



Appendixes, Selected References, Preparers and Consultants, and Index

APPENDIX A: LEGISLATION

84 STAT.] PUBLIC LAW 91-479—OCT. 21, 1970

1075

Public Law 91-479

AN ACT

To establish in the State of Michigan the Sleeping Bear Dunes National Lakeshore, and for other purposes.

October 21, 1970
[H. R. 18776]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) the Congress finds that certain outstanding natural features, including forests, beaches, dune formations, and ancient glacial phenomena, exist along the mainland shore of Lake Michigan and on certain nearby islands in Benzie and Leelanau Counties, Michigan, and that such features ought to be preserved in their natural setting and protected from developments and uses which would destroy the scenic beauty and natural character of the area. In order to accomplish this purpose for the benefit, inspiration, education, recreation, and enjoyment of the public, the Secretary of the Interior (hereinafter referred to as the "Secretary") is authorized to take appropriate action, as herein provided, to establish in the State of Michigan the Sleeping Bear Dunes National Lakeshore. In carrying out the provisions of this Act, the Secretary shall administer and protect the Sleeping Bear Dunes National Lakeshore in a manner which provides for recreational opportunities consistent with the maximum protection of the natural environment within the area.

Sleeping Bear
Dunes National
Lakeshore, Mich.

(b) In preserving the lakeshore and stabilizing its development, substantial reliance shall be placed on cooperation between Federal, State, and local governments to apply sound principles of land use planning and zoning. In developing the lakeshore, full recognition shall be given to protecting the private properties for the enjoyment of the owners.

SEC. 2. (a) The Sleeping Bear Dunes National Lakeshore (hereinafter referred to as the "lakeshore") shall comprise the land and water area generally depicted on the map entitled "A Proposed Sleeping Bear Dunes National Lakeshore Boundary Map", numbered NL-SBD-91,000 and dated May 1969, which shall be on file and available for public inspection in the offices of the National Park Service of the Department of the Interior.

(b) As soon as practicable after the date of enactment of this Act and following the acquisition by the Secretary of those lands owned by the State of Michigan within the boundaries of the area designated for inclusion in the lakeshore (excepting not to exceed three hundred acres in the Platte Bay area) and of such additional lands, if any, as are necessary to provide an area which in his opinion is efficiently administrable for the purposes of this Act, he shall establish the Sleeping Bear Dunes National Lakeshore by publication of notice thereof in the Federal Register.

Publication in
Federal Register,

SEC. 3. (a) Within thirty days, or as soon as possible thereafter, after the effective date of this Act, the Secretary shall publish in the Federal Register a map or other description of the lakeshore delineating areas constituting the following categories:

Description,
publication in Fed-
eral Register.

Category I, public use and development areas.

Category II, environmental conservation areas.

Category III, private use and development areas.

(b) Lands and interests therein designated as category I may be acquired by the Secretary in accordance with section 8 of this Act.

(c) Within one hundred and fifty days after the effective date of this Act, the Secretary shall publish in the Federal Register an additional map or other description of those lands, if any, designated as within categories II and III for acquisition by him in fee in accordance with section 8 of this Act.

Additional map,
publication in
Federal Register,

Land acquisition,
limitation.

(d) Except as provided in subsection (f) of this section, the Secretary may, after the publication provided for in subsection (c), acquire only such interests in lands designated as category II, other than those to be acquired in fee simple, as he deems appropriate to insure the continued conservation and preservation of the environmental quality of the lakeshore.

(e) Except as provided in subsection (f) of this section, the Secretary may, after the publication provided for in subsection (c), acquire only such interests in lands designated as category III, other than those lands to be acquired in fee simple, as he deems appropriate to protect lands designated for acquisition.

Real property,
use and develop-
ment restrictions,
notification.

(f) Not later than one hundred and fifty days after the effective date of this Act, the Secretary shall notify owners of real property in categories II and III, other than property designated by him for fee acquisition, of the minimum restrictions on use and development of such property under which such property can be retained in a manner compatible with the purpose for which the lakeshore was established. If the owner of any real property in categories II and III agrees to the use and development of his property in accordance with such restrictions, the Secretary may not acquire, without the consent of such owner, such property or interests therein for so long as the property affected is used in accordance with such restrictions, unless he determines that such property is needed for public use development. The foregoing limitations on acquisition shall also apply to any owners of real property to whom the Secretary did not, within the time set forth, give such a notice, except that if any property owner has not, within ninety days of the notice agreed to use the property in accordance with the notice, then the Secretary may acquire, without limitation, fee or lesser interests in property by any of the methods set forth in section 8 of this Act: *Provided*, That nothing contained in subsections (d) and (e), and in this subsection, which limits the acquisition of the fee simple title to property within the lakeshore, shall prevent the Secretary from acquiring, without the consent of the owner, the fee simple title whenever in the Secretary's judgment the estimated cost of acquiring the lesser interest would be a substantial percentage of the estimated cost of acquiring the fee simple title.

Advisory com-
mission.

SEC. 4. (a) There is hereby established a Sleeping Bear Dunes National Lakeshore Advisory Commission. The Commission shall cease to exist ten years after the establishment of the lakeshore pursuant to section 2 of this Act.

Membership.

(b) The Commission shall be composed of ten members, each appointed for a term of two years by the Secretary, as follows:

(1) Four members to be appointed from recommendations made by the counties in which the lakeshore is situated, two members to represent each such county;

(2) Four members to be appointed from recommendations made by the Governor of the State of Michigan; and

(3) Two members to be designated by the Secretary.

(c) The Secretary shall designate one member to be Chairman. Any vacancy in the Commission shall be filled in the same manner in which the original appointment was made.

(d) A member of the Commission shall serve without compensation as such. The Secretary is authorized to pay the expenses reasonably incurred by the Commission in carrying out its responsibilities under this Act on vouchers signed by the Chairman.

(e) The Secretary or his designee shall consult with the Commission with respect to matters relating to the development of the lakeshore and with respect to the provisions of sections 9, 12, and 13 of this Act.

SEC. 5. In administering the lakeshore the Secretary shall permit

Hunting and
fishing, regu-
lations.

hunting and fishing on lands and waters under his jurisdiction in accordance with the laws of the State of Michigan and the United States applicable thereto. The Secretary, after consultation with the appropriate agency of the State of Michigan, may designate zones and establish periods where and when no hunting shall be permitted for reasons of public safety, administration, or public use and enjoyment and issue regulations, consistent with this section, as he may determine necessary to carry out the purposes of this section.

SEC. 6. (a) The administration, protection, and development of the lakeshore shall be exercised by the Secretary, subject to the provisions of this Act and of the Act of August 25, 1916 (39 Stat. 535; 16 U.S.C. 1 et seq.), as amended and supplemented, relating to the areas administered and supervised by the Secretary through the National Park Service; except that authority otherwise available to the Secretary for the conservation and management of natural resources may be utilized to the extent he finds such authority will further the purposes of this Act.

Administration.

(b) In the administration, protection, and development of the area, the Secretary shall prepare and implement a land and water use management plan, which shall include specific provisions for—

Land and water use plan.

(1) development of facilities to provide the benefits of public recreation;

(2) protection of scenic, scientific, and historic features contributing to public enjoyment; and

(3) such protection, management, and utilization of renewable natural resources as in the judgment of the Secretary is consistent with, and will further the purpose of, public recreation and protection of scenic, scientific, and historic features contributing to public enjoyment.

(c) Within four years from the date of enactment of this Act, the Secretary of the Interior shall review the area within the Sleeping Bear Dunes National Lakeshore and shall report to the President, in accordance with subsections 3(c) and 3(d) of the Wilderness Act (78 Stat. 890; 16 U.S.C. 1132 (c) and (d)), his recommendation as to the suitability or unsuitability of any area within the lakeshore for preservation as wilderness, and any designation of any such area as a wilderness shall be accomplished in accordance with said subsections of the Wilderness Act.

Area review; report to President.

(d) In developing the lakeshore the Secretary shall provide public use areas in such places and manner as he determines will not diminish the value or enjoyment for the owner or occupant of any improved property located thereon.

SEC. 7. Nothing in this Act shall be construed as prohibiting any governmental jurisdiction in the State of Michigan from assessing taxes upon any interest in real estate retained under the provisions of section 10 of this Act to the owner of such interest.

Tax assessments.

SEC. 8. (a) The Secretary is authorized to acquire by donation, purchase with donated or appropriated funds, transfer funds, transfer from any Federal agency, or exchange lands and interests therein for the purposes of this Act. When an individual tract of land is only partly within the area designated, the Secretary may acquire the entire tract by any of the above methods to avoid the payment of severance costs. Land so acquired outside the designated area may be exchanged by the Secretary for non-Federal lands within such area, and any portion of the land not utilized for such exchanges may be disposed of in accordance with the provisions of the Federal Property and Administrative Services Act of 1949 (63 Stat. 377), as amended (40 U.S.C. 471 et seq.).

Land acquisition or exchange.

(b) In exercising his authority to acquire property under this Act, the Secretary shall give immediate and careful consideration to any offer made by an individual owning property within the lakeshore to sell such property to the Secretary. An individual owning property within the lakeshore may notify the Secretary that the continued ownership by such individual of that property would result in hardship to him, and the Secretary shall immediately consider such evidence and shall within one year following the submission of such notice, subject to the availability of funds, purchase such property offered for a price which does not exceed its fair market value.

Federal property, transfer.

(c) Any property or interests therein, owned by the State of Michigan or any political subdivisions thereof, may be acquired only by donation. Notwithstanding any other provision of law, any property owned by the United States on the date of enactment of this Act located within such area may, with the concurrence of the agency having custody thereof, be transferred without consideration to the administrative jurisdiction of the Secretary for use by him in carrying out the provisions of this Act.

Acquisition by condemnation.

(d) With respect to that property which the Secretary is authorized to acquire by condemnation under the terms of this Act, the Secretary shall initiate no condemnation proceedings until after he has made every reasonable effort to acquire such property by negotiation and purchase. The certificate of the determination by the Secretary or his designated representative that there has been compliance with the provisions of this subsection and of subsection (b) of this section shall be prima facie evidence of such compliance.

(e) Nothing in this Act shall be construed to prohibit the use of condemnation as a means of acquiring a clear and marketable title, free of any and all encumbrances.

Zoning bylaws.

SEC. 9. (a) The Secretary shall, at the request of any township or county in or adjacent to the lakeshore affected by this Act, assist and consult with the appropriate officers and employees of such township or county in establishing zoning bylaws for the purpose of this Act. Such assistance may include payments to the county or township for technical aid.

(b) No improved property within the area designated for inclusion in the lakeshore shall be acquired by the Secretary by condemnation so long as the affected county or township has in force and applicable thereto a duly adopted, valid zoning bylaw approved by the Secretary in accordance with the provisions of subsection (d) of this section and the use of improved property is in compliance therewith. In the event that the affected county or township does not have in effect and applicable to any improved property a duly adopted, valid zoning bylaw so approved, the Secretary shall be prohibited from acquiring such property by condemnation, if the owner thereof notifies the Secretary in writing of such owner's agreement to use his property in a manner consistent with the applicable standard set forth in subsection (d) of this section, and such prohibition against condemnation shall remain in effect for so long as such property is so used.

(c) If the Secretary determines that any such property referred to in subsection (b) of this section covered by any such bylaw is being used in a way which is not in substantial compliance with such bylaw, or that any such property referred to in subsection (b) with respect to which an agreement has been made is being used in a manner which is not substantially consistent with such applicable standards, he shall so notify the owner of any such property in writing. Such notice shall contain a detailed statement as to why the Secretary believes that such use is not in substantial compliance with such zoning bylaw or why such use is not substantially consistent with such applicable standards, as the case may be. Any such owner shall have sixty days following the

receipt by him of that written notification within which to discontinue the use referred to in such notification. Discontinuance of such use within such sixty-day period shall have the effect of prohibiting the Secretary from acquiring such property by condemnation by reason of such use. In any case in which such use is not discontinued within such sixty-day period, the Secretary may, in his discretion, acquire such property by condemnation.

(d) Any zoning bylaw or amendment thereto submitted to the Secretary for approval for the purposes of this Act shall be approved by him if such bylaw or amendment contains provisions which—

Bylaws, conditions for approval.

(1) contribute to the effect of prohibiting the commercial and industrial use (other than a use for a commercial purpose as authorized under section 13 of this Act) of all property within the boundaries of such area which is situated within the county or township adopting such bylaw or amendment;

(2) are consistent with the objectives and purposes of this Act so that, to the extent possible under Michigan law, the scenic and scientific values of the lakeshore area will be protected;

(3) are designed to preserve the lakeshore character of the area by appropriate restrictions upon the burning of cover, cutting of timber (except tracts managed for sustained yield), removal of sand or gravel, and dumping, storage, or piling of refuse and other unsightly objects or other uses which would detract from the natural or traditional lakeshore scene;

(4) provide that no construction, reconstruction, moving, alteration, or enlargement of any property, including improved property as defined in this Act, within the lakeshore area shall be permitted, if such construction, reconstruction, moving, alteration, or enlargement would afford less than a fifty-foot setback from all streets measured at a right angle with the street line, and a twenty-five-foot distance from all contiguous properties. Any owner or zoning authority may request the Secretary of the Interior to determine whether a proposed move, alteration, construction, reconstruction, or enlargement of any such property would subject such property to acquisition by condemnation, and the Secretary, within sixty days of the receipt of such request, shall advise the owner or zoning authority in writing whether the intended use will subject the property to acquisition by condemnation; and

(5) have the effect of providing that the Secretary shall receive notice of any variance granted under, and of any exception made to the application of, such bylaw or amendment.

(e) The approval of any bylaw or amendment pursuant to subsection (d) shall not be withdrawn or revoked by the Secretary for so long as such bylaw or amendment remains in effect as approved. Any such bylaw or amendment so approved shall not be retroactive in its application.

SEC. 10. (a) Any owner or owners of improved property situated within the area designated for inclusion in the lakeshore on the date of its acquisition by the Secretary may, as a condition of such acquisition, retain, for a term of not to exceed twenty-five years, or for a term ending at the death of such owner or owners, the right of use and occupancy of such property for any residential purpose which is not incompatible with the purposes of this Act or which does not impair the usefulness and attractiveness of the area designated for inclusion. The Secretary shall pay to the owner the value of the property on the date of such acquisition, less the value on such date of the right retained by the owner. Where any such owner retains a right of use and occupancy as herein provided, such right during its existence may be conveyed or leased for noncommercial residential purposes in accordance with the provisions of this section.

Property owners, retention of use.

(b) Any deed or other instrument used to transfer title to property, with respect to which a right of use and occupancy is retained under this section, shall provide that such property shall not be used for any purpose which is incompatible with purposes of this Act, or which impairs the usefulness and attractiveness of such area and if it should be so used, the Secretary shall have authority to terminate such right. In the event the Secretary exercises his power of termination under this subsection he shall pay to the owner of the right terminated an amount equal to the value of that portion of such right which remained unexpired on the date of such termination.

"Improved
property."

SEC. 11. As used in this Act, the term "improved property" means a detached, one-family dwelling, construction of which was begun before December 31, 1964, together with so much of the land on which the dwelling is situated, such land being in the same ownership as the dwelling, as the Secretary shall designate to be reasonably necessary for the enjoyment of the dwelling for the sole purpose of noncommercial residential use, together with any structures accessory to the dwelling which are situated on the lands so designated. The amount of the land so designated shall in every case be at least three acres in area, or all of such lesser acreage as may be held in the same ownership as the dwelling, and in making such designation the Secretary shall take into account the manner of noncommercial residential use in which the dwelling and land have customarily been enjoyed: *Provided, however,* That the Secretary may exclude from the land so designated any beach or waters on Lake Michigan, together with so much of the land adjoining any such beach or waters, as the Secretary may deem necessary for public access thereto. If the Secretary makes such exclusion, an appropriate buffer zone shall be provided between any residence and the public access or beach.

Scenic roads.

SEC. 12. In order to facilitate visitor travel, provide scenic overlooks for public enjoyment and interpretation of the national lakeshore and related features, and in order to enhance recreational opportunities, the Secretary is authorized to construct and administer as a part of the national lakeshore scenic roads of parkway standards generally lying within the parkway zone designated on the map specified in section 2(a) of this Act. Such scenic roads shall include necessary connections, bridges, and other structural utilities. Notwithstanding any other provision of this Act, the Secretary may procure for this purpose land, or interest therein, by donation, purchase with appropriated or donated funds, or otherwise: *Provided,* That land and interest so procured shall not exceed one hundred and fifty acres per mile of scenic road, except that tracts may be procured in their entirety in order to avoid severances. Property so acquired in excess of the acreage limitation provided in this section may be exchanged by the Secretary for any land of approximately equal value authorized for acquisition by this Act.

Commercial
property.

SEC. 13. In any case not otherwise provided for in this Act, the Secretary shall be prohibited from condemning any commercial property used for commercial purposes in existence on December 31, 1964, so long as, in his opinion, the use thereof would further the purpose of this Act, and such use does not impair the usefulness and attractiveness of the area designated for inclusion in the lakeshore. The following uses, among others, shall be considered to be uses compatible with the purposes of this Act: Commercial farms, orchards, motels, rental cottages, camps, craft and art studios, marinas, medical, legal, architectural, and other such professional offices, and tree farms.

SEC. 14. The Secretary shall furnish to any interested person requesting the same a certificate indicating, with respect to any property

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which the Secretary has been prohibited from acquiring by condemnation in accordance with provisions of this Act, that such authority is prohibited and the reasons therefor.

SEC. 15. There are authorized to be appropriated not more than \$19,800,000 for the acquisition of lands and interests in lands and not more than \$18,769,000 (June 1970 prices) for development, plus or minus such amounts, if any, as may be justified by reason of ordinary fluctuations in construction costs as indicated by engineering cost indices applicable to the type of construction involved herein.

Appropriation.

Approved October 21, 1970.

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PUBLIC LAW 97-361—OCT. 22, 1982

Public Law 97-361
97th Congress

An Act

Oct. 22, 1982
[H.R. 3787]

To amend sections 10 and 11 of the Act of October 21, 1970 (Public Law 91-479; 16 U.S.C. 460x), entitled "An Act to establish in the State of Michigan the Sleeping Bear Dunes National Lakeshore, and for other purposes".

Sleeping Bear
Dunes National
Lakeshore,
Mich.

16 USC 460x-9.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 10 of the Act entitled "An Act to establish in the State of Michigan the Sleeping Bear Dunes National Lakeshore, and for other purposes", approved October 21, 1970 (16 U.S.C. 460x-x14), is amended by striking out subsection (b) and inserting in lieu thereof the following new subsections:

"(b) Any person who is—

"(1) an owner of improved property described in section 11(a)(2) which is situated within the area designated for inclusion in the lakeshore on the date of its acquisition by the Secretary; or

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"(2) an occupier of improved property described in section 11(a)(2) which is situated within the area designated for inclusion in the lakeshore on the date of its acquisition by the Secretary, in situations where the fee ownership of such improved property has been heretofore acquired by the United States (whether by donation, purchase, condemnation, exchange or otherwise);

may retain, for a term not to exceed twenty-five years from January 1, 1973, or for a term ending on the death of such owner or occupier, the right of use or occupancy of such property for any residential purpose which is not incompatible with the purposes of this Act or which does not impair the usefulness and attractiveness of the area designated for inclusion. Such owner or occupier must notify the Secretary of any intention to exercise such option within 60 days after receipt of the notice referred to in section 11(c)(3). In situations where the United States has not heretofore acquired fee title to the improved property, the Secretary shall pay to the owner the value of the property on the date of such acquisition, less the value on such date of the right retained by the owner. In situations where the United States has heretofore acquired fee title to the improved property, the occupier may notify the Secretary that such occupier elects to retain continued use and occupancy of such property pursuant to this section, in which event the occupier shall pay to the Secretary the value of the additional right retained, which value shall be based upon the value of the property at the time of its acquisition by the Secretary.

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"(c) Any deed or other instrument used to transfer title to property, with respect to which a right of use and occupancy is retained under this section, and any instrument evidencing any right of use and occupancy retained by any occupier under this section, shall provide that such property shall not be used for any purpose which is incompatible with purposes of this Act, or which impairs the usefulness and attractiveness of such area, and if it should be so

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used, that the Secretary may terminate such right. In the event the Secretary exercises his power of termination under this subsection he shall pay to the owner of the right terminated an amount equal to the value of that portion of such right which remained unexpired on the date of such termination.

“(d)(1) Any owner or occupier of improved property who retains a right of use and occupancy under subsection (b) may convey or lease such right during its existence to a member of such owner or occupier’s immediate family for noncommercial residential purposes which are not incompatible with the purposes of this Act and which do not impair the usefulness and attractiveness of the area designated for inclusion.

Right of use and occupancy.

“(2) Any owner or occupier of improved property who has retained a right of use and occupancy under subsection (b) may terminate such right at any time, and the Secretary shall pay, within 120 days after the date of such termination, to the owner of the right terminated an amount equal to the value of that portion of such right which remained unexpired on the date of such termination.

Termination.

“(3) As used in this Act, the term ‘member of the immediate family’ means spouse, brother, sister, or child, including persons bearing such relationships through adoption, and step-child.”.

“Member of the immediate family.”

SEC. 2. Section 11 of the Act amended by the first section of this Act is amended to read as follows:

“SEC. 11. (a) As used in this Act, the term ‘improved property’ means a detached, one-family dwelling, construction of which—

“Improved property.”
16 USC 460x-10.

“(1) was begun before December 31, 1964, or

“(2) for the purposes of section 10(b) or 10(d), was begun on or after December 31, 1964, and before October 21, 1970, and has been openly and continuously used, at least during the summer months of each year when similar dwellings in the area are used, as a residential dwelling since such construction was completed, and with respect to the portion of such period after any acquisition of such property by the United States, by the owner, or a member of the immediate family of the owner, of such dwelling on the date of such acquisition,

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together with so much of the land on which the dwelling is situated, such land being in the same ownership as the dwelling, as the Secretary shall designate to be reasonably necessary for the enjoyment of the dwelling for the sole purpose of noncommercial residential use, together with any structures accessory to the dwelling which are situated on the lands so designated. The amount of land so designated shall in every case be at least three acres in area, or all of such lesser acreage as may be held in the same ownership as the dwelling, and in making such designation the Secretary shall take into account the manner of noncommercial residential use in which the dwelling and land have customarily been enjoyed.

“(b) The Secretary may exclude from the land designated under subsection (a) any beach or waters on Lake Michigan, together with so much of the land adjoining any such beach or waters as the Secretary may deem necessary for public access thereto. If the Secretary makes such exclusion, an appropriate buffer zone shall be provided between any residence and the public access or beach.

Beach or waters, exclusion.

“(c)(1) The Secretary may exclude from the category of ‘improved property’ under this Act any property described in subsection (a)(2) which the Secretary determines is in an area required for public use or development in the immediate future. In making any such determination the Secretary shall take into account the proximity of such

Improved property, exclusion.

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Right of use and
occupancy,
termination.

property to any other improved property, the development or public use of the lakeshore and the related timetable therefor, and the anticipated availability in the immediate future of funds related to such development or public use.

“(2)(A) With respect to any improved property, as defined in subsection (a)(2), with respect to which the occupier has retained a right of use and occupancy under section 10(b), the Secretary may terminate such right 90 days after notifying in writing the occupier, if the Secretary determines that such improved property is needed for public use or development under this Act. In making any such determination the Secretary shall take into account the proximity of such property to any other improved property, the development or public use requirements of the lakeshore and related timetable therefor, and the current availability of funds for the proposed public use or development.

“(B) The Secretary shall pay to the owner of the right terminated an amount equal to the value of that portion of such right which remained unexpired on the date of such termination.

“(3)(A) The Secretary must, within 60 days after the date of enactment of this subsection, notify in writing any owner or occupier of property described in subsection (a)(2) that an option to retain rights with respect to such property exists under section 10(b), whether such property shall be subject to any action by the Secretary under paragraph (1) of this subsection, the nature of such proposed action, the reasons for such proposed action, and the contemplated timetable therefor.

“(B) With respect to any proposed action to be taken under paragraph (2) of this subsection, if the Secretary determines within 60 days after the date of enactment of this subsection, after taking into account timetable and funding projections, that, consistent with the General Management Plan dated October 1979, public use or development is anticipated before 1998 for an area containing any improved property described in subsection (a)(2), the Secretary shall include notice of such determination in any notification under subparagraph (A) of this paragraph. Any failure of the Secretary to so notify an occupier pursuant to this subparagraph shall not preclude the Secretary from taking action under paragraph (2) at some future date.”

16 USC 460x-11.

SEC. 3. Section 12 of the Act amended by the first two sections of this Act is amended—

(1) by inserting “(a)” immediately before “In order to facilitate”;

(2) by inserting “Benzie County and within” after “within” in the first sentence thereof; and

(3) by adding the following at the end thereof:

Land exchange.

“(b) Except as provided in subsection (c), any lands in Leelanau County acquired by the Secretary under this section before the date of enactment of this subsection which are within the parkway zone depicted on the map specified in section 2(a) but which are not within, or contiguous to, the lakeshore zone as depicted on such map may be exchanged by the Secretary for other lands of approximately equal value in the lakeshore. If the Secretary is unable to effect such an exchange, such lands may be offered for sale to the person who owned such lands immediately before their acquisition by the Secretary. If such previous owner declines such offer, the Secretary may sell such lands to any buyer. Proceeds from any sale under this

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subsection shall be credited to the account established under section 17 of this Act.

"(c) The Secretary is authorized to obtain and administer, according to the provisions of this section, as a part of the lakeshore as Resource Preservation Areas certain interests in the following lands:

Administration.

"(1) Approximately 600 acres designated as 'Miller Hill' on the map numbered 634-91,001, dated September 1982.

Miller Hill.

"(2) Approximately 975 acres as designated as 'Bow Lakes' on the map numbered 634-91-002, dated September 1982.

Bow Lakes.

"(d)(1) The Secretary may obtain fee title under subsection (e) to lands described in subsection (c)(1), or easements or other restrictive agreements for the preservation of scenic values in such lands.

"(2) The Secretary may obtain fee title under subsection (e) to lands described in subsection (c)(2), or public access easements or other restrictive agreements consistent with use of such lands for educational purposes and for research and interpretation of natural features.

"(e)(1) Except as provided under paragraph (4), the Secretary may obtain fee title or other lesser interests to lands described in subsection (c) only—

"(A) by gift, donation, or bequest;

"(B) by purchase from a willing seller under paragraph (2); or

"(C) as an exercise of a right of first refusal under paragraph

(3).

"(2) The Secretary may negotiate with willing sellers for the transfer of fee title to other lesser interests to lands described in subsection (c). If the Secretary and such willing seller are unable to agree to a fair purchase price, that question may, by mutual consent be submitted to the appropriate United States District Court for adjudication.

"(3) If the owner of any lands described in subsection (c) intends to transfer any interest in such lands except by gift, donation, or bequest, such owner must notify the Secretary of such intention. The Secretary shall have 90 days after notification in which to exercise a right of first refusal to match any bona fide offer to obtain such interest under the same terms and conditions as are contained in such offer. If the Secretary has not exercised such right within 90 days, the owner may transfer such interest.

"(4) Condemnation may be used with respect to any lands described in subsection (c) only—

Condemnation.

"(A) to clear title if necessary for any transfer to the Secretary under this subsection; or

"(B) to purchase fee title or such lesser interest as may be sufficient to prevent significant damage to the scenic, soil, or water resources of the lakeshore. Action under this subparagraph shall be used only after attempts to negotiate a solution to the problem have failed. If the Secretary determines that such attempts have failed, the Secretary shall notify in writing the owner of the property involved of the proposed action to be taken under this subparagraph and the Secretary shall seek an injunction to prevent such resource damage. The Secretary may at any time, and if an injunction is granted under this subparagraph the Secretary shall within 30 days after the date of such injunction, send in writing to the owner of the property the Secretary's best and final offer for the purchase of such property. If the owner does not accept such offer, the Secretary may file for condemnation. The Secretary must notify the Committee

Notification to congressional committees.

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on Energy and Natural Resources of the United States Senate and the Committee on Interior and Insular Affairs of the United States House of Representatives of any action taken under this subparagraph.

“(f)(1) The Secretary shall enter into discussions with appropriate local government officials to develop mutually agreeable zoning restrictions for the protection of scenic resources with respect to the lands described in subsection (c)(1).

“(2) The Secretary shall enter into discussions with appropriate State and local officials responsible for the administration of the Goemaere-Anderson Wetland Protection Act (Michigan, P.A. 203, 1979) to ensure the protection of natural resources with respect to the lands described in subsection (c)(2).

“(g) If the owner of the area designated as ‘The Kettle’ in the General Management Plan dated October 1, 1979, and comprising 240 acres, agrees to donate fee title or a scenic easement to, or other less than fee interest in, such area, the lands in such area may be included as a part of the lakeshore upon publication in the Federal Register by the Secretary of a revised map of the lakeshore which includes such lands.

“(h) The Secretary may, upon request in writing by any owner or occupier of lands in the lakeshore, provide services, such as road maintenance, subject to reimbursement.”

16 USC 460x-14.

SEC. 4. Section 15 of the Act amended by the first three sections of this Act is amended by striking out “\$57,753,000” and inserting in lieu thereof “\$66,153,000”.

SEC. 5. The Act amended by the first four sections of this Act is further amended by adding at the end the following new sections:

Presidential
recommendations
to Congress.
16 USC 460x-15.

“SEC. 16. In accordance with section 3(c) of the Wilderness Act (78 Stat. 890, 892; 16 U.S.C. 1132(c)), the President shall, no later than June 1, 1983, advise the United States Senate and House of Representatives of his recommendations with respect to the suitability or nonsuitability as wilderness of any area within the lakeshore. Subject to existing private rights, the areas described in the report prepared by the National Park Service entitled ‘Wilderness Recommendation; Sleeping Bear Dunes National Lakeshore’ dated January, 1981, and recommended for wilderness (approximately 7,128 acres) and for potential wilderness additions (approximately 23,775 acres) shall, until Congress determines otherwise, be administered by the Secretary so as to maintain their presently existing wilderness character and potential for inclusion in the National Wilderness Preservation System.”

Administration.

SEC. 6. No authority under this Act or any amendment made by this Act to enter into contracts or to make payments shall be effective except to the extent and in such amounts as provided in advance in appropriations Acts.

PUBLIC LAW 97-361—OCT. 22, 1982

96 STAT. 1725

SEC. 7. For purposes of section 7(a)(3) of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 4601-9(a)(3)), the statutory ceilings on appropriations established by the amendments made by this Act shall be deemed to be statutory ceilings contained in a provision of law enacted prior to the convening of the Ninety-fifth Congress.

Statutory
ceilings.
16 USC 460x-14
note.

Approved October 22, 1982.

LEGISLATIVE HISTORY—H.R. 3787:

HOUSE REPORT No. 97-882 (Comm. on Interior and Insular Affairs).
CONGRESSIONAL RECORD, Vol. 128 (1982):

Sept. 29, considered and passed House.

Oct. 1, considered and passed Senate, amended; House concurred in Senate amendments.

PUBLIC LAW 108-229—MAY 28, 2004

118 STAT. 645

Public Law 108-229
108th Congress

An Act

To provide for expansion of Sleeping Bear Dunes National Lakeshore.

May 28, 2004
[H.R. 408]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Michigan.
16 USC 460x-7
note.

SECTION 1. EXPANSION OF SLEEPING BEAR DUNES NATIONAL LAKE-SHORE.

(a) **IN GENERAL.**—When title to the land described in subsection (b) has vested in the United States in fee simple, the boundary of Sleeping Bear Dunes National Lakeshore is revised to include such land in that park.

(b) **LAND DESCRIBED.**—The land referred to in subsection (a) consists of approximately 104.45 acres of unimproved lands generally depicted on National Park Service map number 634/80078, entitled “Bayberry Mills, Inc. Crystal River, MI Proposed Expansion Unit to Sleeping Bear Dunes National Lakeshore”. The Secretary of the Interior shall keep such map on file and available for public inspection in the appropriate offices of the National Park Service.

(c) **PURCHASE OF LANDS AUTHORIZED.**—The Secretary of the Interior may acquire the land described in subsection (b), only by purchase from a willing seller.

SEC. 2. LIMITATION ON ACQUISITION BY EXCHANGE OR CONVEYANCE.

The Secretary of the Interior may not acquire any of the land described in subsection (b) of section 1 through any exchange or conveyance of lands that are within the boundary of the Sleeping Bear Dunes National Lakeshore as of the date of the enactment of this Act.

Approved May 28, 2004.

LEGISLATIVE HISTORY—H.R. 408:

HOUSE REPORTS: No. 108-292 (Comm. on Resources).

SENATE REPORTS: No. 108-240 (Comm. on Energy and Natural Resources).

CONGRESSIONAL RECORD:

Vol. 149 (2003): Oct. 8, considered and passed House.

Vol. 150 (2004): May 19, considered and passed Senate.



APPENDIX B: ANALYSIS OF BOUNDARY ADJUSTMENTS

As one of the provisions of Public Law 95-625, the National Parks and Recreation Act of 1978, Congress directed that the National Park Service consider, as part of a planning process, what modifications of external boundaries might be necessary to carry out park unit purposes.

NPS Management Policies 2006 (section 3.5 Boundary Adjustments) state that the National Park Service will conduct studies of potential boundary adjustments and may make boundary revisions for the following reasons:

- 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 delineations 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; costs; the views of and impacts on local communities and surrounding jurisdictions; and other factors such as the presence of hazardous substances or exotic species;
- 5) Other alternatives for management and resource protection are not adequate.

The following areas were assessed as potential additions to the Lakeshore based on public comments received and internal scoping.

NORTH AND SOUTH FOX ISLANDS

North Fox and South Fox islands are located in Lake Michigan, approximately 17 and 24 miles northeast, respectively, of North Manitou Island. The Fox Islands are part of Leelanau County, Michigan. North Fox is the smaller of the two islands at about 832 acres. The north island has been owned and managed by the state of Michigan since the year 2000. South Fox Island is about 3,400 acres in size. Since 2001, about two-thirds of South Fox Island has been privately owned. The other third is owned and managed by the state, including a lighthouse on the southern tip of the island. There is no regular ferry service to South Fox Island, and it has no docks, fuel, or sheltered harbor. The state manages a special deer hunt on the island, and hunters can access the area using the seasonal service offered by the Manitou Island Transit ferry.

The Fox Islands contain resources and values related to the Lakeshore's purpose (dunes and beaches, for example). However, the resources and values at the islands are not critical to accomplishing the Lakeshore's purpose, nor are the islands required for operational or management needs for the Lakeshore. If the islands were incorporated into the Lakeshore boundaries, they would be difficult and costly for the National Park Service to administer due to their distance from Lakeshore headquarters (more than 50 miles) and from the docks in Leland, Michigan (more than 30 miles). Adequacy of other alternatives for the islands' management and resource protection, such as continued management by the state and/or a long-term lease of lighthouse facilities by a nonprofit organization, depends upon the level of funding, as would be the case for NPS management. Dune areas on the Fox Islands are identified by the state of Michigan as "critical dunes areas," affording them special

protection under the Sand Dune Protection and Management Act of 1976, as amended. Because the Fox Islands do not meet NPS criteria for boundary adjustments, the islands are not considered for inclusion in the National Lakeshore boundary in this *General Management Plan*.

POINT BETSIE LIGHTHOUSE

Point Betsie Lighthouse, built in 1858, is located on the Lake Michigan shore in Benzie County, south of Sleeping Bear Dunes National Lakeshore and north of Frankfort, Michigan. The lighthouse, which is listed on the National Register of Historic Places, is owned by Benzie County. In 2004 the lighthouse property was transferred by the Bureau of Land Management from U.S. Government management to ownership by Benzie County, with the Coast Guard retaining rights to operate the light and ownership of the modern house behind the lighthouse and the grounds on which that guest house sits. According to an operating agreement between Benzie County and the Friends of Point Betsie Lighthouse, Inc. (“Friends”), the capital assets will continue to be owned by Benzie County and operated by the Friends. The Friends are responsible for fundraising to accomplish this, along with the county who will apply for various state and federal grants.

The Point Betsie Lighthouse and its surrounding property do not contain resources and values related to the Lakeshore’s purpose. Including the lighthouse property within the National Lakeshore would not address NPS operational and management needs, nor are the resources and values at the lighthouse critical to fulfilling the National Lakeshore’s purpose. If the Point Betsie Lighthouse were incorporated into the Lakeshore boundaries, additional operational funding would be required for maintaining and administering this resource. The cooperative agreement between Benzie

County (owner) and the Friends of Point Betsie Lighthouse is an adequate alternative to NPS management and resource protection. For these reasons, the lighthouse is not considered for inclusion in the National Lakeshore boundary in this *General Management Plan*.

NORTH MANITOU SHOAL LIGHT

The North Manitou Shoal Light (“the Crib”) is located offshore from Leland, Michigan. The light tower, which is still in service, marks the end of North Manitou Shoal, a shallow area of the Manitou Passage. The light is listed on the National Register of Historic Places and consists of a square, two-story, white steel building set on a massive concrete crib. The light is owned and managed by the U.S. Coast Guard.

The North Manitou Shoal Light does not contain resources and values related to the Lakeshore’s purpose. Furthermore, including the lighthouse property within the National Lakeshore would not address NPS operational and management needs, and the resources and values at the lighthouse are not critical to fulfilling the National Lakeshore’s purpose. If the North Manitou Shoal Light were incorporated into the Lakeshore boundaries, additional operational funding would be required for maintaining and managing the light. Because the lighthouse is still active, continued ownership and management by the U.S. Coast Guard is an appropriate alternative. For these reasons, the North Manitou Shoal Light is not considered for inclusion in the National Lakeshore boundary in this *General Management Plan*.

ADDITIONAL LAKE MICHIGAN BEACH AND SHORELINE

During public scoping for this *General Management Plan*, a few members of the public suggested that the National Park

Service should acquire more beach or shoreline along Lake Michigan. The only specific suggestion along these lines was to acquire beach land located between Old Indian Trail (near the south end of the National Lakeshore) and Point Betsie, about 3 miles away. This area, which is bordered by Crystal Lake to the south and east, is largely forest land, but includes a dune area adjacent to the shoreline around Point Betsie. The area is in private ownership, and land uses include a golf course and numerous private residences.

This area does contain resources and values related to the Lakeshore's purpose (e.g., beaches and dune formations). However, including more beach lands within the National Lakeshore would not address NPS operational and management needs, and the resources and values in this area are not critical to fulfilling the National Lakeshore's purpose. In addition, many of the natural resources in this area have been severely altered and fragmented. The dune area that includes and surrounds Point Betsie is identified by the state as a "critical dune area," affording it special protection under the Sand Dune Protection and Management Act of 1976, as amended. The area between the south end of Sleeping Bear Dunes and Point Betsie would not be feasible to acquire due to very high real estate prices for Lake Michigan frontage.

FISHTOWN

Fishtown is located on the docks along the Carp River where it empties into Lake Michigan in Leland, Michigan, north of Sleeping Bear Dunes National Lakeshore.

This 1-acre cluster of small wooden structures is listed on the National Register of Historic Places and is privately owned. Some of Fishtown's buildings were built in the late 1800s, when lumbering and iron smelting were dominant industries in northern Leelanau County. The fishing era began around 1900 and flourished over the next three decades, when most of Fishtown's fishing shanties, icehouses, and smokehouses were constructed. Most of the structures now house retail businesses, but fishing activities continue there today as well.

Fishtown has been purchased by the non-profit Fishtown Preservation Society to ensure that its historic integrity is preserved for public enjoyment. Their plan is to maintain and preserve Fishtown's historic structures, boats, and equipment, and to continue to lease the buildings to retail businesses, including commercial fishing operations, in order to continue public access there.

Fishtown does not contain resources and values related to the Lakeshore's purpose. Including the Fishtown property within the National Lakeshore would not address NPS operational and management needs, and the resources and values at the lighthouse are not critical to fulfilling the National Lakeshore's purpose. If Fishtown were incorporated into the Lakeshore boundaries, additional operational funding would be required for maintaining and administering this resource. Acquisition and management by the Fishtown Preservation Society is an adequate alternative to NPS management and resource protection. For these reasons, Fishtown is not considered for inclusion in the National Lakeshore boundary in this *General Management Plan*.

APPENDIX C: COST SUMMARY OF ALTERNATIVES

	No Action	Preferred Alternative	Alternative A	Alternative B	Alternative C
One-Time Capital Costs					
Facility (Construction)(1)	\$3,200,000	\$14,100,000	\$11,000,000	\$40,100,000	\$27,800,000
Non-Facility (2)	\$3,400,000	\$3,400,000	\$3,400,000	\$2,700,000	\$2,700,000
Deferred Maintenance (3)	\$15,400,000	\$15,400,000	\$15,400,000	\$15,400,000	\$15,400,000
TOTAL ALTERNATIVE COSTS (1)(2)(3)	\$22,000,000	\$32,900,000	\$29,800,000	\$58,200,000	\$45,900,000
Annual Operating Costs (in 2007 dollars)					
ONPS (4)	\$3,900,000	\$4,400,000	\$4,200,000	\$4,400,000	\$4,500,000
Staff- FTE (5)	66	79	77	79	85

The presentation of costs in a general management plan is applied to the types and general intensities of development in a comparative format. The following applies to costs presented in this general management plan:

- The costs are presented as estimates and are not appropriate for budgeting purposes.
- The cost estimates were developed in 2007; they are very general and intended for alternative comparison purposes only.
- The cost estimates were developed using industry standards to the extent available and they represent the total costs of projects. However, due to cost estimating uncertainty, actual costs could be as much as 30% lower or 50% higher than noted.
- Actual costs will be determined at a later date and will take into consideration the design of facilities, identification of detailed resource protection needs, and changing visitor expectations.
- Initial construction was assumed to occur in year one *except* for construction of a Benzie Corridor scenic road (alternative B) and construction of a Benzie Corridor hike/bike trail (alternative C); these were assumed to occur in year 25. For the preferred alternative, Benzie Corridor construction costs (for a scenic road and/or hike/bike trail) were *not*

included because, similar to the no-action alternative, construction is not anticipated to occur within the life of the plan.

- Approval of the general management plan does not guarantee funding or staffing for proposed actions.
- Project funding will not come all at once; it will likely take many years to secure and may be provided by partners, donations, or other nonfederal sources.
- Some proposals may not be funded within the life of this *General Management Plan* and full implementation may occur many years into the future.

NOTES

- (1) Facility (construction) costs include costs for new facilities that are proposed in the action alternatives. For the no-action alternative, construction costs include only projects that are already planned and funded.
- (2) Non-facility costs include natural and cultural resources management activities and visitor use projects.
- (3) Deferred maintenance costs are those needed to improve Lakeshore assets (structures and facilities) to a good condition based on NPS standards and calculating tools.
- (4) Annual operating costs (ONPS) are the total annual costs for maintenance and operations

associated with each alternative. Included are all costs related to Lakeshore maintenance (e.g., utilities, materials, supplies, and leasing) and visitor services, law enforcement, resource management, and administration operations (including staff salaries and benefits). These costs are based on the current budget.

- (5) Total full-time equivalents (FTE) are the number of staff required to maintain Lakeshore assets at a good level and provide

acceptable visitor services, protection of resources, and other operational support. Full-time equivalent staff would likely be NPS employees. However, Lakeshore managers would explore opportunities to work with partners, volunteers, and other federal agencies to assist in the effective and efficient management of the Lakeshore. Those hours might be in addition to or instead of NPS employees.

APPENDIX D: DEVELOPMENT OF THE PREFERRED ALTERNATIVE

INITIAL PLANNING STEPS

Work on the *Sleeping Bear Dunes National Lakeshore General Management Plan / Wilderness Study / Environmental Impact Statement* began in late 2005. The planning team consisted of Sleeping Bear Dunes National Lakeshore staff, the NPS Midwest Region Chief of Planning and Compliance, and technical specialists from the National Park Service's Denver Service Center.

Early steps in the planning process included the following (see chapter 1 for details):

- Reaffirm the Lakeshore's purpose and significance.
- Identify the Lakeshore's fundamental resources and values.
- Consider legislative mandates.
- Recognize planning issues.
- Identify desired conditions.

The planning team conducted field trips and gathered and studied information on National Lakeshore resources, visitor uses and values, and planning issues. The team also solicited input from the public. (See chapter 6 for a summary of public involvement.) With help from the public, the planning team developed four alternative concepts (including no action) for managing the Lakeshore. These concepts were presented to the public in a newsletter, and then comments from the public were gathered and reviewed.

Based on public input and further consideration, the planning team developed the four alternative concepts into four full preliminary alternatives. These draft alternatives were then presented in another newsletter and at public meetings, and once again public comments were collected and reviewed. Possible consequences of the preliminary alternatives were considered and additional field investigations were conducted.

DEVELOPING THE PREFERRED ALTERNATIVE

The next major step was to develop a preferred alternative. After reviewing the public comments on the preliminary alternatives, the planning team used an evaluation process called "Choosing by Advantages" to evaluate the four preliminary alternatives (no action, alternative A, alternative B, and alternative C). In using this process, the planning team asks, "What and how large are the advantages of each alternative?", "How important are these advantages?", and finally "Are these advantages worth their associated costs?" The Choosing by Advantages process does not "weigh" evaluation criteria in advance so that certain criteria are automatically more important than others. Rather, the process focuses on the differences between alternatives and determining how important those differences (advantages) are.

After addressing the Choosing by Advantages questions in detail, the team used the resulting information to develop the preferred alternative. Alternative A provided the overall best value (greatest total advantage for the cost expended). Thus, to build the preferred alternative, the team started with alternative A, then studied the Choosing by Advantages results to see where elements of other alternatives could be incorporated (or substituted for elements of alternative A) to add advantages without adding too much additional cost.

The draft preferred alternative was presented in the *Draft General Management Plan / Wilderness Study / Environmental Impact Statement*. Based on comments on the draft plan, changes were made to the preferred alternative; these are listed on page 295.

RATIONALE FOR AND SUPPLEMENTARY INFORMATION ABOUT THE PREFERRED ALTERNATIVE

This section provides more information about and rationale for the preferred alternative.

High Use Zone

The M-22 and M-109 road corridors were zoned high use in the preferred alternative to acknowledge continued vehicular use of these state transportation routes³. Along these corridors, the width of the high use zone is 300 feet (each side) from the highway centerline, on NPS-owned lands only, to allow for a possible future M-22/M-109 hike/bike trail. Within this high use zone, wherever it turns out that land is not needed for the bike trail, the width of the high use zone would revert back to the M-22 or M-109 right-of-way, and lands would revert to adjacent management zoning. The high-use zoning does not imply the acquisition of private lands for the hike/bike trail development.

The area around Lake Michigan Road (in Benzie County, near the Platte River) was zoned high use to recognize the relatively high level of use and activity that occurs along the road, at Platte Point, and in and around the Platte River campground and picnic area. This high use zone extends to the northeast towards Tiesma Road to allow for a new Lake Michigan boat ramp or dock in this area, although a new boat ramp or dock is not proposed by the National Park Service. (A separate study would be needed to determine whether any such facility would be appropriate in this area. If such a study indicated that a

new boat ramp or dock is not appropriate here, the high use zone beyond the Lake Michigan Road area would revert to the experience nature zone and Tiesma Road would revert to the recreation zone). NPS-owned Tiesma Road would remain open in any event.

Other popular National Lakeshore areas that were zoned high use to allow for high levels of visitor use and interpretive activities include the Pierce Stocking Scenic Drive and the Dune Climb. The Lakeshore's maintenance facility area, located just south of Empire, was also zoned high use.

Experience History Zone

Areas of the National Lakeshore containing cultural resources that are fundamental to the Lakeshore's significance (see chapter 1) were zoned experience history. These areas are Glen Haven (including the area around the Sleeping Bear Point Life-Saving Museum), Port Oneida Rural Historic District, and the U.S. Life-Saving Service Station/villages and lighthouse on the Manitou Islands. In addition, on South Manitou Island the NPS-owned portion of the farm loop tour and adjacent fields and the schoolhouse were zoned experience history. The primary management emphasis in these areas is to preserve historic structures and landscapes and provide visitors the opportunity to enjoy and learn about them.

Recreation Zone

Areas zoned recreation in the preferred alternative include the following:

- Lake Michigan beach areas and the 0.25-mile-wide strip of Lake Michigan within the National Lakeshore boundary — to allow continued access by watercraft (except for personal watercraft, or jet skis).

³ State owned road rights-of-way are not controlled by the National Park Service. Showing state-owned road rights-of-way within the high use management zone is not intended to suggest otherwise, but rather to indicate continued use under management by the state.

- County-owned road corridors — to recognize continued vehicular and other use of these routes for recreational and other purposes.⁴
- School Lake and Loon Lake —to permit continued motorboat and other recreational uses.
- The Platte River — to permit moderate levels of recreational use, including use of motorboats.
- To allow for a possible M-22/M-109 hike/bike trail developed at the initiative of Lakeshore partners, the area between Peterson Road and north of Platte River campground; the area southeast of the Lakeshore’s Empire maintenance area and west of M-22; the area south of Glen Haven and north of the Dune Climb (west of M-109); plus corridors or two-tracks east of the Pierce Stocking Scenic Drive and north of Alligator Hill. If these areas are not needed for the bike trail, they would revert back to the experience nature zone (except for county roads and the D. H. Day group campground, which would retain the recreation zone).
- Various trailhead areas — to allow for trailhead parking.
- Various farmsteads, farm fields, and other historic elements that are either adjacent to M-22 or where there is minimal conflict with the adjacent experience nature zone — to allow for preservation as “scene setters” or possible adaptive reuse/rehabilitation by partners or the National Park Service. Examples include the Boekeloo cabin and immediate landscape, the Ken-Tuck-U-Inn and immediate landscape, Tweddle School, the Tweddle farmstead, the Bufka farmstead and surrounding open fields, and the Eitzen and Kropp farmsteads.
- The wooded area (“Burnham Woods”) south of the Glen Lakes and east of M-22 — to allow consideration for a possible future designated mountain bike trail system.
- The area east of Glen Haven — to maintain the rustic character of the D. H. Day campground and surroundings, and to permit moderate use levels in this area.
- The Benzie Corridor — to allow for a future scenic road per the Lakeshore’s enabling legislation, and/or a hike/bike trail. About 10% of the 1,100-acre Benzie Corridor has been purchased by the National Park Service from willing sellers over the past quarter century, so development of a scenic road or hike/bike trail is likely decades off into the future. Based on public input received to date and preliminary impact analyses, NPS managers concluded that (a) the Benzie Corridor should remain within the Lakeshore’s legislated boundary, and (b) future managers should have the flexibility to study and decide, based on the circumstances, public input, and other best available information at the time, whether a scenic road or hike/bike trail (or both) should be built within the Benzie Corridor⁵.

4. County-owned road rights-of-way are not controlled by the National Park Service. Showing county-owned road rights-of-way within the recreation management zone is not intended to suggest otherwise, but rather to indicate continued use under management by the counties.

5. The NPS vision of the scenic road at the time of this writing is as follows. The road would provide an identifiable southern entrance to the National Lakeshore. It would include an interchange on US-31. From there it would continue in a generally northwesterly direction along the Crystal Ridge to an intersection with M-22. The road would provide scenic variety and offer outstanding scenic views of Lake Michigan, Empire Bluffs, Platte Lake, and Crystal Lake. Complementary facilities along the scenic road would likely include an entrance station, scenic overlooks, picnic areas, restrooms, and hiking and biking trails. The road would likely be similar to Pierce Stocking Scenic Drive, only with two-way traffic. It would be closed to commercial traffic.

Experience Nature Zone

The remainder of the National Lakeshore was zoned experience nature, in keeping with the purpose of the National Lakeshore: to “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, for the benefit, inspiration, education, recreation, and enjoyment of the public.”

Wilderness Proposal

Based on public input, preliminary impact analyses, and the Choosing by Advantages evaluation, the planning team started with alternative A’s wilderness proposal and modified it as follows:

- south portion of the Lakeshore — added a wilderness exclusion around Empire Bluffs Trail to facilitate trail maintenance and to ensure that hang gliding could continue there; added a wilderness exclusion around the Treat farmstead to facilitate maintenance of open farm fields
- central portion of the Lakeshore — added a wilderness exclusion for the Cottonwood Trail to provide an opportunity for large groups to experience the namesake Sleeping Bear Dunes
- north portion of the Lakeshore — added a wilderness exclusion around the Bufka farm to facilitate maintenance or rehabilitation of the farmstead and surrounding farm fields
- South Manitou Island — added a wilderness exclusion for the farm loop tour route, including the schoolhouse, to allow continuation of the interpretive tours and to facilitate maintenance, rehabilitation, or restoration of the structures, farmsteads, and surrounding fields.

- North Manitou Island — added a wilderness exclusion for all of Cottage Row to facilitate maintenance, rehabilitation, or restoration of these structures and immediate surroundings.

Other Elements of the Preferred Alternative

- Parking at Platte River Point (near the mouth of the Platte River) could be improved to enhance vehicular circulation and reduce congestion.
- The Esch Beach road end would be improved to address resource impacts and safety concerns associated with parking and improve vehicular circulation there.
- Access would be improved at some inland lakes to facilitate boat use and address natural resource impacts (trampling, erosion, etc.)
- The Crystal River access area would be upgraded or relocated and a small parking area would be provided to address natural resource impacts (trampling, erosion of gravel into the river, etc.)
- Motorboats would no longer be allowed on North Bar Lake to improve visitor experiences for nonmotorized uses (canoeing, kayaking, fishing, and swimming). Electric motors would be allowed in the experience nature zone on Bass Lake (Leelanau County), Tucker Lake, and Otter Lake to increase the range of visitor opportunities that are compatible with the intent of this zone.
- Little Glen Lake picnic area would be improved to facilitate beach use. For example, the sand area along the beach would be expanded and flush toilets might be constructed.
- Valley View campground, which is not very popular with visitors, would be abandoned and the area returned to more natural conditions. A replacement campground for hikers and paddlers

would be provided in a more attractive location closer to the Lake Michigan shoreline as a part of the bay-to-bay trail proposal.

- On South Manitou Island, provided there is demand and the service is economically feasible, concession auto tours to near the Giant Cedars would be allowed to the end of the county-owned road; from there, tours would continue on foot for a short distance to the trees. User capacity management strategies (e.g., education, supervision by tour leaders, fences, and/or boardwalks) would be implemented as needed to prevent visitor use-related impacts to the cedar trees and surrounding vegetative community.
- Day ferry trips to North Manitou Island (once or twice a week, not daily) would be allowed provided there is demand and the service is economically feasible. The intent is to allow a different segment of visitors to experience this island.
- On North Manitou Island, designated camping would be required within certain problem areas to confine and address natural resource impacts. In areas where use has not resulted in problems, dispersed camping would continue.
- At Bow Lakes, a small parking area and a loop hiking trail would be provided to facilitate visitor use on NPS-owned lands.

APPENDIX E: WILD AND SCENIC RIVERS

Section 5(d) of the National Wild and Scenic Rivers Act (16 USC 1271-1287) requires that “In all planning for the use and development of water and related land resources, consideration shall be given by all Federal agencies involved to potential national wild, scenic and recreational river areas.” It further requires that “the Secretary of the Interior shall make specific studies and investigations to determine which additional wild, scenic and recreational river areas . . . shall be evaluated in planning reports by all Federal agencies as potential alternative uses of water and related land resources involved.”

The National Park Service has compiled and maintains a Nationwide Rivers Inventory (NRI), which is a register of river segments that potentially qualify as national wild, scenic or recreational river areas. The inventory is a listing of more than 3,400 free-flowing river segments in the United States that are believed to possess one or more “outstandingly remarkable” natural or cultural values judged to be of more than local or regional significance. The original inventory, completed in 1982, was conducted by the U.S. Department of the Interior with the cooperation of state and local agencies. To be listed, river segments had to meet the following three basic criteria:

- be free flowing (and generally 25 miles or longer)
- be relatively undeveloped (both river and corridor)
- possess outstanding natural and/or cultural values

In 1990, National Lakeshore staff inventoried and evaluated rivers and river segments that may have had potential for inclusion into the national wild and scenic rivers system. Five streams were inventoried: Platte River, Otter Creek, Shalda Creek, Crystal River, and Good Harbor Creek. Only the Platte River was

identified by the Lakeshore staff for possible study and inclusion at that time.

A major update to the Nationwide Rivers Inventory was initiated in 1993. To be eligible for listing on the updated inventory, river segments had to meet the following two criteria:

- be free flowing (no mileage requirement)
- have at least one “outstandingly remarkable” value

The Crystal River and the Platte River were included on the 1993 update. The entire 3-mile segment of the Crystal River within the National Lakeshore was included, with the following description: “Sinuous river channel following beach ridges. Large wetlands associated with interdunal wetlands. Remnant beaches contain rich diversity of species. Popular canoeing stream.” The entire segment of the Platte River within the National Lakeshore (4 miles) was included, with the following description: “Sinuous river channel following remnant beach ridges. Major archeological resources relative to mid-woodland period Indian encampments. Popular canoeing destination. Important salmon and trout resource.”

In 2005, NPS staff completed acquisition of the 104 acres of land identified in the Lakeshore boundary expansion authorized by Public Law (PL) 108-229. These lands include 6,300 feet of river frontage along the Crystal River, approximately 0.6 miles along both banks. The land contains important wetland, riparian, and upland habitat for a variety of species within mixed northern forests. It also provides a natural backdrop for recreational river users and exceptional vistas for visitors who are hiking, biking or driving on nearby trails and roads.

APPENDIXES

The National Park Service recommends that this additional 0.6-mile reach of the Crystal River be added to the 3 miles already on the

Nationwide Rivers Inventory when it is next updated.

APPENDIX F: INITIAL CONSULTATION LETTERS

Mr. Dusty Shultz

2


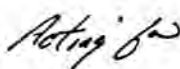
We have provided the approximate location of each species within or adjacent the Lakeshore. If you require more precise information on species locations, please contact our office. In addition to the species listed above, the breeding range of the federally endangered Indiana bat (*Myotis sodalis*) occurs within the southern half and western coastal counties of the Lower Peninsula, including Benzie and Leelanau Counties. Although this species has not been confirmed within the Lakeshore, it may occur in any area of suitable habitat. Suitable Indiana bat habitat typically consists of highly variable forested landscapes in riparian, bottomland, and upland areas which provide roosting trees with crevices or exfoliating bark.

Critical habitat for the endangered piping plover was designated in May, 2001. Michigan Units MI-14, MI-15 and MI-16 occur within the boundaries of the Lakeshore. Maps depicting these units are attached. As a reminder, species for which critical habitat has been designated require a determination of effect for the species as well as for the critical habitat. In determining the effect of the action on critical habitat, we recommend you refer to the Federal Register notice regarding designation (66 Fed. Reg. 22938, May 7, 2001).

If the project requires modification, or new information becomes available that suggests species listed or proposed for listing may be present and/or affected, you should initiate consultation with us as required by section 7 of the Endangered Species Act. Since threatened and endangered species data changes continuously, we recommend you contact this office for an updated Federal list of the species occurring in the project area every six months during the remaining planning and building period.

We have no additional comments on the proposed action at this time. We would be happy to review and comment on the Draft EIS when it is available. Please contact me or Mr. Jack Dingledine at 517-351-6320 if you have questions.

Sincerely,


 Craig A. Czarnecki
Field Supervisor

Enclosures

cc: MDNR, Wildlife Division, Lansing, MI (Attn: Lori Sargent)

g: admin/archives/mar06/NPSMgmtPlanEISListReq.jvd.doc



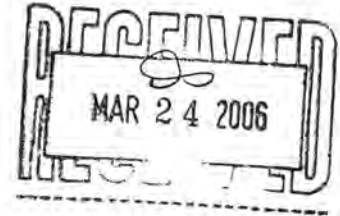
United States Department of the Interior

FISH AND WILDLIFE SERVICE

East Lansing Field Office (ES)
2651 Coolidge Road, Suite 101
East Lansing, Michigan 48823-6316

IN REPLY REFER TO:

March 21, 2006



Dusty Shultz, Superintendent
National Park Service
Sleeping Bear Dunes National Lakeshore
9922 Front Street (Hwy M-72)
Empire, Michigan 49630

2408

Subject: Request for Information on Federally Listed Threatened and Endangered Species
for the General Management Plan/Wilderness Study/Environmental Impact
Statement for Sleeping Bear Dunes National Lakeshore, Michigan.

Dear Ms. Shultz:

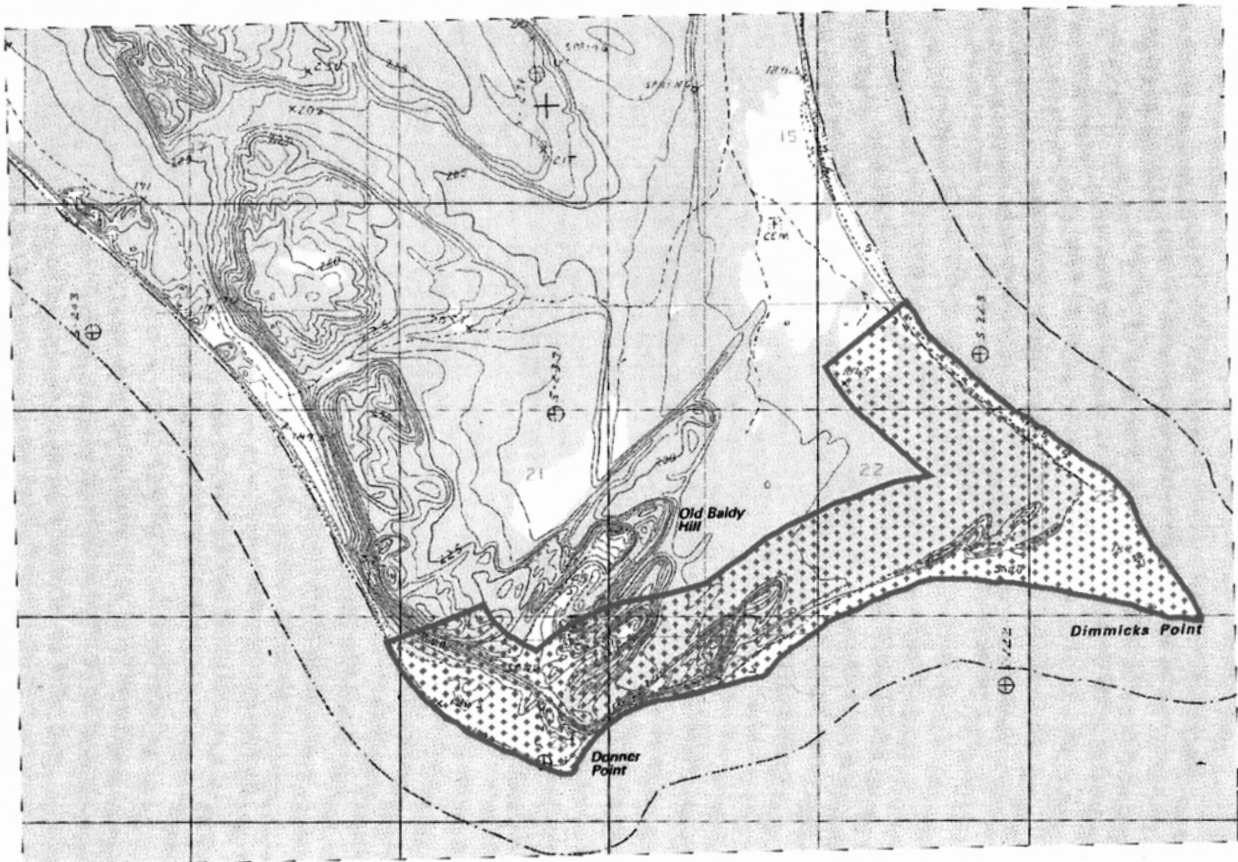
We appreciate receiving your February 16, 2006 letter regarding your intent to prepare an Environmental Impact Statement (EIS) in support of a General Management Plan/Wilderness Study for Sleeping Bear Dunes National Lakeshore, Leelanau/Benzie Counties, Michigan. According to your letter, the National Park Service (NPS) intends to prepare a General Management Plan that will provide an overall decision-making framework for long-term management direction for the next twenty years, while the Wilderness Study will identify and recommend areas of possible inclusion into the National Wilderness Preserve System.

You have requested a current list of all federally endangered, threatened, or proposed species, or designated or proposed critical habitat, in the action area. According to our files, the following species are known to occur within or adjacent the Lakeshore in Leelanau and Benzie Counties.


Species	Current Status	Approximate Location
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	T	T32NR14W, T30NR15W, T30NR12W, T29NR13W, T27NR14W, T27NR15W
Piping Plover (<i>Charadrius melodius</i>)	E	T31NR14W, T29NR14W, T27NR15W, T27NR16W
Michigan Monkey-Flower (<i>Mimulus glaberratus</i> var. <i>michiganensis</i>)	E	T29NR13W, T28NR14W, T27NR14W,
Pitcher's thistle (<i>Cirsium pitcheri</i>)	T	T32NR15W, T31NR14W, T30NR15W, T31NR12W, T29NR12W, T30NR13W, T29NR14W, T29NR15W, T28NR15W, T27NR15W, T27NR16W

Piping Plover CH Unit MI-14

North Manitou
Leelanau Co.



Legend

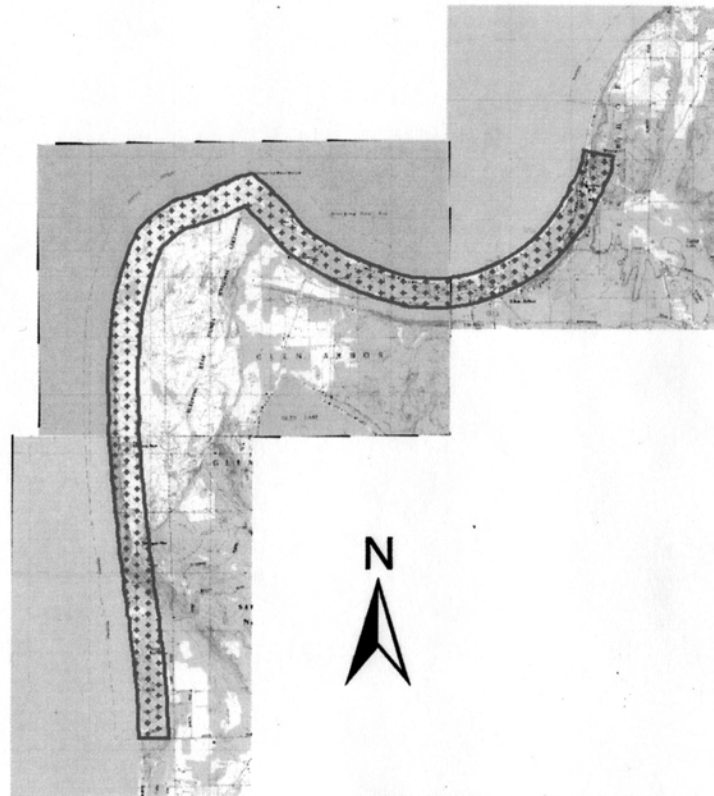
 Mi_14_PP critical habitat




0 0.25 0.5 1 1.5 2 Kilometers


Piping Plover CH Unit MI-15

**Crystal Run to Empire Beach
Leelanau Co.**



Legend

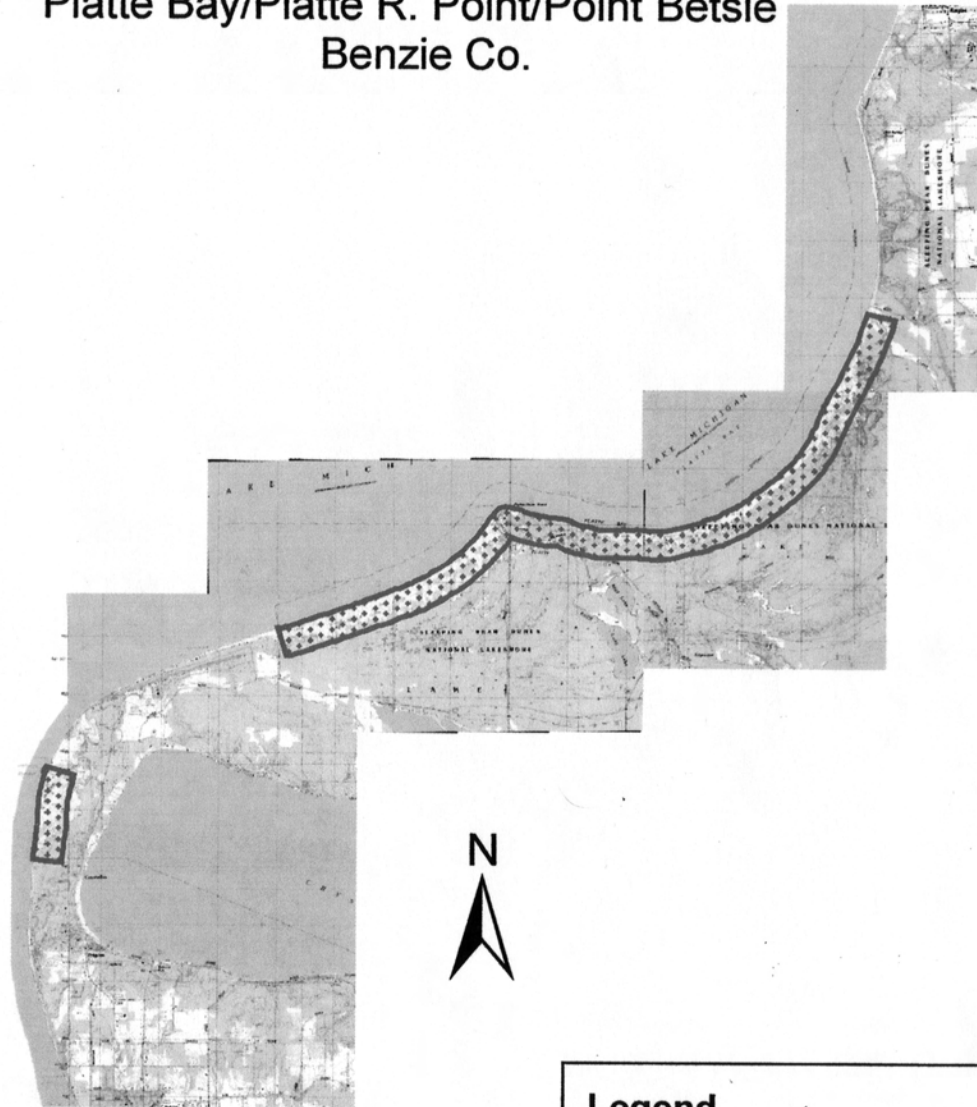
 Mi_15_500m_buff_finall_3_proj.shp

0 0.5 1 2 3 4
 Kilometers

Piping Plover CH Unit MI-16

Platte Bay/Platte R. Point/Point Betsie

Benzie Co.



0 0.5 1 2 3 4 Kilometers

SELECTED REFERENCES

- Benzie County
2000 "Benzie County 2020 Comprehensive Plan." Accessed September 2007 at http://www.benzieco.net/dept_planning.htm#master_plan.
2002 "Benzie County Open Space and Natural Resources Protection Plan." Accessed September 2007 at http://www.benzieco.net/dept_planning.htm#master_plan.
- Burkett, R. D.
1984 An Ecological Study of the Cricket Frog, *Acris crepitans*. Pp 89-102. In: *Vertebrate Ecology and Systematics* by R. A. Seigel, L. E. Hunt, J. L. Knight, L. Malaret and N. L. Zuschlag (eds.). 1984. Museum of Natural History, The Univ. of Kansas, Lawrence, KS.
- Case, F. W., Jr.
1987 "Orchids of the Western Great Lakes Region." Revised ed. Cranbrook Institute of Science, Bull. 48. 251pp.
- Cooper, J. L.
1999a "Special Animal Abstract for *Accipiter gentilis* (Northern Goshawk)." Michigan Natural Features Inventory, Lansing, MI. 3 pp.
1999b "Special Animal Abstract for *Buteo lineatus* (red-shouldered hawk)." Michigan Natural Features Inventory, Lansing, MI. 3 pp.
- Corace, G. R. III, C. Goebel, and T. Wyse
2003 "A Multi-scale Assessment and Evaluation of Historic Openlands at Sleeping Bear Dunes National Lakeshore." Unpublished report. Copy available at National Lakeshore headquarters.
- Crispin, S. R. and M. R. Penskar
1989 "Rangewide Status Survey of *Mimulus glabratus* var. *michiganensis* (Pennell) Fassett, the Michigan Monkey-flower." Lansing, MI: Michigan Natural Features Inventory. p.13.
- Cuthrell, D. L.
2002 "Special Animal Abstract for *Falco columbarius* (merlin)." Michigan Natural Features Inventory, Lansing, MI. 3 pp.
- Elias, J.
2007 "Water Quality Sampling at Pictured Rocks and Sleeping Bear Dunes National Lakeshores, 2005." National Park Service, Great Lakes Inventory and Monitoring Network Report: GLKN/2007/06.
- Grand Traverse Band of Ottawa and Chippewa Indians
2007 Information from the Grand Traverse Band (GTB) website, <http://www.gtb.nsn.us>.
- Haswell, Susan Olsen, and Prof. Arnold R. Alanen
1994 "A Garden Apart: An Agricultural and Settlement History of Michigan's Sleeping Bear Dunes National Lakeshore Region." Prepared for NPS Midwest Regional Office, Omaha, NE, and State Historic Preservation office, Michigan Bureau of History, Lansing, MI.
- Harding, J. H.
1997 "Amphibians and Reptiles of the Great Lakes Region." The University of Michigan Press, Ann Arbor, MI.

- HerpCenter (Center for Reptile and Amphibian Conservation and Management)
- 2004 "Blanchard's Cricket Frog *Acris crepitans blanchardi*: Identification, Status, Ecology, and Conservation in the Midwest." Science Building, Indiana University-Purdue University. Document available at http://herpcenter.ipfw.edu/outreach/accounts/amphibians/anurans/Blanchards_cricket_frog/BlanchardsFactSheet.pdf. Accessed August 1, 2007.
- Higman, P. J. and M. R. Penskar
- 1996a "Special Plant Abstract for *Bromus pumpellianus* (Pumpelly's Brome Grass)." Michigan Natural Features Inventory, Lansing, MI. 2 pp.
- 1996b "Special Plant Abstract for *Calypso bulbosa* (Calypso Orchid)." Michigan Natural Features Inventory, Lansing, MI. 2 pp.
- 1996c "Special Plant Abstract for *Orobanche fasciculata* (Fascicled Broom-rape)." Michigan Natural Features Inventory, Lansing, MI. 2 pp.
- 1999a "Special Plant Abstract for *Cirsium pitcheri*." Michigan Natural Features Inventory, Lansing, MI. 3 pp.
- 1999b "Special Plant Abstract for *Botrychium campestre* (Prairie Dunewort)." Michigan Natural Features Inventory, Lansing, MI. 2 pp.
- 1999c "Special Plant Abstract for *Pterospora andromeda* (Pine-drops)." Michigan Natural Features Inventory, Lansing, MI. 2 pp.
- Humphrey, S. R., A. R. Richter, and J. B. Cope
- 1977 "Summer Habitat and Ecology of the Endangered Indiana bat, *Myotis sodalis*." *J. Mammalogy* 58:334-346.
- Hyde, D. A.
- 1996 "Special Animal Abstract for *Sterna caspia* (Caspian Tern)." Michigan Natural Features Inventory, Lansing, MI. 3 pp.
- 1999a "Special Animal Abstract for *Charadrius melodus* (Piping Plover)." Michigan Natural Features Inventory, Lansing, MI. 4 pp.
- 1999b "Special Animal Abstract for *Terrapene carolina* (Eastern Box Turtle)." Michigan Natural Features Inventory, Lansing, MI. 3 pp.
- Intergovernmental Panel on Climate Change (IPCC)
- 2007 "Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change." S. Solomon, D. Qin, M. Manning, Z. Chen, M. Marquis, K. B. Avery, M. Tignor and H. L. Miller (eds.). Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- Kurta, A., D. King, J. A. Teramino, J. M. Stribley, and K. J. Williams
- 1993 "Summer Roosts of the Endangered Indiana Bat (*Myotis sodalis*) on the Northern Edge of Its Range." *American Midland Naturalist* 129:132-138.
- Lafrancois, B. Moraska, and J. Glase
- 2005 "Aquatic Studies in National Parks of the Upper Great Lakes States: Past Efforts and Future Directions." Water Resources Division Technical Report, NPS/NRWRD/NRTR-2005/334. National Park Service, Denver, Colorado.

SELECTED REFERENCES

- Ledder, T.
2003 Water Resource Information and Assessment Report for the Great Lakes Inventory and Monitoring Network." National Park Service, Great Lakes Inventory and Monitoring Network, Ashland, WI. 54806. Great Lakes Network Technical Report: GLKN/2003/05. 42p.
- Lee, Y.
1999 "Special Animal Abstract for *Glyptemys insculpta* (Wood Turtle)." Michigan Natural Features Inventory, Lansing, MI. 3 pp.
- Lee, Y., D. A. Hyde, and J. Legge
2000 Special Animal Abstract for *Acris crepitans blanchardi* (Blanchard's Cricket Frog)." Michigan Natural Features Inventory. Lansing, MI. 4 pp.
- Leelanau County
2005 "Leelanau General Plan." Accessed September 2007 at <http://www.leelanau.cc/generalplan.asp>.
- MacDonald, Eric and Arnold R. Alanen
2000 "Tending a Comfortable Wilderness, A History of Agricultural Landscapes on North Manitou Island, Sleeping Bear Dunes National Lakeshore, Michigan." U.S. Department of the Interior, National Park Service, Midwest Field Office, Omaha, Nebraska.
- McEnaney, Marla J., William H. Tischler, and Arnold R. Alanen
1995 "Farming at the Water's Edge, An Assessment of Agricultural and Cultural Landscape Resources in the Proposed Port Oneida Rural Historic District at Sleeping Bear Dunes National Lakeshore, Michigan." Midwest Regional Office, National Park Service, Omaha, Nebraska.
- Michigan Department of Natural Resources
2005 "Bird Summary: Prairie Warbler (*Dendroica discolor*)." Michigan's Wildlife Action Plan, SGCN Status & Species-Specific Issues. Revised June 27, 2005. Available at http://www.michigandnr.com/publications/pdfs/HuntingWildlifeHabitat/WCS/SGCN/Dendroica_discolor.pdf. Accessed 5 August 2007.
- Michigan Department of Transportation
2007 Annual Average 24-Hour Traffic Volumes — 2006. Accessed at http://www.michigan.gov/documents/adtftrnt_20092_7.pdf.
- Michigan Grape and Wine Industry Council
2007 "Michigan Wines." Accessed at <http://www.michiganwines.com/Wineries/wineries.html>.
- Michigan Natural Features Inventory (MNFI)
2006a "Michigan's Natural Communities: Draft List and Descriptions." 26 April 2006. Michigan State University Extension.
2006b "GIS Database of Species Occurrences in or proximal to Sleeping Bear Dunes National Lakeshore." Data generated and transmitted 30 November 2006.
2007 "Rare Species Explorer (Web Application)." Available online at <http://web4.msue.msu.edu/mnfi/explorer>. Accessed August 3, October 14, and December 14, 2007.
- Michigan State Historic Preservation Office,
accessed at <http://www.mcgi.state.mi.us/hso>

- Monfills, M. J.
- 2003 "Special Animal Abstract for *Ixobrychus exilis* (Least Bittern)." Michigan Natural Features Inventory, Lansing, MI. 6 pp.
- National Park Service, U.S. Department of the Interior
- 1982 "Scenic Road Feasibility Study, Sleeping Bear Dunes National Lakeshore." NPS Midwest Regional Office. Copy available at Sleeping Bear Dunes National Lakeshore.
- 1992a "Development Concept Plan/Interpretive Prospectus, Glen Haven Area." Sleeping Bear Dunes National Lakeshore, Michigan.
- 1992b "Platte River Management Plan." Denver Service Center, Denver, CO. Copy available at National Lakeshore headquarters.
- 1999a "Draft Historic Properties Management Plan, Sleeping Bear Dunes National Lakeshore."
- 1999b "Exotic Plant Hit List." Unpublished document; available at National Lakeshore headquarters in Empire, MI.
- 2002 "Water Resources Management Plan for Sleeping Bear Dunes National Lakeshore." By David Vana-Miller, NPS Water Resources Division, Fort Collins, CO.
- 2003 "Business Plan—Fiscal Year 2003, Sleeping Bear Dunes National Lakeshore." Copy available at National Lakeshore headquarters.
- 2004 "The Homestead Resort Wastewater Disposal Environmental Assessment." 112 pp.
- 2005a "Fire Management Plan." Sleeping Bear Dunes National Lakeshore. Copy available at National Lakeshore headquarters.
- 2005b "Strategic Plan, Sleeping Bear Dunes National Lakeshore." Sleeping Bear Dunes National Lakeshore. Copy available at National Lakeshore headquarters.
- 2006a "Biological Assessment of the Sleeping Bear Dunes National Lakeshore Invasive Plant Species Control in the Vicinity of Endangered Piping Plover (*Charadrius melodus*), Endangered Michigan Monkey-flower (*Mimulus glabratus* var. *michiganensis*), Threatened Pitcher's Thistle (*Cirsium pitcheri*), and Threatened Bald Eagle (*Haliaeetus leucocephalus*)." Sleeping Bear Dunes National Lakeshore, National Park Service, Empire, Michigan.
- 2006b "Does the Cougar Inhabit Sleeping Bear Dunes National Lakeshore?" by Jerry Belant, Stephen E. Yanchow, and Kimberly S. Struthers. *Natural Areas Journal*, vol. 26(4): 370-375.
- 2006c News Release — "No pets in piping plover nesting areas." A public news release reminding visitors of seasonal prohibition. May 4, 2006.
- 2007 "Public Use Statistics Office — The Money Generation Model II." Accessed at <http://www2.nature.nps.gov/stats/>.
- 2008 *Draft General Management Plan / Wilderness Study / Environmental Impact Statement*. Denver Service Center, Denver, CO.
- National Register of Historic Places website, accessed at <http://www.nr.nps.gov>
- NatureServe
- 2007 "NatureServe Explorer: An Online Encyclopedia of Life [web application]." Version 6.2. NatureServe, Arlington, Virginia. Accessed July 2007 at <http://www.natureserve.org/explorer>.

SELECTED REFERENCES

New Jersey Division of Fish and Wildlife (NJDFW)

- 2007 "Indiana Bat fact sheet [pdf]." Accessed August 13, 2007, at <http://www.state.nj.us/dep/fgw/ensp/pdf/end-thrtened/indianabat.pdf>

Northwest Michigan Council of Governments (NMCOG)

- 2006 "2007 Economic Forecast for the 5-County Region of Atrium, Benzie, Grand Traverse Kalkaska, and Leelanau Counties." Accessed at <http://www.tcchamber.org/documents/2007EconomicForecast.pdf>

Penskar, M. R. and P. J. Higman

- 1996 Special Plant Abstract for *Panax quinquefolius* (ginseng). Michigan Natural Features Inventory, Lansing, MI. 3 pp.
- 1997 Special Plant Abstract for *Asplenium rhizophyllum* (Walking Fern)." Michigan Natural Features Inventory, Lansing, MI. 3 pp.
- 1999 Special Plant Abstract for *Cypripedium arietinum* (Ram's-Head Lady's-Slipper)." Michigan Natural Features Inventory, Lansing, MI. 2 pp.

Preserve Historic Sleeping Bear website, accessed at <http://www.phsb.org>

Rabe, M. L.

- 1999 "Special Animal Abstract for *Trimerotropis huroniana* (Lake Huron Locust)." Michigan Natural Features Inventory, Lansing, MI. 3 pp.

Robert Peccia & Associates

- 2001 "Transportation Study — Sleeping Bear Dunes National Lakeshore, Michigan." Prepared for the Denver Service Center, National Park Service.

Soule, J. D.

- 1992 Element Stewardship Abstract — *Glyptemys insculpta*, Wood Turtle." Michigan Natural Features Inventory, Lansing, MI. 22 pp.

Stynes, Daniel J.

- 2007 "National Park Visitor Spending and Payroll Impacts 2006." Prepared by Michigan State University for the National Park Service, Social Science Program. <http://web4.canr.msu.edu/mgm2/>

Tinkle, D.W., P.E. Feaver, R.W. Van Devender, and L.J. Vitt

- 1979 A Survey of the Status, Distribution and Abundance of Threatened and Endangered Species of Reptiles and Amphibians." Mich. Department of Natural Resources. Unpubl. Rep.

Travel Michigan

- 2004 "Michigan 2002 Travel Summary," prepared by D.K. Shifflet and Associates. Accessed at <http://travelmichigannews.org/mtr/research/>

Traverse City Convention and Visitors Bureau

- 2006 "Tourism Industry Analysis for Grand Traverse County," prepared by Fishkind & Associates. Accessed at <http://www.tcchamber.org/documents/TourismIndustryReport.pdf>.

U.S. Bureau of Economic Analysis

- 2007 "Regional Economic Information System (REIS), Personal Income by Major Source and Earnings by Industry and Full-Time and Part-Time Employment by Industry, 1969 to 2005." Accessed at <http://www.bea.gov/bea/regional/statelocal.htm>.

- U.S. Bureau of Labor Statistics
2007 "Local Area Unemployment Statistics, Annual Averages, 2000 to 2006." Accessed at <http://www.bls.gov/lau/home.htm>.
- U.S. Census Bureau
2002 "Census 2000, Demographic Profiles — 100 Percent and Sample Data, Michigan." Accessed at <http://www.census.gov/Press-Release/www/2002/demoprofiles.html>.
2005 State Interim Population Projections, By Age and Sex, 2004 - 2030, Table 6. Total population for regions, divisions, and states: 2000 to 2030. Accessed at <http://www.census.gov/population/www/projections/projectionsagesex.html>.
2007a "Annual Estimates of the Population for Counties of Michigan, April 1, 2000 to July 1, 2006." Accessed at <http://www.census.gov/popest/counties/>
2007b "Annual Estimates of the Population for Incorporated Places in Michigan, Listed Alphabetically: April 1, 2000 to July 1, 2006." Accessed at <http://www.census.gov/popest/cities/>.
2007c "Manufacturing, Mining and Construction Statistics — Building Permits, by County." Accessed at <http://censtats.census.gov/cgi-bin/bldgprmt/bldgdisp.pl>
2007d "Small Area Income and Poverty Estimates, Estimates for Michigan Counties, 2004." Accessed at <http://www.census.gov/hhes/www/sa/ipe/county.html>.
- U.S. Department of Agriculture
2007 Natural Resources Conservation Service PLANTS Database. Accessed July 2007 at <http://plants.usda.gov>
- U.S. Department of Agriculture, National Agricultural Statistics Service
2004 "2002 Census of Agriculture — Michigan." Accessed at <http://www.nass.usda.gov/mi/>
- U.S. Department of the Interior
2007 "PILT Payment in Lieu of Taxes — Total Payments and Total Acres by State/County." Downloaded from <http://www.doi.gov/pilt/>.
- U.S. Environmental Protection Agency (USEPA)
2000 "Ambient Water Quality Criteria Recommendations: Information Supporting the Development of State and Tribal Nutrient Criteria for Lakes and Reservoirs in Nutrient Ecoregion VII." Office of Water, Office of Science and Technology, Health and Ecological Criteria Division, Washington, D.C. EPA-822-B-00-009.
2006 "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2004." Accessed at <http://www.epa.gov/globalwarming/publications/emissions>.
- U.S. Fish and Wildlife Service (USFWS), U.S. Department of the Interior
1988 "Determination of Threatened Status for *Cirsium pitcheri* (Pitcher's Thistle)." *Federal Register* 53 (137): 27137-27141.
1990 "Determination of Endangered Status for *Mimulus glabratus* var. *michiganensis* (Michigan Monkey-flower)." *Federal Register* 55(120):25596-25599.
1991 "Species Account, Indiana Bat." Division of Endangered Species. Accessed August 13, 2007, at <http://www.fws.gov/endangered/ia/saa08.html>.

SELECTED REFERENCES

- 1997 "Recovery Plan for Michigan Monkey-flower (*Mimulus glabratus* var. *michiganensis*).” Ft. Snelling, Minnesota. vii+ 37 pp.
- 2001 "Final Determination of Critical Habitat for the Great Lakes Breeding Population of the Piping Plover.” *Federal Register*. Vol. 66, No. 88. Monday, May 7, 2001. Rules and Regulations. 50 CFR Part 17.
- 2002a "Birds of Conservation Concern.” U.S. Fish and Wildlife Service Division of Migratory Bird Management Arlington, Virginia.
- 2002b "Pitcher’s Thistle (*Cirsium pitcheri*) Recovery Plan.” Fort Snelling, Minnesota. vii + 92 pp.
- 2002c "Draft Conservation Assessment for Green Spleenwort (*Asplenium trichomanes-ramosum* L.).” 16 pp.
- 2006 "Response to request for information on federally listed threatened and endangered species for the *General Management Plan/Wilderness Study/ Environmental Impact Statement* for Sleeping Bear Dunes National Lakeshore, MI.” Letter from USFWS Field Supervisor Craig Czarnecki to NPS Superintendent Dusty Schultz, dated 21 March 2006.
- U.S. Forest Service (USFS), U.S. Department of Agriculture
- 2000 "Conservation Assessment for Ram’s Head Lady Slipper (*Cypripedium arietinum*).” USDA Forest Service, Eastern Region. September 25, 2000. 20 pp.
- 2003 "Conservation Assessment for Braun’s Holly Fern (*Polystichum braunii*).” USDA Forest Service, Eastern Region. March 1, 2003.
- U.S. Geological Survey
- 1998 "Popular Beach Disappears Underwater in Huge Coastal Landslide — Sleeping Bear Dunes, Michigan.” USGS Fact Sheet-020-98.
- 2000 "Piping Plover *Charadrius melodus*.” Patuxent Wildlife Research Center, Patuxent Bird Identification InfoCenter. Accessed July 29, 2007, on the World Wide Web at <http://www.mbr-pwrc.usgs.gov/id/framlst/i2770id.html>
- 2005 *Triphora trianthophora*. White Mountain NF 2005 Forest Management Plan. Laconia, NH.
- 2007 "The Effect of changing Water Levels on the Fauna of the Crystal River, Sleeping Bear Dunes National Lakeshore, Michigan.” Final report to the Glen Lake/Crystal River Technical Committee. USGS Great Lakes Science Center, Ann Arbor, MI and USGS Water Resources Division, Lansing, MI.
- Voss, E.G
- 1996 "Michigan Flora. Part III. Dicots (Pyrolaceae-Compositae).” *Bull. Cranbrook First Inst. Sci.* 61 & Univ. of Michigan Herbarium. xix + 622 pp.
- Williams Wheeler, Brenda, Arnold R. Alanen, and William H. Tischler
- 1996 "Coming through with Rye: An Historic Agricultural Study of South Manitou Island at Sleeping Bear Dunes National Lakeshore, Michigan.” Prepared for Midwest Field Area, National Park Service, Omaha, Nebraska.
- Yancho, S.
- 2007 Telephone conversation between Chief of Natural Resources , S. Yancho, Sleeping Bear Dunes National Lakeshore, and C. Schmidt (e2M) about conservation measures for piping plover nesting areas/critical habitat. 13 August 2007.

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Sleeping Bear Dunes National Lakeshore

