a greater level of detail and information about each of the alternatives than there was in Newsletter 3. That is because we are further along in the planning process and much more research has taken place. The content of this newsletter will form the foundation of the Draft General Management Plan / Environmental Impact Statement (GMP/EIS) however, this newsletter is NOT the Draft GMP/EIS. The Draft GMP/EIS will be an over 200 page document and it will be developed in the coming months. The Draft GMP/EIS will include sections such as: Purpose and Need for the Plan; Relationship of the GMP to Other Planning Efforts; Description of the Scoping Process: Laws, Policies, and Mandates; Alternatives including the Preferred; Alternatives Eliminated from Further Consideration; the Environmentally Preferable Alternative; Boundary Considerations; Affected Environment; Environmental Consequences of the Alternatives including the Preferred; and Consultation and Coordination with Others. You will not find that level of information or analysis in this newsletter. We look forward to your comments on the Draft GMP/EIS when it is completed later on this year.

Consolidation of Alternatives since Newsletter 3

While public comment is greatly encouraged, it is only one of several sources used in the planning process for developing alternatives, selecting a preferred alternative and determining a final course of action. The process includes consideration of:

- public comment
- laws, regulations, and policies pertaining to the NPS and the Lakeshore
- consultation with other entities such as the State Historic Preservation Office, American Indian tribes, and the U.S. Fish and Wildlife Service
- scientific and scholarly information

Four alternatives were presented in Newsletter 3 and at the public open houses. Due to public comment and further review of wilderness legislation, those four alternatives were consolidated into two new consolidated alternatives. The new consolidated Alternative 2 is very similar to the previous Alternative 2. The new consolidated Alternative 3 resulted from combining elements from the previous Alternatives 3 and 4. As stated in the summary of public comment, there was virtually no support for the previous Alternative 1 so it is not represented here. Alternative 4 – the Preliminary Preferred Alternative – was created using an analytical process called Choosing by Advantages. The process used the following factors: preservation of cultural resources preservation of natural resources; preservation of cultural resources representative of park significance; access, flexibility, and freedom of movement for visitors; diversity of visitor experiences; comprehensiveness of educational and interpretive opportunities; preservation of natural resource qualities and conditions; and the costs of implementing the alternatives.

ALTERNATIVE 1 (NO ACTION)

Overall Concept

The no-action alternative provides a baseline for evaluating the changes and impacts of the other action alternatives. It represents the existing conditions at the Lakeshore and assumes that the NPS would continue to manage the Lakeshore as it has in the past, relying on existing plans. The majority of the existing visitor facilities would remain in place. The no-action alternative is presented as a way of comparing current conditions to possible future conditions, as described in the other three alternatives. Examining the no-action alternative is often useful in understanding why the NPS or the public may believe that certain future changes are necessary or advisable.

Some primary concerns about existing conditions are: whether cultural resources are being adequately protected at the Lakeshore; whether or not an appropriate range of activities and opportunities are being offered to visitors; and whether the impacts on Lakeshore natural resources, such as the fragmentation of the northern hardwood forest ecosystem (glossary), that result from development and other human activities are acceptable. The three “action” alternatives present different possible ways of addressing these concerns.

In this alternative, natural resources would remain fragmented and would not support diverse forest and wildlife populations.

The Lakeshore currently provides a range of recreational activities in six planning units: North Manitou Island, South Manitou Island, Good Harbor, Sleeping Bear, Bow Lakes, and Platte. Most visitors tour the park along the M-22/M-109 road corridor, a designated Scenic Heritage Route, and use this route to access specific recreation areas for hiking, boating, fishing, hunting, snowshoeing, cross country skiing, enjoying interpretation programs, and many other activities supported by park resources and facilities. Visitation levels are more easily managed on the two islands, as compared to the mainland, where access is limited by established carrying capacities, ferry size, and the frequency of ferry trips.

North Manitou Island Unit

Almost all visitors access the island by the concession-operated ferry (some private boaters make day or overnight trips). The ferry service does not provide for day-use and most visitors are backpackers. Other visitor activities include hiking, overnight camping, nature observation, self-exploration, and seasonal deer hunting. Minimal interpretation (glossary) is provided, but visitors receive basic orientation, and some information about island natural and cultural resources. Use levels are generally low and solitude is high in areas outside of the village.

Most historic structures and landscapes on the island are preserved, including the U.S. Lifesaving Service National Historic Landmark, the Sawmill Complex, and the proposed Cottage Row Cultural Landscape. Portions of the proposed Manitou Island Association (MIA) Cultural Landscape and the Frank/Beuham Orchard are reforesting with native vegetation

(glossary). The NPS has rehabilitated and adaptively uses many structures in the village that are excluded from the proposed wilderness boundary.

Development outside of the village area includes a trail system and a small backcountry campground north of the village.

The non-native (glossary) deer herd is managed through a NPS-managed seasonal public hunt. Outside of the village area natural succession is allowed to proceed (except for influence by deer). Many of the old county roadbeds are naturally reforesting where they are not part of the trail system.

The Lakeshore purchased the rights-of-way to the county roads on the island in 1992. Much of this area has reverted to native vegetation and some of the old roadbeds are now part of the trail system.

Resource management protection is focused on dune areas at the western and southern ends of the island and in areas of piping plover habitat. Camping and off-trail hiking is allowed in these areas, but use is minimal.

The majority of the island is within the proposed wilderness boundary. There is a 27-acre area in the village, which is excluded from the proposed wilderness boundary.

South Manitou Island Unit

Unlike North Manitou, the ferry service to South Manitou Island provides day-use trips, so visitors enjoy both day-long and overnight stays on the island. Visitor interpretation and orientation are concentrated at the village area and lighthouse complex. A park concessioner offers motorized interpreted tours of historic island farms. Visitors can also tour the area on their own by hiking or bicycling (bicycle use is minimal and not actively promoted, however, visitors may bring their own bicycles on the ferry). Visitation levels at South Manitou are generally low to moderate, but are somewhat higher than at North Manitou. Visitor activities include: orientation; sightseeing via walking, bicycling, or motor vehicle tours; hiking; nature observation; backpacking; overnight camping; and exploration.

Many historic structures and landscapes in the village are rehabilitated and adaptively use by the NPS. The lighthouse complex structures and landscapes are preserved and used for interpretation. The structures and landscapes on the farm loop are preserved. The Theodore Beck House is preserved and the Henry Haas House is moldering.

Development outside of the village area consists of a trail system and three designated primitive campgrounds.

Natural processes on the western dune areas are protected by hardened trail and low use levels; however, non-native species removal is not emphasized nor is protection of these special areas emphasized in interpretive activities. A portion of the Cedar-Dune trail is on the dunes in this area.

Much of the island is within the proposed wilderness boundary. Areas excluded are the farm loop, the lighthouse complex, and the village.

There are about 14 miles of county road rights-of-way on the island. About 8 miles of these are within the proposed wilderness boundary.

Good Harbor Unit

This unit contains a number of cultural resources (Port Oneida Rural Historic District, the proposed Bufka/Kropp/-Eitzen cultural landscape, and the Shalda log cabin) surrounded by natural and recreational areas. Approximately one-third of the unit is within the proposed wilderness boundary.

In the Port Oneida Rural Historic District, a number of historic buildings have been rehabilitated and are adaptively used. The Klett farmhouse is used for NPS housing and the farmstead for interpretive programs. The Lawr-Chapman farm is being adaptively used by the Shielding Tree Nature Center under a five-year agreement. The Thoreson barn is currently being used for art exhibits by the Glen Arbor Art Association and the farmhouse and the other outbuildings are being proposed for a number of other functions (office, housing, exhibit displays) for that organization. The Burfiend/Garthe barn is used by the NPS for storage and interpretive programs. The Burfiend House is preserved and is being considered as a youth hostel. The Olson House is being considered for offices for the Preserve Historic Sleeping Bear group. All other structures in Port Oneida are preserved. All landscapes within the district are preserved and many open fields are being mowed by the NPS. Use levels are moderate and visitors are sightseeing, hiking, biking, cross-country skiing, snowshoeing, auto touring, accessing the beach, or hunting (seasonally). A moderate amount of interpretation is available to visitors. A portion of the rural historic district is within the proposed wilderness boundary.

The structures and landscapes of the proposed Bufka/-Kropp/Eitzen cultural landscape are preserved. This is primarily a discovery area with low visitor numbers, a low level of interpretation, and visitors engaged in sightseeing, hiking, snowshoeing and cross-country skiing in winter, and seasonal hunting. The Bufka and Eitzen properties are still under reservations of use and occupancy.

The Shalda log cabin is preserved (it has no associated landscape). There is no interpretation at the site and use is low.

A major component of the recreational experience in the unit revolves around access to water including Lake Michigan, inland lakes, and rivers. Beach access with informal development (pit toilet and an interpretive bulletin board) is provided at the ends of county roads 669 and 651. The Good Harbor Picnic Area and access road (Lake Michigan Road) are within the proposed wilderness boundary. School Lake has rustic facilities and is accessible by vehicle. Shell and Tucker lakes are also accessible by vehicle but no facilities are provided. Motorized access is provided to the Crystal River and Shalda Creek. The unit also contains the Pyramid Point, Bay View, and Good Harbor Bay trails systems, and the Valley View backcountry campground. Visitor encounters range from high to very low with visitors hiking, camping, picnicking, beach walking, swimming, fishing, boating canoeing, kayaking, cross-country skiing, snowshoeing, hunting, wildlife viewing, nature viewing, and exploration.

The unit has moderate human caused habitat fragmentation from developments and roads. Some of the area resources need restoration such as the eroded banks on of the Crystal River. Sensitive dune areas can be found near the end of County Road 651 and at Pyramid Point. These dunes are moderately impacted by visitors hiking, exploring, or accessing the beach.

The Miller Hill area was added to the Lakeshore with enactment of the 1982 Legislation, to protect the wooded backdrop for Big Glen Lake. In this area, the NPS has the right of first refusal for any private properties that come available.

Sleeping Bear Unit

Traditionally this area receives the highest concentrations of visitors. There are several popular attractions including the Dune Climb, Stocking Scenic Drive, DH Day farm (private), Glen Haven Historic District, the Maritime Museum, DH Day Campground, and North Bar Lake. There are also extensive dune areas and some forested sites. None of this unit is within the proposed wilderness boundary.

The Dune Climb and the developed area at the dune base receive a high number of visitors. Visitor activities include orientation, education, interpretation, picnicking, hiking, climbing, and play in the summer and sledding and hang-gliding in the winter. There are personal services and on-site interpretation. Development includes an entrance station, gravel parking, restrooms, food and beverage vending area, designated maintained trails, and the Dune Center, which is operated by Eastern National, a cooperating association. The Great Lakes Picnic Area has been closed to visitor use for about eight years. The Dune Climb resources are impacted by visitor use.

The Stocking Scenic Drive is a major park attraction and visitor encounters are high. Development includes an entrance kiosk, parking areas, pull-offs, wayside exhibits, viewing platforms, pit toilets, comfort stations, and trailheads. Visitor activities include interpretation, sightseeing (hiking, bicycling, and auto), and picnicking in the summer; snowshoeing, cross-country skiing, hang-gliding, and seasonal hunting.

Visitors go to the Glen Haven Historic District for orientation, education, picnicking, beach walking, and swimming. Extensive interpretation opportunities are provided for the high number of visitors using the area. The DH Day Store, Day House, Cannery, and generator building are rehabilitated and adaptively used. The exterior of the Sleeping Bear Inn is preserved and the Blacksmith Shop is restored. Development also includes a picnic area and parking area.

Visitor encounters are also high at the Maritime Museum Complex and many interpretive opportunities are provided. The Coast Guard lifesaving station (museum) and two boathouses are restored and adaptively used by the National Park Service for interpretation. One of the two Coast Guard family dwellings is preserved and unoccupied; the other is a reservation of use and occupancy that ends in 2002. The associated grounds have been maintained. The visitor parking lot is not linked with the trail system.

Even though the D.H. Day Farm is a private three-acre inholding within the Lakeshore, it is a popular photo attraction along the main access road, M-22. The farm is within the pro-

posed D.H. Day Kingdom cultural landscape. The Lakeshore maintains open fields (within the Lakeshore boundary) that are associated with the proposed cultural landscape.

The D.H. Day Campground is popular during the summer months because it provides beach access to Lake Michigan. It has a more rustic feel than Platte River Campground with gravel roads, hardened sites with fire rings and picnic tables, vault toilets, a small amphitheater, and an historic log-cabin nature center. Some interpretation and orientation are provided on-site. Natural resources are moderately impacted from the high concentration of visitor use and visitors accessing the beach through the dune areas.

Development at North Bar Lake includes a boat launch, paved parking area, picnic areas, pit toilet, accessible trail to water, and an information kiosk. This is a popular swimming area and visitor encounters are high in the summer. There is active site restoration on the adjacent sensitive dune areas that are protected from visitor use by various measures including snow fence, boardwalks, and signs.

The Glen Lake Picnic Area is the only developed, public access to Little Glen Lake. It includes gravel parking, pit toilet, changing station, picnic areas, and a grassy beach area. Visitor use is moderate and there is minimal interpretation.

Alligator Hill provides a moderately used system of trails for hiking and horseback riding in summer, cross-country skiing and snowshoeing in winter, and seasonal hunting. Development includes a gravel parking lot, pit toilet, and information kiosks. The area is part of the proposed D.H. Day Kingdom cultural landscape, but most of the cultural landscape and landscape features (kilns, gates, road beds, culverts/ drainage patterns) are moldering. The landscape has reforested but native vegetative patterns are altered due to the previous developments. The old road network is the existing trail system.

Open dunes cover an extensive area on the Sleeping Bear Plateau, which includes the Dune Loop, Cross Dune, and Cottonwood trails. Some interpretation is provided. On the trails, visitor use is low to moderate; however, impacts to the dunes are evident.

The remainder of Sleeping Bear Unit includes the Windy Moraine and Shauger Hill trails, D.H. Day Group Campground, and the Carmichael House. County roads fragment the area, visitor encounters are low, and interpretation is minimal. Visitor activities include camping, trail and cross-country hiking in the summer, cross-country skiing and snowshoeing in the winter, wildlife viewing, and seasonal hunting. Development includes the group campground, trails, and trailheads with small gravel parking lots, pit toilets, and informational bulletin boards. The NPS and partners use the Carmichael House for administrative purposes.

Bow Lakes Unit

The Bow Lakes area was added to the Lakeshore with enactment of the 1982 Legislation. The area is significant because of its examples of glacial landforms found nowhere else in the Lakeshore. It contains excellent examples of ice block lakes and long forested valleys. Roughly one-half of the unit is privately owned. The Lakeshore would acquire properties when they

become available (right of first refusal option).

There are no developed trails or facilities. Visitor activities include backcountry hiking on non-designated trails and nature observation. Visitor encounters are very low and solitude is high. There is no on-site interpretation.

This area is not included within the proposed wilderness boundary.

Maintenance Facilities and the Empire Residential Area

The Lakeshore's primary maintenance facility is located near Empire. There is a secondary facility near the Platte River Campground and smaller facilities located on both of the islands. The Lakeshore's largest residential area is located near Empire and it contains nine housing units. These areas would continue to serve these purposes in all of the alternatives.

Visitor Center/Administrative Offices

This facility is located in Empire and serves as the Lakeshore's primary visitor and administrative center. It lies outside the Lakeshore boundary and is privately owned and leased by the National Park Service.

Platte Unit

This unit contains many acres within the proposed wilderness boundary, the heavily used Platte River corridor, cultural resource sites, and the Benzie Corridor (which is still predominantly privately owned).

The Empire Bluff Trail, the proposed Tweedle/Treat cultural landscape, and the Esch farmhouse are on the northern edge of this unit. A portion of the proposed Tweedle/Treat cultural landscape and the Empire Bluff Trail are within the proposed wilderness boundary. Within the proposed Tweedle/Treat cultural landscape, the Schmidt Barn, Pelky Barn, and Crouch Farm have been rehabilitated and adaptively used by the National Park Service. The Tweedle School; Treat Farm; the newer, non-historic Schmidt Barn; and the Esch farmhouse and outbuildings are preserved and there is no visitor use on these sites.

The northern area of the unit receives a low number of visitors and there is minimal interpretation. Visitor activities include sightseeing, hiking, birding, snowshoeing in the winter, and seasonal hunting. Year-round county roads access the area. Bicycles use these roads; however, there are no designated bicycle routes.

Esch Beach is a popular area with high visitor encounters and minimal interpretation. Visitor activities include picnicking, beach walking, swimming, fishing, and boating. Access to the beach is provided via Esch Road, a county road. The portion of Esch Road west of the Aral Road intersection is within the proposed wilderness boundary. NPS development includes a pit toilet, interpretive bulletin board, and a wayside exhibit. Unimproved boat access to Lake Michigan is provided at the county road ending. Parking for the beach is along the county road. The NPS development and the informal parking are within the proposed wilderness boundary.

The area south of Esch Road and north of the Platte River corridor is mostly included in the proposed wilderness boundary. The areas within proposed wilderness include the White

Pine backcountry campground, Bass Lake developments (Trails End Area), the Platte Plains trail system and trailhead, and county and Lakeshore owned roads. Part of Otter Lake lies within the proposed wilderness but the access site and parking area are outside proposed wilderness. Visitor activities include hiking, nature observation, backcountry camping, fishing, non-motorized boating, and seasonal hunting. Motor vehicle use and snowmobiling occur on county roads throughout the unit. Visitor use is low and minimal interpretation is provided. Developed areas include: the Platte Plains trailhead with gravel parking, pit toilet, and bulletin board; the Otter Lake gravel lot and dock; and the Bass Lake gravel parking, interpretive kiosk, and an ADA accessible (glossary) trail, pit toilet, boat ramp, and dock. All of the development and a portion of the access road at Bass Lake are within the proposed wilderness boundary. Some natural areas, including the Otter Creek system have been impacted; however, some natural resource efforts have been made to preserve forests and the corrugated plain.

The Platte River Corridor includes the campground, picnic area, El Dorado Park river access, Kittendorf Landing, the Department of Natural Resources (DNR) weir, and the NPS and Lake Township parking lots at the river mouth. The picnic area and campground contain picnic shelters, comfort stations, modern camping facilities, a ranger station, maintenance facilities, firewood concession, and a canoe launch. These areas function as primary arrival and destination points. El Dorado Park has a boat ramp, paved parking, vault toilet, picnic table, and a wayside. Kittendorf Landing has a vault toilet, trail, and carry-in access. The DNR weir has a gravel parking lot on state land and the Lakeshore has provided a vault toilet, picnic table, and boat ramp. The NPS parking lot at the river mouth has paved parking, modern restrooms, hardened walkways, picnic tables, benches, fencing, wayside, and trails. The Lake Township parking area has a paved parking, picnic area, and canoe landing. A boat ramp is located at the end of Lake Michigan Road, a county road. Visitors park along the road shoulder during periods of high use. Overall visitor encounters are high. Visitor activities include orientation, interpretation, picnicking, hiking, biking, camping, beach walking, wildlife observation, swimming, fishing, and motorized and non-motorized water use (boating, canoeing, tubing, and kayaking). The Riverside Canoe Livery is the primary canoe livery on the Platte River, however it does not operate as a concession or under an Incidental Business Permit. It is a privately owned operation on private property. The river corridor is moderately impacted, there is dredging at the mouth during the fall salmon runs, and non-native fish (king and coho salmon) are introduced at the DNR fish hatchery upstream.

South of the Platte River is the Loon Lake development, two historic sites (Boekeloo and Ken-Tuck-U-Inn), and the Old Indian trailhead and trail system. The Boekeloo cabin and Old Indian trail system are within the proposed wilderness boundary. Development at Loon Lake includes paved parking, a comfort station, picnic shelter, and boat ramp and dock. Visitor use is low with most people motorboating and fishing. The surrounding woodland habitat is moderately impacted. The Boekeloo cabin (a use and occupancy expiring in 2006) and its

associated landscape are preserved and in good condition. The structures and landscape of the Ken-Tuck-U-Inn site are preserved. There is no visitor use or interpretation at the Ken-Tuck-U-Inn site. The Old Indian trailhead has gravel parking, a pit toilet, and bulletin boards.

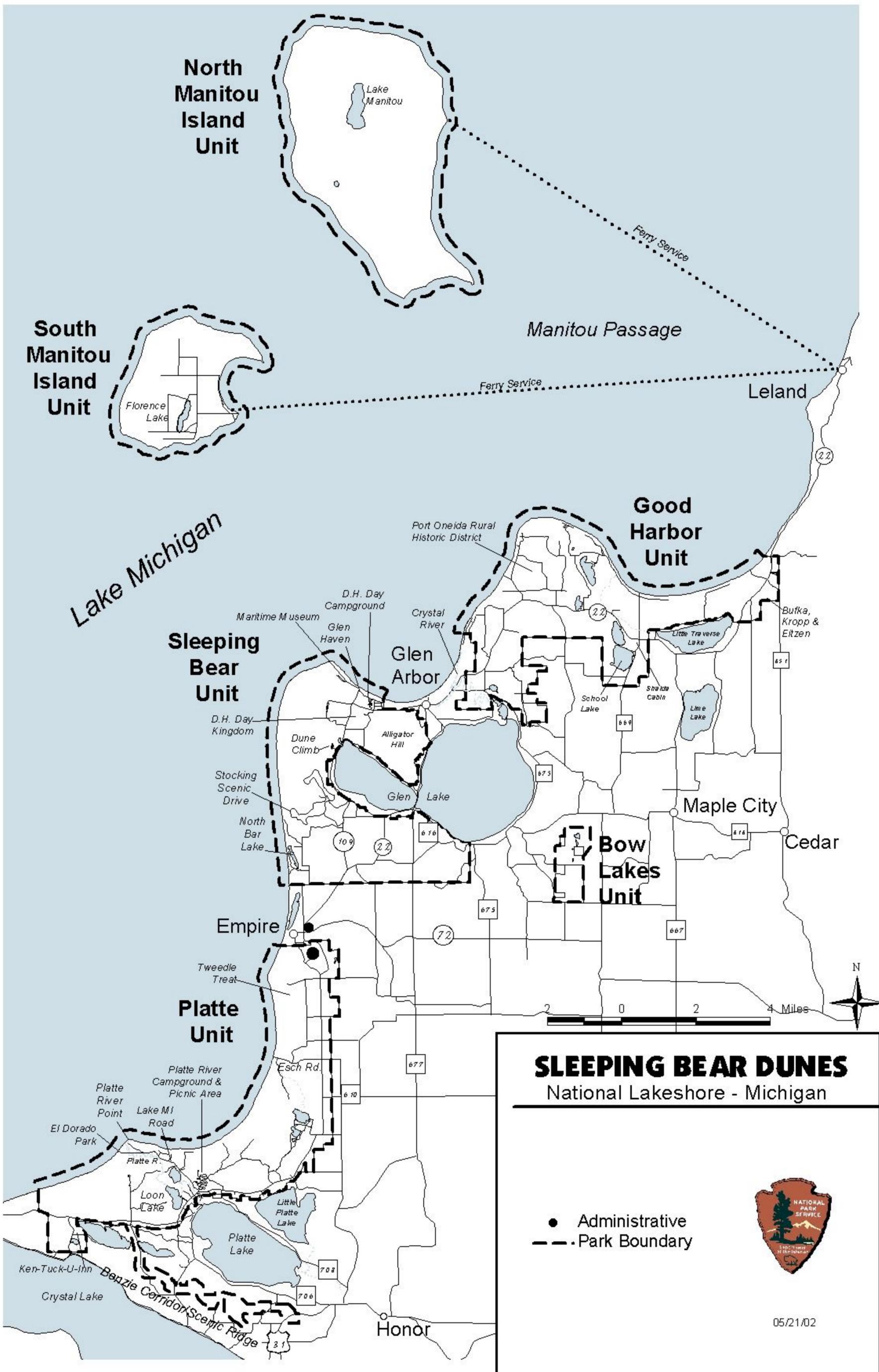
The western edge of the Platte Unit has sensitive open dune areas that have been moderately impacted. There is motorized access to dune areas via the NPS-owned Tiesma Road and county-owned Peterson Road. The Empire Bluff Trail provides access to an overlook at Lake Michigan. All of Peterson Road, the last 220 yards of Tiesma Road, and the western part of the Empire Bluff trail are within the proposed wilderness boundary. Visitor activities include motorized access, hiking, cross-country skiing, snowshoeing, hunting, nature observation, and exploration.

Benzie Corridor

The Benzie Corridor is included within the boundary of the Lakeshore; however, the vast majority is in private ownership. The long-term goal of the Lakeshore is to acquire properties when they are offered by willing sellers and construct a scenic road along the ridge.

M-22/M-109 Corridor

The primary travel corridor through the Lakeshore is the M-22/M-109 corridor, a state-designated Scenic Heritage Route. These state highways provide no interpretive facilities by the NPS or other entities. Michigan Department of Transportation development includes the formal pull-outs one mile north of Empire on M-22, at the intersection with Basch Road (picnic tables but no toilets), and informal pull-offs (e.g., at the D.H. Day Farm on M-109). Currently there is no formal vista management program and no comprehensive program that links the corridor with trails, designated water routes, or commercial services.



SLEEPING BEAR DUNES
National Lakeshore - Michigan

- Administrative
- - - Park Boundary



05/21/02

ALTERNATIVE 2

Overall Concept

In this alternative, Lakeshore management would focus on the maintenance, restoration, and protection of the components and processes of the Lakeshore's pre-European settlement ecosystem (glossary). Natural dunes, old growth forests, and native wildlife would be the desired natural resource condition. Extensive application of *Primitive* management zones would provide for primarily hiking trail access and quiet visitor experiences, largely free of crowding, noise, and developments. Visitor use would be reduced from current numbers by limiting motorized access to some areas.

Visitors would continue to tour the park by vehicle along the M-22/M-109 corridor, and additional interpretive media would be developed for that route. Overall, in this alternative, interpretation would be increased over what is offered now, but where signs or exhibits would intrude on natural areas, interpretation would be provided primarily through publications and ranger-guided programs. Those areas within the proposed wilderness boundary would be managed by wilderness policies.

The Benzie Corridor would be eliminated from the Lakeshore in this alternative.

North Manitou Island Unit

Areas on North Manitou Island that are included in the proposed wilderness boundary would be zoned *Primitive*, with *Ecologically Sensitive* zones in areas of open dunes. The *Cultural Landscape* zone would encompass that area excluded from the proposed wilderness boundary (including most, but not all of the proposed Cottage Row cultural landscape) and these areas would be managed similar to current conditions. Visitors would depart the ferry and have an opportunity to learn about the island's role in Great Lakes maritime history before setting out for their hiking and backpacking experience. A low visitation level, consistent with the *Primitive* management zone, would ensure a quiet wilderness experience with a high degree of solitude.

Management actions to implement this concept would include the following:

- Within the *Cultural Landscape* zone, cultural resources would be preserved or rehabilitated for visitor understanding and/or for compatible adaptive use.
- To accomplish the natural resources goals of the *Primitive* zone, most cultural resources within the zone would be allowed to molder (glossary), including Bournique's House and the Swenson Barn. Portions of the proposed Manitou Island Association cultural landscape would reforest. That portion of the proposed Cottage Row cultural landscape within the *Primitive* zone would be preserved in accordance with wilderness policies. To reestablish components of the pre-European settlement ecosystem, the old roadbeds (where not part of the trail system) would be

restored to natural conditions. Since the non-native deer were introduced to North Manitou Island, they have had a profound effect on the hardwood forest ecosystem. The deer would be removed from the island in this alternative. Consequently, there would no longer be a managed deer hunt and natural succession would be allowed to proceed on the island.

- The number of visitors on the island at any one time would be managed to ensure quiet and solitude. This would not be significantly different from the existing visitation level.

South Manitou Island Unit

Most of South Manitou Island would be zoned *Primitive* and open dune areas would be included in the *Ecologically Sensitive* zone. The historic village area would be zoned *Cultural Landscape*, and the Lighthouse Complex would be zoned *History Education* in recognition of its interpretive emphasis and high level of historic restoration (these areas would be similar to current conditions). Visitors would have the opportunity for various interpretive opportunities in the village and lighthouse areas, and otherwise, the emphasis would be on solitude, day hiking, exploring, or the overnight backpacking and camping experience.

Management actions to implement this concept would include the following:

- In the village, structures and landscapes would be preserved or rehabilitated for visitor understanding and/or for compatible adaptive use, consistent with the *Cultural Landscape* zone. In the *History Education* zone, the cultural resources in the Lighthouse Complex would be restored to a specific time period if essential for visitor understanding or rehabilitated to support visitor and staff activities.
- In the *Primitive* zone, overall efforts to maintain, restore, and protect the pre-European settlement ecosystem would be increased. To reduce habitat fragmentation, cultural resources within the zone would be allowed to molder, including structures and landscapes along the farm loop and other structures in outlying areas. To be consistent with the zone, the motorized farm loop tour would be discontinued. Visitors would still tour the area by hiking. The Lakeshore would seek to acquire about 14 miles of county road rights-of-way as they become available. The old roadbeds (where not part of the trail system) would be restored to natural conditions.
- Access to the *Ecologically Sensitive* areas in the western dunes would be highly restricted. There would be no development in these areas except as needed for resource protection; therefore, the portion of the Cedar-Dune Trail that is on the dunes would be eliminated. Interpretation focused

on the sensitivity of this resource would be offered off-site. Exotic species removal would be emphasized.

Good Harbor Unit

Consistent with this alternative, most of the Good Harbor unit would be zoned *Primitive*, with open dune areas protected by the *Ecologically Sensitive* management zone. Because of the historic significance of the Port Oneida Rural Historic District, the structures and landscapes would be preserved but would not be rehabilitated or adaptively used for any purposes, including NPS uses. Visitors would have an opportunity to tour the area by hiking, snowshoeing, or cross-country skiing. Emphasis in the Good Harbor unit would be on hiking, canoeing, kayaking, fishing, camping, cross-country skiing, snowshoeing, nature viewing, and other outdoor recreation activities appropriate to the management zones. Additional trails (from abandoned county roads) and backcountry campsites with access by trail or from the water could be provided. Efforts to maintain the northern mixed hardwood forest, restore impacted foredune areas, and restore impacted sites along the Crystal River would be emphasized. Those areas within the proposed wilderness boundary would be managed by wilderness policies.

Management actions to implement this concept would include the following:

- To be consistent with the natural resource objectives of the *Primitive* zone some developments would be removed and restored to natural conditions and access changed from motorized to hiking only. On County Road 65I, northwest of M-22, the Lakeshore would seek to acquire the county road rights-of-way as they become available, and the NPS developments removed. The last roughly 100 yards of County Road 669 would be acquired and restored. At School Lake the NPS developments and the access road would be removed, but hiking access would be retained. Motorized access to Shell and Tucker Lakes would be eliminated. The Good Harbor Picnic Area and access road (Lake Michigan Road) are within the proposed wilderness boundary. This development would be removed and restored to natural conditions, and the NPS would seek to acquire Lake Michigan Road from the county. Hiking trail access would be developed. The Lakeshore would also seek to acquire roughly 16 miles of mostly seasonal county road rights-of-way as they become available, within and outside the proposed wilderness boundary. The roadways would then be converted to trails or reforested. Roads required for residential and commercial access, or school bus routes, would remain open.
- To be consistent with the *Primitive* zone objectives in the Port Oneida Rural Historic District, low visitor use would be maintained by providing access principally by hiking. Adaptive and/or partner uses would be eliminated (when the agreements expire). Buildings would be preserved as fixtures on the landscape for the visual enjoyment of visitors or for interpretation. The Lakeshore would seek to acquire the county road rights-of-way in Port Oneida, as

they become available. Roads required for residential or commercial access, or school bus routes, would remain open. No actions would be taken that would conflict with the Rural Historic District designation. The trail to Pyramid Point would remain.

- To reduce habitat fragmentation and restore pre-European settlement ecosystem components in the *Primitive* zone, the Shalda Log Cabin and the structures of the proposed Bufka/Kropp/Eitzen cultural landscape would be allowed to molder, and landscapes at Bufka/Kropp/Eitzen would reforest.

Sleeping Bear Unit

Most of the unit would be zoned *Primitive* with a focus on natural resource preservation, opportunities for solitude, and non-mechanized recreational activities. Some development would be removed and restored to natural conditions, but additional trails (from abandoned country roads) and backcountry campsites with access by trail or from the water could be provided. The *Ecologically Sensitive* management zone would protect the entire Sleeping Bear Dunes Plateau including the Dune Climb, which would be closed. The D.H. Day Campground would be zoned *Visitor Services* and would be similar to current conditions. Cultural resources at Glen Haven and the Maritime Museum Complex would be zoned *Cultural Landscape*, and would be visited and interpreted much as they are now. Historic structures and cultural landscapes would be preserved or rehabilitated for visitor understanding and/or for compatible adaptive use. The Stocking Scenic Drive and Glen Lake Picnic Area would be zoned *Scenic Corridor* and current conditions would remain, except that during the busy summer season at the Scenic Drive, a shuttle system would be implemented to alleviate congestion.

Management actions to implement this concept would include the following:

- Access to the *Ecologically Sensitive* zones near North Bar Lake and on the Sleeping Bear Dunes Plateau, including the Dune Climb, would be prohibited. Access to Lake Michigan from the overlooks on the Stocking Scenic Drive also would be prohibited. There would be no development in these areas except as needed for resource protection. The Dune Loop, Cross Dune, and Cottonwood trails would be removed. Areas impacted by development or human activity would be restored to natural conditions. Non-native species removal would be emphasized. Interpretation focused on the sensitivity of this resource would be offered off-site.
- In the *Primitive* zone, overall efforts to maintain, restore, and protect the pre-European settlement ecosystem would be increased. Development would be removed at North Bar Lake and the area restored to natural conditions. Access to the area would be changed from motorized to hiking only (inholders would still be allowed motorized access). To protect the open dunes from recreational impacts, develop-

ment at the base of the Dune Climb, including the Great Lakes Picnic Area would be removed and restored to natural conditions. A new small parking area would be developed near M-109, included in the *Scenic Corridor* zone, which would serve as a trailhead for the Duneside Accessible trail, and as a photo stop. Horseback riding at Alligator Hill would be discontinued and disturbed sites would be revegetated. In the proposed D.H. Day Kingdom cultural landscape, the NPS managed and maintained part of the landscape would be allowed to reforest. Access from M-109 would be changed to hiking only. The access from M-109 (Day Farm Road) would be closed and hiking access only. The Carmichael House and the D.H. Day Group Campground would be removed and the sites restored to natural conditions; the functions would be relocated elsewhere in the Lakeshore. Because roads are a major component contributing to habitat fragmentation, the Lakeshore would seek to acquire roughly ten miles of county road and utility rights-of-way as they become available. The roadways would then be converted to trails or reforested. Roads required for residential and commercial access, or school bus routes, would remain open.

- Reduced motorized access would keep visitor use levels within the *Primitive* zone at a level to avoid crowding and ensure few encounters with other visitors.
- Consistent with the *Cultural Landscape* zone, visitor numbers would be maintained at moderate levels at Glen Haven and the Maritime Museum. Cultural resources would be preserved or rehabilitated for visitor understanding and/or for compatible adaptive use. Parking, vehicular and pedestrian circulation and utilities would be improved at Glen Haven. Vehicular and pedestrian circulation would be improved between the Maritime Museum and Glen Haven.

Bow Lakes Unit

The Lakeshore would acquire properties as they become available (right of first refusal option) and the unit would be zoned *Primitive*. Trailhead parking and hiking trails would be developed and a minimal amount of interpretation would be provided.

Maintenance Facilities and the Empire Residential Area
There would be no change from existing conditions.

Empire Headquarters and Visitor Center
There would be no change from existing conditions.

Platte Unit

The unit would be largely zoned *Primitive* with the open dune areas zoned *Ecologically Sensitive*. There would be a focus on natural resource preservation, opportunities for solitude, and non-mechanized recreational activities. Some development would be removed and restored to natural conditions, but additional hiking trails (from abandoned county roads) and back-country campsites with access by trail or from the water would

be provided. The Platte River Campground and Picnic Area would not change from current conditions. The Platte River Corridor would largely remain unchanged except for a reduction in some development and emphasis on the restoration of natural systems. Those areas within the proposed wilderness boundary would be managed by wilderness policies.

Management actions to implement this concept would include the following:

- Consistent with this alternative, the goal would be to minimize fragmentation of the northern mixed hardwood forest ecosystem, and maximize the natural character of the area. For this reason, cultural resources in the *Primitive* zone would be allowed to molder and the landscapes allowed to revert to native vegetation. This would apply to the proposed Tweedle/Treat cultural landscape, the Ken-Tuck-U-Inn, Esch Farm, and Boekeloo Log Cabin (once the reservation of use and occupancy expires).
- Since roads are a major component contributing to habitat fragmentation, the Lakeshore would acquire roughly 14 miles of county road rights-of-way, as they become available in areas, within and outside the proposed wilderness boundary. Tiesma Road would be closed. The roadways would then be converted to hiking trails or reforested. Roads required for residential and commercial access, or school bus routes, would remain open.
- Since the portion of Esch Road west of the Aral Road intersection is within the proposed wilderness boundary, the NPS would seek to acquire county road rights-of-way as they become available, and the NPS development at the end of the road removed. The road would be converted to a hiking trail and the developed areas restored to natural conditions. A new trailhead for Esch Beach would be located near M-22 and visitors would access the beach via a hiking trail.
- A new trailhead for the Trails End Area (Otter and Bass Lakes) and the Platte Plains trail system also would be relocated adjacent to M-22. The Platte Plains trailhead and the developments at Bass Lake are within the proposed wilderness boundary. These developments would be removed and the area restored to natural conditions. Motorized access to the Trails End Area would be changed to hiking trail access from a new trailhead near M-22. Private inholders in the area would continue to have vehicular access. Consistent with the natural resources goals of the *Primitive* zone the impacted areas along the Otter Creek system would be restored.
- The number of visitors within the *Primitive* zone would be managed if necessary to maintain low to moderate visitor encounters consistent with the zone and wilderness experiences. Conversion of roads to hiking trails would assist in this direction.

- To be consistent with the *Backcountry* zone, some development would be removed and more emphasis would be placed on the restoration of natural systems. The size of the NPS parking lot at the mouth of the Platte River would be reduced. The NPS would work with the DNR to return the lower Platte River system to a native fishery. Dredging at the Platte River mouth would be discontinued. Impacted areas along the Platte River would be restored to natural conditions. The size of the parking lot at Loon Lake would be reduced and surrounding areas of impacted woodland habitat would be restored.
- Access to the *Ecologically Sensitive* areas along the shoreline would be highly restricted. There would be no development in these areas except as needed for resource protection. The overlook on the Empire Bluff Trail would remain but access to Lake Michigan would be prohibited from this overlook. Interpretation focused on the sensitivity of this resource would be offered off-site.

Benzie Corridor

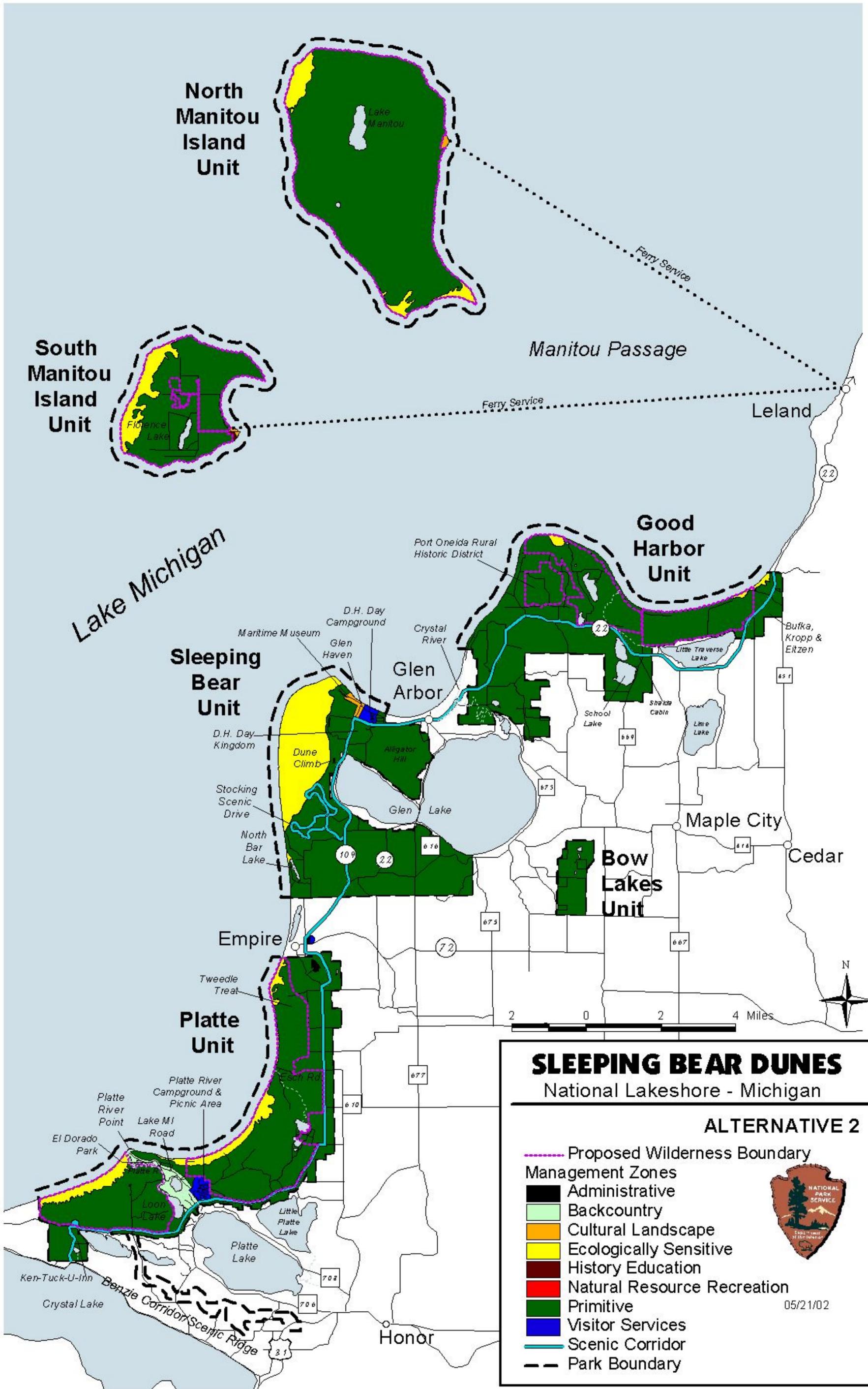
In this alternative, the Benzie Corridor would be removed from the Lakeshore boundary.

M-22/M-109 Corridor

The M-22/M-109 Corridor would be included in the *Scenic Corridor* zone. Along this route various interpretive media, designated pull-offs and overlooks, and vistas would be developed. Linkages would be developed with trail, water routes, and commercial services. This zone also includes the Glen Lake Picnic Area, the Old Indian trailhead, and relocated trailheads for the Dune Climb, the Platte Plains trail system, and Esch Beach.

Beach Areas

The beach area is defined as that area between the water's edge and the high water mark on the shore. In all of the action alternatives this area would be managed the same. Motorized and non-motorized watercraft would be permitted to access these areas, however due to NPS policy motorized personal watercraft (jet skis) would be prohibited. Motorized vehicles would only be permitted for accessing docks or loading ramps (e.g., the road ending at Platte Point). Recreational uses would include beach walking, sunbathing, swimming, and fishing.



SLEEPING BEAR DUNES

National Lakeshore - Michigan

ALTERNATIVE 2

- Proposed Wilderness Boundary
- Management Zones**
- Administrative
- Backcountry
- Cultural Landscape
- Ecologically Sensitive
- History Education
- Natural Resource Recreation
- Primitive
- Visitor Services
- Scenic Corridor
- Park Boundary



05/21/02

ALTERNATIVE 3

Overall Concept

In this alternative, Lakeshore management would recognize the evolution of the landscape and its human settlement over the passage of time. A mix of management zones would maximize variety in each unit, and a wide range of visitor activities and experiences would be offered. Some growth in visitation levels would be accommodated. Visitors would continue to tour the Lakeshore along the M-22/M-109 corridor, with increased interpretation. A system of water routes for additional interpretive tours also would be established. Lakeshore units would offer a mix of motorized, bicycle, and hiking access.

Interpretation would be increased park-wide over the existing condition, and would include on-site media (such as wayside and museum exhibits), ranger-guided programs, and adaptive use of historic structures. The Empire headquarters would be converted to serve park administrative uses only. Visitor interpretation and orientation would be provided at a new facility constructed at a centrally located site closer to primary Lakeshore resources.

In this alternative, the NPS would acquire the Benzie Corridor. The Corridor would be included in the *Backcountry Management* zone and a trail system would be developed to offer visitors hiking opportunities with long distance vistas.

North Manitou Island Unit

Most of North Manitou Island would be zoned *Backcountry* to accommodate somewhat higher use levels than in Alternative 2. *Cultural Landscape* zones would encompass a larger area than in Alternative 2 and would include essentially all of the cultural resources on the island and their associated landscapes. *Ecologically Sensitive* zones would be the same as in Alternative 2. Those areas within the proposed wilderness boundary would be managed by wilderness policies.

Management actions to implement this concept would include the following:

- Ferry service would be increased to allow day use opportunities so more visitors would benefit from interpretation of historical features on the island. Picnic and comfort station facilities would be increased to accommodate day use visitors. The trail system would be improved and/or expanded to accommodate the increased use of day hikers on the island.
- Within the *Cultural Landscape* zone, structures would be preserved or rehabilitated for visitor understanding and/or for compatible adaptive use. Landscapes that are currently reforesting, such as the Frank/Beuham Orchard and the Manitou Island Association airstrip and fields, would be maintained to prevent further forest encroachment. Those *Cultural Landscape* zones within the proposed wilderness boundaries would be managed by wilderness policies.

- The number of visitors within the *Backcountry* zone would be managed, if necessary, to maintain low to moderate visitor encounters consistent with the zone and wilderness experiences.

South Manitou Island Unit

Most of the island would be zoned *Backcountry* to accommodate somewhat higher use levels than in Alternative 2. The trail system would be improved and/or expanded to accommodate this use and additional campsites could be provided. The *Cultural Landscape* zone would include the village area and the farm loop. Use and appearance would be similar to current conditions. The motorized farm loop tour would continue. As in Alternative 2, the Lighthouse Complex would be zoned *History Education* and the western dunes *Ecologically Sensitive*. Those areas within the proposed wilderness boundary would be managed by wilderness policies.

Management actions to implement this concept would include the following:

- In the village and along the farm loop, historic structures and landscapes would be preserved or rehabilitated for visitor understanding and/or for compatible adaptive use, consistent with the *Cultural Landscape* zone. The area would accommodate up to moderate use levels.
- In the *History Education* zone, the Lighthouse Complex would be restored to a specific time period if essential for visitor understanding or rehabilitated to support visitor and staff activities.
- In the *Backcountry* zone overall efforts to maintain, restore, and protect the pre-European settlement ecosystem would be increased. The Lakeshore would seek to acquire roughly eight miles of county road rights-of-way within the proposed wilderness boundary, as they become available. The old roadbeds (where not part of the trail system) would be restored to natural conditions. Trails within the proposed wilderness boundary would be for hiking only. Historic structures and landscapes in the *Backcountry* zone not along the farm loop would be allowed to molder.
- The number of visitors within the *Backcountry* zone would be managed if necessary to maintain conditions appropriate to the zone and wilderness experiences (moderate visitor encounters, low noise levels, and low tolerance for resource impacts).
- Access to the *Ecologically Sensitive* areas in the western dunes would be highly restricted. There would be no development in these areas except as needed for resource protection; therefore, the portion of the Cedar-Dune Trail that is on the dunes would be eliminated. Interpretation focused

on the sensitivity of this resource would be offered off-site. Exotic species removal would be emphasized.

Good Harbor Unit

Backcountry and *Cultural Landscape* zones encompass most of the unit. These areas would accommodate up to moderate use levels. High use, motorized access areas would be retained at beach accesses and would be zoned *Natural Resource Recreation*. *Ecologically Sensitive* zones are the same as in Alternative 2. Emphasis would be placed on accommodating a wide variety of recreational activities that could include hiking, biking, beach use, canoeing, kayaking, motor-boating, cross-country skiing, and snowshoeing. Increased interpretive and educational opportunities appropriate in the various management zones would be provided commensurate with use levels. Those areas within the proposed wilderness boundary would be managed by wilderness policies.

Management actions to implement this concept would include the following:

- Within the *Natural Resources Recreation* zone upgraded facilities would be provided at the beach access points on County Road 669 and County Road 651, and at the School Lake area to accommodate high use levels. These could include formalized parking areas, picnic areas, comfort stations and other facilities to support boating, hiking, biking, and other appropriate recreational activities. Barriers or other devices would be used as necessary to protect adjacent *Ecologically Sensitive* zones.
- In the *Cultural Landscape* zone, structures and landscapes would be preserved or rehabilitated for visitor understanding and/or for compatible adaptive uses. Resources in this zone include the Port Oneida Rural Historic District, the proposed Bufka/Kropp/Eitzen cultural landscape, and the Shalda Log Cabin. Some limitations on uses and activities could be necessary in those areas included within the proposed wilderness boundary.
- Consistent with the objectives of the *Backcountry* zone, additional trail and trail linkages could be provided. Areas within the proposed wilderness boundary, however, would only accommodate hiking trail access. Launch site facilities would be improved at the Crystal River and carry-in access at Bass Lake would be formalized. Impacted foredune areas and sites along the Crystal River would be restored. Motorized access to Shell Lake would be eliminated, but retained to Tucker Lake. Resource management efforts to maintain the mixed hardwood forest would be emphasized. The number of visitors within the *Backcountry* zone would be managed if necessary to maintain conditions appropriate to the zone and wilderness experiences (moderate visitor encounters, low noise levels, and low tolerance for resource impacts).

- The Good Harbor Picnic Area and access road (Lake Michigan Road) are within the proposed wilderness boundary. As in Alternatives 2, this development would be removed and restored to natural conditions, and the NPS would seek to acquire Lake Michigan Road from the county. Hiking trail access would be developed. Since roads are a major component contributing to habitat fragmentation, the Lakeshore would seek to acquire roughly eight miles of county road rights-of-way within the proposed wilderness boundary, as they become available. The roadways would then be converted to trails or reforested. Roads required for residential and commercial access, or school bus routes, would remain open.

Sleeping Bear Unit

As in Alternative 2, the D.H. Day Campground would be in the *Visitor Services* zone and would be similar to current conditions. The Dune Climb and the developed area at the dune base also would be zoned *Visitor Services* and the areas would be similar to current conditions. *Natural Resource Recreation* zones at Alligator Hill, Stocking Scenic Drive, and Glen Lake Picnic area would accommodate up to high visitor encounters and support a variety of recreational activities. Glen Haven would be in the *Cultural Landscape* zone as in Alternative 2. The proposed D. H. Day Kingdom cultural landscape would be managed as it is in current conditions. The Maritime Museum Complex would be zoned *History Education* and would provide a focus for cultural resource interpretation. Throughout these zones additional trails could be developed and backcountry campsites with access by trail or from the water could be provided. The *Ecologically Sensitive* zone would protect most of the Sleeping Bear Dune Plateau Dune, but unlike Alternative 2, this zone does not include closing the Dune Climb, where visitors climb and play.

Management actions to implement this concept would include the following:

- Consistent with the *Natural Resources Recreation* zone, facilities to support active recreation activities would be provided at Alligator Hill. These could include scenic overlooks, picnic areas, group camping facilities, and trails for horseback riding, hiking, biking, cross-country skiing, and snowshoeing. Those cultural landscape features, which are currently moldering (such as stone gates), would be preserved. Disturbed sites would be revegetated. Facilities at the Glen Lakes Picnic Area would be upgraded and additional trail opportunities would be provided at the Stocking Scenic Drive.
- Visitor numbers would be maintained at moderate levels at Glen Haven and the cultural resources would be preserved or rehabilitated for visitor understanding and/or for compatible adaptive use. Parking, vehicular and pedestrian circulation, and utilities would be improved at Glen Haven. Vehicular and pedestrian circulation would be improved between the Maritime Museum and Glen Haven.

- Consistent with the *History Education* zone, the cultural resources at Maritime Museum would be restored to a specific time period if essential for visitor understanding or rehabilitated to support visitor and staff activities.
- The proposed D.H Day Kingdom cultural landscape would be zoned *Cultural Landscape* and would be managed similar to current conditions, with the Lakeshore maintaining the associated fields, and the D.H. Day Farm remaining in private ownership.
- Facilities at the base of the Dune Climb would be upgraded to better accommodate high use levels. These improvements would include more efficient parking area design and trailhead facilities. To protect sensitive resources at the Dune Climb, the visitor use area where visitors climb and play would be fenced or signed and visitor use would be managed. The Great Lakes Picnic Area would be reopened for visitor use.
- To restore pre-European settlement ecosystem components in the *Backcountry* zone, the Carmichael House and the D.H. Day Group Campground would be removed and the sites restored to natural conditions; the functions would be relocated elsewhere in the Lakeshore. Because roads are a major component contributing to habitat fragmentation, the Lakeshore would seek to acquire about eight miles of county road and utility rights-of-way as they become available. The roadways would then be converted to trails or reforested. Roads required for residential and commercial access, or school bus routes, would remain open.
- Within the *Backcountry* zone visitor numbers would be managed, if necessary, to maintain moderate visitor encounters. In popular areas, such as North Bar Lake, steps may need to be taken to avoid overuse, including temporarily closing the area to additional visitors once a certain use level is met.
- Access to the *Ecologically Sensitive* areas on the Sleeping Bear Dunes Plateau (not including the Dune Climb) and near North Bar Lake would be highly restricted. There would be no development in these areas except as needed for resource protection. The Dune Loop, Cross Dune, and Cottonwood trails would be removed. Areas impacted by development or human activity would be restored to natural conditions. Non-native species removal would be emphasized. Interpretation focused on the sensitivity of this resource would be offered off-site.

Bow Lakes Unit

The Lakeshore would acquire properties as they become available (right of first refusal option) and the unit would be zoned *Backcountry*. Trailhead parking and hiking and/or bicycling trails would be developed. A minimal amount of interpretation would be provided and up to moderate visitor use would be accommodated.

Maintenance Facilities and the Empire Residential Area
There would be no change from existing conditions.

Empire Headquarters and Visitor Center

The existing building would be converted to serve park administrative uses only. Visitor interpretation and orientation would be provided at a centrally located site closer to primary Lakeshore resources (site yet to be determined).

Platte Unit

The majority of the unit would be zoned *Backcountry*, with a large area at the southern end of the unit in the *Primitive* zone. The Platte River Corridor and Loon Lake would be zoned *Natural Resource Recreation* and would be similar to current conditions. Otter Lake also would be zoned *Natural Resource Recreation* and would accommodate up to high use levels. *Cultural Landscape* zones at the proposed Tweedle/Treat cultural landscape, the Esch farm, and Ken-Tuck-U-Inn would accommodate up to moderate use levels and provide opportunities for cultural resource interpretation. *Ecologically Sensitive* zones would be applied as in Alternative 2. Those areas within the proposed wilderness boundary would be managed by wilderness policies.

Management actions to implement this concept would include the following:

- In both the *Primitive* and *Backcountry* zones, natural resource efforts would be increased to preserve pre-European settlement ecosystems. Impacted areas including those along the Platte River and the Otter Creek system would be restored to natural conditions. Since roads are a major component contributing to habitat fragmentation, the Lakeshore would acquire roughly 13 miles of county road rights-of-way, as they become available, mostly within the proposed wilderness boundary. Tiesma Road would be closed. The roadways would then be converted to hiking trails or reforested. Roads required for residential and commercial access, or school bus routes, would remain open.
- Since the portion of Esch Road west of the Aral Road intersection is within the proposed wilderness boundary, the Lakeshore would seek to acquire the county road rights-of-way, as they become available. The NPS development at the end of Esch Road would be removed. Esch Road would be converted to a hiking trail and the developed areas restored to natural conditions. A new trailhead for Esch Beach would be located outside the wilderness boundary near the Esch Road-Aral Road intersection.
- The Platte Plains trailhead and the developments at Bass Lake are within the proposed wilderness boundary and would be zoned *Backcountry*. These developments would be removed and the area restored to natural conditions. New access would be provided via a hiking trail from the Otter Lake access site, which is zoned *Natural Resources Recreation*. Inholders in the area would continue to have vehicular access.

- Additional hiking or bicycling trails could be developed and backcountry campsites with access by trail or from the water could be provided. Areas within the proposed wilderness boundary and areas zoned *Primitive* would only accommodate hiking trail access.
- The Boekeloo Log Cabin is within the *Primitive* zone and the structures would continue to be preserved (once use and occupancy expires).
- Within the *Backcountry* zone, visitor numbers would be managed, if necessary, to maintain low to moderate visitor encounters consistent with backcountry and wilderness experiences.
- Facilities would be upgraded in *Natural Resource Recreation* zones to accommodate a wide range of recreation activities and up to high use levels. Improvements could include more efficient parking areas, picnic areas, comfort stations, and other facilities consistent with the management zone.
- Cultural resources at the proposed Tweedle/Treat cultural landscape, the Esch farm, and Ken-Tuck-U-Inn would be preserved or rehabilitated for visitor understanding and/or for compatible adaptive use.
- As in Alternative 2, access to the *Ecologically Sensitive* areas along the shoreline would be highly restricted. There would be no development in these areas except as needed for resource protection. The overlook on the Empire Bluff Trail would remain but access to Lake Michigan would be prohibited from this overlook. Interpretation focused on the sensitivity of this resource would be offered off-site

Benzie Corridor

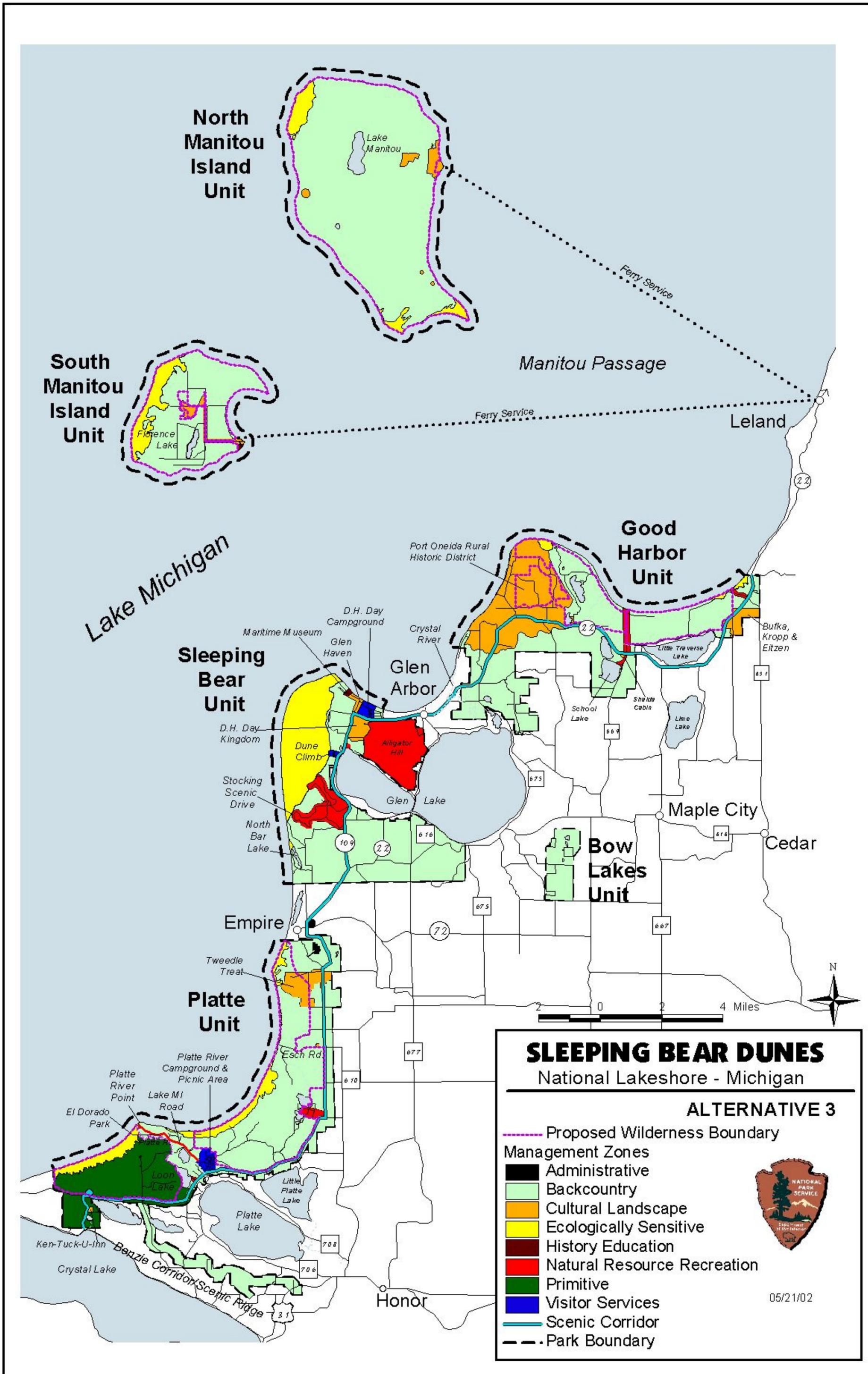
The Lakeshore would acquire properties within the corridor, as they become available from willing sellers. The area would be zoned *Backcountry* and hiking and/or bicycling trails would be constructed.

M-22/M-109 Corridor

The M-22/M-109 Corridor would be included in the *Scenic Corridor* zone. A system of water routes for additional interpretive tours also would be established. Along these routes various interpretive media would be developed. On the land routes designated pull-offs and overlooks, and vistas would be developed. Linkages would be developed with trail, water routes, and commercial services. The Old Indian Trailhead also would be included in this zone, as it would function as a secondary entrance to the Lakeshore, providing visitor information.

Beach Areas

As in Alternative 2, the beach area is defined as that area between the water's edge and the high water mark on the shore. Motorized and non-motorized watercraft would be permitted to access these areas, however due to NPS policy motorized personal watercraft (jet skis) would be prohibited. Motorized vehicles would only be permitted for accessing docks or loading ramps (e.g., the road ending at Platte Point). Recreational uses would include beach walking, sunbathing, swimming, and fishing.



ALTERNATIVE 4 (PRELIMINARY PREFERRED)

Overall Concept

The goal of this alternative is to take the best advantage of opportunities to protect and enhance the Lakeshore's pre-European settlement ecosystem while providing a wide range of interpretive and recreational experiences for visitors. *Primitive* and *Backcountry* management zones are used in areas where minimizing habitat fragmentation may be most beneficial. *Cultural Landscape* zones and *History Education* zones focus historic interpretation on cultural resources. *Visitor Services* zones are located in the Port Oneida Rural Historic District to allow for high levels of visitor use and interpretive activities. *Natural Resource Recreation* zones are located in a few areas to provide some increased trail opportunities and to allow for areas of high visitor use. *Ecologically Sensitive* zones are the same as in Alternatives 2 and 3.

As in Alternatives 2 and 3, visitors would continue to tour the park via the M-22/M-109 corridor and interpretation would be increased. Interpretation would be increased park-wide over the existing condition, and would include on-site media (such as wayside and museum exhibits), ranger-guided programs, and adaptive use of historic structures. Administrative functions at the Empire headquarters building would be relocated and the entire building would be dedicated to interpretation and visitor orientation.

As in Alternative 3, the NPS would acquire properties in the Benzie Corridor, as they become available from willing sellers. The Corridor would be included in the *Backcountry* zone and a trail system would be developed to offer hiking opportunities with long distance vistas.

North Manitou Island Unit

Similar to Alternative 2, the majority of the island would be zoned *Primitive* and the non-native deer population would be removed. As in Alternative 3, ferry service would provide for day use on the island. The *Cultural Landscape* zone would be larger than Alternative 2, but smaller than Alternative 3, and would encompass the historic village and all of the proposed Cottage Row cultural landscape. The *Ecologically Sensitive* zones would be the same as in Alternatives 2 and 3. Those areas within the proposed wilderness boundary would be managed by wilderness policies, regardless of the management zone.

Management actions to implement this concept would include the following:

- Ferry service would be increased to allow day use opportunities. Visitors would benefit from interpretation of historical features on the island and day hiking. The trail system could be improved and/or expanded to allow for the increased use.
- Within the *Cultural Landscape* zone, structures and landscapes would be preserved or rehabilitated for visitor understanding and/or for compatible adaptive use. Picnic

and comfort station facilities would be increased to serve day use visitors. That portion of Cottage Row and Cottage Row Park within the proposed wilderness boundaries would be managed by wilderness policies.

- In the *Primitive* zone, efforts to maintain and restore the pre-European settlement ecosystem would be increased. As in Alternative 2, the non-native deer herd would be removed from the island because they have had a profound effect on the hardwood forest ecosystem. Consequently, there would no longer be an NPS-managed deer hunt and natural succession would be allowed to proceed on the island. Cultural resources within this zone would only be preserved if the preservation of the resource does not conflict with the natural resource goals of the zone. Therefore, large acreage areas, including the Manitou Island Association airstrip and fields and the Frank/Beuham Orchard, would continue to reforest. As in Alternative 2, the old roadbeds (where not part of a trail system) would be restored to natural conditions.
- The number of visitors within the *Primitive* zone would be managed if necessary to maintain low visitor encounters consistent with the zone and wilderness experiences.

South Manitou Island Unit

To accomplish natural resource objectives while still providing for moderate use levels, the majority of the island (including the farm loop) would be zoned *Backcountry*. The trail system would be improved and/or expanded and additional campsites could be provided. As in Alternatives 2 and 3, the village area would be zoned *Cultural Landscape* and the Lighthouse Complex would be zoned *History Education*. These areas would be similar to current conditions. The *Ecologically Sensitive* zones would be the same as in Alternatives 2 and 3. Those areas within the proposed wilderness boundary would be managed by wilderness policies.

Management actions to implement this concept would include the following:

- In the village, cultural resources would be preserved or rehabilitated for visitor understanding and/or for compatible adaptive use, consistent with the *Cultural Landscape* zone. In the *History Education* zone, the Lighthouse Complex would either be restored to a specific time period or rehabilitated to support visitor and staff activities.
- In the *Backcountry* zone, efforts to maintain and restore the pre-European settlement ecosystem would be increased. Because county roads are a major component contributing to habitat fragmentation, the Lakeshore would seek to acquire about eight miles of county road rights-of-way within the proposed wilderness boundary, as they become

available. The old roadbeds (where not part of a trail system) would be restored to natural conditions. Historic structures and landscapes along the farm loop would be preserved much as they are today. Visitors would be able to tour this area by hiking trail. The motorized farm loop tour would no longer be available. Historic structures and landscapes within the *Backcountry* zone, but not along the farm loop, would be allowed to molder.

- The number of visitors within the *Backcountry* zone would be managed if necessary to maintain conditions appropriate to the zone and wilderness experiences (moderate visitor encounters, low noise levels, and low tolerance for resource impacts).
- Access to the Ecologically Sensitive areas in the western dunes would be highly restricted. There would be no development in these areas except as needed for resource protection; therefore, the portion of the Cedar-Dune Trail that is on the dunes would be eliminated. Interpretation focused on the sensitivity of this resource would be offered off-site. Exotic species removal would be emphasized.

Good Harbor Unit

In recognition of the diverse resources and visitor opportunities in this unit, *Backcountry* and *Cultural Landscape* zones would encompass most of the area. These two zones would allow for up to moderate use levels. To allow for high levels of visitor use and interpretive activities three areas within the Port Oneida Rural Historic District would be zoned *Visitor Services*: the Thoreson Farm complex, John Burfiend Farm (private)/Port Oneida School (private)/Kelderhouse Farm/Dechow (Klett) Farm complex, and the Lawr-Chapman Farm complex. *Ecologically Sensitive* zones are the same as in Alternatives 2 and 3. Those areas within the proposed wilderness boundary would be managed by wilderness policies.

Management actions to implement this concept would include the following:

- Structures in the three *Visitor Services* zones within Port Oneida would be rehabilitated and adapted to support destination-oriented visitor services. Visitors would be engaged in education, orientation, and other structured activities requiring developed facilities. No actions would be taken that would conflict with the Rural Historic District designation. Current proposals received by the NPS include: 1) The rehabilitation and adaptive use of the Charles Olson farm complex for offices, from the Preserve Historic Sleeping Bear group. Developments could include rehabilitation of the structures, small parking area and utilities associated with the developments. 2) The rehabilitation of the Thoreson Farm complex for a Cultural Arts Center, for offices, conferences, conventions, open studios, classes, concerts, performances and housing, from the Glen Arbor Art Association. Developments could include the rehabilitation of the structures, small parking areas, shuttle service to off-site overflow parking, and utilities associated with the development. 3) The rehabilitation and adaptive use of the structures on the Burfiend Farm complex for a Bed and Breakfast (Youth Hostel), from the American Youth Hostels. Developments could be a 40-46 bed facility, parking facility and utilities associated with the development. 4) The rehabilitation and adaptive use of the Lawr/Chapman farm complex to provide educational and recreational programs to children and adults, from the Shielding Tree Nature Center. The Shielding Tree Nature center is currently utilizing these structures under a 5-year Special use Permit (SUP). Developments could include rehabilitating the existing structures (partially complete). These current proposals, except for the Shielding Tree (SUP), are on hold pending the selection of the preferred alternative and completion of the GMP.
- Those structures and landscapes in the proposed Bufka/Kropp/Eitzen cultural landscape and the Port Oneida Rural Historic District, that are within the *Cultural Landscape* zone, would be preserved or rehabilitated for visitor understanding and/or for compatible adaptive uses. Some limitations on uses and activities would be necessary in those areas within the proposed wilderness boundary.
- Consistent with the objectives of the *Backcountry* zone, additional trails and trail linkages would be provided. Areas within the proposed wilderness boundary, however, would only accommodate hiking trail access. The launch site facility at the Crystal River would be improved and carry-in/non-motorized access at Bass Lake would be formalized. Facilities would be upgraded to accommodate up to moderate use levels at the beach access points on County Roads 669 and 651. This development would be unobtrusive and would blend with the natural environment. Impacted fore-dune areas, as well as sites along the Crystal River would be restored. Motorized access to Shell Lake would be eliminated, but retained to Tucker Lake. Resource management efforts to maintain the northern mixed hardwood forest would be emphasized. The number of visitors within the *Backcountry* zone would be managed if necessary to maintain conditions appropriate to the zone and wilderness experiences (moderate visitor encounters, low noise levels, and low tolerance for resource impacts).
- The Good Harbor Picnic Area and access road (Lake Michigan Road) are within the proposed wilderness boundary. As in Alternatives 2 and 3, this development would be removed and restored to natural conditions, and the NPS would seek to acquire Lake Michigan Road from the county. Hiking trail access would be developed. As they become available, county road rights-of-way within the proposed wilderness boundary would be acquired. Roads would be allowed to reforest or would be converted to trails. Roads required for residential or commercial access, or school bus routes, would remain open.

Sleeping Bear Unit

In order to provide a variety of visitor activities and preserve backcountry and sensitive areas, this alternative includes many of the aspects of Alternative 3. Alligator Hill and the Glen Lake Picnic Area are zoned *Natural Resources Recreation*, the proposed D.H. Day Kingdom cultural landscape is zoned *Cultural Landscape*, the Dune Climb and the Dune Climb Developed Area are zoned *Visitor Services*, North Bar Lake and a large portion of this planning unit are zoned *Backcountry*, and the Sleeping Bear Plateau (not including the Dune Climb) and North Bar Lake Dune Areas are zoned *Ecologically Sensitive*. As in Alternative 2, the Stocking Scenic Drive would be zoned *Scenic Corridor* and current conditions would remain, except that during the busy summer season the area would use a shuttle system to alleviate congestion. As in Alternatives 2 and 3, the D.H. Day Campground would be zoned *Visitor Services* and would be similar to current conditions (with some upgrading possible). In this alternative, zoning both the Maritime Museum Complex and Glen Haven *History Education* would provide a focus for cultural resource interpretation and allow for high visitation.

Management actions to implement this concept would include the following:

- Consistent with the *Natural Resources Recreation* zone, facilities to support active recreation activities would be provided at Alligator Hill. These could include scenic overlooks, picnic areas, group camping facilities, and trails for horseback riding, hiking, biking, snowshoeing, and cross-country skiing. Cultural landscape features (such as stone gates), which are currently moldering, would be preserved. Disturbed sites would be revegetated. Facilities at the Glen Lake Picnic Area would be upgraded to support up to high visitor use levels.
- The proposed D.H. Day Kingdom cultural landscape would be zoned *Cultural Landscape* and would be managed similar to current conditions with the Lakeshore maintaining the associated fields, and the D.H. Day Farm remaining in private ownership.
- Consistent with the *History Education* zone, the cultural resources at the Maritime Museum and Glen Haven would be restored to a specific time period if essential for visitor understanding or rehabilitated to support visitor and staff activities for in-depth interpretation of the historic period. As in Alternative 3, parking, vehicular and pedestrian circulation, and utilities would be improved at Glen Haven, and vehicular and pedestrian circulation would be improved between the Maritime Museum and Glen Haven.
- As in Alternative 3, facilities at the base of the Dune Climb would be upgraded to better accommodate high use levels. These improvements would include more efficient parking area design and trailhead facilities. To protect sensitive resources above and to either side of the Dune Climb, the visitor use area where visitors climb and play would be

delineated and visitor use would be managed. The Great Lakes Picnic Area would be reopened for visitor use.

- To restore pre-European settlement ecosystem components in the *Backcountry* zone, the Carmichael House and the D.H. Day Group Campground would be removed and the sites restored to natural conditions; the functions would be relocated elsewhere in the Lakeshore. Because roads are a major component contributing to habitat fragmentation, the Lakeshore would seek to acquire about eight miles of county road rights-of-way within the *Backcountry* zone, as they become available. The roadways would then be converted to trails or reforested. Roads required for residential and commercial access, or school bus routes would remain open.
- Within the *Backcountry* zone, visitor numbers would be managed, if necessary, to maintain moderate visitor encounters. In popular areas, such as North Bar Lake, steps may need to be taken to avoid overuse, including temporarily closing the area to additional visitors once a certain use level is met.
- Access to the *Ecologically Sensitive* areas on the Sleeping Bear Dunes Plateau (not including the Dune Climb) and to the north and west of North Bar Lake would continue to be highly restricted (same as current conditions). There would be no development in these areas except as needed for resource protection. The Dune Loop, Cross Dune, and Cottonwood trails would be removed. The sand ladder trail at North Bar Lake would remain to provide access to the Lake Michigan beach. Areas impacted by development or human activity would be restored to natural conditions. Non-native species removal would be emphasized. Interpretation focused on the sensitivity of this resource would be offered off-site.

Bow Lakes Unit

As in Alternative 2, the Lakeshore would acquire properties as they become available (right of first refusal option). The unit would be zoned *Primitive* and trailhead parking and hiking trails would be developed. A minimal amount of interpretation would be provided.

Maintenance Facilities and the Empire Residential Area
There would be no change from existing conditions.

Empire Headquarters and Visitor Center

To provide for more opportunities for visitor interpretation and orientation the entire building would be dedicated to these activities and the administrative functions would be relocated elsewhere in the Lakeshore.

Platte Unit

In order to minimize habitat fragmentation, the majority of the unit would be zoned *Primitive* and *Backcountry*. High use recreation would be accommodated in the *Natural Resource*

Recreation zones along the Platte River Corridor and at Loon Lake, and in the *Visitor Services* zones at the Platte River Campground and Picnic Area. Developments along the Platte River Corridor would remain in the existing conditions. *Cultural Landscape* zones at the Ken-Tuck-U-Inn and the proposed Tweedle/Treat cultural landscape would provide opportunities for cultural resource interpretation and would accommodate up to moderate use levels. *Ecologically Sensitive* zones would be applied as in Alternatives 2 and 3. Those areas within the proposed wilderness boundary would be managed by wilderness policies.

Management actions to implement this concept would include the following:

- In both the *Primitive* and *Backcountry* zones, natural resource efforts would be increased to preserve pre-European settlement ecosystems, including forests and the corrugated plains. Some development would be removed and more emphasis would be placed on the restoration of natural systems. The NPS would work with the DNR to return the lower Platte River system to a native fishery. Impacted areas, including those along the Platte River and the Otter Creek system, would be restored to natural conditions. Because roads are a major component contributing to habitat fragmentation, the Lakeshore would seek to acquire about 14 miles of county road rights-of-way, as they become available, within and outside the proposed wilderness boundary. Tiesma Road would be closed. The roadways would then be converted to hiking trails or reforested. Roads required for residential and commercial access, or school bus routes would remain open.
- Since the portion of Esch Road west of the Aral Road intersection is within the proposed wilderness boundary, the NPS would seek to acquire county road rights-of-way as they become available, and the NPS development at the end of the road removed. The road would be converted to a trail and the developed areas restored to natural conditions. A new trailhead for Esch beach would be located near M-22 and visitors would access the beach via a hiking trail.
- A new trailhead for the Trails End Area (Otter and Bass Lakes) and the Platte Plains trail system also would be relocated adjacent to M-22. The Platte Plains trailhead and the developments at Bass Lake are within the proposed wilderness boundary. These developments would be removed and the area restored to natural conditions. Motorized access to the Trails End Area would be changed to hiking trail access from a new trailhead near M-22. Private inholders in the area would continue to have vehicular access.
- The Esch Farm is within the *Backcountry* zone and could be adaptively used for operational purposes. The Boekeloo Log Cabin is within the *Primitive* zone and the structures (cabin, privy, and ponds) would continue to be preserved by the NPS (once the use and occupancy expires).
- Throughout the zones, additional hiking or bicycling trails

or routes could be developed. Additional backcountry campsites with access by trail or from the water could be provided. Areas within the proposed wilderness boundary and areas zoned *Primitive* would only accommodate only hiking trails.

- Facilities would be upgraded in *Natural Resource Recreation* zones to accommodate a wide range of recreation activities and up to high use levels. Improvements could include more efficient parking areas, picnic areas, comfort stations, and other facilities consistent with the management zone.
- Cultural resources at the Ken-Tuck-U-Inn and the proposed Tweedle/Treat cultural landscape would be preserved or rehabilitated for visitor understanding and/or for compatible adaptive use. Activities could include agricultural uses such as demonstration farming and orchard management at Tweedle/Treat and offices or interpretive activities at Ken-Tuck-U-Inn.
- As in Alternatives 2 and 3, access to the *Ecologically Sensitive* areas along the shoreline would be highly restricted. There would be no development in these areas except as needed for resource protection. The overlook on the Empire Bluff Trail would remain but access to Lake Michigan would be prohibited from this overlook. Interpretation focused on the sensitivity of this resource would be offered off-site.

Benzie Corridor

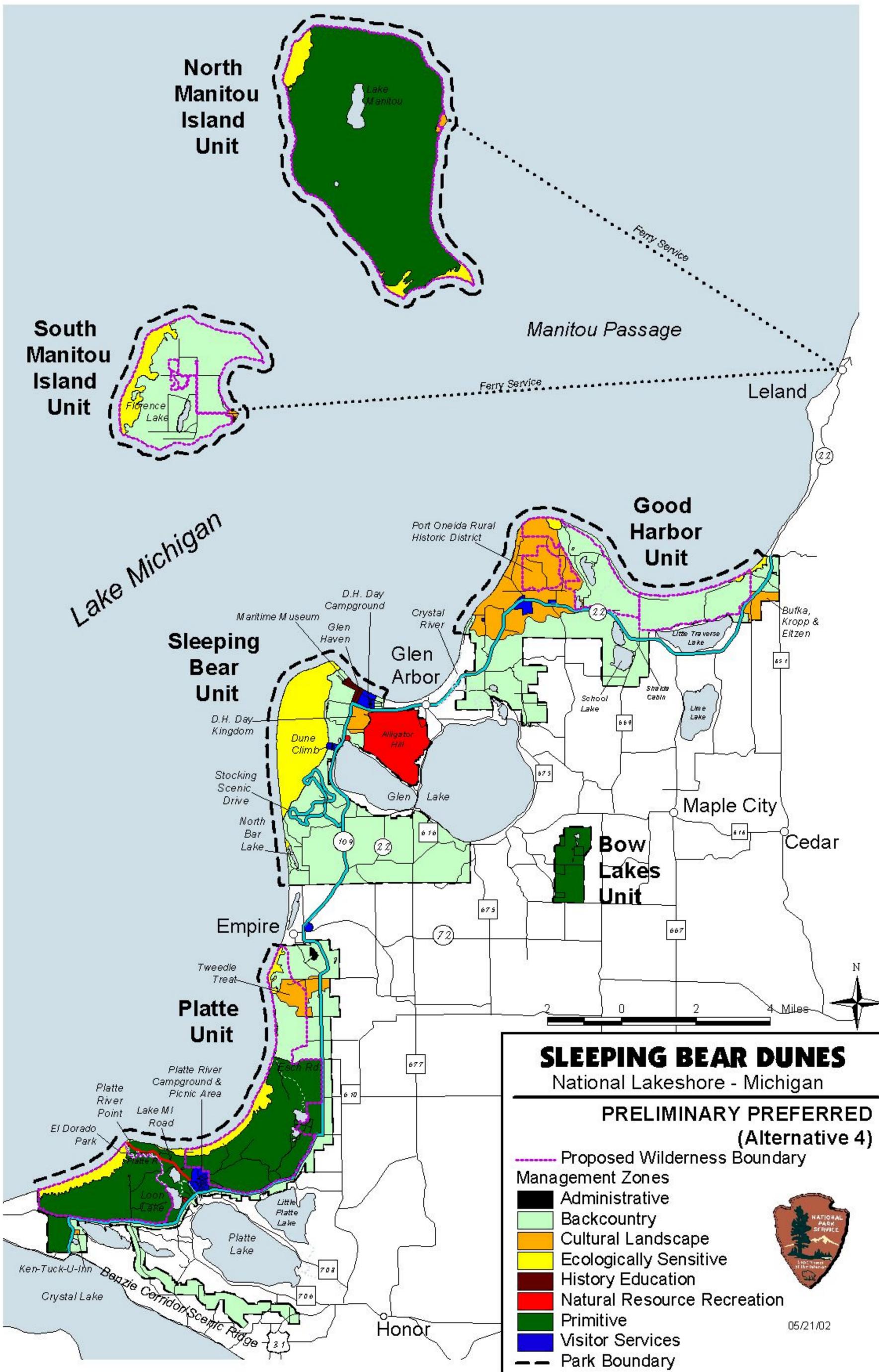
The Lakeshore would acquire properties within the corridor, as they become available from willing sellers. The area would be zoned *Backcountry* and a trail system would be constructed.

M-22/M-109 Corridor

The M-22/M-109 corridor would be included in the *Scenic Corridor* zone. Along this route various interpretive media, designated pull-offs, overlooks, and vistas would be developed. Linkages would be developed with trail, water routes, and commercial services. The Old Indian Trailhead also would be included in this zone with visitor information available. In this alternative, relocated trailheads, serving the Platte Plains trail system and Esch Beach also would be included in this zone.

Beach Areas

As in Alternatives 2 and 3, the beach area is defined as that area between the water's edge and the high water mark on the shore. Motorized and non-motorized watercraft would be permitted to access these areas, however due to NPS policy motorized personal watercraft (jet skis) would be prohibited. Motorized vehicles would only be permitted for accessing docks or loading ramps (e.g., the road ending at Platte Point). Recreational uses would include beach walking, sunbathing, swimming, and fishing.



North Manitou Island Unit

South Manitou Island Unit

Good Harbor Unit

Sleeping Bear Unit

Platte Unit

Bow Lakes Unit

SLEEPING BEAR DUNES
National Lakeshore - Michigan

PRELIMINARY PREFERRED (Alternative 4)

- Proposed Wilderness Boundary
- Management Zones**
- Administrative
- Backcountry
- Cultural Landscape
- Ecologically Sensitive
- History Education
- Natural Resource Recreation
- Primitive
- Visitor Services
- Park Boundary



05/21/02

SUMMARY OF ALTERNATIVES

NORTH MANITOU ISLAND UNIT			
Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4 (Preliminary Preferred)
◆ Continue ferry service for overnight stays on the island.	◆ Same as Alternative 1.	◆ Expand ferry service to allow day use.	◆ Same as Alternative 3.
◆ Continue low visitation levels and high solitude in areas outside the village.	◆ Same as Alternative 1.	◆ Low to moderate visitation levels allowed consistent with the zones and wilderness experiences.	◆ Same as Alternative 3.
◆ Keep most of the island in the proposed wilderness boundary, except for a 27-acre excluded area in the village (including the U.S. Lifesaving Service National Historic Landmark, the Sawmill Complex, and a portion of the proposed Cottage Row cultural landscape). ◆ Continue to preserve most of the historic structures and landscapes including the U.S. Lifesaving Service National Historic Landmark, the Sawmill Complex, and the proposed Cottage Row cultural landscape. Portions of the Manitou Island Association cultural landscape and the Frank Beuham orchard continue to reforest with native vegetation. Continue adaptive use of many of the rehabilitated structures excluded from the proposed wilderness boundary.	◆ Zone areas excluded from the proposed wilderness boundary as <i>Cultural Landscape</i> . Preserve or rehabilitate structures and landscapes for visitor understanding and/or for compatible adaptive uses. Areas could accommodate up to moderate use levels and provide opportunities for cultural resource interpretation. ◆ Zone areas within the proposed wilderness boundary as <i>Primitive</i> . That portion of the proposed Cottage Row cultural landscape within the proposed wilderness boundary would be preserved in accordance with wilderness policies. All other cultural resources would be allowed to molder. Within the zone, increase efforts to maintain, restore, and protect the pre-European settlement ecosystem. Restore old roadbeds (when not part of the trail system) to natural conditions.	◆ Zone all cultural resource areas as <i>Cultural Landscape</i> . Preserve or rehabilitate structures and landscapes for visitor understanding and/or for compatible adaptive uses. Areas could accommodate up to moderate use levels and provide opportunities for cultural resource interpretation. Resources that are currently moldering would be preserved including portions of the proposed Manitou Island Association (MIA) cultural landscape and the Frank Beuham Orchard. Uses and activities in areas included in the proposed wilderness boundary would be managed by wilderness policies. ◆ Zone the remainder of the island as <i>Backcountry</i> . Increase efforts to maintain, restore, and protect the pre-European settlement ecosystem. Restore old roadbeds (when not part of the trail system) to natural conditions. Use trails in the proposed wilderness boundary only for hiking. Manage number of visitors, if necessary, to maintain low to moderate visitor encounters consistent with zone and wilderness experiences.	◆ Zone the U.S. Lifesaving Service National Historic Landmark, the Sawmill Complex, and the entire proposed Cottage Row cultural landscape as <i>Cultural Landscape</i> . Preserve or rehabilitate structures and landscapes for visitor understanding and/or for compatible adaptive uses. Areas could accommodate up to moderate use levels and provide opportunities for cultural resource interpretation. Uses and activities in that portion of the proposed Cottage Row cultural landscape that is within the proposed wilderness boundary would be managed by wilderness policies. ◆ Zone the remainder of the island as <i>Primitive</i> . Within the zone, increase efforts to maintain and restore pre-European settlement ecosystem. Restore old roadbeds (where not part of the trail system) to natural conditions. Historic structures would only be preserved if they do not conflict with the natural resource goals of the Primitive zone. Cultural landscapes would be allowed to reforest with native vegetation.
◆ Retain the trail system and a small backcountry campground north of the village.	◆ Same as Alternative 1.	◆ Provide picnic and comfort station facilities in the village and improve/expand trail system to accommodate day use. Retain campground north of the village.	◆ Same as Alternative 3.
◆ Continue to manage the exotic deer herd through an NPS-managed, public hunt.	◆ Remove the exotic deer herd. Consequently, there would no longer be an NPS-managed, public hunt.	◆ Same as Alternative 1.	◆ Same as Alternative 2.
◆ Allow natural succession outside of the village area (except for influence by deer).	◆ Allow natural succession outside of the village area to proceed.	◆ Same as Alternative 1.	◆ Same as Alternative 2.
◆ Continue to protect natural process on the western and southern dune areas and Dimmicks Point, without emphasizing nonnative species removal or protection of these special areas in interpretive programs/media. Continue to allow low levels of camping and off-trail hiking use.	◆ Zone the western and southern dunes areas and Dimmicks Point as <i>Ecologically Sensitive</i> . Restrict access and allow no development except as needed for resource protection. Discontinue camping. Interpret the sensitivity of this resource offsite. Emphasize exotic species removal.	◆ Same as Alternative 2.	◆ Same as Alternative 2.
SOUTH MANITOU ISLAND UNIT			
Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4 (Preliminary Preferred)
◆ Continue ferry service for day and overnight stays on the island.	◆ Same as Alternative 1.	◆ Same as Alternative 1.	◆ Same as Alternative 1.
◆ Continue low to moderate visitation levels.	◆ Same as Alternative 1.	◆ Same as Alternative 1.	◆ Same as Alternative 1.
◆ Continue to concentrate visitor orientation and interpretation in the village area and lighthouse complex.	◆ Zone the historic village area as <i>Cultural Landscape</i> . Preserve or rehabilitate structures and landscapes for visitor understanding and/or for compatible adaptive uses. Areas could accommodate up to moderate use levels and provide opportunities for cultural resource interpretation. ◆ Zone the lighthouse complex as <i>History Education</i> . Restore the cultural resources to a specific time period if essential for visitor understanding or rehabilitate to support visitor and staff activities.	◆ Same as Alternative 2.	◆ Same as Alternative 2.
◆ Continue motorized historic farm tour through concessioner.	◆ See text below.	◆ Zone the farm loop as <i>Cultural Landscape</i> ; keep use and appearance similar to current conditions. Continue the motorized farm loop tour.	◆ See text below.
◆ Keep most of the island in the proposed wilderness boundary, except for the village area, farm loop, and lighthouse complex. About 8 of the 14 miles of county road rights-of-way are in the proposed wilderness boundary.	◆ Zone most of island (including farm loop) as <i>Primitive</i> . Increase efforts to maintain, restore, and protect the pre-European settlement ecosystem. To reduce habitat fragmentation, molder cultural resources including structures and landscapes along the farm loop and other structures in outlying areas. Seek to acquire all (about 14 miles) of county road rights-of-way as available. Restore old roadbeds (where not part of trail system) to natural conditions. Discontinue the motorized farm loop tour; however, visitors could still tour the area by hiking.	◆ Zone most of island as <i>Backcountry</i> . Increase efforts to maintain, restore, and protect the pre-European settlement ecosystem. To reduce habitat fragmentation, molder cultural resources. Seek to acquire about 8 miles of county road rights-of-way in proposed wilderness boundary as available. Restore old roadbeds (when not part of the trail system) to natural conditions. Manage number of visitors, if necessary, to maintain low to moderate visitor encounters consistent with zone and wilderness experiences.	◆ Zone most of island (including farm loop) as <i>Backcountry</i> . Increase efforts to maintain and restore pre-European settlement ecosystem. Preserve historic structures and landscapes along farm loop much as they are today and allow visitors to tour this area by hiking or biking only (no auto tour). To reduce habitat fragmentation, allow historic structures and landscapes (not along the farm loop) to molder. Seek to acquire about 8 miles of county road rights-of-way in the proposed wilderness boundary as available. Restore old roadbeds (where not part of the trail system) to natural conditions. Manage the number of visitors to maintain low to moderate visitor encounters, consistent with the zone and wilderness experiences.
◆ Retain trail system and three designated primitive campgrounds.	◆ Same as Alternative 1.	◆ Improve/expand trail system and possibly add campsites.	◆ Same as Alternative 3.
◆ Continue to protect natural processes on the western dune areas through hardened trails and low use levels, without emphasizing nonnative species removal or protection of these special areas in interpretive programs/media. Retain Cedar-Dune Trail in this area.	◆ Zone the western dunes as <i>Ecologically Sensitive</i> . Restrict access and allow no development except as needed for resource protection. Eliminate portion of Cedar-Dune Trail that is on the dunes. Interpret the sensitivity of this resource offsite. Emphasize exotic species removal.	◆ Same as Alternative 2.	◆ Same as Alternative 2.

GOOD HARBOR UNIT			
Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4 (Preliminary Preferred)
◆ Continue high to very low visitation levels with visitors enjoying sightseeing, biking, hiking, nature viewing, exploring, camping, picnicking, beach walking, swimming, fishing, boating, canoeing, kayaking, cross-country skiing, snowshoeing, and seasonal hunting.	◆ Visitor encounters would be low with an emphasis on non-motorized outdoor recreation activities including hiking, nature viewing, exploring, camping, picnicking, beach walking, swimming, fishing, canoeing, kayaking, cross-country skiing, snowshoeing, and seasonal hunting.	◆ Same as Alternative 1, with an emphasis on accommodating a wide variety of recreational activities.	◆ Same as Alternative 1.
◆ Retain pit toilet and bulletin board at the beach access sites at the ends of county roads 669 and 651.	◆ Zone as <i>Primitive</i> . Seek to acquire the county road rights-of-way, as available, on the last approximate 100 yards of County Road 669 and on County Road 651 northwest of M-22. Retain hiking access, remove developments, and restore to natural conditions.	◆ Zone as <i>Visitor Services</i> . Upgrade facilities at the ends of County Roads 669 and 651 to accommodate higher use levels. Use barriers or other devices to protect adjacent <i>Ecologically Sensitive</i> zones.	◆ Zone as <i>Backcountry</i> . Formalize facilities at the ends of County Roads 699 and 651, but maintain rustic character. Use barriers or other devices to protect adjacent <i>Ecologically Sensitive</i> zones.
◆ Continued moderate habitat fragmentation from developments and roads.	◆ Emphasize efforts to maintain the northern mixed hardwood forest. Seek to acquire about 16 miles of mostly seasonal county road rights-of-way, as available, in and outside of the proposed wilderness boundary, convert roadways to trails or allow to reforest. Retain roads required for residential and commercial access or school bus routes.	◆ Emphasize resource management efforts to maintain the mixed hardwood forest. Seek to acquire about 8 miles of county road rights-of-way in the proposed wilderness boundary, as available; convert roads to trails or allow to reforest. Retain roads required for residential and commercial access, or school bus routes.	◆ Same as Alternative 3.
◆ Retain the Good Harbor picnic area and access road (Lake Michigan Road) that are within the proposed wilderness boundary.	◆ Zone as <i>Primitive</i> . Seek to acquire the county road rights-of-way as available on Lake Michigan Road. Retain hiking access, remove developments, and restore to natural conditions.	◆ Same as Alternative 2.	◆ Zone as <i>Backcountry</i> . Seek to acquire the county road rights-of-way as available on Lake Michigan Road. Retain hiking access, remove developments, and restore to natural conditions.
◆ Retain motorized access to School Lake (and its rustic facilities).	◆ Zone as <i>Primitive</i> . Retain hiking access, remove developments, and restore to natural conditions.	◆ Zone as <i>Visitor Services</i> . Upgrade facilities to accommodate higher use levels.	◆ Zone as <i>Backcountry</i> . Retain existing developments.
◆ Walk-in access to Bass Lake with informal parking.	◆ Same as Alternative 1.	◆ Formalize parking with carry-in access to Bass Lake.	◆ Same as Alternative 3.
◆ Retain motorized access to Shell and Tucker Lakes.	◆ Eliminate motorized access to Shell and Tucker Lakes.	◆ Eliminate motorized access to Shell Lake, retain motorized access to Tucker Lake.	◆ Same as Alternative 3.
◆ Retain motorized access to the Crystal River and Shalda Creek.	◆ Same as Alternative 1.	◆ Same as Alternative 1, plus improve launch site facilities at the Crystal River.	◆ Same as Alternative 3.
◆ Banks on the Crystal River need restoration.	◆ Restore impacted sites along the Crystal River.	◆ Same as Alternative 2.	◆ Same as Alternative 2.
◆ Continue to preserve or adaptively use the cultural resources in the Port Oneida Rural Historic District. A portion of the rural historic district is in the proposed wilderness boundary.	◆ Zone as <i>Primitive</i> . Preserve structures and landscapes, do not rehabilitate or adaptively use. Maintain low visitor use by providing access principally by hiking. Seek to acquire the county road rights-of-way, as available. Retain roads required for residential, commercial, or school bus access. Take no actions that conflict with the historic district designation.	◆ Zone as <i>Cultural Landscape</i> . Preserve or rehabilitate structures and landscapes for visitor understanding and/or for compatible adaptive uses. Areas could accommodate up to moderate use levels and provide opportunities for cultural resource interpretation. Uses and activities in areas included in the proposed wilderness boundary would be managed by wilderness policies.	◆ Zone three areas [Thoreson Farm complex, John Burfiend Farm (private)/Port Oneida School (private)/Kelderhouse Farm/Dechow (Klett) Farm complex, and Lawr-Chapman Farm complex] as <i>Visitor Services</i> to allow high levels of use and interpretive activities (details in text). ◆ Zone the remainder of the district as <i>Cultural Landscape</i> . Preserve or rehabilitate structures and landscapes for visitor understanding and/or for compatible adaptive uses. Areas could accommodate up to moderate use levels and provide opportunities for cultural resource interpretation. Uses and activities in areas included in the proposed wilderness boundary would be managed by wilderness policies.
◆ Continue to preserve the structures and landscapes of the proposed Bufka/Kropp/Eitzen cultural landscape (use and occupancy).	◆ Zone as <i>Primitive</i> . Allow cultural resources to molder and area to revert to native vegetation.	◆ Zone as <i>Cultural Landscape</i> . Preserve or rehabilitate structures and landscapes for visitor understanding and/or for compatible adaptive uses. Areas could accommodate up to moderate use levels and provide opportunities for cultural resource interpretation.	◆ Same as Alternative 3.
◆ Continue to preserve the Shalda Log Cabin.	◆ Zone as <i>Primitive</i> . Allow cabin to molder and area to revert to native vegetation.	◆ Zone as <i>Cultural Landscape</i> . Preserve or rehabilitate cabin for visitor understanding and/or for compatible adaptive uses. Areas could accommodate up to moderate use levels and provide opportunities for cultural resource interpretation.	◆ Same as Alternative 3.
◆ Retain the Pyramid Point, Bay View, and Good Harbor Bay trails systems, and the Valley View backcountry campground.	◆ Possibly provide additional trails (from abandoned county roads) and backcountry campsites with access by trail or from the water.	◆ Same as Alternative 2.	◆ Same as Alternative 2.
◆ Continued moderate impacts to the sensitive dune areas near the end of County Road 651 and at Pyramid Point by visitors hiking, exploring, or accessing the beach.	◆ Zone as <i>Ecologically Sensitive</i> . Restrict access and allow no development except as needed for resource protection. Restore impacted foredune areas. Interpret the sensitivity of this resource offsite.	◆ Same as Alternative 2.	◆ Same as Alternative 2.
SLEEPING BEAR UNIT			
Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4 (Preliminary Preferred)
◆ Continue use of the popular attraction areas and visitor's facilities. ◆ None of this unit is within the proposed wilderness boundary. ◆ Continue use of county roads.	◆ Zone most of unit as <i>Primitive</i> , with a focus on natural resource preservation, opportunities for solitude and non-mechanized recreational activities. ◆ Increase efforts to preserve pre-European settlement ecosystems. Restore impacted areas to natural conditions. Possibly provide additional hiking trails and backcountry campsites with access by trail or from the water. ◆ Seek to acquire about 10 miles of county road and utility rights-of-way, as available. Convert roads to hiking trails or restore to natural conditions. Retain roads required for residential, commercial, or school bus access.	◆ Zone most of unit as <i>Backcountry</i> . ◆ Increase efforts to preserve pre-European settlement ecosystems. Restore impacted areas to natural conditions. Possibly provide additional hiking or bicycling trails and backcountry campsites with access by trail or from the water. ◆ Seek to acquire about 8 miles of county road and utility rights-of-way, as available. Convert roads to hiking trails or restore to natural conditions. Retain roads required for residential, commercial, or school bus access.	◆ Same as Alternative 3.

◆ Continue to provide for moderate visitor use at Alligator Hill. Visitors engaged in hiking, horseback riding, cross-country skiing, snowshoeing, and hunting. Remnants of the proposed D. H. Day Kingdom cultural landscape are moldering.	◆ Zone as <i>Primitive</i> ; discontinue horseback riding and revegetate disturbed sites.	◆ Zone as <i>Natural Resource Recreation</i> ; upgrade facilities to accommodate up to high visitation and support a variety of recreational activities. Preserve moldering cultural landscape features (such as stone gates and kilns).	◆ Same as Alternative 3.
◆ Continue to provide visitor services at D.H. Day Campground.	◆ Zone as <i>Visitor Services</i> ; manage similar to current conditions.	◆ Same as Alternative 2.	◆ Same as Alternative 2.
◆ Continue to preserve, or rehabilitate and adaptively use the cultural resources in the Glen Haven. Continue to provide extensive interpretation opportunities for the high number of visitors. ◆ Continue to preserve, or restore and adaptively use the cultural resources in Maritime Museum Complex. Continue to provide extensive interpretation opportunities for the high number of visitors.	◆ Zone Glen Haven and the Maritime Museum Complex as <i>Cultural Landscape</i> . Preserve or rehabilitate structures and landscapes for visitor understanding and/or for compatible adaptive uses. Areas could accommodate up to moderate use levels and provide opportunities for cultural resource interpretation. ◆ Improve parking, vehicular and pedestrian circulation, and utilities at Glen Haven. Improve vehicular and pedestrian circulation between Glen Haven and the Maritime Museum Complex.	◆ Zone Glen Haven as a <i>Cultural Landscape</i> (as in Alternative 2). ◆ Zone the Maritime Museum Complex as <i>History Education</i> . Restore the cultural resources to a specific time period if essential for visitor understanding or rehabilitate to support visitor and staff activities. Areas could accommodate up to high use levels and provide for structured interpretive/educational activities. ◆ Improve parking, vehicular and pedestrian circulation, and utilities at Glen Haven. Improve vehicular and pedestrian circulation between the Maritime Museum Complex and Glen Haven.	◆ Zone Glen Haven as <i>History Education</i> . Restore cultural resources to specific time period if needed or rehabilitate to support visitor and staff activities. Areas could accommodate up to high use levels and provide for structured interpretive/educational activities. ◆ Zone the Maritime Museum Complex as <i>History Education</i> (as in Alternative 3) ◆ Improve parking, vehicular and pedestrian circulation, and utilities at Glen Haven. Improve vehicular and pedestrian circulation between the Maritime Museum Complex and Glen Haven.
◆ The D.H. Day Farm is a privately owned photo attraction. The Lakeshore would continue to manage and maintain associated open fields.	◆ Zone as <i>Primitive</i> . Allow associated maintained open fields to reforest with native vegetation. Access (Day Farm Road) from M-109 closed and access by hiking only.	◆ Zone as <i>Cultural Landscape</i> ; manage similar to current conditions.	◆ Same as Alternative 3.
◆ Continue to provide facilities for moderate visitor use at Glen Lake picnic area.	◆ Zone as <i>Scenic Corridor</i> . Same level of development and use as in Alternative 1.	◆ Zone as <i>Natural Resources Recreation</i> ; upgrade facilities to support up to high visitor use levels.	◆ Same as Alternative 3.
◆ Continue use of the Dune Climb on the Sleeping Bear Dunes Plateau. ◆ Continue use of the trails on the Sleeping Bear Dunes Plateau including the Dune Loop, Cross Dune, and Cottonwood trails.	◆ Zone the entire Sleeping Bear Dune Plateau (including the Dune Climb and the development at the base of the dunes) as <i>Ecologically Sensitive</i> . Close the Dune Climb. Remove development at the base of the dunes, including the Great Lakes picnic area, and restore the areas to natural conditions. Remove Dune Loop, Cross Dune, and Cottonwood trails and restore impacted areas to natural conditions. Restrict access and allow no development except as needed for resource protection. Interpret the sensitivity of this resource offsite.	◆ Zone the Dune Climb and the developed area at the base of the dunes as <i>Visitor Services</i> . Upgrade facilities at base of the dunes, delineate visitor use area on the Dune Climb, and manage visitor use. Reopen Great Lakes picnic area. ◆ Zone the remainder of the Sleeping Bear Dune Plateau (excluding the Dune Climb) as <i>Ecologically Sensitive</i> . Remove Dune Loop, Cross Dune, and Cottonwood trails and restore impacted areas to natural conditions. Restrict access and allow no development except as needed for resource protection. Interpret the sensitivity of this resource offsite.	◆ Same as Alternative 3.
◆ Continue to provide for the high number of visitors to Stocking Scenic Drive.	◆ Zone as <i>Scenic Corridor</i> . Implement a shuttle system during peak use times to alleviate congestion.	◆ Zone as <i>Natural Resource Recreation</i> . Provide facilities to accommodate up to high visitor encounters and support a variety of recreational activities.	◆ Zone as <i>Scenic Corridor</i> . Current conditions would remain, except use a shuttle during the busy summer season to alleviate congestion.
◆ Continue to provide for the high number of visitors to North Bar Lake.	◆ Zone as <i>Primitive</i> . Remove development and restore area to natural conditions and allow only hiking access to public.	◆ Zone as <i>Backcountry</i> . Existing facilities remain. Steps may need to be taken to avoid overuse.	◆ Same as Alternative 3.
◆ Continue active protection of open dune areas near North Bar Lake.	◆ Zone as <i>Ecologically Sensitive</i> . Restrict access and allow no development except as needed for resource protection. Interpret the sensitivity of this resource offsite.	◆ Same as Alternative 2.	◆ Same as Alternative 2.
BOW LAKES UNIT			
Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4 (Preliminary Preferred)
◆ Continue existing conditions and uses including backcountry hiking on nondesignated trails and nature observation with high opportunities for solitude.	◆ Zone as <i>Primitive</i> , develop trailhead parking and hiking trails; and provide minimal interpretation.	◆ Zone as <i>Backcountry</i> , develop trailhead parking and hiking and/or bicycling trails, provide minimal interpretation, and accommodate up to moderate visitor use.	◆ Same as Alternative 2.
◆ Acquire properties, as they become available (Right of First Refusal option).	◆ Same as Alternative 1.	◆ Same as Alternative 1.	◆ Same as Alternative 1.
PLATTE UNIT			
Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4 (Preliminary Preferred)
◆ Continue existing use of facilities. ◆ Most of this unit is within the proposed wilderness boundary.	◆ Zone most of unit as <i>Primitive</i> . Increase efforts to preserve pre-European settlement ecosystems. Restore impacted areas to natural conditions. Possibly provide additional hiking trails and backcountry campsites with access by trail or from the water. ◆ Manage number of visitors, if necessary, to maintain low visitor encounters consistent with the zone and wilderness experiences.	◆ Zone most of unit as <i>Primitive</i> and <i>Backcountry</i> . Increase efforts to preserve pre-European settlement ecosystems. Restore impacted areas to natural conditions. Possibly provide additional hiking or bicycling trails (only hiking trails in proposed wilderness and <i>Primitive</i> zones) and backcountry campsites with access by trail or from the water. ◆ Manage visitor numbers in <i>Backcountry</i> zone, if necessary, to maintain low to moderate visitor encounters consistent with backcountry and wilderness experiences.	◆ Same as Alternative 3.
◆ Continue use of county roads.	◆ Seek to acquire about 14 miles of county road rights-of-way, as they become available in areas in and outside the proposed wilderness boundary. Retain roads required for residential, commercial, or school bus access. Close Tiesma Road and convert roadway to hiking trail.	◆ Seek to acquire about 13 miles of county road rights-of-way, as they become available, mostly in the proposed wilderness boundary. Retain roads required for residential, commercial, or school bus access. Close Tiesma Road and convert roadway to hiking trail.	◆ Same as Alternative 2.
◆ Continue use of rehabilitated structures in the proposed Tweedle/Treat cultural landscape. A portion is within the proposed wilderness boundary.	◆ Zone as <i>Primitive</i> . Allow cultural resources to molder and area to revert to native vegetation.	◆ Zone as <i>Cultural Landscape</i> . Preserve cultural resources or rehabilitate for visitor understanding and/or adaptive use. Areas could accommodate up to moderate use levels and provide opportunities for cultural resource interpretation. Uses and activities in areas included in the proposed wilderness boundary would be managed by wilderness policies.	◆ Same as Alternative 3.

◆ Preserve the Esch Fam.	◆ Zone as <i>Primitive</i> . Allow cultural resources to molder and area to revert to native vegetation.	◆ Zone as <i>Cultural Landscape</i> . Preserve cultural resources or rehabilitate for visitor understanding and/or adaptive use. Areas could accommodate up to moderate use levels and provide opportunities for cultural resource interpretation.	◆ Zone as <i>Backcountry</i> . Adaptively use for NPS operational administrative purposes.
◆ Continue to provide vehicular access to Esch Beach. That portion of Esch Road west of the Aral Road intersection is within the proposed wilderness boundary.	◆ Zone as <i>Primitive</i> . Seek to acquire county road rights-of-way, as they become available on the portion of Esch road that is within the proposed wilderness boundary. Retain hiking access, remove developments, and restore to natural conditions. Locate a new trailhead near M-22.	◆ Zone as <i>Backcountry</i> . Seek to acquire county road rights-of-way, as they become available on the portion of Esch road that is within the proposed wilderness boundary. Retain hiking access, remove developments, and restore to natural conditions. Locate a new trailhead outside the proposed wilderness boundary (near the Esch Road-Aral Road intersection).	◆ Zone as <i>Backcountry</i> . Seek to acquire county road rights-of-way, as they become available on the portion of Esch road that is within the proposed wilderness boundary. Retain hiking access within wilderness, remove developments, and restore to natural conditions. Locate a new trailhead near M-22. Bicycles allowed on Esch Road, east of wilderness boundary, and on Aral Road, connecting to the north.
◆ Continue to provide vehicular access to the Trails End area (Otter and Bass Lakes and the Platte Plains Trailhead). The Bass Lake developments and the Platte Plains trailhead are within the proposed wilderness boundary.	◆ Zone as <i>Primitive</i> . Remove the developments at Bass Lake and the Platte Plains Trailhead, restore area to natural conditions, and provide hiking access. Locate a new trailhead near M-22 (continue vehicular access for private inholders).	◆ Zone the developments at Bass Lake and the Platte Plains Trailhead as <i>Backcountry</i> . Remove the developments, restore area to natural conditions, and provide hiking access. ◆ Zone the Otter Lake area as <i>Natural Resources Recreation</i> ; upgrade facilities to accommodate up to high visitation (continue vehicular access for private inholders).	◆ Same as Alternative 2.
◆ Continue to provide visitor services at the Platte River Campground and Picnic Area.	◆ Zone as <i>Visitor Services</i> . Manage as current conditions.	◆ Same as Alternative 2.	◆ Same as Alternative 2.
◆ Continue to accommodate high visitor use along the Platte River Corridor.	◆ Zone as <i>Backcountry</i> . Reduce some development and manage area with an emphasis on the restoration of natural systems. ◆ Work with DNR to return lower Platte River system to a native fishery.	◆ Zone as <i>Natural Resource Recreation</i> . Manage area like current conditions.	◆ Zone as <i>Natural Resource Recreation</i> . Manage area like current conditions. ◆ Work with DNR to return the lower Platte River system to a native fishery.
◆ Continue to provide for visitor use at Loon Lake.	◆ Zone as <i>Backcountry</i> . Reduce some development and manage area with an emphasis on the restoration of natural systems. Non-motorized boating only.	◆ Zone as <i>Natural Resources Recreation</i> . Continue current uses.	◆ Same as Alternative 3.
◆ Continue to preserve the Boekeloo Log Cabin (use and occupancy).	◆ Zone as <i>Primitive</i> . Allow cultural resources to molder and area to revert to native vegetation (once the reservation of use and occupancy expires).	◆ Zone as <i>Primitive</i> . Continue to preserve cultural resources once use and occupancy expires.	◆ Same as Alternative 3.
◆ Continue to preserve the structures and landscapes at the Ken-Tuck-U-Inn.	◆ Zone as <i>Primitive</i> . Allow cultural resources to molder and area to revert to native vegetation.	◆ Zone as <i>Cultural Landscape</i> . Preserve cultural resources or rehabilitate for visitor understanding and/or adaptive use. Area could accommodate up to moderate use levels and provide opportunities for cultural resource interpretation.	◆ Same as Alternative 3.
◆ Continue moderate impacts to open dune areas along the shore. Continue motorized access on Tiesma and Peterson Road.	◆ Zone as <i>Ecologically Sensitive</i> . Restrict access and allow no development except as needed for resource protection. Interpret the sensitivity of this resource offsite.	◆ Same as Alternative 2.	◆ Same as Alternative 2.
BENZIE CORRIDOR			
Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4 (Preliminary Preferred)
◆ Acquire properties, as they become available from willing sellers. ◆ Construct a scenic road along the ridge.	◆ Eliminate from Lakeshore boundary.	◆ Acquire properties, as they become available from willing sellers. ◆ Zone as <i>Backcountry</i> and construct hiking and/or bicycling trails.	◆ Same as Alternative 3.
M-22/M-109 CORRIDOR			
Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4 (Preliminary Preferred)
◆ Continue use of the M-22/M-109 corridor, a state-designated Scenic Heritage Route, as primary travel corridor through the Lakeshore. Provide no additional interpretive facilities, formal or informal pullouts, formal vista management program, or comprehensive program that links the corridor with trails, designated water routes, or commercial services.	◆ Zone as <i>Scenic Corridor</i> . Develop various interpretive media, designated pullouts and overlooks, and vistas along this route. Develop links with trail, water routes, and commercial services. Includes the Glen Lake Picnic Area, the Old Indian Trailhead, and relocated trailheads for the Dune Climb, the Platte Plains trail system, and Esch Beach.	◆ Zone as <i>Scenic Corridor</i> . Develop various interpretive media, designated pullouts and overlooks, and vistas along this route. Develop links with trail, water routes, and commercial services. Includes the Old Indian Trailhead.	◆ Zone as <i>Scenic Corridor</i> . Develop various interpretive media, designated pullouts and overlooks, and vistas along this route. Develop links with trail, water routes, and commercial services. Includes the relocated Platte Plains and Esch Beach trailheads, and the Old Indian Trailhead.
BEACH AREAS			
Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4 (Preliminary Preferred)
◆ Allow motorized and non-motorized watercraft to access these areas, however, due to NPS policy, prohibit motorized personal watercraft (jet skis). Allow motorized vehicles only for accessing docks or boat ramps (e.g., the road ending at Platte Point). ◆ Recreational uses include beach walking, sunbathing, swimming, and fishing.	◆ Same as Alternative 1.	◆ Same as alternative 1.	◆ Same as alternative 1.

MANAGEMENT ZONES

	Resource Conditions	Visitor Experience	Development
Ecologically Sensitive Zone	<ul style="list-style-type: none"> Native species and natural processes predominate and the overall character is pristine Pre-European ecosystem components and processes maintained, restored, and protected Human-caused habitat fragmentation eliminated Exotic species contained or removed 	<ul style="list-style-type: none"> Highly restricted visitor use No interpretation on-site; off-site interpretation focused on resource sensitivity Ecological research and monitoring 	<ul style="list-style-type: none"> No development except as needed for resource protection Very little evidence of human activity
Primitive Zone	<ul style="list-style-type: none"> Native species and natural processes take precedence over visitor accommodation Pre-European ecosystem components and processes maintained, restored, and protected Human-caused habitat fragmentation eliminated Exotic species contained or removed Water quality maintained or restored Cultural resources preserved, rehabilitated, removed, or moldered 	<ul style="list-style-type: none"> Low visitor encounters maintained Visitors engaged in high solitude, off-trail or trailed, self-reliant, non-mechanized outdoor activities (e.g., hiking, backpacking, primitive camping, cross-country skiing, hunting, nature observation) High time commitment High challenge and adventure Discovery area with minimal on-site interpretation Moderate off-site interpretation Low noise tolerance Low interaction with NPS staff 	<ul style="list-style-type: none"> Very low development for visitor accommodation (e.g., trails) Site hardening (e.g., boardwalks, primitive toilets, designated primitive campsites) would only be allowed if needed to protect sensitive resources Little evidence of human activity Low accessibility
Backcountry Zone	<ul style="list-style-type: none"> Natural resources modified slightly to support visitor use, but tolerance for natural resource impacts is low Pre-European ecosystem components and processes maintained, restored, and protected Human-caused habitat fragmentation minimized Exotic species contained or removed Water quality maintained or restored Cultural resources preserved, rehabilitated, removed, or moldered 	<ul style="list-style-type: none"> Moderate visitor encounters accommodated Visitors engaged in self-reliant, non-motorized outdoor activities in diverse land and water natural settings (e.g., hiking, backpacking, backcountry camping, bicycling, canoeing, kayaking, nature observation, cross-country skiing, snowshoeing, hunting) High time commitment Moderate challenge and adventure Discovery area with minimal on-site interpretation Moderate off-site interpretation Low noise tolerance Low interaction with NPS staff 	<ul style="list-style-type: none"> Low level of development to support visitor access to outdoor activities (e.g., trails, trailhead parking, marked routes, designated backcountry campsites, pit toilets, water pumps) Development would be unobtrusive and would blend with the natural environment Site hardening (e.g., boardwalks, fencing, pedestrian paths) may be necessary to protect sensitive resources Historic structures could be adaptively used for operational uses Low accessibility
Natural Resource Recreation Zone	<ul style="list-style-type: none"> Areas where resources support visitor activities with only moderate impacts Natural resources managed or modified to support visitor activities, but protected to the degree possible and appear natural Cultural resources preserved, rehabilitated, removed, or moldered Human-caused habitat fragmentation mitigated to the extent possible 	<ul style="list-style-type: none"> High visitor encounters accommodated Visitors engaged in recreation activities in natural areas (e.g. hiking, biking, hunting, fishing, boating, canoeing, horseback riding) Hunting permitted in designated locations by superintendent's authorization Moderate time commitment Moderate exertion Moderate interpretation High noise tolerance Moderate interaction with NPS staff 	<ul style="list-style-type: none"> Moderate level of development Facilities for support of visitor activities (e.g., restrooms, concrete/asphalt/gravel walkways, trails, benches, picnic tables) Site hardening (e.g., boardwalks, fencing, surfaced pedestrian paths) as necessary to protect sensitive resources Moderate accessibility
Visitor Services Zone	<ul style="list-style-type: none"> In previously disturbed areas, areas of low resource integrity, or areas with relatively durable resources modified to support visitor facilities with only moderate impacts Cultural resources adapted or rehabilitated to support visitor activities Natural resources actively managed and modified to support visitor activities 	<ul style="list-style-type: none"> High visitor encounters accommodated Visitors engaged in education, orientation and other structured activities requiring developed facilities Low to moderate exertion High on-site interpretation High noise tolerance High interaction with NPS staff 	<ul style="list-style-type: none"> High level of development consistent with resource protection Destination-oriented visitor facilities (e.g., visitor centers, museums, staging areas, developed campgrounds) Site hardening (e.g., boardwalks, fencing, barriers, pedestrian paths) to protect sensitive resources Highly accessible

	Resource Conditions	Visitor Experience	Development
Cultural Landscape Zone	<ul style="list-style-type: none"> Includes historic buildings, structures, and other landscape characteristics and features which represent the evolution of the cultural resource, temporal change, and the continuum of time Cultural resources preserved or rehabilitated for visitor understanding and/or for compatible adaptive use by NPS or partners Non-historic development and activities that do not conflict with the cultural landscape are tolerated Natural resources that have been identified as important to the cultural landscape are managed to perpetuate the cultural landscape 	<ul style="list-style-type: none"> Moderate visitor encounters accommodated Visitors engaged in sightseeing, recreational, and educational activities in a cultural setting (e.g., automobile, bicycle, walking, hiking tour) Moderate time commitment Moderate on-site interpretation Moderate off-site interpretation Moderate noise tolerance Moderate interaction with NPS staff 	<ul style="list-style-type: none"> Moderate level of development to support visitor access and use (e.g., interpretive media, walkways, trails, small picnic areas, and restrooms) Development compatible with the cultural landscape Moderate accessibility
History Education Zone	<ul style="list-style-type: none"> Cultural and natural resources (including historic buildings, structures, and landscapes) are restored to specific time period(s) if essential for visitor understanding of historic period(s) OR rehabilitated to support visitor and staff activities for in-depth interpretation of historic period(s) 	<ul style="list-style-type: none"> High visitor encounters accommodated Visitors engaged in structured interpretive/educational activities related to the historic resources (e.g., guided, brochure or audio tape tours; in-depth history exhibits, media, and programs) Moderate time commitment Low exertion High on-site interpretation Minimal off-site interpretation Moderate noise tolerance High interaction with NPS staff 	<ul style="list-style-type: none"> Developments necessary for visitor understanding and/or staff support are compatible with the historic period(s) or are accommodated off-site Restored or rehabilitated area includes necessary protection, security and HVAC systems and visitor/staff support uses, such as restrooms and offices Development, including interpretive media, consistent with historic period(s) Moderate accessibility
Scenic Corridor Zone	<ul style="list-style-type: none"> Scenic, visually appealing natural and cultural backdrop In non-sensitive resource areas, but could provide visual access to sensitive resources Areas where resources support visitor activities with only moderate impacts Human-caused habitat fragmentation mitigated to the extent possible 	<ul style="list-style-type: none"> High visitor encounters Visitors engaged in transit or sightseeing activities by car, bicycle, watercraft, or other conveyance Moderate time commitment Low exertion Moderate interpretation Moderate noise tolerance Low interaction with NPS staff 	<ul style="list-style-type: none"> Moderate level of development to support visitor access, transit, interpretive activities, and sightseeing (e.g., roads, trails, parking, restrooms, overlooks, small picnic areas, interpretive media) Development blends with natural and cultural environment Site hardening (e.g., boardwalks, barriers, fencing, surfaced pedestrian paths) to protect sensitive resources High accessibility
Administrative Zone	<ul style="list-style-type: none"> In previously disturbed areas, areas of low resource integrity, or areas with non-sensitive resources modified for operational support with only moderate impacts Cultural resources adapted or rehabilitated Historic structures used before new construction 	<ul style="list-style-type: none"> No visitor use NPS staff areas High noise tolerance 	<ul style="list-style-type: none"> High level of development for operational support (e.g., administrative and maintenance facilities, employee housing) High accessibility

GLOSSARY

ADA accessible — The Americans with Disabilities Act, enacted in 1990, requires that all public structures be accessible to persons with disabilities.

Category I — Public and use and development areas that have been acquired by the federal government by fee interest.

Category II — Environmental conservation areas that may be acquired by fee. Less-than-fee interests (such as a scenic easement) or restrictive agreements are other options.

Category III — Private use and development areas. No federal interest providing a restrictive agreement is signed. Otherwise, fee or less-than-fee measures would be taken.

Habitat fragmentation — The segregation of vegetated areas (forests, for example) due to roads, trails, powerlines, or other human-cause development. Openings in the forest are paths for predators, such as cowbirds and coyotes, to enter and prey upon forest dwellers. A generally accepted size for forest habitat to benefit wildlife is 10,000 acres.

Interpretation — Providing opportunities for each park visitor to make intellectual and emotional connections to the meanings and significance inherent in park resources. This often results in enhanced resource stewardship and public involvement in the protection of park resources.

Life estate — In a reservation of use and occupancy, the reservation remains in effect as long as the landowner is alive.

Mixed northern hardwood forest ecosystem — The unfragmented old-growth forests that existed prior to European immigration.

Molder — This is a term the NPS uses to describe the natural decay or deterioration of a cultural resource. For example, if the plan states that a structure will molder, that means that the NPS will do nothing to retard the natural decay or deterioration. An example of a moldering structure is the Weaver House in Port Oneida, near the overlook on Basch Road. In cases where a moldering structure poses a safety threat to visitors, the structure would be removed. A moldering cultural landscape is essentially one that is naturally reforesting. An example is the old landing strip on North Manitou Island.

Native species — Native species are defined as all species that have occurred, or now occur, as a result of natural processes on lands designated as units of the National Park System.

Natural succession — A continuing, orderly change of plant communities. Plant communities succeed each other in a series of more mature communities until a relatively stable community evolves that is in balance with the local environmental conditions.

Non-native species — Also known as “exotic” species, these species occupy or could occupy park lands directly or indirectly as the result of deliberate or accidental human activities.

Pre-European settlement ecosystem — The natural landscapes, geologic features, wildlife, water resources, and vegetation that existed before settlement by European immigrants.

Preserve — This term generally focuses on measures to protect and stabilize a historic structure, such as maintenance and repair. Preserved structures are protected or stabilized through activities such as adding

new roofs, correcting foundation problems, adding windows, and correcting structural problems. Preserved structures are generally not adaptively used by the NPS or partners. They remain as a fixture on the landscape indefinitely for the visual enjoyment of visitors and interpretation. A current example of a preserved structure is the Olsen farmhouse on M-22 in Port Oneida. A preserved cultural landscape is one that has retained the greatest amount of historic features, form, and detail as they have evolved over time. The Port Oneida area is a good example.

Private inholder — One who owns a parcel of privately owned land within the Lakeshore.

Rehabilitate with adaptive use — This term focuses on making compatible use possible by altering the structure, but still retaining its historical or cultural values. Rehabilitated structures could be used by the NPS for housing, storage, interpretation, offices, or by partners for a variety of compatible uses such as offices, environmental centers, or demonstration farms. The Lakeshore currently has an agreement with the Shielding Tree Nature Center for the adaptive use of the Lawr-Chapman farm in Port Oneida and with the Friends of Sleeping Bear Dunes, and the Preserve Historic Sleeping Bear group for partial use of the Carmichael House on M-109 for offices. Other agreements are pending. Rehabilitation and adaptive use typically would require renovation of the interior of a structure, the addition of utilities, and the addition or improvement of access and parking. The structures could be used year-round, with the possibility of high visitor use at occasional special events. A rehabilitated cultural landscape is one that has been altered to meet continuing or new uses while retaining the historic character. Examples might include replacing deteriorated historic materials, replacing missing historic features (such as a building or fence row), or alterations for a new use (such as adding new plantings to screen a contemporary use). Currently there are no rehabilitated landscapes in the Lakeshore.

Reservation of use and occupancy — In acquisitions by the National Park Service, the landowner may reserve the right to remain on the property, either for a fixed term of years or for life.

Restoration — Buildings and cultural landscapes are restored to a specific time period when necessary for visitor understanding. Features from other time periods are removed. In the Lakeshore, the Coast Guard lifesaving station (the Maritime Museum) and boathouses at Glen Haven have been restored. There are no restored cultural landscapes in the Lakeshore.

Right of first refusal — The National Park Service has the first option to purchase lands from willing sellers in two areas of the Lakeshore, Bow Lakes and Miller Hill.

FREEDOM OF INFORMATION ACT

Please be aware that due to public disclosure requirements, the National Park Service, if requested, is required to make the names and addresses of commenters public. Individual respondents, however, may request that this information not be released. The National Park Service will then determine whether the information can be withheld under the Freedom of Information Act, and we will honor your request to the extent allowed by law. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. We will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives of organization or business officials, available for public inspection in their entirety.

PUBLIC OPEN HOUSES SCHEDULED

The Lakeshore has scheduled a series of open houses for the week of July 8th to allow the public to ask questions and provide comments about the planning process and the alternatives including the preliminary preferred.

Tuesday, 6:00 – 9:00 PM, July 9, 2002

Sleeping Bear Dunes National Lakeshore
Visitor Center Auditorium
9922 Front Street
Highway M-72
Empire, Michigan
231-326-5134

Wednesday, 2:00- 5:00 PM, July 10, 2002

Traverse Area District Library Meeting Room
610 Woodmere (near Eighth Street)
Traverse City, Michigan
231-932-8500

Thursday, 9:30 AM-12:30 PM, July 11, 2002

Sail Restaurant
1579 US Highway 31
Benzonia, Michigan
231-882-4971

Please join us



NEXT STEPS/SCHEDULE

The Planning Process

1 Collect Data and Identify Issues Winter 2000 - Spring 2000

We
Are
Here

2 Develop and Evaluate Alternatives Summer 2000 - Summer 2002

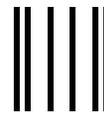
3 Prepare and Publish Draft Plan/EIS Summer 2002 - Winter 2002

4 Revise and Publish Plan Spring 2003 - Fall 2003

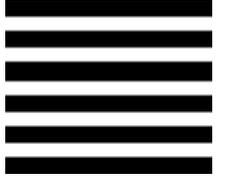
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National Park Service
Sleeping Bear Dunes National Lakeshore
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SLEEPING BEAR DUNES

National Lakeshore Michigan

General Management Plan / Environmental Impact Statement

ALTERNATIVES INCLUDING THE PRELIMINARY PREFERRED



RESPONSE FORM

You may respond on this prepaid response form or you may respond over the Internet at slbe_gmp@nps.gov. Your comments are welcome at any time however; they would be particularly helpful if we receive them by July 26. If you need more space, feel free to attach additional pages to this form.

Please select one of the following:

I support Alternative 4 (Preliminary Preferred) as presented. The reasons I like it are:

I could support Alternative 4 (Preliminary Preferred) with some modifications. Please describe the changes you would like and your reasons for these changes.

I cannot support Alternative 4 (Preliminary Preferred) because of the following reasons:

Other comments or concerns:

Please fold the comment form in half so that the Sleeping Bear Dunes National Lakeshore address and bar codes are visible, tape it, and drop it in the mail.