

Isle Royale National Park

U.S. Department of the Interior
National Park Service



Wilderness Stewardship Plan and Draft Environmental Impact Statement



June 2023

**UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WILDERNESS STEWARDSHIP PLAN AND ENVIRONMENTAL IMPACT STATEMENT**

Lead Agency: National Park Service

The National Park Service (NPS) prepared this Wilderness Stewardship Plan and draft Environmental Impact Statement (plan/EIS) to evaluate a range of alternatives for managing wilderness areas at Isle Royale National Park (Isle Royale, or the park), or Minong, as the island traditionally is called by the Grand Portage Band of Lake Superior Chippewa. The purpose of this plan, developed through consultation and scoping, is to outline strategies for preserving wilderness character while also providing for the use and enjoyment of the park by current and future generations.

This EIS describes how park resources would be affected by the alternatives and evaluates the impacts of each alternative, including the continuation of current management practices (the no-action alternative) and two action alternatives. The EIS analyzes the impacts of each alternative on wilderness character and the cultural resources (historic structures, historic districts, and cultural landscapes) of Isle Royale. Impacts are categorized as direct or indirect, and beneficial or adverse. Cumulative impacts are assessed by combining the impacts of each alternative with other past, present, and reasonably foreseeable future actions. Upon conclusion of the EIS and decision-making process, one of the alternatives would be implemented as the management plan for the park.

The review period for this document will end 60 days after publication of the Notice of Availability in the *Federal Register*. Comments will be accepted during the 60-day period through the NPS Planning, Environment, and Public Comment (PEPC) website listed below, or in hard copy delivered by the US Postal Service or other mail delivery service, or hand-delivered to the address below. Comments will not be accepted by fax, email, or in any other way than those specified above. Bulk comments in any format (hard copy or electronic) submitted on behalf of others will not be accepted. Before including your address, telephone number, electronic mail address, or other personal identifying information in your comments, you should be aware that your entire comment (including your personal identifying information) may be made publicly available at any time. While you can ask us in your comments to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. During the public review period, a public meeting will be held. The details of the public meeting can be found at <https://parkplanning.nps.gov/ISROWilderness>. After public review, the document will be revised as appropriate in response to public comments. A final version of the document will then be released, and a 30-day no-action period will follow. Following the 30-day period, the alternative or actions constituting the plan will be documented in a Record of Decision signed by the Regional Director for Interior Regions 3, 4, and 5.

Additional information and copies of plan/process documents are available online at <https://parkplanning.nps.gov/ISROWilderness>.

Denice Swanke
Superintendent
Isle Royale National Park, ISRO Wilderness Stewardship Plan and EIS
800 East Lakeshore Drive
Houghton, Michigan 49931-1896



ISLE ROYALE NATIONAL PARK

WILDERNESS STEWARDSHIP PLAN AND DRAFT ENVIRONMENTAL IMPACT STATEMENT

June 2023

All photos courtesy of the National Park Service.

EXECUTIVE SUMMARY

This Wilderness Stewardship Plan and Environmental Impact Statement (plan/EIS) presents three alternatives for managing wilderness areas on Isle Royale National Park (Isle Royale or the park): the no-action alternative and two action alternatives involving various changes in what activities are permitted to occur and the treatment of historic structures and installations in wilderness. This EIS assesses the impacts to the wilderness character and cultural resources (historic structures, historic districts, and cultural landscapes) at the park that could result from the implementation of each action alternative. At the conclusion of this decision-making process, the alternative selected for implementation will guide the National Park Service (NPS) in the management of wilderness areas at Isle Royale over the next 20 years. Terms used throughout this document are defined in “Appendix A: References and Glossary.”

BACKGROUND

Isle Royale, or Minong, as the island is traditionally called by the Grand Portage Band of Lake Superior Chippewa (Grand Portage Band), was authorized by Congress as a national park in 1931 (46 Stat. 1514) for the purpose of setting apart a remote island archipelago and surrounding waters in Lake Superior as a national park for the benefit and enjoyment of the public and to preserve and protect its wilderness character, cultural and natural resources, and ecological processes. Approximately 99% of the park’s land area (23% of the park’s total area) is wilderness. Isle Royale is isolated. The island is separated from the nearest land mass by about 15 miles of cold Lake Superior water. The nautical distance from shore and the natural setting of the rugged archipelago are a stark contrast to the usual sights, sounds, and modifications of an increasingly populous and mechanized civilization, providing an exceptional opportunity to experience solitude and isolation. Isle Royale is further secluded by fog, ice, wind, waves, and storms. A visit to Isle Royale requires passage across an often turbulent expanse of open water. Just offshore, beneath the surface, the archipelago is strewn with the wooden and iron remnants of no fewer than a dozen ships from past maritime endeavors.

Humans have had an episodic, but long-standing connection to Minong (Isle Royale). For more than 4,500 years, Indigenous peoples crossed Lake Superior and fished, hunted, gathered plants, and used stone tools to extract malleable pure copper. In the 19th and 20th centuries, the island also attracted hunters, maple sugar harvesters, loggers, greenstone collectors, sport and commercial fishers, recreationalists, miners, fur trappers, and summer cottagers. Today, Isle Royale is seasonally used for wilderness recreation and extensive and unique scientific research endeavors. The evidence of episodic human use is woven into the harbors and lands of Isle Royale wilderness. Although 99% of the island is designated wilderness, a few discrete areas of the island were identified through legislation to serve as administrative or developed areas of the park. However, the overwhelming majority of the island feels like wilderness due to its remoteness and relative lack of development, compared to the mainland.

PURPOSE AND NEED FOR ACTION

The purpose of this plan is to outline strategies for preserving wilderness character while also providing for the use and enjoyment of the park by current and future generations.

Through consultation and scoping (see chapter 5), the NPS has identified the following reasons the proposed action (Wilderness Stewardship Plan) in this EIS is needed:

- The 1998 *General Management Plan* (GMP) specifies that a wilderness and backcountry management plan is needed to guide management of wilderness resources and ensure consistency in such management over time. The alternatives identified in this EIS address needs that are identified in the GMP.
- NPS *Management Policies 2006* directs that each park containing wilderness must maintain an up-to-date and approved wilderness management plan (NPS 2006, section 6.3.4.2).
- Changes in wilderness use, management actions, increasing visitation, and associated human-caused adverse impacts suggest an underlying need to more proactively manage human activities that directly or indirectly affect wilderness character.
- The park currently lacks a management strategy for the treatment and use of historic structures and installations in potential and designated wilderness.
- As nonconforming uses in potential wilderness areas (PWAs) end (e.g., occupancy of cabins through life-leases), management planning is essential to ensure these lands meet the qualifications required for conversion to full wilderness designation.

This plan/EIS has been prepared with guidance provided through the park's establishing legislation, its portfolio of planning documents, and park annual reporting, and it considers the planning effort of the recently completed Nonwilderness Cultural Resources Management Plan /Environmental Assessment (CRMP/EA).

ALTERNATIVES

The Council on Environmental Quality (CEQ) requires federal agencies to explore a range of reasonable alternatives that address the purpose of and need for the action. The alternatives under consideration must include the "no-action" alternative as prescribed by 40 Code of Federal Regulations (CFR) 1502.14. Action alternatives may originate from the proponent agency, local government officials, or members of the public at public meetings or during the early stages of project development. Alternatives may also be developed in response to comments from government-to-government consultation and from coordinating or cooperating agencies.

The alternatives analyzed in this document, in accordance with the National Environmental Policy Act (NEPA), are the result of consultation and internal and public scoping. These alternatives meet the overall purpose of and need for the proposed action. Alternative elements that were considered but were not technically or economically feasible, did not meet the purpose of and need for the project, or created unnecessary or excessive adverse impacts on resources were dismissed from further analysis.

Two action alternatives were developed that meet the stated objectives of this plan/EIS to a large degree and provide a reasonable range of options for managing wilderness areas at the park. These alternatives are described briefly below and presented in greater detail in chapter 2.

NPS *Management Policies 2006* requires that all management decisions affecting wilderness must be consistent with the "minimum requirement" concept. A minimum requirements analysis (MRA) is used to determine whether administrative actions, projects, or programs undertaken by the NPS that may affect wilderness character, resources, or visitor experience are necessary and, if so, how to minimize the effects. All actions in wilderness areas, regardless of the alternative implemented and including decisions to retain a structure or installation in wilderness, would require completion of an MRA. The MRA process is outlined in chapter 2 under "Actions Common to All Alternatives."

Alternative A: No Action

The “no-action alternative” describes existing management practices as described in the 1998 GMP and as implemented through the Superintendent’s Compendium. Under alternative A, the park would continue to address the needs of wilderness stewardship in accordance with the GMP, which generally addresses how the park conducts activities within wilderness. The GMP does not include an overarching stewardship component designed to enhance wilderness character. There are no formal priority or treatment distinctions for historic structures or installations in wilderness. Currently, the park is minimally preserving and maintaining these structures. Preservation activities are done opportunistically when funding, partnerships, and resources are available. All proposed activities in wilderness are evaluated through the MRA process in accordance with section 4(c) of the Wilderness Act, 16 United States Code (U.S.C.) § 1133(c).

Alternative B

Alternative B focuses on enhancing wilderness character with specific emphasis on improving the visitors’ wilderness experience and providing for additional access opportunities consistent with the public purposes of wilderness. This alternative would provide more wilderness opportunities for groups by increasing the group size limit for camping to 12. A new permitting system and monitoring program would be established with visitors required to obtain backcountry/wilderness permits in advance. Wilderness campgrounds would be booked up to 85% of capacity. The remaining 15% of campsites would not be booked in advance to allow for flexible itineraries and to address overcrowding and conflicts in campgrounds. Two new wilderness campgrounds would be established, one on Wright Island and another on Johns Island to provide more opportunities for boaters, kayakers, and canoers. Various areas of the island would be rezoned to reflect current and proposed uses, including hiking trails and administrative uses. The winter closure would remain in effect but would be reevaluated if open water existed during 100% of the winter season for at least five consecutive years. Under this alternative, historic structures and installations would be classified for treatment as preservation, stabilization, mouldering, or removal.

Alternative C

Like alternative B, alternative C focuses on enhancing wilderness character, but does so by focusing primarily on improving solitude. Solitude is generally preserved or improved by management actions that reduce visitor encounters, signs of modern civilization inside wilderness, structures and installations, and management restrictions on visitor behavior. The alternative would emphasize solitude by decreasing day use group size, reducing the number of campsites within campgrounds, eliminating some trails, implementing a camping reservation system, and allowing winter access to the park. The alternative proposes eliminating commercial use within Isle Royale wilderness, which would enhance solitude by reducing visitor encounters with large groups. The alternative would also remove shelters, picnic tables, and other structures and installations in wilderness to improve the primitive and unconfined recreation qualities. These actions would enhance the natural and undeveloped qualities of wilderness character. Like alternative B, historic structures and installations in wilderness would be classified for treatment as preservation, stabilization, mouldering, or removal.

ENVIRONMENTAL CONSEQUENCES

Impacts were assessed as they relate to two impact areas: wilderness character and cultural resources (historic structures, historic districts, and cultural landscapes). Impacts were categorized as direct or indirect and beneficial or adverse. All alternatives were evaluated for each impact area. Cumulative

impacts were assessed by combining the impacts of each alternative with other past, present, and reasonably foreseeable future actions.

A summary of the impacts is included below in table ES-1, and a full impact analysis is in “Chapter 4: Environmental Consequences.”

CONSULTATION AND COORDINATION

Scoping is an essential component of the NEPA planning process. The formal scoping process for this draft EIS consisted of public scoping and consultation with federal and state agencies and Tribal governments. The formal NEPA process and 30-day public scoping period was initiated on October 21, 2022, with the publication of a Notice of Intent in the *Federal Register* (87:64091). In addition to the Notice of Intent, preliminary information regarding the EIS was provided to the public and other interested parties through a press release and public scoping newsletter. During public scoping, the NPS received 1,651 pieces of correspondence.

Agency consultation is the early involvement of federal and state agencies and Tribal governments that may be affected by the federal action. This involvement allows affected agencies or Tribal governments to comment and contribute early in the decision-making process and helps the NPS identify key issues or requirements to be considered in the NEPA process. During development of the draft EIS, the NPS had discussions with the regulatory and consulting agencies listed below regarding their recommendations on wilderness and historic preservation management related to the actions being considered in this EIS. The following permits and consultations must be completed prior to implementation of the selected action:

- Government-to-government consultation with federally recognized Tribal Nations
- National Historic Preservation Act Section 106 Consultation – Michigan State Historic Preservation Officer
- Endangered Species Act – Section 7 Consultation
- Development of an MRA per the Wilderness Act

THE NEXT STEP

The public review and comment period for this EIS will be 60 days. Written comments on the EIS will be fully considered and evaluated in preparing the final revisions. The final EIS will include responses to all substantive comments. Publication of the final EIS will initiate a 30-day waiting period. Following the 30-day waiting period, one of the alternatives, or a combination of alternative elements, will be selected for implementation and documented in a Record of Decision signed by the NPS Regional Director for Regions 3, 4, and 5.

TABLE ES-1: SUMMARY OF ENVIRONMENTAL CONSEQUENCES

| | Alternative A: No Action | Alternative B | Alternative C |
|-------------------|--|--|--|
| Wilderness | <p>Under alternative A, Isle Royale’s wilderness would remain largely unchanged from current conditions. The natural quality would continue to be somewhat degraded in the vicinity of campgrounds and other structures and installations because of damage to vegetation and soils and removal of vegetation during maintenance and to address hazards.</p> <p>The park would continue to maintain some highly developed areas along with more than 100 structures and installations, nearly all historic, within wilderness after completion of an MRA. The presence of these structures and installations would continue to degrade the undeveloped quality of wilderness on Isle Royale. In certain locations where many historic structures are clustered together in historic districts, development would be highly noticeable. The primeval nature of the wilderness in these areas may not be felt because these structures and installations detract from the area as one substantially free from human habitation and use. However, protection of these historic structures and installations would continue the wilderness story of how people of European ancestry lived in the island wilderness. This history of human habitation is interpreted for future generations by the presence of the historic structures and installations, which contribute to the other features of value quality of wilderness. The continued presence of these structures in wilderness could also detract from the rich history of Ojibwe culture and its interaction with the island’s wilderness, thus degrading the other features of value quality of wilderness.</p> <p>Visitors would continue to experience Isle Royale’s wilderness in a variety of ways. Some visitors would continue to encounter overcrowding in campgrounds and may experience a lack of solitude where group numbers are larger than expected in wilderness. However, overall, visitors seeking a wide range of wilderness experiences would find opportunities on Isle Royale, whether they seek an experience where encountering more people is expected or whether they seek solitude off-trail.</p> | <p>Under alternative B, the park would take some actions to improve recreation and the opportunity for solitude over the long term that would detract from the natural quality in localized areas. The development and maintenance associated with new campgrounds and trails would detract from the natural quality. However, the addition of new campgrounds would increase solitude for visitors overall because campgrounds are less likely to be crowded. Additionally, the removal of some structures and installations from wilderness would result in impacts to the natural quality during activities associated with their removal, but the removal of individual structures from wilderness would benefit the undeveloped nature of wilderness and improve solitude because the presence of humans on the island would be less noticeable in some areas.</p> <p>Maintaining the winter closure of Isle Royale would continue to benefit the natural quality of wilderness but would limit and reduce opportunities for solitude and primitive and unconfined recreation. Under this alternative, the park would reevaluate the winter closure if open water existed in Lake Superior during 100% of the winter season for at least five consecutive years. Discontinuation of the winter closure at a later date could result in a beneficial impact on opportunities for solitude or primitive and unconfined recreation over the life of this plan by allowing visitors to access Isle Royale’s wilderness during the winter when more opportunities for solitude are expected. Opening the park to visitation during winter may have an adverse impact on the natural quality of wilderness over the life of this plan because human presence in wilderness could occur year-round and may result in unintended disruptions to wildlife.</p> <p>Some historic structures and administrative uses would be removed from designated wilderness and PWA, leaving the island’s wilderness less developed. This action would, in some areas, make the history of use of the island by people of European ancestry less noticeable because there would be fewer sights and sounds of human habitation than currently exist in the park’s wilderness. Even in areas where structures or installations would not be removed but allowed to molder over time, the presence of human habitation eventually would not be noticeable. Under this alternative, historic structures or installations integral to historic districts or necessary for the administration of wilderness would be maintained. The retention of these historic structures and installations would continue to contribute to the story of Isle Royale’s wilderness and allow the public to educate themselves about historical use of the island through the presence of the structures on the landscape.</p> <p>This alternative would provide new opportunities for primitive and unconfined recreation and solitude compared to current conditions. New trails, campgrounds, and campsites in existing campgrounds would improve solitude by dispersing visitors in wilderness. Visitors would still have the opportunity to camp and hike outside designated areas and likely experience greater solitude. Changes in backcountry permitting would detract from some aspects of unconfined recreation, but itineraries would still remain flexible, and the benefits of having less crowded campgrounds and not having to share campsites would likely provide noticeable benefits to solitude. Group size changes along with zoning changes may adversely impact solitude for some visitors, but overall these changes would provide access to all visitors. Compared to current conditions, this alternative would improve access for all visitors, continue to protect solitude, and likely reduce crowding in some areas.</p> | <p>Alternative C would enhance the natural quality by restoring campgrounds to their natural conditions and removing shelters, which would have beneficial impacts to the naturalness of the island over the life of this plan, but have adverse impacts on visitor opportunities and access to those areas. Visitors would have additional opportunities for solitude as a result of implementation of a reservation system for campgrounds. However, visitors could not change their itineraries once they started their trip. This system would likely guarantee that campgrounds would never be overbooked or crowded, providing for the best opportunity for solitude among all alternatives. However, the inability to change itineraries would detract from the opportunity for unconfined recreation. Alternative C offers the biggest change in the opportunity for unconfined recreation and solitude compared to current conditions. The potential opportunity for winter public use would offer a significant new opportunity for self-reliance. Additionally, removal of the existing shelters within wilderness would contribute to self-reliance and self-discovery. These substantial changes would support opportunities for unconfined recreation and solitude.</p> <p>The prohibition on commercial services would likely not be noticeable within wilderness because most commercial services are offered outside the wilderness boundary. However, some commercial services rely on campgrounds within wilderness for overnight stays. Under this alternative, the park may become less accessible for those using commercial operators outside wilderness that rely on camping within wilderness for overnight stays. In conclusion, this alternative would provide substantial changes in the opportunity for visitor solitude in some areas and situations but would likely reduce access for some visitors and may result in trail crowding and other issues in other areas.</p> <p>Impacts to historic structures and installations, districts, and their associated cultural landscapes would be similar to those described for alternative B. More structures would be stabilized under alternative C compared to alternative B, but fewer would be preserved. The stabilized structures would continue to contribute to the story of historic use of the island’s wilderness. The NPS would evaluate the condition of stabilized structures over a six-year cycle. If a structure is in poor condition and no partnership program is available to bring it to fair or good condition during the six-year cycle, the NPS would document the structure, and it would be allowed to molder. Once structures have moldered into the landscape, they would no longer contribute to the other features of value quality of wilderness, resulting in a permanent, adverse impact. The NPS may continue to stabilize structures that are in fair or good condition without the assistance of a partner.</p> |

| | Alternative A: No Action | Alternative B | Alternative C |
|---|---|---|---|
| <p>Cultural Resources – Historic Structures, Districts, and Landscapes</p> | <p>Under alternative A, beneficial impacts on historic structures and installations would result from the continued efforts to inventory and document historic structures and installations, perform National Register eligibility evaluations, and continue the preservation and maintenance of historic structures and installations after completion of an MRA. However, permanent, adverse impacts on the integrity of historic structures and districts would result from the progressive weathering, deterioration, and potential loss of historic structures and installations that cannot be maintained and preserved. The lack of coordinated preservation partnership agreements has the potential to contribute to adverse impacts on historic structures as contributing site features deteriorate or receive minimal preservation direction or attention. In addition, the lack of prioritization represented in the ad hoc preservation of structures and installations, based on individual condition and interests of volunteers, may lead to a loss of integral historic features while less significant ones are retained. Under this alternative, there would be no attempt to prioritize which structures and installations are retained and where the park should focus limited financial resources. The park could lose high- and low-integrity historic structures across the landscape. Overall impacts to historic districts are unknown because there is no guarantee that the park would be able to focus financial resources to maintain and restore the most significant historic resources throughout the park.</p> | <p>Alternative B, would preserve 52 structures and installations in wilderness, stabilize 23 structures (that could deteriorate without a future partnership program for preservation), remove 7 structures, and 18 structures and installations would be allowed to molder in place.</p> <p>Beneficial effects on selected historic structures over the life of this plan are expected from efforts to preserve them in accordance with the Secretary of the Interior’s Standards. The integrity of associated historic districts would be enhanced by the preservation of contributing historic structures. However, permanent and significant, adverse impacts would occur to any individual historic structure removed from its historic setting or allowed to molder in place because those individual structures’ integrity and individual eligibility for listing in the National Register would be compromised. In addition, permanent, adverse impacts would also result from substantial reductions in the number of historic structures in historic districts that could further compromise and diminish the integrity and cultural landscape characteristics of the former resorts, recreational cottages, and fishing communities. Although structures selected for removal are generally already deteriorated and comparatively of less historical significance than those to be retained, their removal would nevertheless result in permanent, adverse impacts on the historic character of these districts. Mouldering would result in less adverse impacts to structures and installations, districts, and landscapes compared to removal because traces of the structures and installations are expected to persist on the landscape for an indefinite period and could continue to provide historic spatial and landscape design context. Ultimately, structures allowed to molder would be reduced to unseen archeological sites that continue to retain potential for contributing to historic understanding of the sites.</p> <p>Two major components of the preferred alternative are preservation and stabilization, particularly associated with impacts to the nationally significant Tobin Harbor Historic District, the National Register-eligible Fisherman’s Home and Johnson Island, and the National Register-eligible Bangsund. Preservation of a majority of structures within these districts would result in beneficial impacts over the life of this plan. Structures identified for stabilization under this alternative have been identified as integral to the historic significance of the districts to which they belong; their loss through deterioration would result in significant, adverse impacts to the districts by threatening their eligibility for listing in the National Register. Under the alternative, it is expected that these structures would be retained and that they would be preserved and stabilized to the Secretary of the Interior’s Standards, a substantial beneficial impact to the integrity and historic character of the individual structures, their districts, and landscapes. However, the reliance on a small cadre of prospective partners and the commitment of partners required to keep a structure stabilized ultimately means that they may deteriorate if adequate funding is not available. At Tobin Harbor, if stabilization fails to lead to preservation, then significant, adverse impacts on historic integrity, up to and including a reduction in the level of historic significance, could occur. The ultimate impact of implementation of alternative B to the stabilized structures, the historic districts in which they are located, and landscapes at Tobin Harbor Historic District, the National Register-eligible Fisherman’s Home and Johnson Island, and potentially National Register-eligible Bangsund, while expected to be beneficial, is unknown.</p> <p>There would be significant, adverse impacts on the individual historic properties at Captain Kidd, Wright Island, and Johns Island under alternative B. The National Register eligibility of these historic properties would be lost due to mouldering or removal actions. Under this option, the Wright Island fishery and Johns Cabin would be removed in their entirety, and all the structures at Captain Kidd except the McPherrin Cabin would be allowed to molder, eventually resulting in their disappearance from the landscape. The cabin at Captain Kidd would be stabilized, which would be somewhat of a benefit if stabilization leads to preservation. However, among the historic fisheries, recreational resorts, and cottage districts within Isle Royale, these sites have comparatively lower integrity and/or significance.</p> <p>Overall, the impact to all historic fisheries in Isle Royale under alternative B would be less severe than the impact to the individual resource at Wright Island, because the best representatives of fishery resources elsewhere would be restored, protected, and interpreted to the public. Unlike the Wright Island fishery, Captain Kidd is in fair condition and has a high integrity of place, but it too is less significant than the primary recreational resorts and cottage resources of the park at Tobin Harbor and at Barnum Island (outside wilderness). Alternative B would preserve the most significant components of the Crystal Cove Megeath Historic District, allowing aspects of their shared history to remain within the park. The preservation of other recreational cottage resources elsewhere in the park, specifically the resources at Crystal Cove, would reduce the overall impact of the loss of Captain Kidd to the park as a whole.</p> | <p>Overall, alternative C would preserve 40 structures and installations in wilderness, stabilize 34 structures and installations (many would likely deteriorate without a future partnership program for preservation), remove 7 structures, and 19 structures and installations would be allowed to molder in place., Alternative C would result in fewer preserved structures than alternative B; but would have a higher number of stabilized structures compared to alternative B. The number of removed structures under alternative C would be the same as alternative B. There would be one more structure allowed to molder in alternative C compared to alternative B.</p> <p>Beneficial effects on historic structures over the life of this plan are expected from efforts to preserve these structures in accordance with the Secretary of the Interior’s Standards. The integrity of associated historic districts would be enhanced by the preservation of contributing primary historic structures. However, permanent, adverse impacts would also result from the loss of individual historic structures and from substantial reductions in the number of historic structures in historic districts that could further compromise and diminish the integrity and cultural landscape characteristics of the former resorts, recreational cottages, and fishing communities. Similar to alternative B, removal of six structures would result in permanent, adverse impacts on the historic character of their former communities. Similarly, allowing some structures and installations to molder would be an adverse impact, although traces of the structures are expected to persist on the landscape for an indefinite period, continuing to impart spatial integrity and historic context associated with their functions onto their associated districts and landscapes. Overall, the adverse impacts associated with removal and mouldering of individual structures and installations would not be significant because these character-diminishing actions would be limited to structures of less historic significance and would not result in loss of National Register eligibility of the district as a whole.</p> |

Table of Contents

| | |
|---|-----------|
| Chapter 1: Purpose of and Need for Action | 1 |
| <i>Introduction.....</i> | <i>1</i> |
| <i>Background of the Park.....</i> | <i>2</i> |
| <i>Overview of Current Wilderness Management</i> | <i>2</i> |
| <i>Purpose and Need for the Proposed Action</i> | <i>7</i> |
| Need for Action | 7 |
| Scope of the Wilderness Stewardship Plan/Environmental Impact Statement | 7 |
| Wilderness Character and Qualities | 7 |
| <i>Desired Future Conditions</i> | <i>8</i> |
| <i>Issues and Impact Topics</i> | <i>9</i> |
| Wilderness Character..... | 9 |
| Cultural Resources..... | 10 |
| Chapter 2: Alternatives | 11 |
| <i>Introduction.....</i> | <i>11</i> |
| <i>Actions Common to All Alternatives.....</i> | <i>11</i> |
| Minimum Requirements Analysis..... | 11 |
| Special Uses | 12 |
| Public Use Closures..... | 12 |
| Appropriate and Traditional Uses | 12 |
| Maintenance of Installations | 13 |
| Treatment of Non-Historic Installations and Structures in Wilderness | 13 |
| Vegetation Clearing..... | 13 |
| Damaged or Destroyed Historic Structures | 14 |
| Management of Public Use in Wilderness | 14 |
| Recreational Cottage Permits and Agreements | 15 |
| Research and Monitoring..... | 15 |
| <i>Actions Common to All Action Alternatives (B and C)</i> | <i>15</i> |
| Standard Operations and Maintenance | 15 |
| Management of Public Use in Wilderness | 16 |
| Cultural Resources in Wilderness..... | 17 |
| Use of Structures Associated with Administrative Uses | 17 |
| <i>Alternative A: No Action</i> | <i>17</i> |
| General Management Plan Zones | 17 |
| Island Visitor Use Levels..... | 17 |
| Wilderness Permitting Systems | 21 |
| Group Size Requirements..... | 21 |
| Day Use Group Size Requirements..... | 21 |
| Shelters, Associated Docks, and Picnic Tables..... | 21 |
| Campground Management | 21 |
| Trail Management | 27 |
| Bridges and Boardwalks | 27 |

| | |
|---|-----------|
| Concessions and Commercial Services | 27 |
| Winter Closure | 27 |
| Treatments for Historic Structures and Installations | 27 |
| Public Use of Historic Structures | 29 |
| Use of Structures for Administrative Uses | 29 |
| Conversion of Potential Wilderness Additions and Nonconforming Uses | 30 |
| <i>Alternative B (Proposed Action and Preferred Alternative)</i> | 31 |
| General Management Plan Zones | 31 |
| Island Visitor Use Levels..... | 32 |
| Wilderness Permitting Systems | 32 |
| Group Size Requirements..... | 32 |
| Day Use Group Size Requirements..... | 32 |
| Shelters, Associated Docks, and Picnic Tables..... | 33 |
| Campground Management | 37 |
| Trail Management | 37 |
| Bridges and Boardwalks | 38 |
| Concessions and Commercial Services | 38 |
| Winter Closure | 38 |
| Treatments for Historic Structures and Installations | 43 |
| Public Use of Historic Structures | 49 |
| Use of Structures for Administrative Uses | 50 |
| Conversion of Potential Wilderness Additions | 51 |
| <i>Alternative C</i> | 52 |
| General Management Plan Zones | 52 |
| Island Visitor Use Levels..... | 52 |
| Wilderness Permitting Systems | 54 |
| Overnight Use Group Size Requirements | 54 |
| Day Use Group Size Requirements..... | 54 |
| Shelters, Associated Docks, and Picnic Tables..... | 54 |
| Campground Management | 55 |
| Trail Management | 55 |
| Bridges and Boardwalks | 55 |
| Concessions and Commercial Services | 55 |
| Winter Closure | 55 |
| Treatments for Historic Structures and Installations | 59 |
| Public Uses of Historic Structures..... | 63 |
| Use of Structures for Administrative Uses | 63 |
| Conversion of Potential Wilderness Additions | 63 |
| <i>National Park Service Preferred Alternative</i> | 63 |
| <i>Environmentally Preferable Alternative</i> | 63 |
| <i>Alternatives Considered But Dismissed from Further Analysis</i> | 64 |
| Chapter 3: Affected Environment | 71 |
| <i>Introduction</i> | 71 |
| <i>Wilderness Character</i> | 71 |
| Natural..... | 71 |

TABLE OF CONTENTS

| | |
|---|------------|
| Undeveloped | 73 |
| Opportunities for Solitude or Primitive and Unconfined Recreation | 76 |
| Other Features of Value..... | 83 |
| Cultural Resources..... | 83 |
| Historic Structures and Associated Districts and Landscapes | 83 |
| Fire Towers | 88 |
| Other Historic Structures and Installations | 88 |
| Navigational Aids | 89 |
| Climate Change Considerations for Cultural Resources | 89 |
| Chapter 4: Environmental Consequences..... | 91 |
| <i>Introduction.....</i> | <i>91</i> |
| <i>General Methodology for Assessing Impacts</i> | <i>91</i> |
| <i>Cumulative Impacts.....</i> | <i>91</i> |
| <i>Wilderness Character.....</i> | <i>91</i> |
| Alternative A: No Action (Implement the General Management Plan as Currently Written) | 92 |
| Alternative B (Proposed Action and Preferred Alternative) | 97 |
| Alternative C..... | 103 |
| Conclusion | 108 |
| <i>Cultural Resources.....</i> | <i>109</i> |
| Alternative A: No Action (Implement the General Management Plan as Currently Written) | 109 |
| Alternative B (Proposed Action and Preferred Alternative) | 110 |
| Alternative C..... | 113 |
| <i>Unavoidable Adverse Impacts</i> | <i>115</i> |
| Alternative A: No Action | 115 |
| Alternatives B and C | 115 |
| <i>Sustainability and Long-Term Management</i> | <i>116</i> |
| Alternative A: No Action | 116 |
| Alternatives B and C | 116 |
| <i>Irreversible and Irrecoverable Commitment of Resources.....</i> | <i>116</i> |
| Alternative A: No Action | 116 |
| Alternatives B and C | 116 |
| Chapter 5: Consultation and Coordination | 117 |
| <i>The Scoping Process</i> | <i>117</i> |
| <i>Agency Consultation</i> | <i>121</i> |
| Tribal Consultation | 121 |
| Non-Tribal Section 106 Consultation | 122 |
| United States Fish and Wildlife Service..... | 123 |
| <i>List of Recipients of the Environmental Impact Statement</i> | <i>123</i> |
| Federal Agencies | 123 |
| Tribal Governments and Organizations | 124 |
| State Governmental Agencies | 124 |
| Organizations/Others | 124 |
| <i>List of Preparers and Consultants.....</i> | <i>125</i> |

Appendices

- Appendix A: References and Glossary
- Appendix B: Issues and Impact Topics not Carried Forward for Detailed Analysis
- Appendix C: Programmatic Minimum Requirements Analysis
- Appendix D: Isle Royale National Park Wilderness Research Strategy
- Appendix E: General Conditions for Scientific Research and Collecting Permit
- Appendix F: Comments Received During Consultation and Public Scoping

List of Figures

| | |
|---|----|
| Figure 1. Isle Royale National Park and Surrounding Region | 3 |
| Figure 2. Isle Royale National Park Selected Areas and Features (West Side of Park) | 5 |
| Figure 3. Isle Royale National Park Selected Areas and Features (East Side of Park) | 6 |
| Figure 4. Existing GMP Zoning – Alternative A (West Side of Park) | 19 |
| Figure 5. Existing GMP Zoning – Alternative A (East Side of Park) | 20 |
| Figure 6. Cross Country Camping Zones under Alternative A..... | 23 |
| Figure 7. Isle Royale National Park Existing Camping Opportunities – Alternative A (West Side of Park)..... | 25 |
| Figure 8. Isle Royale National Park Existing Camping Opportunities – Alternative A (East Side of Park)..... | 26 |
| Figure 9. Proposed GMP Zoning under Alternative B (East Side of Park) | 35 |
| Figure 10. Existing and Proposed Campgrounds under Alternative B (West)..... | 39 |
| Figure 11. Existing and Proposed Campgrounds under Alternative B (East)..... | 40 |
| Figure 12. Proposed New Trails under Alternative B (West) | 41 |
| Figure 13. Proposed New Trails under Alternative B (East)..... | 42 |
| Figure 14. Proposed GMP Zone Revisions under Alternative C | 53 |
| Figure 15. Camping Opportunities under Alternative C (West Side of Park)..... | 57 |
| Figure 16. Camping Opportunities under Alternative C (East Side of Park)..... | 58 |

List of Tables

| | |
|---|----|
| Table 1. Historic Structures and Installations Present in Isle Royale Wilderness | 28 |
| Table 2. Potential Wilderness Additions on Isle Royale, Acreage, and Nonconforming Uses | 31 |
| Table 3. Summary of Treatments for Historic Structures under Alternative B..... | 46 |
| Table 4. Treatment of Structures and Installations in the Tobin Harbor Area under Alternative B..... | 46 |
| Table 5. Treatment of Structures and Installations in the Fisherman’s Home Area under Alternative B..... | 47 |
| Table 6. Treatment of Structures in the Johnson Anderson Fishery Area under Alternative B..... | 48 |
| Table 7. Treatment of Structures and Installations in the Crystal Cove Area under Alternative B | 48 |
| Table 8. Treatment of Structures and Installations in the Captain Kidd Island Area under Alternative B..... | 48 |

TABLE OF CONTENTS

Table 9. Treatment of Structures at Wright Island Area under Alternative B..... 49

Table 10. Treatment of Structures in the Bangsund Area* under Alternative B 49

Table 11. Treatment of Structures and Installations in the Other Areas under Alternative B..... 49

Table 12. Potential Wilderness Additions on Isle Royale, Acreage, and Nonconforming Uses 51

Table 13. Summary of Treatments for Historic Structures under Alternative C..... 59

Table 14. Treatment of Structures and Installations in the Tobin Harbor Area under Alternative C 59

Table 15. Treatment of Structures and Installations in the Fisherman’s Home Area under
Alternative C..... 61

Table 16. Treatment of Structures in the Johnson Anderson Fishery Area under Alternative C..... 61

Table 17. Treatment of Structures in the Crystal Cove Area under Alternative C 61

Table 18. Treatment of Structures and Installations in the Captain Kidd Island Area under
Alternative C..... 62

Table 19. Treatment of Structures at Wright Island Area under Alternative C 62

Table 20. Treatment of Structures in the Bangsund Area* under Alternative C 62

Table 21. Treatment of Structures and Installations in the Other Areas under Alternative C..... 62

Table 22. Summary of Alternative Elements..... 67

Table 23. Proposed Public and Administrative Use of Historic Structures by Alternative for
Selected Structures with Planned Use..... 69

Table 24. Potential Wilderness Additions on Isle Royale, Acreage, and Current Uses..... 74

Table 25. Representative Sound Levels in and outside of Parks 80

Table 26. Summary of Comments from October 2022 Public Scoping 117

Acronyms and Abbreviations

| | |
|---------------------|--|
| CEQ | Council on Environmental Quality |
| CFR | Code of Federal Regulations |
| CRMP | Cultural Resources Management Plan |
| dB | decibel |
| dB | A-weighted decibel |
| EA | environmental assessment |
| GMP | General Management Plan |
| Grand Portage Band | Grand Portage Band of Lake Superior Chippewa |
| IPaC | Information for Planning and Consultation |
| Isle Royale or park | Isle Royale National Park |
| km | kilometer(s) |
| MRA | minimum requirements analysis |
| National Register | National Register of Historic Places |
| NEPA | National Environmental Policy Act |
| NPS | National Park Service |
| Park | Isle Royale National Park |
| plan/EIS | Wilderness Stewardship Plan/Environmental Impact Statement |
| PEPC | Planning, Environment, and Public Comment |
| PWA | potential wilderness addition |
| TCP | traditional cultural property |
| USFWS | US Fish and Wildlife Service |

CHAPTER 1: PURPOSE OF AND NEED FOR ACTION

INTRODUCTION

This “Purpose of and Need for Action” chapter explains what this plan intends to accomplish and why the National Park Service (NPS) is evaluating a range of alternatives for managing wilderness at Isle Royale National Park (Isle Royale or the park), an island archipelago located in the northwestern portion of Lake Superior (figure 1). This chapter also provides background on wilderness management at the park and discusses issues to be addressed in the plan/EIS.

The park completed a Draft Backcountry Management Plan in 1985 and a Final Backcountry Management Plan/EIS in 2011, but these plans were never approved, and many of the issues and recommendations are now out of date. Therefore, NPS formally terminated these plans with the October 21, 2022, *Federal Register* notice initiating this draft Wilderness Stewardship Plan/Environmental Impact Statement (plan/EIS). This plan/EIS assesses the impacts that could result from continuing current management (the no-action alternative) or implementing either of the action alternatives.

By 1976, 99% of park lands (131,880 acres) was designated wilderness by Public Law 94-567 to be administered under the Wilderness Act of 1964 (NPS 2016a). Public Law 94-567 also designated 231 acres of the park as potential wilderness additions (PWAs). In 1983, 138 acres of the initial 231 acres of PWAs were converted to wilderness following the removal of nonconforming uses (Westcott 2013). Currently, 93 acres within the park remain as PWAs.

Wilderness makes up the vast interior of the island. Only 1,677 acres of the 133,788-acre island are considered nonwilderness land (see figures 2 and 3). Although some historic developments predating the establishment of the park are present on the island, the park is predominantly undeveloped except for certain areas that serve park management functions where there are historical features, structures, installations, and visitor amenities.

The Wilderness Act of 1964 provides the following definition of wilderness:

A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value (Wilderness Act section 2(c)).

In this plan/EIS, the term “wilderness” is used to refer to both wilderness and PWAs at Isle Royale. PWA is referred to separately when proposed management actions may affect the wilderness eligibility of these lands apart from the park’s wilderness as a whole.

This plan/EIS includes management strategies for preserving wilderness character while providing for visitor use and enjoyment. This draft plan/EIS evaluates three wilderness stewardship planning alternatives. It addresses resource preservation and visitor use management in the wilderness areas and serves as a component of the park's planning portfolio, which consists of the individual plans, studies, and inventories that together guide park decision-making. The planning portfolio enables the use of targeted planning documents (such as this one) to meet a broad range of park planning needs and fulfills legal and policy requirements. This plan amends and supplements the 1998 *General Management Plan* (GMP), and helps the NPS to better meet the statutory requirements identified in 54 United States Code (U.S.C.) § 100502.

BACKGROUND OF THE PARK

The island archipelago that makes up Isle Royale is located in an ecological transition zone between the boreal forests and the more southern temperate deciduous-hardwood forests. The purpose of the park as stated in the Isle Royale Foundation Document is to “set apart a remote island archipelago and surrounding waters in Lake Superior as a national park for the benefit and enjoyment of the public and to preserve and protect its wilderness character, cultural and natural resources, and ecological processes. Additionally, as a unit of the national park system, Isle Royale provides opportunities for recreation, education and interpretation, and scientific study” (NPS 2016a).

Isle Royale consists of one large island, Isle Royale, and roughly 450 smaller islands. The park boundary extends 4.5 miles into Lake Superior from the outermost land areas. The southeastern shore is 45 miles northwest of the Upper Peninsula of Michigan and 12 miles southeast of Thompson Island in Ontario, Canada. The park encompasses 571,796 acres of land and water, of which land comprises only 133,788 acres (NPS 2016a). Isle Royale (the island) extends approximately 45 miles from southwest to northeast, and is approximately 9 miles across at its widest point. Most of the park is water with 438,008 acres of Lake Superior waters representing a significant fisheries and aquatic resource.

OVERVIEW OF CURRENT WILDERNESS MANAGEMENT

Isle Royale, or Minong, as the island is traditionally called by the Grand Portage Band of Lake Superior Chippewa (Grand Portage Band), was authorized as a national park in 1931 (46 Stat. 1514). Wilderness acreage of the park encompasses 99% of land area, which is 23% of the park. Isle Royale is isolated. The island is separated from the nearest land mass by about 15 miles of cold Lake Superior waters. The nautical distance from shore and the natural setting of the rugged Isle Royale archipelago starkly contrast the usual sights, sounds, and modifications of an increasingly populous and mechanized civilization, providing an exceptional opportunity to experience solitude and isolation. Isle Royale is further secluded by fog, ice, wind, waves, and storms. A visit to Isle Royale requires passage across a large and often turbulent open expanse of water. Just offshore, beneath the surface, the archipelago is littered with the wooden and iron remnants of no fewer than a dozen ships from past maritime endeavors.

Humans have had an episodic, but long-standing connection to Isle Royale. For more than 4,500 years, Indigenous peoples crossed Lake Superior and fished, hunted, gathered plants, and used stone tools to extract malleable pure copper. In the 19th and 20th centuries, the island attracted hunters, maple sugar harvesters, loggers, greenstone collectors, sports and commercial fishers, recreationalists, miners, fur trappers, and summer cottagers. Today, Isle Royale is seasonally used for wilderness recreation and extensive and unique scientific research endeavors. The evidence of these episodic human uses is woven into the harbors and lands of Isle Royale wilderness. Although 99% of the island is wilderness, a few discrete areas of the island were identified through legislation to serve as administrative or developed areas of the national park.

**Isle Royale National Park
EIS and Wilderness Stewardship Plan
Michigan**

**National Park Service
U.S. Department of the Interior**

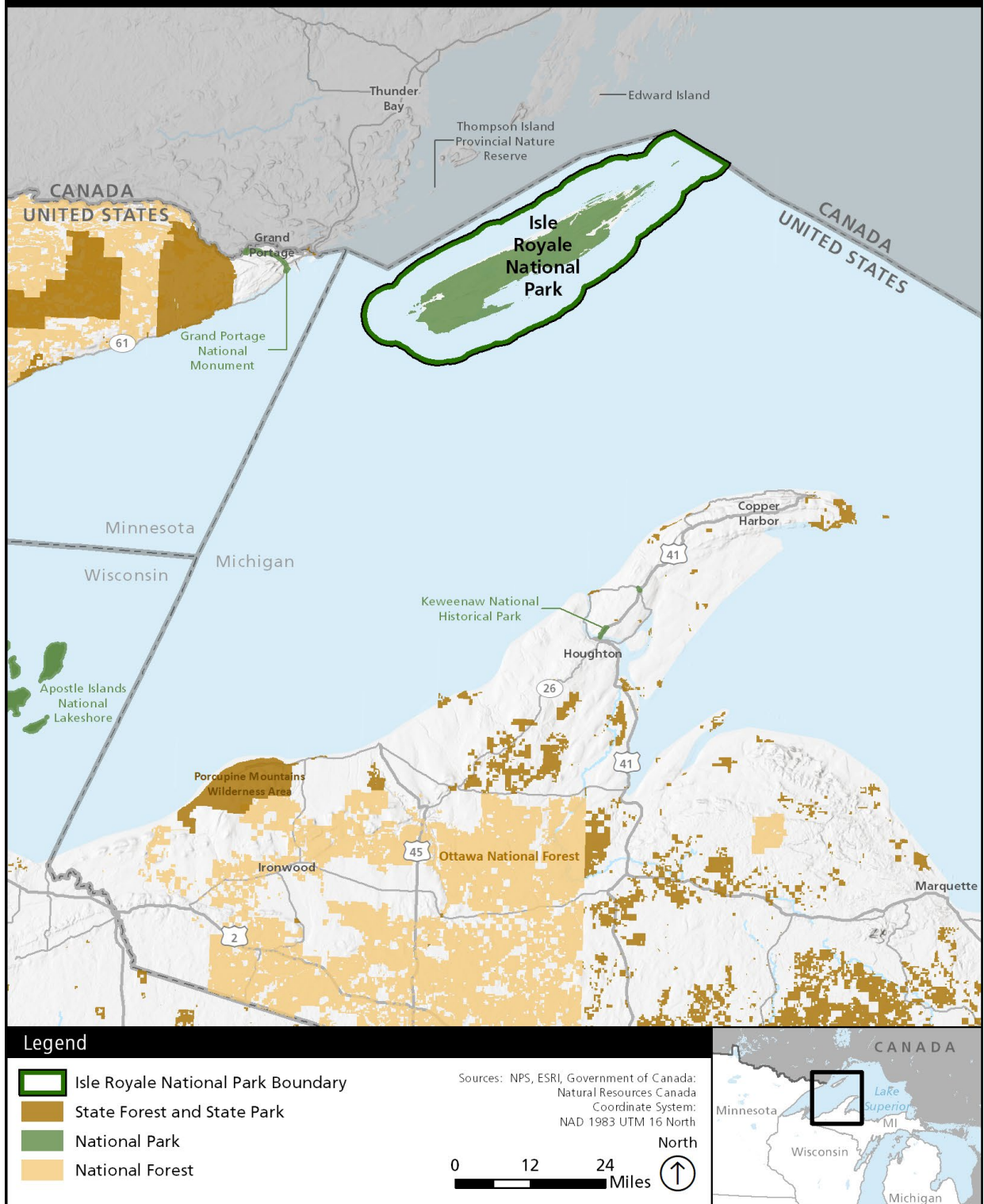
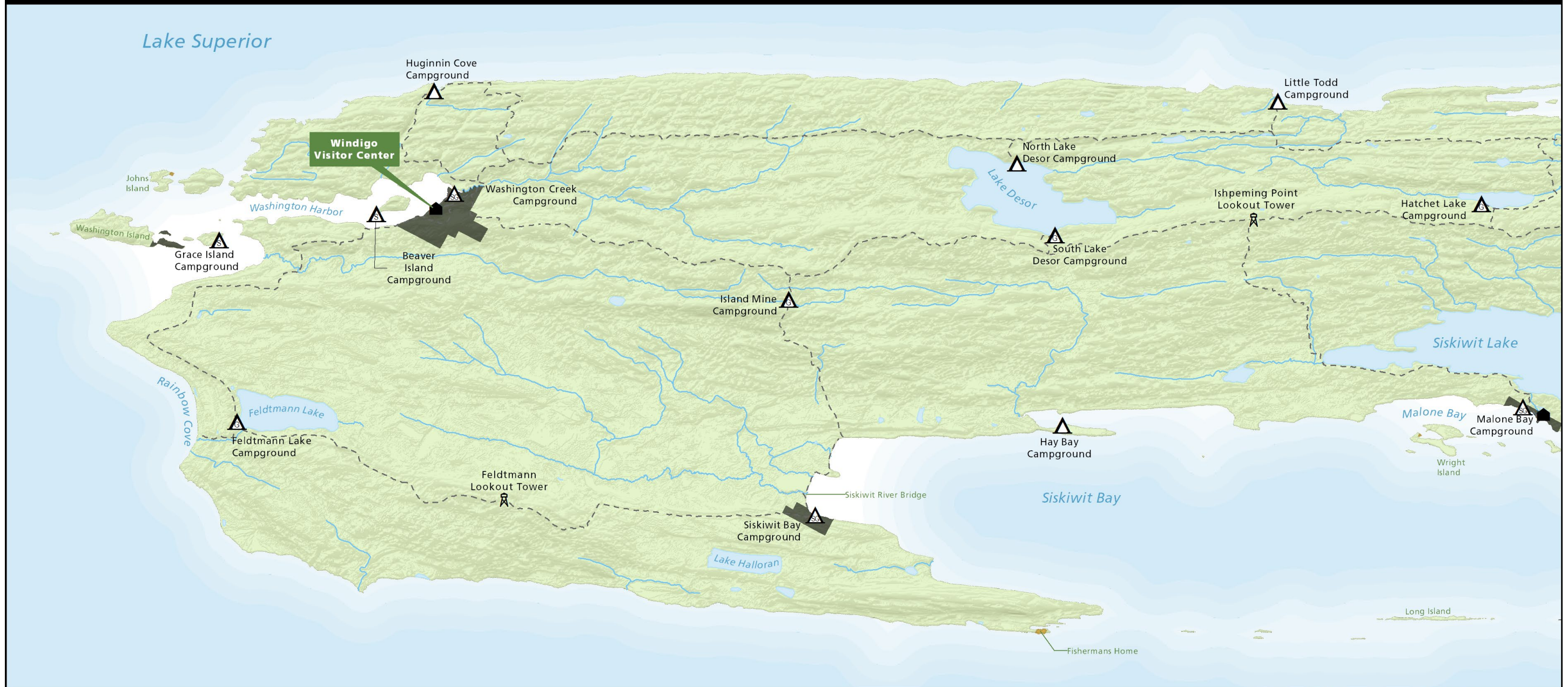


FIGURE 1. ISLE ROYALE NATIONAL PARK AND SURROUNDING REGION

This page intentionally left blank.



Legend

- | | | |
|---|-------------------|-----------------------|
| Existing Campground | Park Headquarters | Non-Wilderness |
| Existing Campground Containing Shelter | Ranger Station | Potential Wilderness |
| Existing Campground Containing Group Site | Lookout Tower | Designated Wilderness |
| | Hiking Trail | |

**ISLE ROYALE NATIONAL PARK
 SELECTED AREAS AND FEATURES
 (west side of park)**



0 1 2 Miles

Sources: NPS, ESRI, USGS
 Coordinate System:
 NAD 1983 UTM 16 North



FIGURE 2. ISLE ROYALE NATIONAL PARK SELECTED AREAS AND FEATURES (WEST SIDE OF PARK)

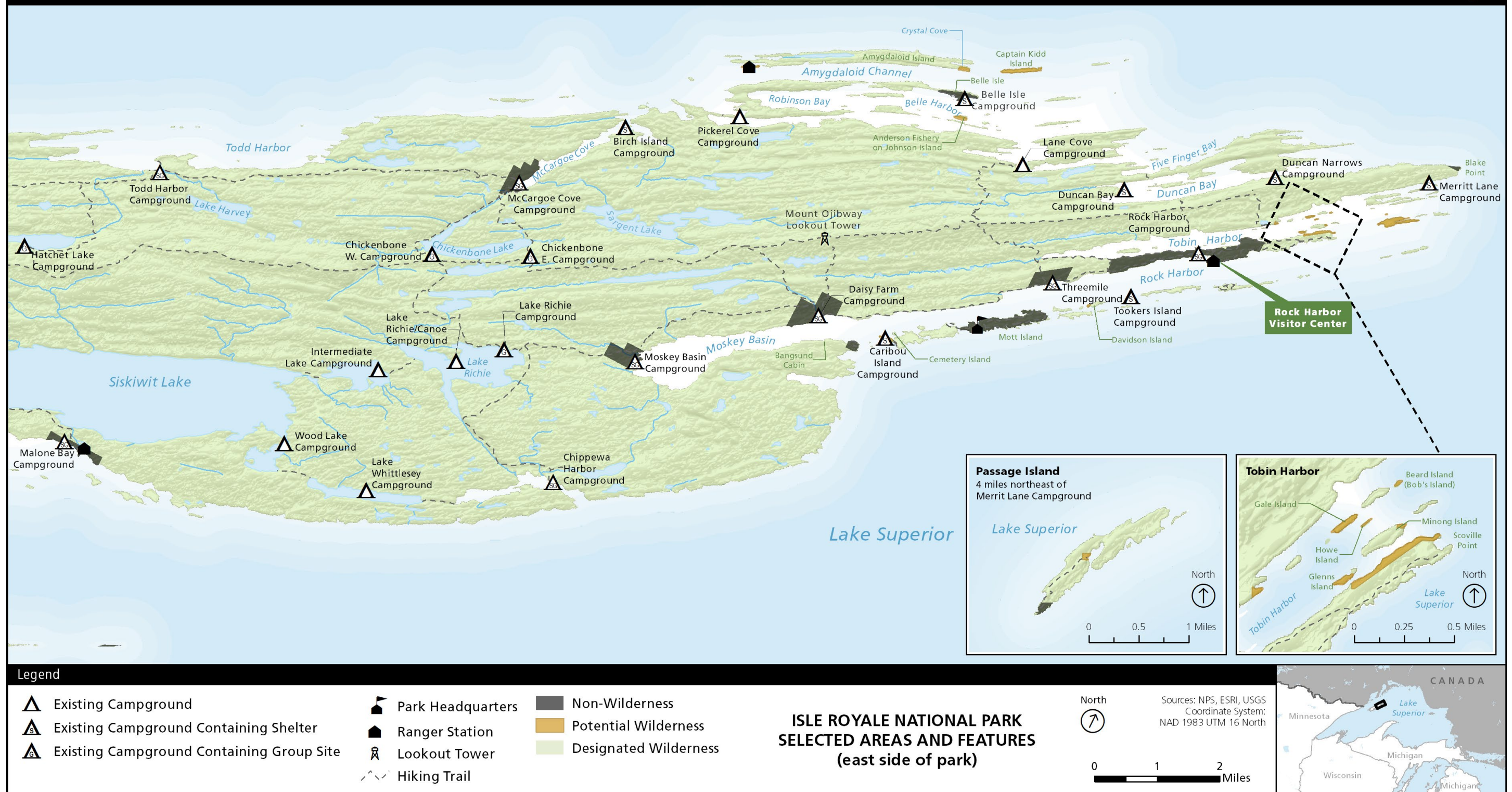


FIGURE 3. ISLE ROYALE NATIONAL PARK SELECTED AREAS AND FEATURES (EAST SIDE OF PARK)

PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of this plan is to outline strategies for preserving wilderness character while also providing for the use and enjoyment of the park by current and future generations.

Need for Action

Through consultation and scoping (see chapter 5), the NPS has identified the following reasons the proposed action (Wilderness Stewardship Plan) is needed:

- The 1998 GMP specifies that a wilderness and backcountry management plan is needed to guide management of wilderness resources and ensure consistency in such management over time. The alternatives identified in this EIS address needs that are identified in the GMP.
- NPS *Management Policies 2006* directs that each park containing wilderness must maintain an up-to-date and approved wilderness management plan (NPS 2006, section 6.3.4.2).
- Changes in wilderness use, management actions, increasing visitation, and associated human-caused adverse impacts suggest an underlying need to more proactively manage human activities that directly or indirectly affect wilderness character.
- The park currently lacks a management strategy for the treatment and use of historic structures and installations in potential and designated wilderness.
- As nonconforming uses in PWAs end (e.g., the occupancy of cabins through life-leases), management planning is essential to ensure these lands meet the qualifications for conversion to full wilderness designation.

Scope of the Wilderness Stewardship Plan/Environmental Impact Statement

This Wilderness Stewardship Plan would provide management direction for all designated wilderness and PWA—approximately 99% of the island. However, the focus of the plan/EIS is primarily on activities or programs that occur at discrete locations occupying a relatively small percentage of the total wilderness area of the park. Additionally, the historic structures and installations associated with actions included in this plan account for an even smaller proportion of the overall wilderness area at the park. The plan does not address activities in the nonwilderness frontcountry areas of Rock Harbor, Mott Island, or Windigo.

For historic structures and installations, this plan/EIS only evaluates the potential impacts of retaining and using structures (historic and administrative) and installations in designated and potential wilderness. Historic structures outside wilderness are managed according to the 2022 Nonwilderness Cultural Resources Management Plan/Environmental Assessment (CRMP/EA).

Wilderness Character and Qualities

Impacts to wilderness character and how each alternative meets desired conditions are evaluated in accordance with the framework described in *Keeping it Wild 2: An Updated Interagency Strategy to Monitor Trends in Wilderness Character Across the National Wilderness Preservation System* (Landres et al. 2015) and Director’s Order 41 (NPS 2013a), and *NPS Wilderness Character Monitoring Technical Guide*, as part of *NPS Reference Manual 41: Wilderness Stewardship, Cultural Resources in Wilderness: Guidance for Considering and Managing Historic Structures and Installations* (NPS 2022). The NPS manages five qualities of wilderness character, defined below, in concert with each other. These qualities are based on the definition of wilderness established in the Wilderness Act, included in the “Introduction” section of this plan/EIS.

Untrammeled Quality. The Wilderness Act states that wilderness is “an area where the earth and its community of life are untrammeled by man” that “generally appears to have been affected primarily by the forces of nature.” Therefore, wilderness is essentially unhindered, free from the actions of modern human control or manipulation. This quality is influenced by any activity or actions intended to control or manipulate the biophysical environment and community of life. Actions that are taken to preserve or restore the natural quality often degrade the untrammeled quality, even when these actions are taken to protect resources, such as removing invasive plants or nonnative animals, or reducing unnatural fuel loads by cutting fuels or through management-ignited prescribed fires.

Natural Quality. The Wilderness Act states that wilderness is “protected and managed so as to preserve its natural conditions.” Ecological systems within wilderness are substantially unaffected by modern civilization. This quality aims to preserve native species, patterns, and ecological and evolutionary processes, and to understand and learn from natural systems. This quality is degraded by such things as loss of native species, occurrence of nonnative species, alteration of ecological processes such as water flow or fire regimes, effects of climate change, and many other factors.

Undeveloped Quality. The Wilderness Act defines wilderness as “an area of primeval character and influence, without permanent improvements or human habitation...where man himself is a visitor who does not remain” and “with the imprint of man’s work substantially unnoticeable.” Wilderness retains its primeval character and influence. This quality is influenced by the presence of structures, installations, habitations, and the administrative use of motor vehicles, motorized equipment, or mechanical transport.

Solitude or a Primitive and Unconfined Type of Recreation. The Wilderness Act states that wilderness offers “outstanding opportunities for solitude or a primitive and unconfined type of recreation.” This quality is primarily about the opportunity for people to experience wilderness and is influenced by factors that affect these opportunities. It provides for primitive recreation; the use of traditional skills; personal challenge, risk, and self-reliance; and freedom from constraints of modern life. This quality is preserved or improved by management actions that reduce visitor encounters, sights and sounds of modern civilization inside wilderness, structure and installations, and management restrictions on visitor behavior. In contrast, this quality is degraded by management actions that increase these restrictions.

Other Features of Value. The Wilderness Act, section 2(c)(4), states that a wilderness “may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.” These may include paleontological features and cultural resources including archeological sites and historic structures.

DESIRED FUTURE CONDITIONS

Desired conditions are conditions that NPS aspires to achieve and maintain over time, and the conditions necessary for visitors to understand, enjoy, and appreciate those resources. In the context of a wilderness stewardship plan, desired conditions qualitatively describe an ideal condition of the intangible and tangible qualities of wilderness character. To manage wilderness to achieve desired future conditions, the NPS would only take action in wilderness when required (to address wildland fire risks, for example), or when doing so would enhance other qualities of wilderness, and when a proposed action is determined to be the minimum action necessary through the MRA process. In this plan/EIS, desired conditions are defined for the five primary qualities of wilderness character as follows:

- The untrammeled quality of wilderness character would be preserved by limiting the intentional manipulation of the biophysical environment except as necessary to preserve another quality of wilderness character.

- The natural quality of wilderness would be preserved by mitigating the impacts of modern civilization on ecological systems. The NPS aspires to minimize or localize adverse impacts caused by visitor use and administrative activities. In the wilderness, natural processes would dominate.
- The undeveloped quality of wilderness character would be preserved by ensuring that wilderness retains its primeval character and influence and is essentially without permanent improvements or human habitation.
- Outstanding opportunities for solitude or primitive and unconfined recreation would be available to support visitor use and enjoyment of the Isle Royale wilderness areas in balance with the protection of the other qualities of wilderness character. This quality provides for primitive recreation and the use of traditional skills; embraces personal challenge, self-reliance, and self-discovery; and provides freedom from the constraints of modern culture.
- Other features of value that are of scientific, educational, scenic, or historical value would be protected and preserved using methods that are consistent with the preservation of wilderness character and values.

ISSUES AND IMPACT TOPICS

The NPS identifies issues in the context of National Environmental Policy Act (NEPA) as, “problems, concerns, conflicts, obstacles, or benefits that would result if the proposed action or alternatives, including the no-action alternative, are implemented” (NPS 2015). The identification of such issues helps to focus the impact analysis by emphasizing the important environmental consequences related to a proposal. Issues are discussed within the impact topics below. Issues and impact topics not carried forward for detailed analysis are included in appendix B.

Wilderness Character

A central issue to how the NPS manages wilderness is how the proposed action would impact wilderness character. Within these qualities of wilderness character are other resources, including natural features, natural sounds, development in wilderness, and visitor access and experience.

Natural Quality: Trail and campground management could result in the loss of ground cover, compaction of soils and erosion, and general disturbance of the area. These human actions could alter ecological processes and have the potential to result in impacts to the natural quality of wilderness.

Undeveloped Quality. The retention and use of historic and administrative structures and installations in wilderness may impact the undeveloped quality of wilderness.

Opportunities for Solitude and Unconfined Recreation. Campgrounds, trails, group size limits, permits, commercial guiding, closures and public use limits, the presence of structures and installations that decrease self-reliant recreation, and other management actions may impact the opportunity for solitude and unconfined recreation at Isle Royale. Actions outside wilderness, including the use of boats, seaplanes, and generators, may affect opportunities for solitude within wilderness. These actions may impact visitor self-reliance and self-discovery.

Other Features of Value: Historic Features. Preservation, stabilization, mouldering, or removal of historic structures and installations in wilderness may impact historic features in wilderness.

Cultural Resources

Historic Structures and Installations and Associated Historic Districts and Cultural Landscapes in Wilderness

Three types of cultural resources are being retained for further analysis in this plan/EIS: historic structures and installations, historic districts, and cultural landscapes. The only actions in this plan that would affect cultural landscapes or historic districts in wilderness are associated with treatments proposed for historic structures and installations.

Historic structures are “constructed work[s]...consciously created to serve some human activity.” Historic installations include “anything made by humans that is not intended for human occupation and is left unattended or left behind when the installer leaves the wilderness.” Historic structures and installations are usually immovable, although some have been relocated and others are mobile by design. They include structures, nautical vessels, bridges, fences, and ruins of all structural types. A full list of historic structures and installations in wilderness is described in “Chapter 3, Affected Environment.”

Historic districts are defined as a group of structures, properties, or sites that have been designated in, or are considered eligible for listing in, the National Register of Historic Places (National Register). These districts are considered historically or architecturally significant. The only historic district in the park’s wilderness with historic structures that is addressed in this plan is Tobin Harbor.

Cultural landscapes are distinctive features of the human-built environment or natural environment, or both, and represent aspects of a way of life of a people, group, or family. Cultural landscapes also include vegetation components. The cultural landscapes addressed in this plan that include historic structures that are eligible for listing in the National Register are: Fisherman’s Home, Crystal Cove, and Captain Kidd Island. The Bangsund Research Station, which is a potentially National Register-eligible cultural landscape, is also addressed in this plan.

CHAPTER 2: ALTERNATIVES

INTRODUCTION

NEPA requires federal agencies to explore a range of alternatives and analyze impacts those alternatives could have on the human environment. This chapter describes the various alternatives that could be implemented to address wilderness stewardship at the park. The alternatives are described in detail in the following narrative and summarized in tables 22 and 23 at the end of this chapter. The alternatives under consideration must include a “no-action” alternative as prescribed by 40 CFR 1502.14. The Department of the Interior NEPA regulations define two options for the no-action alternative: (1) “no change” from a current management direction; and (2) “no project” for situations where a proposed activity would not take place, such as construction of a new facility (§ 46.30). The Council of Environmental Quality’s (CEQ) 40 Most Asked Questions specifically notes that continuing current management applies to updating a land management plan initiated under existing legislation and regulations where an action will continue, even as new plans are developed. In these cases, the no-action alternative represents no change from current management or level of management activity, and the analysis provides a baseline of continuing with the present course of actions (CEQ 1981). In this draft EIS, alternative A is the “no-action” alternative and represents the continuation of current management as described in the park’s existing GMP.

The two action alternatives explore possible implementation strategies to address increasing visitation, including limiting certain uses and/or altering infrastructure (such as trails and campgrounds) to accommodate expanding demand, while maintaining high quality wilderness character. Action alternatives carried forward must meet the purpose of and need for taking action described in “Chapter 1: Purpose of and Need for Action” and be technically and economically feasible. An alternative is not considered reasonable if technical, economic, or jurisdictional obstacles make the ability to implement the alternative remote and speculative (NPS 2015). Alternatives or alternative elements that were considered but are not technically or economically feasible, do not meet the purpose of and need for the project, create unnecessary or excessive adverse impacts on resources, or conflict with the overall management of the park or its resources were dismissed from detailed analysis. These alternatives or alternative elements and their reasons for dismissal are discussed at the end of this chapter.

ACTIONS COMMON TO ALL ALTERNATIVES

Minimum Requirements Analysis

NPS *Management Policies 2006* require that all management decisions affecting wilderness must be consistent with the “minimum requirement” concept. An MRA is used to determine whether administrative actions, projects, or programs undertaken by the NPS that may affect wilderness character, resources, or visitor experience are necessary and, if so, how to minimize the effects. The MRA is a documented two-step process used to determine:

- Whether the proposed management action is necessary for administration of the wilderness for the purpose of the Wilderness Act and does not cause a significant impact to wilderness resources, and
- The techniques and types of equipment that are needed to ensure that impacts on wilderness resources and character are minimized.

All actions in wilderness areas would require completion of an MRA. The plan does not present or evaluate specific preservation methods as it is unknown at this time what repairs will be needed in the future. The plan states that hand tools will be used to maintain the structures whenever possible. Preservation activities with nonmechanized equipment do not require an MRA under section 4(c) of the Wilderness Act. Step 1 for the programmatic MRA is provided in appendix C. In the future, if maintenance with mechanized equipment is contemplated, Steps 2, 3, and 4 would be completed for repetitive, routine, and predictable actions, such as clearing vegetation as part of maintenance of structures, installations, or trails; individual MRAs would be completed for one-time actions, such as removal of a historic structure or construction of new campsites. Retention of installations and structures in wilderness also would be subject to an MRA if these installations and structures are not covered under an existing MRA. This requirement would apply to the existing administrative uses on Amygdaloid Island, which are not covered under an MRA. Under all alternatives, the NPS would complete an MRA to assess continuation of these uses on Amygdaloid Island.

Prohibited Uses. The Wilderness Act prohibits temporary roads, motor vehicles, motorized equipment, motorboats, landing of aircraft, and other forms of mechanical transport, structures, and installations except as necessary for the administration of wilderness (16 U.S.C. § 1133(c)). Before allowing or authorizing any of these uses, the park would complete an MRA to determine whether the use is necessary for the administration of wilderness (see additional wilderness planning materials posted on the NPS Planning, Environment, and Public Comment [PEPC] website).

Special Uses

Commercial filming would be allowed in accordance with NPS policy. Special use permits would be required for all filming activities in wilderness areas, except for casual filming by visitors. All filming activities in wilderness would be required to follow all applicable laws and regulations that govern wilderness areas, including prohibitions on creation of structures or installations, and use of motor vehicles, mechanical transport, motorized equipment, motorboats, or aircraft landing. Stipulations may be added to any permit to protect wilderness character.



View of Ishpeming Fire Tower and associated equipment

Public Use Closures

The NPS may implement seasonal closures as necessary (e.g., closure of a wilderness camping zone due to increased danger of falling trees in the years immediately after a wildland fire). Temporary closures for public safety purposes may also be implemented on a case-by-case basis (e.g., closure of a campground during a nearby ongoing wildland fire). Closures would be noted in the Superintendent's Compendium.

Appropriate and Traditional Uses

The NPS would continue to encourage appropriate uses within wilderness, including hiking, backpacking, paddling, fishing, scientific research, and traditional uses by associated Tribes. None of the alternatives propose changes in these types of current uses or regulations in Isle Royale wilderness. Some of these activities are restricted within the park's wilderness. These restrictions would remain the same under all alternatives.

Maintenance of Installations

A variety of features are considered installations, including vernacular boats, a steam engine, moose exclosures, fences, navigation aids, and equipment associated with fire towers, such as the weather stations and radio repeaters on the Mount Ojibway and Ishpeming Fire Towers. Additional details regarding continued use of installations on the fire towers are provided below in the “Use of Structures for Administrative Uses” section for each alternative. Once used during mining and fishing activities on the island prior to the establishment of the park, such features today are classified as installations in wilderness. Installations in wilderness would be treated as follows:

- Currently, several vernacular boats, some of which are under private ownership, are located in wilderness at Isle Royale. Of the NPS-owned vernacular boats, the Skipper Sam at Wright Island may be stabilized to slow deterioration, and the remaining boats would be allowed to molder under all alternatives.
- The 1870s-era steam engine at Island Mine is inoperable; however, preservation treatments may be applied at a future date.
- Moose exclosures would be maintained or rebuilt as necessary.
- Fences for the safety of the visiting public are present around three mining sites in wilderness, including the Minong, Siskiwit, and Pittsburg & Isle Royale mines, and these fences may be retained and maintained. Historically accurate, protective fencing would be maintained at the small historic cemeteries at Cemetery Island, Island Mine, and the Bangsund Research Station. New interments would not be permitted at the island-based cemeteries or at other locations within the park; however, the NPS would allow cremains to be spread at select locations in the park.
- The park would continue to maintain Chippewa Harbor and Saginaw Point markers as aids to navigation to ensure visitor and boater safety.



Skipper Sam at Wright Island

Treatment of Non-Historic Installations and Structures in Wilderness

The NPS would evaluate non-historic installations and structures in wilderness to determine which are necessary to administer the park’s wilderness. Based on this determination, individual, non-historic structures would either be retained or removed.

Vegetation Clearing

In select locations, the park may clear vegetation around installations and structures for historic preservation, wildfire protection, and moose exclosure maintenance, as examples. Vegetation would continue to be cleared around mine shaft fencing. Hazard trees would be removed in the vicinity of Senter Point Powder House and the Island Mine Hoist Engine, and limited vegetation removal would be performed at Island Mine Cemetery and Cemetery Island. Vegetation overgrowth would be removed to maintain visibility at cemeteries.

Damaged or Destroyed Historic Structures

Actions to address damaged or destroyed historic structures would follow *NPS Management Policies 2006*, section 5.3.5.4.9. Historic structures damaged or destroyed by fire, storm, earthquake, war, or any other accident may be preserved as ruins; be removed; or be rehabilitated, restored, or reconstructed consistent with the Wilderness Act and in accordance with management policies.

NPS Management Policies 2006, section 6.3.8, regarding cultural resources in wilderness, states that cultural resources that have been included within wilderness will be protected and maintained according to the pertinent laws and policies governing cultural resources using management methods that are consistent with the preservation of wilderness character and values.

NPS Reference Manual 41: Wilderness Stewardship, Cultural Resources in Wilderness: Guidance for Considering and Managing Historic Structures and Installations directs parks to consider the historical values of a structure or installation, potential impacts or benefits to the totality of wilderness character, and feasibility when determining appropriate treatment options (NPS 2022). Given the direction of these policies, reconstruction, which is considered the most invasive treatment, in wilderness would be unlikely.

Management of Public Use in Wilderness

Routine Trail Maintenance. The NPS would continue to rehabilitate trails on a 5- to 10-year schedule or as needed based on weather events or bridging needs. Vegetation clearing of low-growing herbs and shrubs would occur more frequently on busy trails adjacent to nonwilderness areas, and the NPS would continue to maintain a greater number of bridges on these trails. Along the Minong Ridge Trail, which is located in the primitive zone, the NPS would maintain a minimum number of bridges and would continue vegetation clearing on a less frequent schedule.

Boardwalks. The NPS would continue to use boardwalks, which are considered installations, to minimize damage to wetlands and other natural wilderness qualities. Where feasible, the use of stonework and other trail-building techniques would continue to minimize reliance on lumber for trails. The NPS may decide to limit or prohibit the use of certain types of manufactured construction material.

Leave No Trace Outdoor Ethics. The NPS is a formal partner in the national “Leave No Trace” outdoor ethics program, and using the principles of this program, has developed Isle Royale Stay Wild to implement these principles. Interpretive, educational, and outreach programs would continue to be provided to encourage park visitors to minimize their impacts to park resources and visitor experiences by applying the following principles of Isle Royale Stay Wild: Know Before You Go, Play it Safe, Protect Your Park, and Share the Space. The NPS would provide educational programs on wilderness character and outdoor ethics in nonwilderness settings.

With regard to human waste management, privies are currently available in wilderness on Isle Royale for the health and safety of wilderness users and to limit impacts from human waste on the natural quality of wilderness. Under all alternatives, the park would maintain privies in wilderness for visitor and administrative use, as appropriate. As privies are repaired or replaced, the park may replace them with designs that are less visible to visitors, such as open air risers, which would limit impacts on visual character. The NPS may also decide against replacement of a privy if appropriate. Where privies are not present, management of human waste would continue in accordance with current management practices and the principles of Leave No Trace outdoor ethics. Whenever possible, visitors would be encouraged to use existing privies.

Recreational Cottage Permits and Agreements

The five remaining special use permits for private use of historic recreational cottages would not be renewed when they expire. Existing Volunteers-In-Parks agreements issued to former life-lease or special use permit family members during the development of the plan would end, and volunteer agreements would transition to a partnership program.

Research and Monitoring

The NPS would continue to issue research permits; this plan/EIS would formalize the process. The Research Strategy provides guidance for how the park would consider and evaluate research proposals (see “Appendix D: Isle Royale National Park Wilderness Research Strategy”). Applications for research activities in wilderness would be subject to the research permitting process, and special use permits would continue to be required for certain activities (see “Appendix E: General Conditions for Scientific Research and Collecting Permit”). NPS policy and the best available guidance and standards would be applied to permitting decisions involving the use of new technologies (e.g., wireless technology, motion-activated cameras, documentary filming). An MRA would apply to all research or special use activities that propose 4(c) prohibited uses. Monitoring of the qualities of wilderness character, including social and natural resource indicators, would be directed by the Wilderness Assessment and Monitoring Plan.

ACTIONS COMMON TO ALL ACTION ALTERNATIVES (B AND C)

Actions and activities described in this section of the plan/EIS have no potential for significant impacts, have already been the subject of a NEPA analysis, or are so remote and speculative in impacts that they cannot be meaningfully evaluated at this time. Therefore, although these actions are part of the plan, except where specifically noted they are not discussed further in the “Environmental Consequences” section.

Standard Operations and Maintenance

Trail Maintenance. Cross-cut saws would be used whenever possible for route clearing, limbing of trees, and downfall on trails and in designated campsites as a means of reducing the use of chainsaws in wilderness. Chainsaws would be used only during emergencies and in low visitation periods, and their use would be further analyzed in an MRA. Sustainably harvested, chemically preserved lumber would be used for trails and campgrounds to maximize the lifespan of trail structures; thereby, minimizing the long-term costs of materials and labor. The use of the most benign chemically treated lumber would minimize the risk of detrimental contamination of soils and water. Protecting fragile habitats from trampling, trail widening, and erosion as well as minimizing hazardous trail conditions would remain a primary objective of trail construction and maintenance.

Administrative Overnight Use of Historic Structures in Wilderness (except Amygdaloid and Davidson). NPS staff, Tribal partners, volunteers, park partners, researchers, and roving caretakers may periodically use historic structures in wilderness to support historic or other resource preservation projects in wilderness. Overnight use would be prioritized in nonwilderness areas such as Windigo, Rock Harbor, Belle Isle, Malone Bay, and Daisy Farm. However, some administrative overnight use would be allowed in wilderness areas subject to the requirements included in this section.

Workers using historic structures for overnight use must be performing actions necessary for the administration of the area, including visitor and resource protection, historic structure stabilization and maintenance, and natural and cultural resources fieldwork and research.

The NPS could authorize temporary overnight use of historic structures in wilderness for non-NPS entities if a work plan is in place for any work to be performed, specifying timeframes and strict adherence to NPS priorities and policies, including management of safe drinking water and human waste.

All administrative use of historic structures would comply with NPS rules regarding no permanent habitation in wilderness. Only nonmechanized tools would be used for repairs of historic structures. If mechanized tools are necessary for a specific project, an MRA would be completed in advance as part of planning for the maintenance.

Fire Management for Historic Structures. The park has developed a modified National Fire Protection Association Firewise standard for use in both wilderness and nonwilderness locations. In general, the following standards apply: (1) the park proposes to clear all vegetation within 10 feet of historic structures proposed for preservation or stabilization and selectively thin hazardous trees within 50 feet of a historic structure (in most cases only dead trees would be removed within the buffer for selective thinning [10 to 50 feet]); (2) live trees may be removed if they are deemed an immediate threat to a particular structure; and (3) the park may choose to retain large, character-defining trees such as cedar or white pine (in such situations lower limbs could be removed and/or natural resource managers would be consulted for identification of endangered species prior to any cutting). These standards may be modified further to accommodate cultural landscapes and wilderness integrity. A defensible space standard operating procedure would not be created for independent structures proposed for mouldering. In some cases, a standard operating procedure may benefit those structures if they are included in an area where other preserved structures are being maintained. The park would address fire management needs for historic structures in and outside wilderness in the Fire Management Plan when it updates this plan.

Management of Public Use in Wilderness

Backcountry Office and Processing Fees. A mainland-based backcountry office would be established in the Houghton, Michigan, visitor center. Visitors would be required to obtain backcountry/wilderness permits via email or online in advance of their trip before reaching the park. All action alternatives could include a nominal individual permit processing fee to cover administrative costs of the new permitting system. The need for this administrative fee would be assessed if the park uses recreation.gov for wilderness permitting. The park would continue to charge a group camping permit processing fee.

Group Size Restrictions by Zone. Specific group size limitations are discussed under each alternative. To protect and preserve the appropriate conditions for solitude and tranquility, large, organized groups would not be allowed to camp within the primitive zone. The following campgrounds would not have group campsites under either action alternative: North Desor, Little Todd, Pickerel Cove, Lane Cove, Intermediate Lake, Wood Lake, Lake Whittlesey, Lake Richie canoe campsite, Duncan Bay, Tookers Island, Grace Island, Beaver Island, West Caribou Island, Duncan Narrows, Merritt Lane, Hay Bay, and Birch Island.

Campground/Campfire Management. Campfires within NPS-installed campfire rings or standing grills would be allowed in designated areas, provided that enough down and dead wood is available within a collectible distance. To address firewood availability and fire safety, campfire rings would be rotated periodically. Campfire ring rotation would allow for the regeneration of vegetation near campsites. Campfires outside designated campfire rings would be prohibited. Use of small, self-contained stoves may be allowed, subject to requirements outlined in the Superintendent's Compendium. Additionally, the park may modify campsite design and site markers, restore or replant site borders to reduce the area impacted, temporarily close sites for restoration, or permanently close or relocate sites to address adverse impacts to soils and vegetation.

Wilderness Interpretation and Public Signage. The NPS would review current signage and limit it to only those signs necessary for safety or protection of resources, such as route markers, distance and directions, and hazard signage. Interpretive signage in wilderness would be removed and replaced by online content or content at trailheads outside wilderness.

Cultural Resources in Wilderness

Historic Structures. Most historic structures and associated cultural landscapes in Isle Royale wilderness are either listed, or eligible for listing, in the National Register. Only one cultural landscape, the Tobin Harbor Historic District, is listed in the National Register. Less than half of 1% of Isle Royale wilderness includes a historic structure (93 acres occupied by historic structures in 132,018 acres of wilderness on Isle Royale). Historic structures on Isle Royale contribute to the wilderness quality of other features of value, and preservation is consistent with the public purposes of wilderness for education, recreation, and historic use.

Use of Structures Associated with Administrative Uses

Research activities and overnight use of the Bangsund Cabin and associated structures would be relocated to nonwilderness as soon as an alternative site is available. After research activities are relocated and occupancy ends, the NPS would evaluate appropriate opportunities at the site, including interpretation.

ALTERNATIVE A: NO ACTION

The no-action alternative (alternative A) is traditionally defined as “no change” from the current management direction. Under this alternative, the park would continue current management direction as described in the 1998 GMP and as implemented through the Superintendent’s Compendium. Under alternative A, the park would continue to address the needs of wilderness stewardship in accordance with the GMP, which generally addresses how the park conducts activities within wilderness but does not include an overarching stewardship component designed to enhance wilderness character.

General Management Plan Zones

The existing GMP zones, as designated in the 1998 GMP, are depicted on figures 4 and 5. All zoning within wilderness would remain the same under this alternative.

Island Visitor Use Levels

Visitor use levels would be managed in accordance with the GMP through the management of concession and NPS-provided (e.g., Ranger III or future vessel/s) transportation limits. Additional clarity on transportation limits would be provided in future contracts.

This page intentionally left blank.

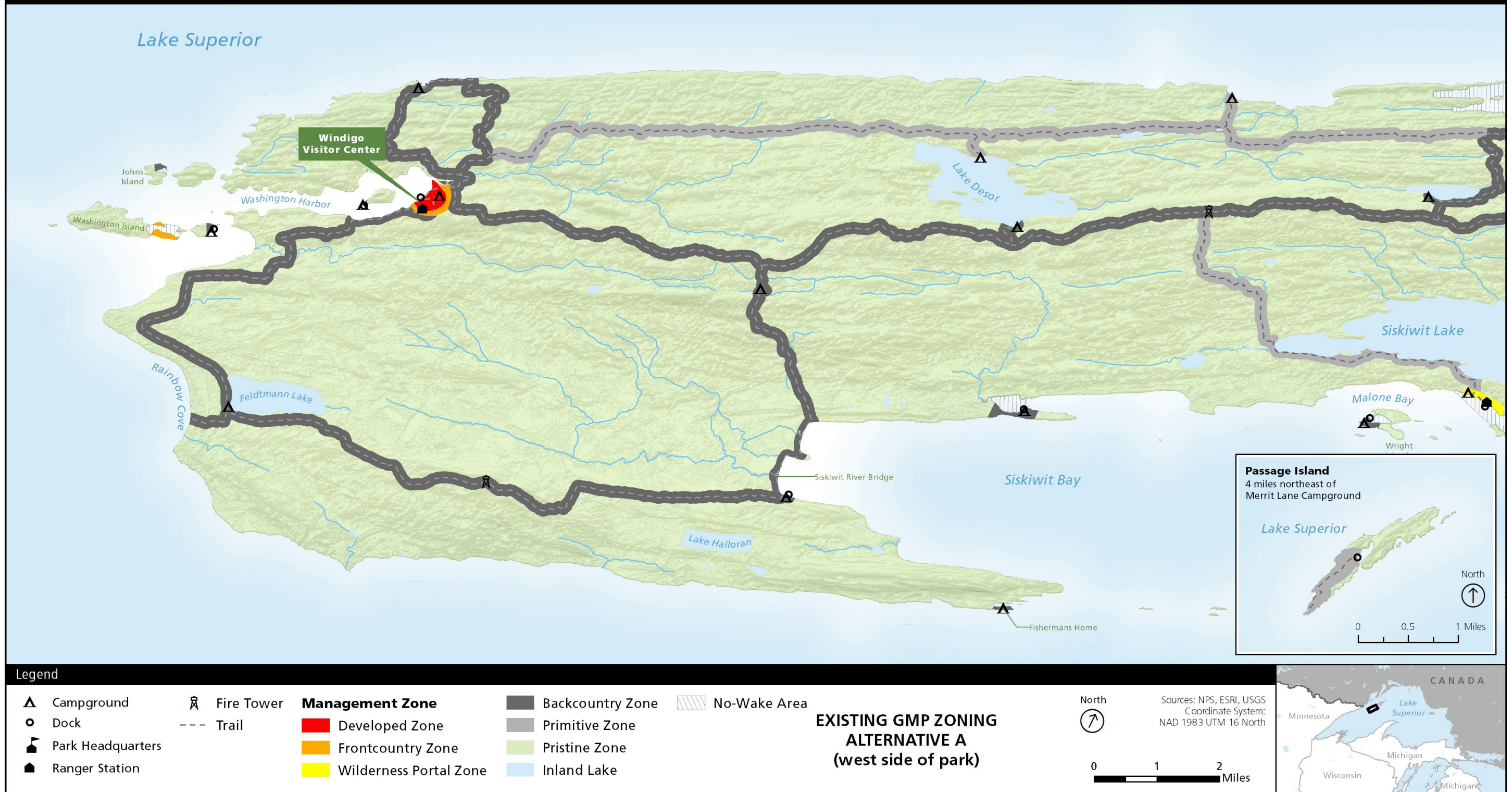


FIGURE 4. EXISTING GMP ZONING – ALTERNATIVE A (WEST SIDE OF PARK)



FIGURE 5. EXISTING GMP ZONING – ALTERNATIVE A (EAST SIDE OF PARK)

Wilderness Permitting Systems

The park would continue to issue backcountry/wilderness permits at the start of a trip with no limit on the total number of permits issued. Backcountry/wilderness permits are used as a tool to monitor campground use, deliver emergency messages to hiking parties, find lost campers, and measure backcountry use. Permits would be valid for parties of one to six people. Cross-country camping zones are depicted in figure 6.

Group Size Requirements

Groups of 7 to 10 people would be required to register for group campsite reservations in advance. If a group exceeds 10 people, it must split into 2 parties, and each party cannot camp in the same campground at the same time and must travel on completely separate itineraries. Organizations may not have more than 20 people camping on the island at one time.

Day Use Group Size Requirements

Day use group sizes generally are based on the capacity of excursion vessels or ferries. For example, the capacity of the excursion boat “Sandy” is approximately 42 passengers. There is no established limit for day use group size. The NPS would control group sizes through the appropriate permitting mechanism with group tour providers.

Shelters, Associated Docks, and Picnic Tables

Under this alternative, the park would maintain 20 shelters within wilderness and would not construct additional shelters. The GMP direction is to remove the boat dock at Duncan Bay campground. Shelters at Duncan Bay would be removed from this location once the boat dock is removed.

Shelters that would be maintained would be addressed in an MRA to show these structures are the minimum necessary and that they consider wilderness qualities. The MRA would address long-term maintenance of shelters.

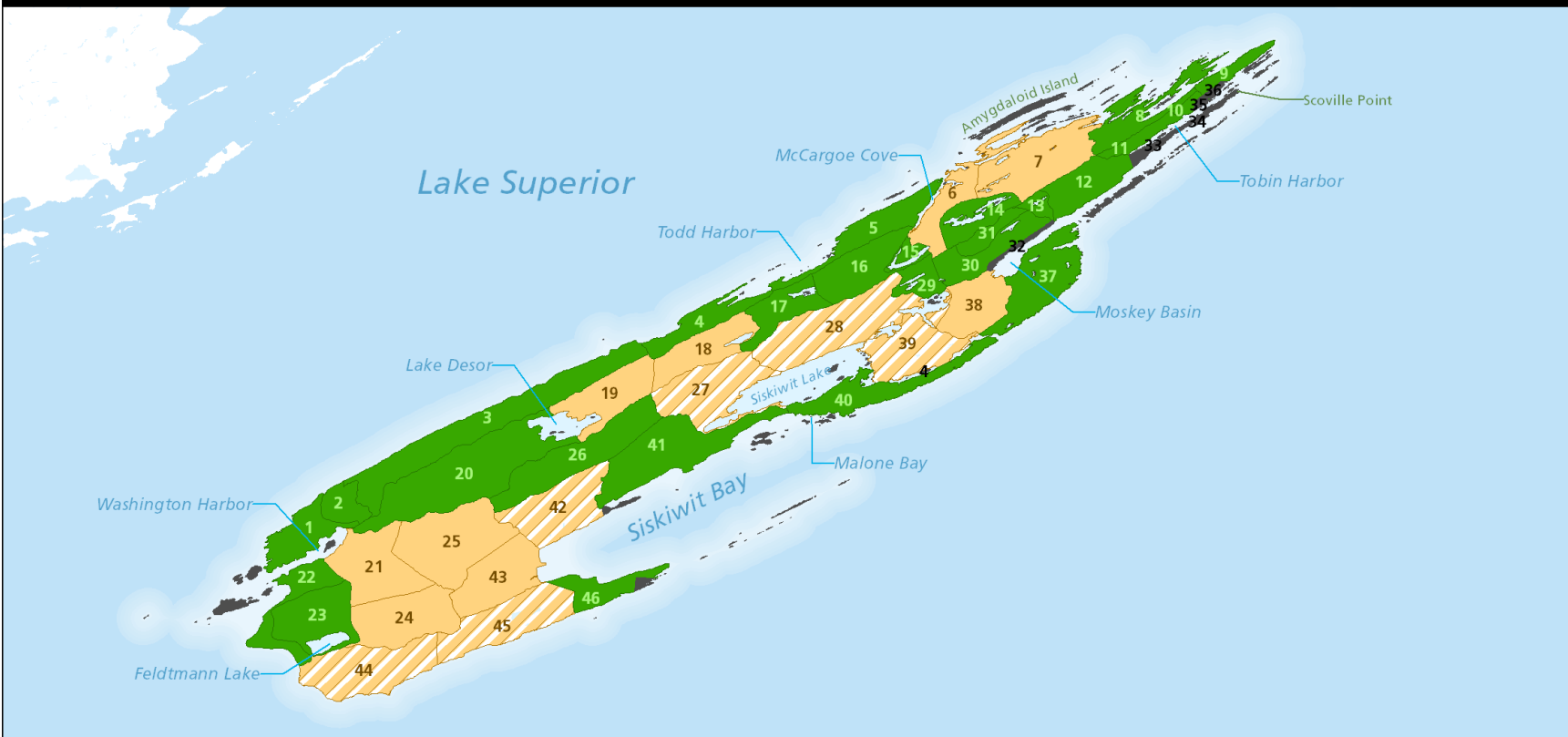
Picnic tables are currently located in a number of wilderness campgrounds at Isle Royale. Although picnic tables are installations that decrease self-reliance and detract from the opportunity for the primitive and unconfined recreation quality of wilderness, they protect sensitive vegetation by keeping visitors off vegetation and generally keep campsites from expanding. The NPS would not expand the number of picnic tables within wilderness and would consider removal in some locations.

Campground Management

Campgrounds. Under this alternative, camping would continue within all designated campgrounds. See figures 7 and 8. In accordance with the GMP, new campgrounds would be established at Crystal Cove, Fisherman’s Home, and Wright Island. Tents would be required to be placed within designated tent pads. If current resource concerns at these locations cannot be addressed, overnight use would be restricted to boat camping at docks.

Group Campsites. The park would maintain designated group campsites at 17 existing campgrounds. In accordance with the GMP, a new group campsite may be established at Belle Isle.

Cross-Country Camping. Cross-country or “off-trail” camping would remain open in designated areas for visitors seeking enhanced opportunities for solitude outside designated campgrounds. Special permits would be required. Camping in cross-country areas is not allowed for parties of more than six people. All islands on inland lakes and islands in Lake Superior (excluding the main island of Isle Royale) are closed to cross-country camping. Figure 6 details seasonal restrictions and zones within the park where cross-country camping is permitted and depicts current closures, which may be adjusted as needed. Specific cross-country camping requirements are provided in the Superintendent’s Compendium and will be updated annually as needed.



Legend

- Open April 16 - September 1
- Closed April 16 - September 1
- Closed April 16 - September 1, except within 1/4 mile of Siskiwit, Intermediate, Wood, Whittlesay, and Lake Superior shores
- Closed year-round, except at established campsites

Sources: NPS, ESRI, Government of Canada:
 Natural Resources Canada
 Coordinate System:
 NAD 1983 UTM 16 North

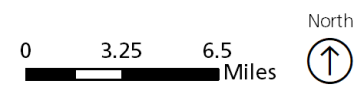
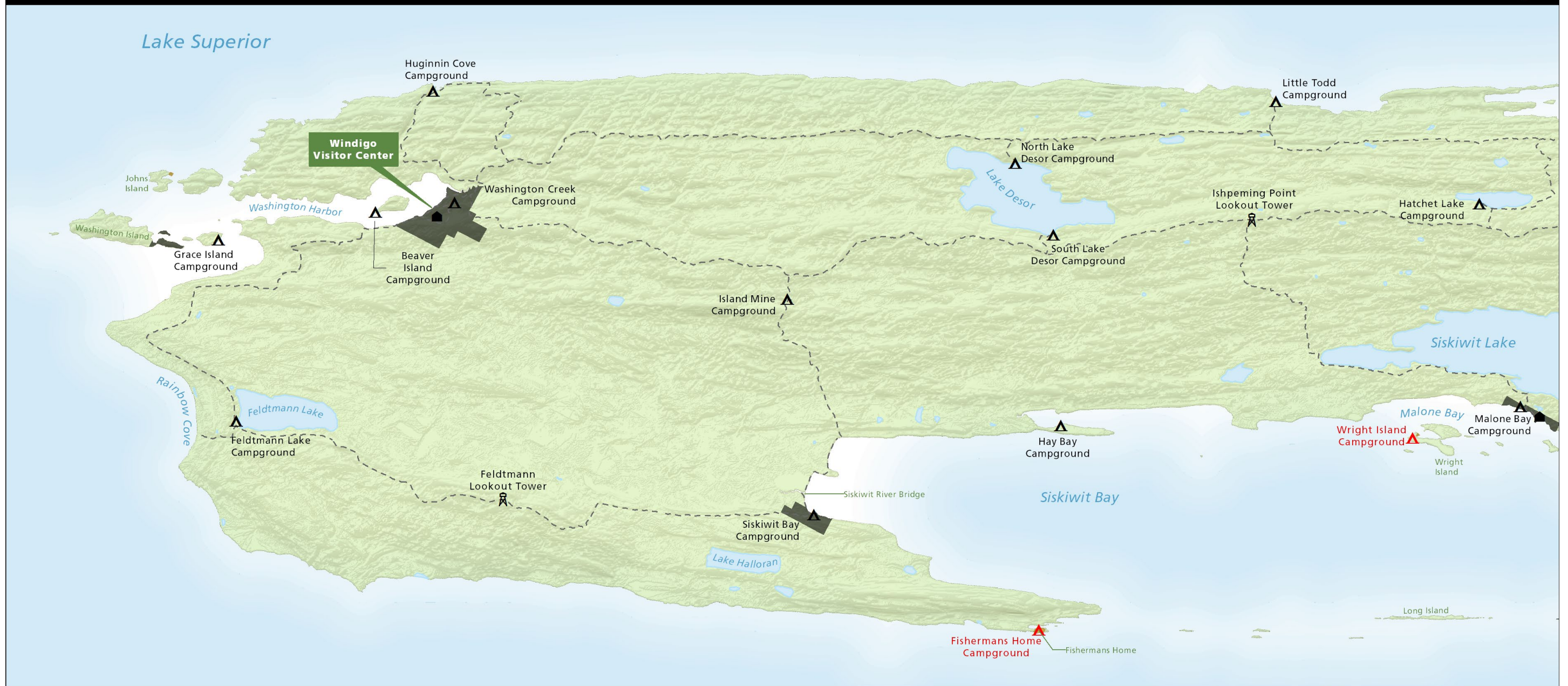


FIGURE 6. CROSS-COUNTRY CAMPING ZONES UNDER ALTERNATIVE A

This page intentionally left blank.



Legend

- | | | | |
|---------------------|----------------|----------------------|-----------------------|
| Existing Campground | Ranger Station | Fire Tower | Non-Wilderness |
| New Campground | Trail | Potential Wilderness | Designated Wilderness |

**EXISTING CAMPING OPPORTUNITIES
 ALTERNATIVE A
 (west side of park)**



Sources: NPS, ESRI, USGS
 Coordinate System:
 NAD 1983 UTM 16 North

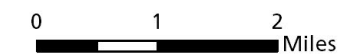


FIGURE 7. ISLE ROYALE NATIONAL PARK EXISTING CAMPING OPPORTUNITIES – ALTERNATIVE A (WEST SIDE OF PARK)

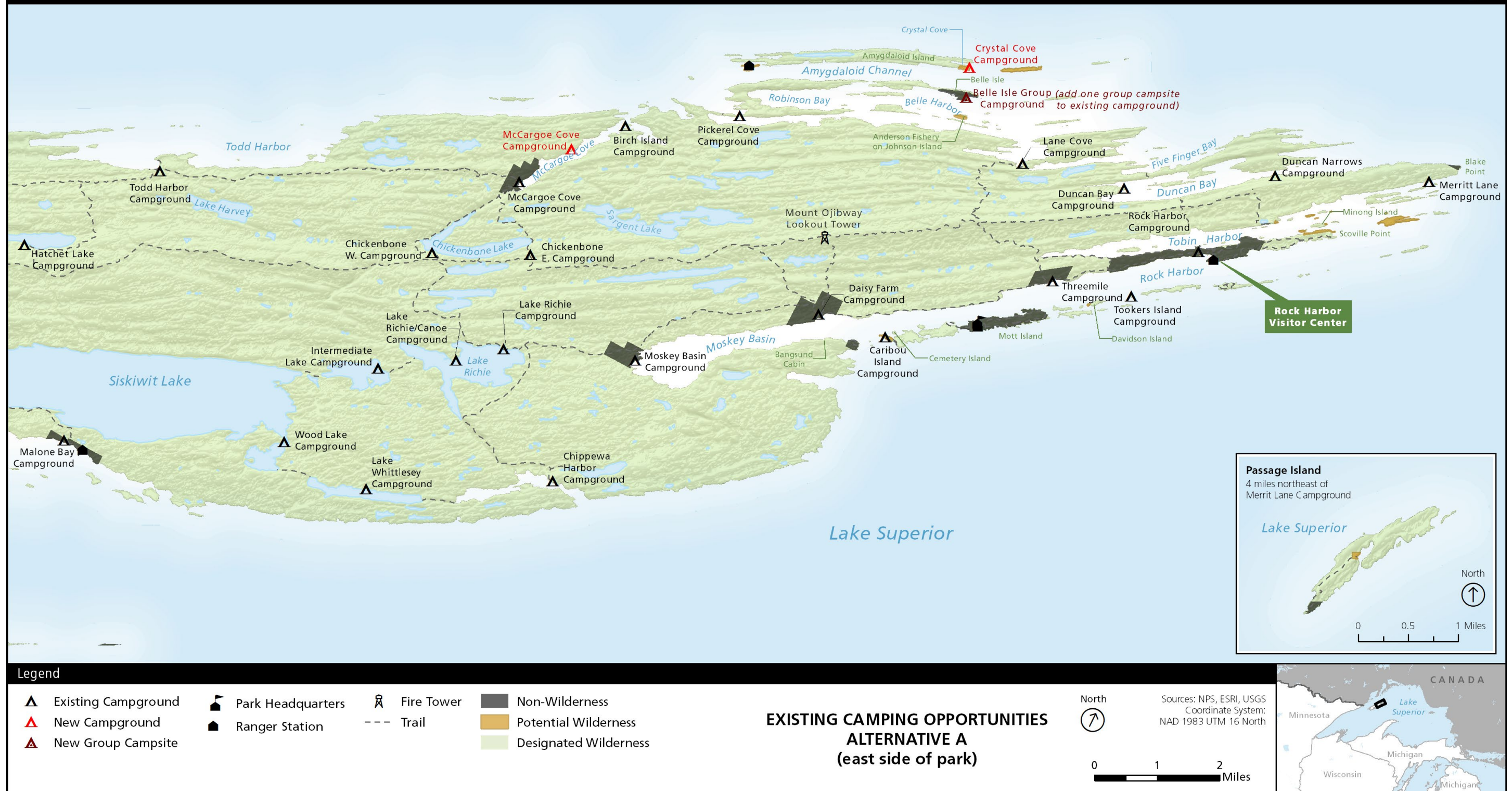


FIGURE 8. ISLE ROYALE NATIONAL PARK EXISTING CAMPING OPPORTUNITIES – ALTERNATIVE A (EAST SIDE OF PARK)

Trail Management

Under this alternative, all existing trails would be maintained except, in accordance with the GMP, the Indian Portage Trail between the south and east ends of Lake Richie would be eliminated. No new trails would be built within wilderness.

Bridges and Boardwalks

Bridges would be maintained where required for wet area crossings. Examples of existing bridges in wilderness include Hidden Lake Bridge, Tobin Creek Bridge - Mount Franklin Trail, East Caribou Island Bridge, Benson Creek Bridge - Daisy Farm Trail, Moskey Basin Bridge, West Chickenbone Lake Bridge, Malone Bay Bridge, West Siskiwit Lake Bridge, Big Siskiwit River Bridge, Washington Creek Bridge, and Grace Creek Bridge. All other crossings for resource protection are classified as boardwalks. Where possible, boardwalks in wilderness would be removed through introduction of short reroutes or more natural bridging methods such as placement of boulders and rocks.

Concessions and Commercial Services

The NPS evaluates all concessionaire contracts and commercial services authorizations through an extent necessary determination before they are permitted to operate within wilderness. While park concessions contracts are granted for more than one year at a time, other contracts are provided on a space-available basis and are reviewed annually. Each year the park receives applications from commercial recreational entities such as kayak outfitters that are accommodated based on campsite availability. These entities bring hikers, backpackers, and kayakers into the wilderness for day hiking and overnight trips.

Wilderness managers will conduct an extent necessary determination prior to authorizing any commercial services in Isle Royale wilderness. Commercial services providing access to the island typically do not land or dock within wilderness.

Winter Closure

Isle Royale would remain closed to visitor access for visitor safety from November 1 through April 15 as stated in the GMP and Superintendent's Compendium.

Treatments for Historic Structures and Installations

The no-action alternative does not include a formal priority or treatment distinction for historic structures and installations. Currently, the park is preserving and maintaining many of these structures and installations with the help of volunteers. Preservation activities are irregular and are done when funding, partnerships, and resources are available. Table 1 lists the historic and non-historic structures and installations present in potential and wilderness on Isle Royale.

TABLE 1. HISTORIC STRUCTURES AND INSTALLATIONS PRESENT IN ISLE ROYALE WILDERNESS

| Area Name | Structure Name |
|------------------|--|
| Tobin Harbor | <ul style="list-style-type: none"> • Beard Cabin; Beard Storage Structure • Connolly Cabin; Connolly Guest Cabin; Connolly Privy • Dassler Boat House; Dassler Privy; Dassler Cabin; Dassler Guest Cabin • Edwards “The Gem” (Guest Cabin); Edwards Cabin; Edwards Dining Room; Edwards Privy; Edwards Store House • Gale Cabin; Gale Guest Cabin; Gale Privy; Gale Tool Shed • How Cabin; How Guest Cabin • Kemmer Boat House; Kemmer Guest Cabin; Kemmer Privy; Kemmer Cabin; Kemmer Steps; Kemmer Store House • Mattson Fishery Cabin; Mattson Fishery Fishing Shed*; Mattson Fishery Privy; Mattson Fishery Storage Structure; Mattson Fishery Net House, Mattson/Anderson Fishery Cabin; Mattson Fishery Fish House** • Merritt “Deer House” (Guest Cabin 1); Merritt “Moose Manor” (Guest Cabin 2); Merritt “Parsonage”; Merritt Cabin; Merritt Privy; Merritt Wood Shed • Minong Island Post Office; Minong Lodge Cabin • Siefert Cabin; Siefert Privy; Siefert Storage Structure • Snell Cabin; Snell Guest Cabin; Snell Store House; Snell Writing Shack • Stack Cabin; Stack Guest Cabin; Stack Privy East***; Stack Privy West; Stack Retaining Wall |
| Fisherman’s Home | <ul style="list-style-type: none"> • Dry-Laid Stone Wall • Help’s Quarters #1; Help’s Quarters #2 • Rude Fish House; Rude Guest Cabin; Rude Net House; Rude Privy; Rude Cabin; Rude Smoker; Rude Store Room • Fisherman’s Home Tool Shed |
| Crystal Cove | Megeath Boardwalk; Megeath Fuel Shed Ruin; Megeath Generator House; Megeath Guest Cabin #1; Megeath Guest Cabin #2; Megeath Main Lodge; Megeath Cabin; Megeath Smokehouse; Megeath Storage Shed |
| Captain Kidd | McPherren Cabin; McPherren Sleeping Cabin #3; McPherren Bath House; McPherren Boat House; McPherren Flag Pole; McPherren Sleeping Cabin #1; McPherren Sleeping Cabin #2; McPherren Tool Shed |
| Johnson Island | Anderson Main Cabin & Log Sleeping Cabin; Anderson Privy; Herman Johnson Cabin; John Anderson Cabin |
| Island Mine | Powder House Ruins and Hoist Engine |
| Wright Island | Main Cabin; Mike Johnson Cabin; Privy |
| Bangsund | Main Cabin; Sleeping Cabin; Sleeping Cabin #2 |
| Amygdaloid | Anderson/Scotland Cabin |
| Davidson Island | Davidson House |
| Fire Towers | Feldtmann Fire Tower; Ishpeming Fire Tower; Mount Ojibway Fire Tower |
| Johns Island | Johns Cabin |
| Others | Holger Johnson Fishery and Resort; Horner Cabin |

* The Mattson Fishery Fishing Shed was disassembled in 2017 due to structural failure. The building materials are stacked on the shore.

** The Mattson Fishery Fish House was demolished in 2018, following a partial collapse into Lake Superior. The building materials are stacked on the shore.

*** Stack Privy East was destroyed during the 2021 Horne Fire.



View of Dassler Cabin and Guest House from Scoville Point (left); view of Ojibway Fire Tower (right)

Public Use of Historic Structures

Fisherman’s Home. Boat docks would be available for public day use; however, no public day use of structures in the Fisherman’s Home areas would be permitted. In accordance with the GMP, a campground would be built on the site.

Crystal Cove. In accordance with the GMP, the boat docks and Crystal Cove Lodge would be available for public day use, and public overnight use of the Crystal Cove cabins would be allowed.

Wright Island. Public day use of the boat dock at Wright Island would be permitted.

Bangsund. The site and the boat docks would remain open for public day use.

Fire Towers. The staircases at Feldtmann, Mount Ojibway, and Ishpeming Fire Towers may remain open and available for public access day use below the cabins of the towers.

Use of Structures for Administrative Uses

For all areas where Volunteers-In-Parks agreements are used for historic preservation, the existing agreements allowing temporary volunteer overnight use of structures would be transitioned over time to a broader partnership program that would involve partners in park-wide historic preservation efforts that would be directed by the NPS. Under this program, administrative overnight use of selected historic structures would be allowed as described below.

Tobin Harbor Area. Current overnight use of Dassler Cabin for artists in residence and intermittent use of Kemmer Cabin for administrative uses would continue. Residential



View of Mattson Fishery Cabin

use of Connolly Camp and Mattson Fishery Cabin would continue to be allowed under special use permit until expiration.

Fisherman’s Home and Crystal Cove. Overnight use of structures for administrative purposes would be permitted as described in the GMP, and administrative use would continue. Use of these structures at Fisherman’s Home and Crystal Cove would be consistent with the 1998 GMP, which noted that structures would be evaluated for adaptive use.

Captain Kidd. Residential use of structures at Captain Kidd would continue to be allowed under special use permit until expiration.

Davidson Island. Davidson House would continue to house seasonal employees participating in studies within wilderness. Auxiliary structures would be used for visiting researchers. Water treatment and solar facilities would continue to support required living conditions.

Bangsund Cabin. Bangsund Cabin and the associated structures would be used to house research activities. The boat docks would be used for overnight administrative uses.

Amygdaloid Island. Law enforcement and resource and maintenance staff would continue to use the main cabin and duplex on Amygdaloid Island for administrative purposes. The park would minimize nonconforming uses at this location and address any necessary nonconforming uses in an MRA.

Fire Towers. The Mount Ojibway Fire Tower would be used for radiocommunications and environmental monitoring. Additionally, Ishpeming Fire Tower hosts a small repeater that supports radiocommunications across the island.

Conversion of Potential Wilderness Additions and Nonconforming Uses

A list of PWAs and any nonconforming uses at these sites is provided in table 2.



View of Davidson Cabin (above); view of Bangsund Main Residence (below)



TABLE 2. POTENTIAL WILDERNESS ADDITIONS ON ISLE ROYALE, ACREAGE, AND NONCONFORMING USES

| Location | Acres | Existing Nonconforming Use, If Applicable |
|--|--------------|--|
| Fisherman's Home | 5 | Historic structures, including those used for housing under a Volunteers-In-Parks agreement; historic and non-historic installations |
| Johns Island | 0.8 | Historic and non-historic structures, including those used for housing under a Volunteers-In-Parks agreement |
| Wright Island | 1 | Not applicable |
| Davidson Island | 1 | NPS and researcher housing |
| Johnson Island | 5 | Historic structures, including structures used for housing under a special use permit |
| Amygdaloid Island | 11 | Ranger station with fuel storage and NPS residence |
| West Caribou Island | 5.6 | Unevaluated installations and structures |
| Passage Island | 3 | Boat house and trail to lighthouse for past US Coast Guard use |
| Edwards and Gem Islands | 24.8 | Historic structures, including structures used for housing under a Volunteers-In-Parks agreement |
| Tobin Harbor Islands and portions of the main island in vicinity | 10.2 | Historic structures, including structures used for housing under a special use permit, Volunteers-In-Parks agreements, and Artist-in-Residence Program cabin |
| Captain Kidd Island | 20.6 | Historic structures, including structures used for housing under a special use permit; historic installation |
| Crystal Cove | 5 | Historic structures, including structures used for housing under a Volunteers-In-Parks agreement allowing residence |
| Total Acreage | 93 | |

Westcott 2013

ALTERNATIVE B (PROPOSED ACTION AND PREFERRED ALTERNATIVE)

Alternative B focuses on enhancing wilderness character with specific emphasis on improving visitors' wilderness experience while maintaining Isle Royale's natural wilderness quality and opportunities for solitude and primitive and unconfined recreation. This alternative also would provide additional access opportunities consistent with the public purposes of wilderness.

Previous visitor use studies, discussed in chapter 3, indicate that most visitors experience outstanding wilderness recreational opportunities at Isle Royale. However, overcrowding and visitor conflict in campgrounds has been a persistent issue. These issues result in direct impacts to soils and vegetation around campgrounds and on trails, detracting from Isle Royale's naturalness. Alternative B includes actions to improve solitude and reduce visitor conflict at campgrounds while protecting the natural quality of wilderness.

General Management Plan Zones

To align current and proposed uses under this alternative with appropriate GMP zones, various areas would be rezoned as follows:

- The pristine zone would be renamed the wilderness immersion zone, amending a portion of the GMP. This name change would be consistent with the existing wilderness portal zone. This name change would amend the 1998 GMP; however, the description and use of this zone as outlined in the GMP would not change.
- Bangsund and Kemmer Cabins and related trails would be rezoned from wilderness immersion to backcountry to reflect current and proposed ongoing use of the area.
- Amygdaloid Ranger Station would be rezoned from backcountry to wilderness portal zone to reflect current and proposed ongoing use of the area for administrative use.
- The wilderness immersion zone around the new Windigo trail section (see “Trail Management”) within wilderness would be rezoned to backcountry to accommodate trail development for day users, allowing for better separation of users in this portal area.

The proposed revisions to GMP zones under alternative B are depicted on figure 9.

Island Visitor Use Levels

This alternative would revise the GMP to manage visitor use levels through backcountry camping permits, trail management, and overnight and day use group size limits, instead of ferry services and concession management. There would be no boat or sea plane visitor limits as part of this plan.

Wilderness Permitting Systems

A park-based advance permitting system and monitoring program would be established that would require visitors to obtain backcountry/wilderness permits in advance of a visit to the park. Backcountry/wilderness permits would allow flexible itineraries for parties of one to eight people. As noted under alternative A, permits would be used as a tool to monitor campground use, and NPS would issue advance permits based on campground capacity. Advance permits would be issued until campgrounds are booked to 85% of capacity. The remaining 15% of campsites would not be booked in advance to allow for flexible itineraries and address overcrowding and conflicts in campgrounds.

The monitoring program would be focused on determining whether the 85%/15% booking ratio results in less crowding in campgrounds and benefits wilderness character. The park may adapt these numbers slightly depending on the success of avoiding overbooking.

Group Size Requirements

The group size limit would be raised from 10 to 12. Groups of 9 to 12 people would be required to register for group campsite reservations in advance. Groups exceeding 12 people would not be able to camp in the same campground at the same time and must split into 2 parties, each independent and traveling on completely separate itineraries. Organizations may not have more than 24 people camping on the island at a time. The park would implement monitoring to determine whether changes to the group size limits should be adjusted.

Day Use Group Size Requirements

To reduce visitor conflict and provide opportunities for solitude in the wilderness immersion and backcountry zones, the following day use groups size limits would apply.

Frontcountry Zone. Group size limit of 40. The frontcountry zone would include limited areas within wilderness, such as Scoville Point and Raspberry Island. Most areas outside wilderness, such as Edisen Fishery and Suzy's Cave are located in this zone.

Wilderness Portal, Backcountry, and Primitive Zone. Group size limit of 24 (2 groups of 12 or fewer). This limit would apply on or within the majority of trails and campgrounds. Group sizes of up to 40 people would be allowed at Hidden Lake and Lookout Louise. Any tours to these destinations (Hidden Lake and Lookout Louise) of more than 40 people would need to split into multiple smaller groups.

Wilderness Immersion Zone (formerly the Pristine Zone). (Off-trail) group size limit of 8.

Shelters, Associated Docks, and Picnic Tables

Same as alternative A, except existing shelters at the Duncan Bay campground would continue to be maintained. This change would provide a new recreational opportunity for paddlers. Duncan Bay campground dock would be removed. No additional shelters would be constructed within wilderness. As discussed under alternative A, the NPS would not expand the number of picnic tables in wilderness and would consider removal in some locations.

This page intentionally left blank.

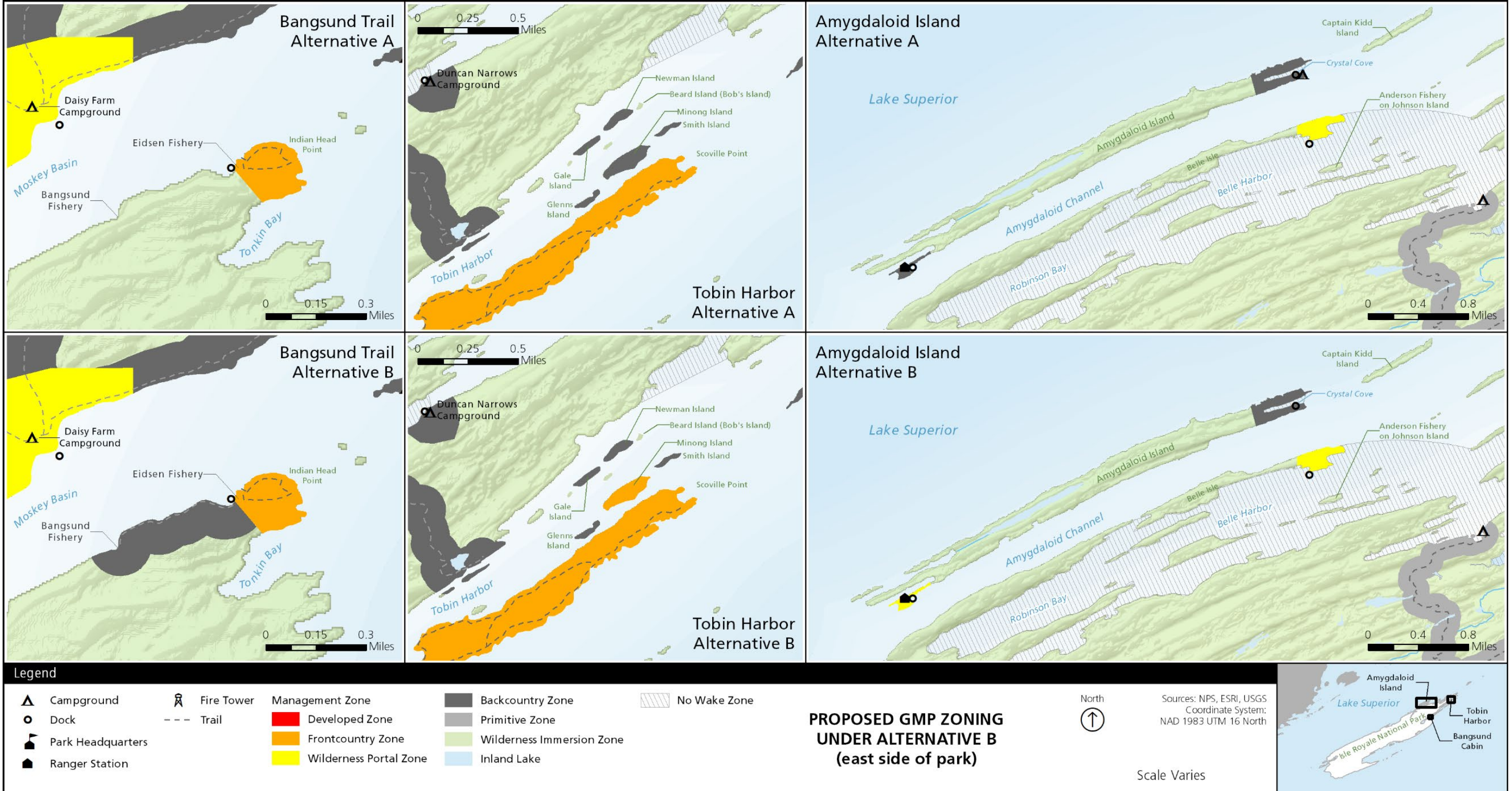


FIGURE 9. PROPOSED GMP ZONING UNDER ALTERNATIVE B (EAST SIDE OF PARK)

This page intentionally left blank.

Campground Management

Campgrounds. Same as alternative A, except no campground would be established at Fisherman’s Home or Crystal Cove. Two new campgrounds would be established, one on Wright Island and another on Johns Island in accordance with the GMP. The Johns Island campground would be provided for nonmotorized recreation users (canoe/kayak) only (figures 10 and 11). Tents would be required to be placed within designated tent pads. New campsites may be established within existing campgrounds if monitoring for multiples lines of evidence documents the needs for change. Monitoring would include: trail encounters, number of person overnights, resource damage, and visitor reports of crowding as identified in the Wilderness Assessment and Monitoring Plan.

Group Campsites. Under alternative B, like alternative A, designated group campsites at 17 campgrounds would be maintained. Additionally, a group campsite would be established at Belle Isle campground in nonwilderness, and infrastructure would be constructed to enhance the recreational experience, minimize conflicts between different user groups, and enhance solitude.

Cross-Country Camping. Cross-country camping zones would continue to be determined annually by management for resource concerns (see figure 6). Cross-country camping restrictions within open zones would be revised to state that “campers cannot be visible from the water or to another camping party and may not be within 0.25-mile of any existing campground.”

Trail Management

Under this alternative, the GMP would be amended to allow trails to be rerouted to ensure water availability to backpackers in wilderness, reduce maintenance costs, and address impacts to the natural quality of wilderness character, including resources such as nesting eagles or loons. In addition, the Indian Portage Trail between the south and east ends of Lake Richie would be retained. Several new trails would be established under this alternative, as detailed below and illustrated in figures 12 and 13.

Within Tobin Harbor Area. *Tobin Harbor Historic Cabin Loop Trail* (from Scoville Point to Dassler Cabin, on to Snell Cabin, and then returning to Scoville Point). This trail would have a distance of 0.68 miles (1.1 kilometers [km]) in wilderness.

Minong Island Trail (from the Post Office dock to Stack Cabin). This trail would have a distance of 0.25 miles (0.4 km).

Outside the Tobin Harbor Area. *Windigo Day Use Trail* (part of the Windigo Development Concept Plan). This trail would be predominantly outside wilderness with a limited distance within wilderness of 0.3 miles (0.5 km).

Bangsund Fishery Trail (from Edisen Fishery in nonwilderness to Bangsund in wilderness). This trail currently exists as a social trail and would be added to the park’s trail inventory. This trail is 0.45 miles (0.7 km) long.

The NPS would continue to use chainsaws or other forms of motorized equipment for trail clearing. Use of chainsaws or other forms of motorized equipment and mechanical transport in wilderness would be subject to MRA.

If monitoring shows that persistent crowding on trails is prohibiting the park from reaching or maintaining desired conditions (i.e., related to the natural quality of wilderness and providing outstanding opportunities for solitude or primitive and unconfined recreation, as described in chapter 1), the park may

consider adding trails. New trails in wilderness would only be added if they would improve wilderness quality and maintain access. Additional NEPA analysis would be required before new trails, beyond those described above, would be established.

Bridges and Boardwalks

The GMP would be amended to allow for more flexible management of bridges and boardwalks, including rerouting, removal, or improvements. Wherever possible, the park would reroute trails or use natural bridging methods (i.e., placement of rocks and boulders) to avoid the need for a bridge or boardwalk, and would remove existing bridges and boardwalks whenever possible. The Big Siskiwit River Bridge would be removed, and a smaller structural crossing at the Siskiwit River would be constructed.

Concessions and Commercial Services

Commercial services may be provided within wilderness areas to the extent necessary for activities that are proper for realizing the recreational or other wilderness purposes of the area (16 U.S.C. § 1133(d)(5)). Commercial services provided to access the island typically do not land or dock within wilderness. The following activities may be considered pending an extent necessary determination: guided hiking, guided backpacking, interpretive tours and educational programs, and guided kayak/canoe trips.

Winter Closure

Isle Royale would remain closed during the winter season. To provide additional opportunities for solitude, the closure would be reevaluated if open water existed during 100% of the winter season for at least five consecutive years.

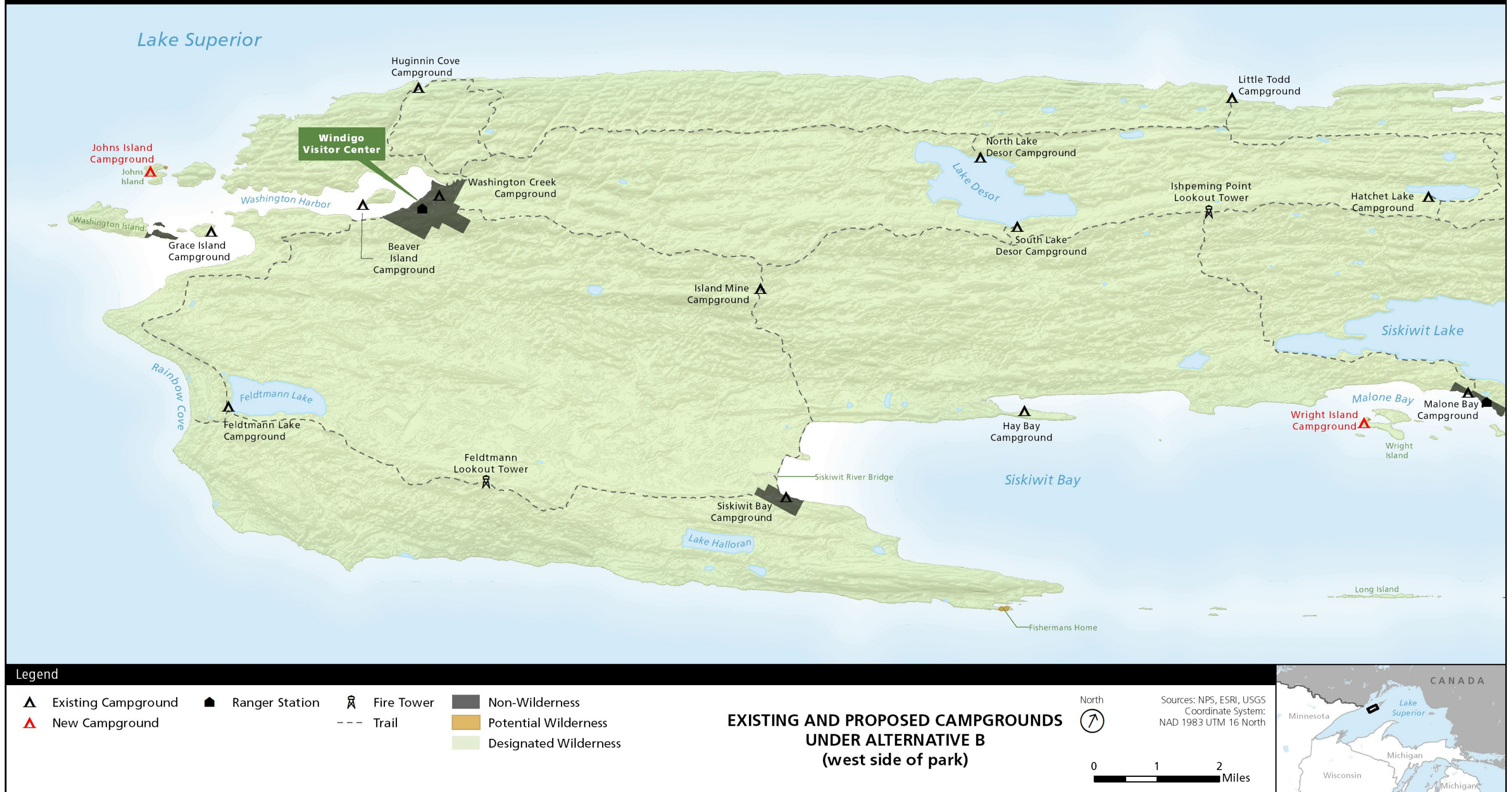


FIGURE 10. EXISTING AND PROPOSED CAMPGROUNDS UNDER ALTERNATIVE B (WEST)

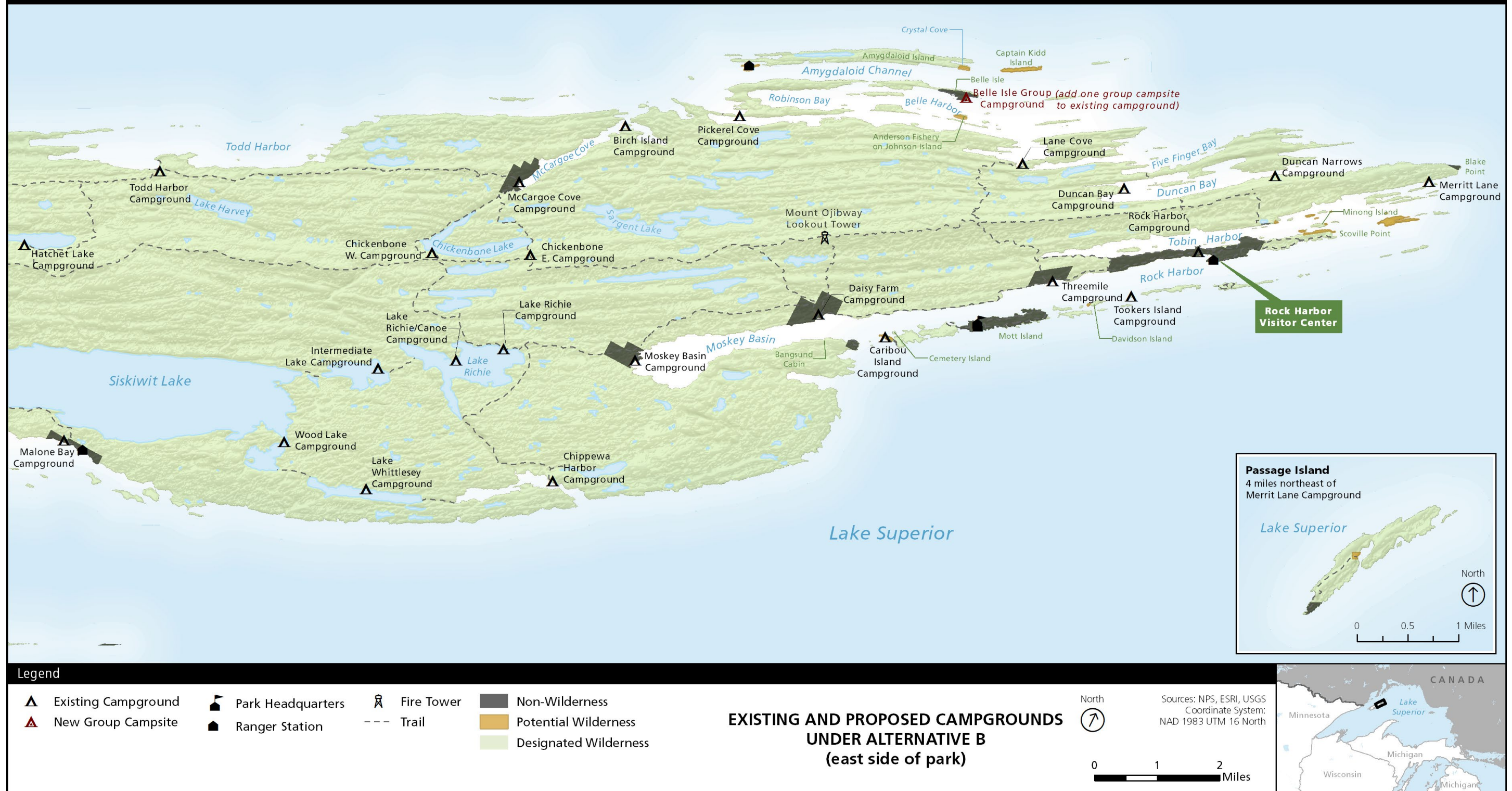


FIGURE 11. EXISTING AND PROPOSED CAMPGROUNDS UNDER ALTERNATIVE B (EAST)



Legend

- | | | |
|-------------------|---------------------------------|-----------------------|
| Campground | Trail | Non-Wilderness |
| Park Headquarters | Proposed Trail (in wilderness) | Potential Wilderness |
| Ranger Station | Proposed Trail (non-wilderness) | Designated Wilderness |
| Lookout Tower | | |

**PROPOSED NEW TRAILS
 UNDER ALTERNATIVE B
 (west side of park)**



0 1 2 Miles

Sources: NPS, ESRI, USGS
 Coordinate System:
 NAD 1983 UTM 16 North



FIGURE 12. PROPOSED NEW TRAILS UNDER ALTERNATIVE B (WEST)



Legend

- | | | |
|---------------------|-----------------------------------|-------------------------|
| ▲ Campground | — Trail | ■ Non-Wilderness |
| ■ Park Headquarters | — Proposed Trail (in wilderness) | ■ Potential Wilderness |
| ■ Ranger Station | — Proposed Trail (non-wilderness) | ■ Designated Wilderness |
| ⦿ Lookout Tower | | |

**PROPOSED NEW TRAILS
 UNDER ALTERNATIVE B
 (east side of park)**



Sources: NPS, ESRI, USGS
 Coordinate System:
 NAD 1983 UTM 16 North



FIGURE 13. PROPOSED NEW TRAILS UNDER ALTERNATIVE B (EAST)

Treatments for Historic Structures and Installations

Under section 4(c) of the Wilderness Act, structures and installations generally are prohibited in wilderness “except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act.” However, courts have begun to recognize that the Wilderness Act is ambiguous regarding the preservation of historic structures and installations in wilderness, and recent cases (*Wilderness Watch v. Creachbaum*) have deferred to the interpretation of various agencies, including the NPS, that historic preservation can further a goal of the Wilderness Act.

Whether maintenance of a historic structure or installation is necessary to achieve the NPS’s historic preservation goals in wilderness is contingent on several factors including its historic significance, uniqueness, historic integrity, impacts on wilderness character, structural condition, and contribution to the creation of the wilderness. In identifying proposed treatments for historic structures and installations in Isle Royale’s wilderness, the NPS determined whether maintaining each historic structure or installation would be necessary to preserve the park’s fundamental resources and values or other important resources and values as defined in the Foundation Document (NPS 2016a). The NPS also considered whether alternative treatments, such as documentation of the resource and either allowing it to deteriorate or removing the resource, would be insufficient to achieve those goals. A structure may also be preserved to house administrative functions if this use is found to be the minimum necessary for administration of the wilderness.

In developing the proposed treatments to historic structures, the NPS considered input from Tribes and non-Tribal consulting parties, as well as subject matter experts in both wilderness and cultural resource preservation. The four proposed treatments are described below. These treatments conform to guidance for managing historic structures and installations in wilderness provided in *Reference Manual 41: Wilderness Stewardship* (NPS 2022).

Preservation. Preservation is the act or process of applying the measures necessary to sustain the existing form, integrity, and materials of a historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses on ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment. In limited cases, sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project. Regarding historic and prehistoric structures, a structure or cultural landscape would be preserved in its present condition.

Stabilization. Stabilization is a one-time treatment that provides temporary protection for vacant historic structures to arrest deterioration and allow for potential future preservation efforts, should the resources and opportunities for preservation arise. Stabilization is defined as the act or process of applying measures designed to reestablish a weather resistant enclosure and undertake a minimum level of preservation action necessary to retain the structural stability of historic property, while maintaining the essential form as it exists at present. Stabilization and its definition were deleted from the Secretary of the Interior’s Standards for the Treatment of Historic Properties in 1995. However, in the context of this plan, and for the purposes of retaining the essential form of certain fundamental and other important cultural resources in the Isle Royale wilderness, stabilization is considered an appropriate treatment, but one that does not require in-depth studies such as historic structure reports or cultural landscape reports.

The NPS would evaluate the condition of stabilized structures over a six-year cycle to correspond to the timeline of updates required in the List of Classified Structures. During the six-year cycle after the completion of this plan, if a structure is in poor condition and no NPS resources or resources under a partnership program are available to bring it to fair or good condition, then the NPS would document the

structure and it would be left to deteriorate. The NPS may continue to stabilize structures that are in fair or good condition without the assistance of a partner. Treatment and documentation processes for structures that are left to deteriorate would follow the description provided under the “Molder” treatment below.

During the six-year cycle, if the NPS enters a partnership program to preserve stabilized structures or installations in fair or good condition, then historic structures and installations would revert to a preservation treatment and be maintained in a weatherized state as long as the partnership program keeps structures and installations in fair to good condition.

The NPS would prioritize resources under a partnership program for the stabilization of historic structures or installations that are fundamental resources and values as defined in the park’s Foundation Document or that have been determined to be of national significance determined by National Register evaluations.

Molder. Mouldering is defined as allowing natural deterioration to act upon historic structures or installations without benefit of human interference. Mouldering would allow the resource to transition into an archeological site or ruin, facilitating future self-discovery by visitors (discovery site), research, and interpretive opportunities. Environmental contaminants posing a threat to visitor safety may be removed. Such resources would be recorded to Historic American Buildings Survey / Historic American Engineering Record / Historic American Landscape Survey standards and their condition would be monitored, but no hands-on effort would be made to maintain the resources or provide or maintain access to them.

Remove. Removal is defined as the careful and comprehensive disassembly and removal of historic structures or installations such that the site no longer retains its character, historical significance, and/or integrity. In this plan/EIS, “removal” is used to mean the equivalent of “demolition,” which is the term used for this process in *Reference Manual 41: Wilderness Stewardship* (NPS 2022). In the Isle Royale wilderness, historic structures in poor condition, less significant to historic districts, or more intrusive to non-historic wilderness values would be proposed for removal. A recordation (as defined in “Molder”) would be conducted before proceeding with removal. Disturbance or loss of significant archeological resources on unexcavated archaeological sites would be avoided or minimized or mitigated by data recovery, recognizing that it is preferable to preserve archeological sites in situ rather than to excavate them. Archeological sites can be avoided by leaving foundations or chimney in place.

In applying these treatments to historic structures and installations in wilderness under the action alternatives, the NPS considered a range of criteria related to the significance of the structure or installation within the park and nationally, its condition, whether the structure or installation contributes to the integrity of a historic district, potential future use of the structure or installation, the feasibility of the proposed treatment, and a range of other criteria. These criteria are identified and described below. The NPS considered proposed treatments against these criteria to determine their feasibility, appropriateness, and priority.

- **Is the resource considered fundamental per the Isle Royale Foundation Document?** Fundamental resources and values described in the park’s Foundation Document (NPS 2016a) include precontact and historic mining sites, shipwrecks, folk and commercial fisheries, vernacular boats, lighthouses, and ethnographic uses and resources. Other important resources and values include cemeteries and burial sites; recreational cottages; Civilian Conservation Corps, Mission 66, and other NPS infrastructure; and museum objects.

- **Is the resource considered “nationally significant” as per the National Register?** Actions associated with structures and installations that are nationally significant are a higher priority for implementation, as opposed to actions associated with resources that are state or locally significant.
- **Is the resource in good condition?** Good condition is defined by the List of Classified Structures or best professional judgment (when up-to-date information is not included in the list). Actions for structures and installations in good condition are a higher priority for implementation. Resources in good condition cost less to maintain and preserve over time compared to those resources already in poor condition.
- **Is the resource of high integrity?** Resource integrity is defined as the physical ability of a structure or installation to convey its significance. This is measured by the seven National Register elements of integrity: materials, design, workmanship, location, setting feeling, and association. To retain integrity, a resource must possess several, if not most, of these elements. Actions for resources with higher integrity are a higher priority for implementation.
- **Does the resource contribute to the integrity of a historic district?** Historic district integrity is defined as the ability of the collection of resources to convey the significance of the district.
- **What is the practicality/implementability of preservation or stabilization?** Does the scope of the project negate implementation? Under this criteria, NPS considers the complexity and scale of project, remoteness of the site, practicality of taking an action, and availability of materials that are historically accurate.
- **Would the action result in a long-term/sustainable solution to resource concerns?** Actions that result in long-term solutions (e.g., sustainable over 20+ years) are prioritized over short-term solutions that would need to be re-done. All actions are assumed to be in line with the Secretary of the Interior’s Standards. Stabilization is not considered a sustainable action, while preservation is considered a sustainable action even for resources in poor condition.
- **Is the resource a primary rather than an auxiliary structure?** Actions for primary structures (e.g., main cabins) are prioritized over actions for support and auxiliary structures (e.g., privies, tool sheds, etc.).
- **Is the resource currently accessible to visitors or would the proposed action increase visitor access?** Structures that are currently well served by either a dock or trail are prioritized over structures that are difficult for visitors to reach.
- **Does the action facilitate an operational/administrative use or visitor experience opportunity?** Actions that facilitate operational uses or visitor experience opportunities are prioritized over those actions that have no effect or remove opportunities.
- **Does the action result in minimal impacts to wilderness character?** Actions that result in fewer adverse impacts to wilderness character are given higher priority.
- **Does the action result in minimal adverse impacts to natural resources?** Actions that improve natural resources or result in fewer adverse impacts to natural resources are given higher priority.

Tables 3–11 summarize and describe the proposed treatment of historic structures and installations in wilderness under alternative B.

TABLE 3. SUMMARY OF TREATMENTS FOR HISTORIC STRUCTURES UNDER ALTERNATIVE B

| Treatment Type | Number of Structures |
|-----------------------|-----------------------------|
| Preservation | 52 |
| Stabilization | 23 |
| Molder | 18 |
| Removal | 7 |

TABLE 4. TREATMENT OF STRUCTURES AND INSTALLATIONS IN THE TOBIN HARBOR AREA UNDER ALTERNATIVE B

| Tobin Harbor - Structure Name | Treatment Under Alternative B |
|--------------------------------------|--------------------------------------|
| Beard Cabin | Preservation |
| Beard Storage Structure | Stabilization |
| Connolly Cabin | Preservation |
| Connolly Guest Cabin | Stabilization |
| Connolly Privy | Stabilization |
| Dassler Boat House | Preservation |
| Dassler Privy | Preservation |
| Dassler Cabin | Preservation |
| Dassler Guest Cabin | Preservation |
| Gale Cabin | Preservation |
| Gale Guest Cabin | Stabilization |
| Gale Privy | Stabilization |
| Gale Tool Shed | Stabilization |
| How Cabin | Stabilization |
| How Guest Cabin | Stabilization |
| Kemmer Boat House | Preservation |
| Kemmer Guest Cabin | Preservation |
| Kemmer Privy | Stabilization |
| Kemmer Cabin | Preservation |
| Kemmer Steps | Molder |
| Kemmer Store House | Preservation |
| Mattson Fishery Cabin | Preservation |
| Mattson Fishery Fish House* | Molder |
| Mattson Fishery Fishing Shed** | Stabilization |
| Mattson Fishery Privy | Stabilization |
| Mattson Fishery Storage Structure | Preservation |
| Mattson Fishery Net House | Molder |
| Mattson/Anderson Fishery Cabin | Molder |
| Merritt "Deer House" | Preservation |
| Merritt "Moose Manor" | Preservation |

| Tobin Harbor - Structure Name | Treatment Under Alternative B |
|--------------------------------------|--------------------------------------|
| Merritt "Parsonage" | Preservation |
| Merritt Cabin | Preservation |
| Merritt Privy | Preservation |
| Merritt Wood Shed | Preservation |
| Minong Island Post Office | Preservation |
| Minong Lodge Cabin | Molder |
| Siefert Cabin | Preservation |
| Siefert Privy | Stabilization |
| Siefert Storage Structure | Stabilization |
| Snell Cabin | Preservation |
| Snell Guest Cabin | Stabilization |
| Snell Writing Shack | Stabilization |
| Snell Store House | Stabilization |
| Stack Cabin | Preservation |
| Stack Guest Cabin | Preservation |
| Stack Privy West | Preservation |
| Stack Retaining Wall | Stabilization |
| Edwards "The Gem" | Stabilization |
| Edwards Cabin | Preservation |
| Edwards Dining Room | Preservation |
| Edwards Privy | Preservation |
| Edwards Store House | Preservation |

* The Mattson Fishery Fish House was demolished in 2018, following a partial collapse into Lake Superior. The building materials are stacked on the shore.

** The Mattson Fishery Fishing Shed was disassembled in 2017 due to structural failure. The building materials are stacked on the shore.

TABLE 5. TREATMENT OF STRUCTURES AND INSTALLATIONS IN THE FISHERMAN'S HOME AREA UNDER ALTERNATIVE B

| Structure Name | Treatment Under Alternative B |
|-----------------------|--------------------------------------|
| Rude Guest Cabin | Preservation |
| Rude Store Room | Preservation |
| Dry-Laid Stone Wall | Preservation |
| Help's Quarters #1 | Preservation |
| Help's Quarters #2 | Preservation |
| Rude Fish House | Preservation |
| Rude Net House | Preservation |
| Rude Privy | Preservation |
| Rude Cabin | Preservation |

Alternative B (Proposed Action and Preferred Alternative)

| Structure Name | Treatment Under Alternative B |
|----------------------------|-------------------------------|
| Rude Smoker | Preservation |
| Fisherman's Home Tool Shed | Preservation |

TABLE 6. TREATMENT OF STRUCTURES IN THE JOHNSON ANDERSON FISHERY AREA UNDER ALTERNATIVE B

| Structure Name | Treatment Under Alternative B |
|--|-------------------------------|
| Anderson Main Cabin and Log Sleeping Cabin | Preservation* |
| Anderson Privy | Preservation |
| Herman Johnson Cabin | Stabilization |
| John Anderson Cabin | Stabilization |

TABLE 7. TREATMENT OF STRUCTURES AND INSTALLATIONS IN THE CRYSTAL COVE AREA UNDER ALTERNATIVE B

| Structure Name | Treatment Under Alternative B |
|-------------------------|-------------------------------|
| McGeath Boardwalk | Molder |
| McGeath Fuel Shed Ruin | Molder |
| McGeath Generator House | Removal |
| McGeath Guest Cabin #1 | Preservation |
| McGeath Guest Cabin #2 | Preservation |
| McGeath Main Lodge | Preservation |
| McGeath Cabin | Preservation |
| McGeath Smokehouse | Removal |
| McGeath Storage Shed | Molder |

TABLE 8. TREATMENT OF STRUCTURES AND INSTALLATIONS IN THE CAPTAIN KIDD ISLAND AREA UNDER ALTERNATIVE B

| Structure Name | Treatment Under Alternative B |
|-----------------------------|-------------------------------|
| McPherran Cabin | Stabilization |
| McPherran Sleeping Cabin #3 | Molder |
| McPherran Bath House | Molder |
| McPherran Boat House | Molder |
| McPherran Flag Pole | Molder |
| McPherran Sleeping Cabin #1 | Molder |
| McPherran Sleeping Cabin #2 | Molder |
| McPherran Tool Shed | Molder |

TABLE 9. TREATMENT OF STRUCTURES AT WRIGHT ISLAND AREA UNDER ALTERNATIVE B

| Structure Name | Treatment Under Alternative B |
|--------------------|-------------------------------|
| Main Cabin | Removal |
| Mike Johnson Cabin | Removal |
| Privy | Removal |

TABLE 10. TREATMENT OF STRUCTURES IN THE BANGSUND AREA* UNDER ALTERNATIVE B

| Structure Name | Treatment Under Alternative B |
|-------------------------------|-------------------------------|
| Main Cabin | Preservation |
| Sleeping Cabin (Jack Cabin) | Stabilization |
| Sleeping Cabin #2 (Ace Cabin) | Stabilization |

*Bangsund Cabin and the associated structures and improvements would be evaluated to determine whether those structures are deemed historically significant for their use as a wilderness research site. If those structures are not determined to be significant, they would be removed. If the structures are determined significant, the main cottage and the Jack and Ace Cabins would be retained to enhance the other features of value quality of wilderness. The modern additions to the site would be removed.

TABLE 11. TREATMENT OF STRUCTURES AND INSTALLATIONS IN THE OTHER AREAS UNDER ALTERNATIVE B

| Structure Name | Treatment Under Alternative B |
|---|-------------------------------|
| Anderson/Scotland Cabin | Preservation |
| Davidson Island Davidson House | Preservation |
| Holger Johnson Fishery and Resort | Molder |
| Horner Cabin | Molder |
| Powder House Ruins and Hoist Engine at Island Mine | Preservation |
| Johns Cabin and associated non-historic structures | Removal |
| Feldtmann Fire Tower | Molder |
| Ishpeming Fire Tower | Preservation |
| Mount Ojibway Fire Tower | Preservation |
| West Caribou Island Fog Horn Compressor Shack and unevaluated installations | Removal |

Public Use of Historic Structures

Bangsund Cabin and Associated Structures. The Bangsund site would remain accessible to the public by trails and the boat dock. The boat docks at Bangsund would remain open to the public for day use and would be maintained for administrative use.

Tobin Harbor Area. Selected historic structures in the Tobin Harbor area would be open for the public to access during the day.

Fisherman’s Home. A campground would not be established at this site. This site would be open to the public for day use only.

Crystal Cove. The main lodge would be open to the public for day use, with interpretive exhibits inside the structure. A campground would not be established at this site. Overnight use of the dock would be permitted.

Wright Island. A campground would be added. Overnight use of the dock would be permitted.

Use of Structures for Administrative Uses

Tobin Harbor Area. Park staff or park-approved personnel may use select historic structures for overnight administrative use approximately four to six weeks per year for resource protection purposes.

Fisherman's Home. Park staff or park-approved personnel may use the Rude Cabin for overnight administrative use at Fisherman's Home. Fisherman's Home would be used for administrative overnight use approximately four to six weeks per year for resource protection purposes. Use of these structures at Fisherman's Home would be consistent with the 1998 GMP, which noted that structures at Fisherman's Home would be evaluated for adaptive use.

Crystal Cove. The caretaker for structures at Crystal Cove would be located at Belle Isle (nonwilderness).

Davidson Island. Seasonal overnight use by park staff (April–October) would continue at Davidson (Davidson Island Boreal Research Station). Transient researchers would continue to use Davidson when no other park housing is available. Administrative staff would be relocated from Davidson to Mott Island when funding becomes available. The relocation of Davidson staff to Mott is not a high administrative priority and may not occur within the life of the plan. The transfer of employees from Davidson to Mott would require that additional infrastructure be built on Mott to support those staff. If administrative functions were transferred from Davidson to Mott, the bunkhouse and other support structures on Davidson Island (except the privy) would no longer be necessary and would be removed. Davidson House would be retained for its historical value and for administrative use of transient researchers. The NPS would not further develop this area.



View of Crystal Cove Main Lodge



View of Rude Guest Cabin

Amygdaloid Island. Under this alternative, seasonal overnight use (April–October) by park staff would occur at Anderson/Scotland Cabin (also known as the ranger cabin) and Duplex on Amygdaloid Island (two structures). Administrative use of these cabins for staff and researchers would continue. The NPS would not further develop this area and would remove non-essential structures and installations. The park would minimize nonconforming uses at this location and address any necessary nonconforming uses in an MRA.



View of the Anderson/Scotland Cabin

Fire Towers. The Mount Ojibway and Ishpeming Fire Towers would continue to be used for communications until determined not necessary.

Conversion of Potential Wilderness Additions

Under alternative B, 12 acres of PWAs would not be converted to designated wilderness. After publishing a *Federal Register* notice, the park would designate 81 acres of current potential wilderness to designated wilderness status. Table 12 indicates which areas would remain potential wilderness and which would be designated wilderness. Existing nonconforming uses (see table 2) would be evaluated for continuation or elimination under an MRA as part of the conversion to designated wilderness.

TABLE 12. POTENTIAL WILDERNESS ADDITIONS ON ISLE ROYALE, ACREAGE, AND NONCONFORMING USES

| Location | Designated Wilderness Acres under Alternative B | Potential Wilderness Area Acres Retained under Alternative B | Action under Alternative B |
|---------------------|---|--|---|
| Fisherman’s Home | 5 | -- | Converted to Wilderness |
| Johns Island | 0.8 | -- | Converted to Wilderness |
| Wright Island | 1 | -- | Converted to Wilderness |
| Davidson Island | -- | 1 | Continue as PWA Existing nonconforming use as a research station |
| Johnson Island | 5 | - | Converted to Wilderness |
| Amygdaloid Island | -- | 11 | Continue as PWA Existing nonconforming uses, including the Amygdaloid Ranger Station, Ranger Office, Amygdaloid Duplex, water treatment structure and water system, dock, gasoline fuel system, electrical system, mechanized transport vehicles, and other modern equipment such as wheelbarrows, would continue. |
| West Caribou Island | 5.6 | -- | Converted to Wilderness |
| Passage Island | 3 | -- | Converted to Wilderness |

| Location | Designated Wilderness Acres under Alternative B | Potential Wilderness Area Acres Retained under Alternative B | Action under Alternative B |
|--|---|--|----------------------------|
| Edwards and Gem islands | 24.8 | -- | Converted to Wilderness |
| Tobin Harbor Islands and portions of the main island in vicinity | 10.2 | -- | Converted to Wilderness |
| Captain Kidd Island | 20.6 | -- | Converted to Wilderness |
| Crystal Cove | 5 | -- | Converted to Wilderness |
| Total acreage | 81 | 12 | |

ALTERNATIVE C

Alternative C would focus on enhancing wilderness character by focusing primarily on improving solitude. Solitude is generally preserved or improved by management actions that reduce visitor encounters, signs of modern civilization inside wilderness, installations, and management restrictions on visitor behavior. The alternative would emphasize solitude by decreasing day use group size, reducing the number of campsites within campgrounds, eliminating trails, and proposing a campsite reservation system. The alternative proposes eliminating commercial use within Isle Royale wilderness, which would enhance solitude by reducing visitor encounters with large groups. The alternative would also remove shelters and structures in wilderness to improve primitive and unconfined recreation qualities, natural, and undeveloped qualities of wilderness.

General Management Plan Zones

To align current and proposed uses under this alternative with appropriate GMP zones, one area would be rezoned under this alternative. GMP zones would remain the same except Amygdaloid Ranger Station on the south end of Amygdaloid Island would be rezoned from backcountry zone to wilderness portal zone to reflect current and proposed ongoing use of the area for administrative use. The proposed revisions to GMP zones under alternative C are depicted on figure 14.

Island Visitor Use Levels

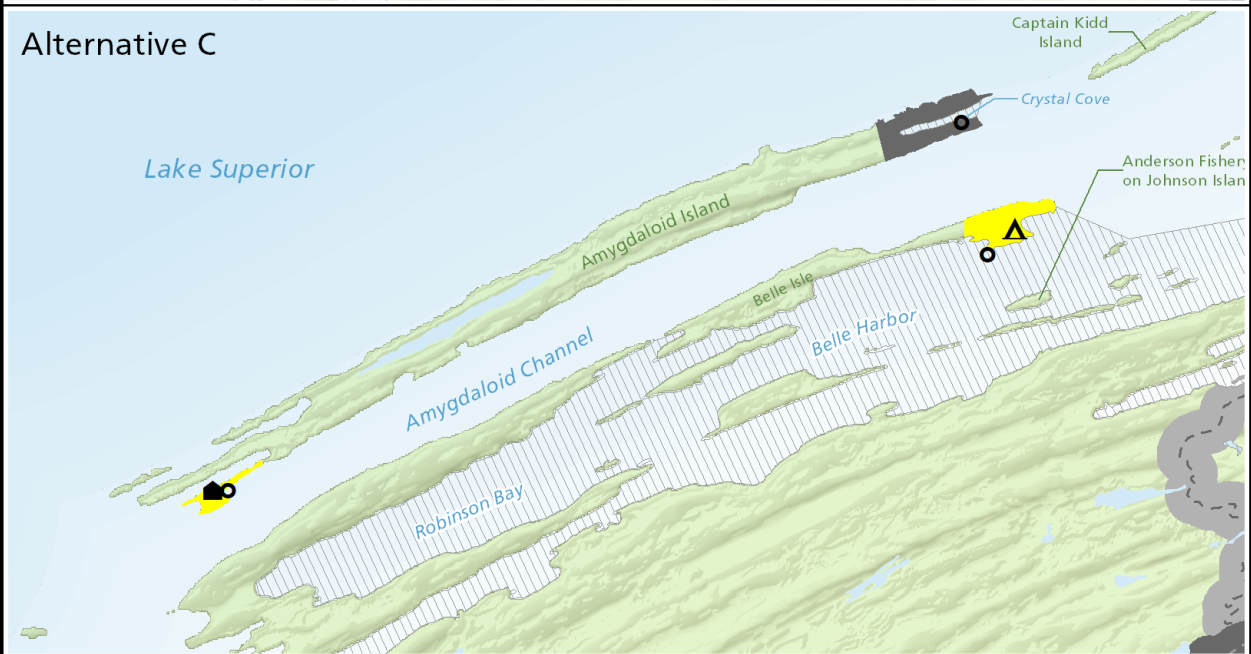
Visitor use levels would be managed the same as described for alternative B, except additional measures, including wilderness permitting systems, group size restrictions, and day use group size limits discussed below, would be implemented to enhance solitude of wilderness visitors.



Alternative A



Alternative C



Legend

- | | |
|----------------|------------------------|
| Campground | No-Wake Area |
| Dock | Wilderness Portal Zone |
| Ranger Station | Backcountry Zone |
| | Inland Lake |

Sources: NPS, ESRI, USGS
 Coordinate System:
 NAD 1983 UTM 16 North

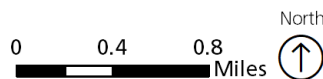


FIGURE 14. PROPOSED GMP ZONE REVISIONS UNDER ALTERNATIVE C

Wilderness Permitting Systems

Visitors would be required to obtain backcountry/wilderness permits in advance of their trip, as noted under alternative B. The NPS would continue to use permits as a tool to monitor backcountry use, contact hiking parties in emergencies, and find lost campers. In addition, under alternative C, the NPS would establish a reservation system for overnight trips in backcountry and wilderness areas. The reservation system would allow visitors to make night-by-night reservations of campsites for specific dates. Fixed itineraries would be required. In contrast, the permitting system proposed under alternative B would not require a fixed itinerary, and individual campsites would not be able to be reserved.

Visitors would be able to make reservations starting the winter prior to the summer season. Up to 60% of all sites available park-wide would be available for reservations up to April 15, with 30% of sites available for reservation after April 15, and 10% of sites held for walk-ins or 48-hour advance bookings. Under the reservation system, campgrounds may be booked up to full capacity. The NPS would use recreation.gov to administer the reservation system. Visitors would be required to pay a transaction fee for use of this website.

Overnight Use Group Size Requirements

Group size requirements for overnight camping would be the same as those described for alternative A. The park would implement monitoring to determine whether changes to the group size limits need to be adjusted based on resource impacts.

Day Use Group Size Requirements

To reduce visitor conflict and provide for opportunities for solitude in the wilderness immersion and backcountry zones, the following day use group size limits would apply:

Frontcountry Zone. Group size limit of 20. The frontcountry zone would include limited areas within wilderness and most of the areas outside wilderness including attractions such as Edisen Fishery, Scoville Point, Raspberry Island, Passage Island Trail, and Suzy's Cave.

Wilderness Portal, Backcountry, and Primitive Zones. Group size limit of 10. This limit would apply on or within most trails and campgrounds. Hidden Lake, Lookout Louise, McCargoe Cove, and the Minong Mine would be exceptions, with group sizes of up to 20 people accepted. Any tours to these excepted destinations of more than 20 people would need to split into multiple smaller groups.

Pristine Zone. (Off-trail) group size limit of 6.

The NPS would control group sizes through the appropriate permitting mechanism with group tour providers.

Shelters, Associated Docks, and Picnic Tables

Twenty shelters would be removed from wilderness and converted to campsites where possible. No additional shelters would be constructed within wilderness. All picnic tables would be removed from wilderness.

Shelters would be removed from Duncan Bay campground once the boat dock at this location is removed (in accordance with the GMP).

Campground Management

Campgrounds. Over time, the NPS would consider eliminating or relocating individual campsites within campgrounds to increase separation between campsites and promote solitude. The NPS would continue to retain trees between campsites where possible. The GMP would be amended to exclude planned campgrounds at McCargoe Cove, Fisherman's Home, and Crystal Cove due to the potential for adverse impacts to resources. A new campground for nonmotorized recreation users (canoe/kayak) on Johns Island would be established to reduce visitor conflict between motorized and nonmotorized boat users. The Johns Island campground would not have a dock (see figures 15 and 16).

Group Campsites. Under this alternative, designated group sites at Chippewa Harbor campground and Lake Richie campground would be eliminated to provide additional opportunities for solitude for campers in these campgrounds. No new group campsites would be created at Belle Isle.

Cross-Country Camping. Same as alternative B.

Trail Management

Under this alternative, only the Bangsund Fishery Trail, a 0.45-mile-long social trail to Edisen Fishery, would be added to the park's trail system inventory. Park maintenance standards for vegetation clearing and drainage would be applied to this trail.

The Indian Portage Trail between the south and east ends of Lake Richie would be eliminated, consistent with the GMP.

Trails would only be rerouted in case of resource damage or significant risk to public safety, and rerouting would be done keeping maximum solitude in mind. Most trail clearing under this alternative would be accomplished by primitive tools.

Bridges and Boardwalks

The Big Siskiwit River Bridge would be removed in accordance with the GMP, and a smaller structural crossing at the river could be considered. Otherwise, boardwalks would be treated in the same manner as under the no-action alternative.

Concessions and Commercial Services

Under this alternative, no guided hiking or guided kayak or canoe trips that use wilderness campsites would be permitted in wilderness.

Winter Closure

Isle Royale would remain open during the winter season and would not be closed to public visitation. No ferries or NPS services would be provided during the winter. Winter visitors would be required to get a backcountry/wilderness permit prior to arrival on the island.

This page intentionally left blank.



Legend

- | | | | |
|---|---------------------|--------------|-------------------------|
| ▲ Existing Campground | 🏠 Park Headquarters | 🗼 Fire Tower | ■ Non-Wilderness |
| ▲ New Campground | 🏠 Ranger Station | --- Trail | ■ Potential Wilderness |
| ✗ Removal of Group Campsite (Retain Shelters and/or Individual Campsites) | | | ■ Designated Wilderness |

CAMPING OPPORTUNITIES UNDER ALTERNATIVE C (west side of park)



0 1 2 Miles

Sources: NPS, ESRI, USGS
 Coordinate System:
 NAD 1983 UTM 16 North



FIGURE 15. CAMPING OPPORTUNITIES UNDER ALTERNATIVE C (WEST SIDE OF PARK)



Legend

- | | | | |
|---|---------------------|--------------|-------------------------|
| ▲ Existing Campground | 🏠 Park Headquarters | 🚒 Fire Tower | ■ Non-Wilderness |
| ▲ New Campground | 🏠 Ranger Station | --- Trail | ■ Potential Wilderness |
| ✗ Removal of Group Campsite (Retain Shelters and/or Individual Campsites) | | | ■ Designated Wilderness |

CAMPING OPPORTUNITIES UNDER ALTERNATIVE C (east side of park)



0 1 2 Miles

Sources: NPS, ESRI, USGS
 Coordinate System:
 NAD 1983 UTM 16 North



FIGURE 16. CAMPING OPPORTUNITIES UNDER ALTERNATIVE C (EAST SIDE OF PARK)

Treatments for Historic Structures and Installations

Treatments for historic structures and installations in wilderness and potential wilderness under alternative C are included in tables 13 through 21 below. Proposed treatment types are defined under alternative B, in the “Treatments for Historic Structures” section.

Alternative C followed the methodology to determine treatments for historic structures and installations described for alternative B. Under this alternative, NPS changed the treatments proposed for some structures under alternative B from preservation to stabilization. In the Tobin Harbor area, this change from alternative B is reflected in focusing the preservation treatment on the main cabin and stabilizing all outbuildings. Preservation efforts under this alternative are focused on main recreational cottages (cabins), fundamental resources and values as defined in the park’s Foundation Document (NPS 2016a), and structures that would be used for administrative uses. Over the long term, some of the additional structures slated for stabilization are anticipated to eventually enter into a mouldering treatment. Structures that molder would disappear from the landscape, thus increasing the wilderness quality of solitude.

TABLE 13. SUMMARY OF TREATMENTS FOR HISTORIC STRUCTURES UNDER ALTERNATIVE C

| Treatment Type | Number of Structures |
|----------------|----------------------|
| Preservation | 40 |
| Stabilization | 34 |
| Molder | 19 |
| Removal | 7 |

TABLE 14. TREATMENT OF STRUCTURES AND INSTALLATIONS IN THE TOBIN HARBOR AREA UNDER ALTERNATIVE C

| Tobin Harbor - Structure Name | Treatment Under Alternative C |
|-------------------------------|-------------------------------|
| Beard Cabin | Preservation |
| Beard Storage Structure | Stabilization |
| Connolly Cabin | Preservation |
| Connolly Guest Cabin | Stabilization |
| Connolly Privy | Stabilization |
| Dassler Boat House | Stabilization |
| Dassler Privy | Preservation |
| Dassler Cabin | Preservation |
| Dassler Guest Cabin | Stabilization |
| Gale Cabin | Preservation |
| Gale Guest Cabin | Stabilization |
| Gale Privy | Preservation |
| Gale Tool Shed | Stabilization |
| How Cabin | Stabilization |
| How Guest Cabin | Stabilization |
| Kemmer Boat House | Preservation |
| Kemmer Guest Cabin | Preservation |
| Kemmer Privy | Preservation |

| Tobin Harbor - Structure Name | Treatment Under Alternative C |
|--------------------------------------|--------------------------------------|
| Kemmer Cabin | Preservation |
| Kemmer Steps | Molder |
| Kemmer Store House | Molder |
| Mattson Fishery Cabin | Preservation |
| Mattson Fishery Fish House* | Molder |
| Mattson Fishery Fishing Shed** | Stabilization |
| Mattson Fishery Privy | Preservation |
| Mattson Fishery Storage Structure | Preservation |
| Mattson Fishery Net House | Molder |
| Mattson/Anderson Fishery Cabin | Molder |
| Merritt "Deer House" | Stabilization |
| Merritt "Moose Manor" | Stabilization |
| Merritt "Parsonage" | Stabilization |
| Merritt Cabin | Preservation |
| Merritt Privy | Preservation |
| Merritt Wood Shed | Stabilization |
| Minong Island Post Office | Preservation |
| Minong Lodge Cabin | Molder |
| Siefert Cabin | Preservation |
| Siefert Privy | Stabilization |
| Siefert Storage Structure | Stabilization |
| Snell Cabin | Preservation |
| Snell Guest Cabin | Stabilization |
| Snell Writing Shack | Stabilization |
| Snell Store House | Stabilization |
| Stack Cabin | Preservation |
| Stack Guest Cabin | Stabilization |
| Stack Privy West | Preservation |
| Stack Retaining Wall | Stabilization |
| Edwards "The Gem" | Stabilization |
| Edwards Cabin | Preservation |
| Edwards Dining Room | Stabilization |
| Edwards Privy | Preservation |
| Edwards Store House | Stabilization |

* The Mattson Fishery Fish House was demolished in 2018, following a partial collapse into Lake Superior. The building materials are stacked on the shore.

** The Mattson Fishery Fishing Shed was disassembled in 2017 due to structural failure. The building materials are stacked on the shore.

TABLE 15. TREATMENT OF STRUCTURES AND INSTALLATIONS IN THE FISHERMAN'S HOME AREA UNDER ALTERNATIVE C

| Structure Name | Treatment Under Alternative C |
|----------------------------|--------------------------------------|
| Rude Guest Cabin | Preservation |
| Rude Store Room | Preservation |
| Dry-Laid Stone Wall | Preservation |
| Help's Quarters #1 | Preservation |
| Help's Quarters #2 | Preservation |
| Rude Fish House | Preservation |
| Rude Net House | Preservation |
| Rude Privy | Preservation |
| Rude Cabin | Preservation |
| Rude Smoker | Preservation |
| Fisherman's Home Tool Shed | Preservation |

TABLE 16. TREATMENT OF STRUCTURES IN THE JOHNSON ANDERSON FISHERY AREA UNDER ALTERNATIVE C

| Structure Name | Treatment Under Alternative C |
|---|--------------------------------------|
| Anderson Main Cabin and Log Sleeping Cabin* | Preservation |
| Anderson Privy | Preservation |
| Herman Johnson Cabin | Stabilization |
| John Anderson Cabin | Stabilization |

TABLE 17. TREATMENT OF STRUCTURES IN THE CRYSTAL COVE AREA UNDER ALTERNATIVE C

| Structure Name | Treatment Under Alternative C |
|-------------------------|--------------------------------------|
| McGeath Boardwalk | Molder |
| McGeath Fuel Shed Ruin | Molder |
| McGeath Generator House | Removal |
| McGeath Guest Cabin #1 | Stabilization |
| McGeath Guest Cabin #2 | Stabilization |
| McGeath Main Lodge | Stabilization |
| McGeath Cabin | Stabilization |
| McGeath Smokehouse | Removal |
| McGeath Storage Shed | Molder |

TABLE 18. TREATMENT OF STRUCTURES AND INSTALLATIONS IN THE CAPTAIN KIDD ISLAND AREA UNDER ALTERNATIVE C

| Structure Name | Treatment Under Alternative C |
|-----------------------------|-------------------------------|
| McPherren Cabin | Stabilization |
| McPherren Sleeping Cabin #3 | Molder |
| McPherren Bath House | Molder |
| McPherren Boat House | Molder |
| McPherren Flag Pole | Molder |
| McPherren Sleeping Cabin #1 | Molder |
| McPherren Sleeping Cabin #2 | Molder |
| McPherren Tool Shed | Molder |

TABLE 19. TREATMENT OF STRUCTURES AT WRIGHT ISLAND AREA UNDER ALTERNATIVE C

| Structure Name | Treatment Under Alternative C |
|--------------------|-------------------------------|
| Main Cabin | Removal |
| Mike Johnson Cabin | Removal |
| Privy | Removal |

TABLE 20. TREATMENT OF STRUCTURES IN THE BANGSUND AREA* UNDER ALTERNATIVE C

| Structure Name | Treatment Under Alternative C |
|-------------------------------|-------------------------------|
| Main Cabin | Preservation |
| Sleeping Cabin (Jack Cabin) | Stabilization |
| Sleeping Cabin #2 (Ace Cabin) | Stabilization |

*Bangsund Cabin and the associated structures and improvements would be evaluated to determine whether those structures are deemed historically significant for their use as a wilderness research site. If the structures are not determined to be significant, they would be removed. If the structures are determined significant, the main cottage and the Jack and Ace Cabins would be retained to enhance the other features of value quality of wilderness. The modern additions to the site would be removed.

TABLE 21. TREATMENT OF STRUCTURES AND INSTALLATIONS IN THE OTHER AREAS UNDER ALTERNATIVE C

| Structure Name | Treatment Under Alternative C |
|---|-------------------------------|
| Anderson/Scotland Cabin | Preservation |
| Davidson Island Davidson House | Preservation |
| Holger Johnson Fishery and Resort | Molder |
| Horner Cabin | Molder |
| Powder House Ruins and Hoist Engine at Island Mine | Stabilization |
| Johns Cabin and associated non-historic structures | Removal |
| Feldmann Fire Tower | Molder |
| Ishpeming Fire Tower | Preservation |
| Mount Ojibway Fire Tower | Preservation |
| West Caribou Island Fog Horn Compressor Shack and unevaluated installations | Removal |

Public Uses of Historic Structures

No public day or overnight use would be permitted inside any historic structure.

Use of Structures for Administrative Uses

The use and retention of structures associated with administrative uses for all areas would be the same as described for alternative B except the Dassler Cabin and Dassler Guest Cabin would not be used for administrative overnight use. These structures would only be used for incidental administrative use. In addition, all structures that do not conform to wilderness standards at Amygdaloid would be removed.



View of Dassler Cabin

Conversion of Potential Wilderness Additions

All PWAs (including Amygdaloid Island and Davidson Island) would be converted to wilderness, for a total of 93 acres converted. Existing nonconforming uses (see table 2) would be evaluated for continuation or elimination under an MRA as part of the conversion to designated wilderness.

NATIONAL PARK SERVICE PREFERRED ALTERNATIVE

The preferred alternative is that alternative “which the agency believes would fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical and other factors” (46 *Federal Register* 18026, Q4a). Alternative B was identified as the NPS preferred alternative. In identifying its preferred alternative, the NPS considered factors such as the extent to which alternatives meet the purpose of and need for action, environmental consequences including impacts to wilderness character, and implementation feasibility.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The NPS, in accordance with the Department of the Interior policies contained in the Departmental Manual (516 DM 4.10 (65 FR 167, 52217)) and the Forty Most Asked Questions Concerning CEQ’s NEPA Regulations (CEQ 1981), defines the environmentally preferable alternative (or alternatives) as the alternative that best promotes the national environmental policy expressed in NEPA section 101(b) (516 DM 4.10). In its Forty Most Asked Questions, CEQ further clarifies the identification of the environmentally preferable alternative, stating, “Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources” (Q6a). An environmentally preferable alternative will be identified in the record of decision.

ALTERNATIVES CONSIDERED BUT DISMISSED FROM FURTHER ANALYSIS

Alternatives with removal or deterioration of additional historic structures in wilderness. The NPS considered but dismissed alternatives that would remove or molder additional structures beyond those identified in alternatives B and C. While the removal of additional structures would improve some aspects of wilderness character, removal would likely result in significant, irreversible impacts to the integrity of key cultural resources of the park, including those that are nationally significant. Removal of additional structures would also negatively impact the “other features of value” quality of wilderness character. Therefore, the NPS dismissed alternatives that included removing additional historic structures from wilderness because the impacts would be too severe. See the discussion below related to alternatives with removal or deterioration of all historic structures in wilderness for additional rationale for the dismissal of this alternative.

Alternatives with removal or deterioration of all historic structures in wilderness. The NPS considered but dismissed alternatives that would remove or allow deterioration of all historic structures in wilderness. NPS *Management Policies 2006* states that:

cultural resources...within wilderness will be protected and maintained according to the pertinent laws and policies...using management methods that are consistent with the preservation of wilderness character and values. ...Maintenance or the removal of historic structures will also comply with cultural resource protection and preservation policies and directives, and with the concept of minimum requirement management techniques for wilderness.

Reference Manual 41: Wilderness Stewardship additionally directs parks to make an “informed, thoughtful, and balanced determination of whether specific structures and installations are necessary to convey the historical values of a wilderness” and shift management practice to address “protection and treatment of tangible cultural resources in a balanced manner that preserves the totality of wilderness character,” including features of scientific, educational, scenic, or historical value (NPS 2022).

Removal or mouldering of all historic structures in the park’s wilderness areas would negatively impact features of historical value of the wilderness. In addition to the rationale described above for “alternatives with removal or deterioration of additional historic structures in wilderness,” removing or allowing mouldering of all historic structures in wilderness areas would conflict with the park’s Foundation Document (NPS 2016a) and the GMP. The Foundation Document for Isle Royale notes that properties built in the late 1800s and early 1900s that are listed or eligible for listing in the National Register are other important resources and values of the park. The Foundation Document also states that resources associated with maritime character and fishing culture are park fundamental resources. These properties include lodges, resorts, and summer cabins that fostered the growth of tourism on Isle Royale and helped give rise to the idea of establishing the archipelago as a national park. Interpretive themes described in the Foundation Document note that “despite changing human values and cultures, the allure of Isle Royale’s primeval character has been consistent through time” (NPS 2016a). In addition, the GMP defines purpose statements that provide the foundation for management and use of the park. One of these purpose statements is to “preserve and protect the park’s cultural and natural resources and ecological processes” (NPS 1998).

Remove all privies from wilderness. The NPS considered the removal of all privies from wilderness. Privies detract from the undeveloped quality of wilderness and from visitor opportunities for unconfined recreation. However, privies also benefit wilderness character by protecting visitors from health and safety issues associated with unconfined human waste, and they limit impacts to the natural quality of wilderness by confining visitors to already disturbed areas in campgrounds and around existing structures.

Therefore, privy maintenance was deemed necessary at Isle Royale, and the removal of all privies was dismissed because of severe natural resource impacts associated with removal.

Commercial fishing. Several stakeholders asked the NPS to evaluate commercial fishing as part of the Wilderness Stewardship Plan. The issue of commercial fishing is outside the scope of this plan because it does not occur in wilderness and is not directly related to accessing wilderness.

No camping permitting system. The NPS considered but dismissed overnight use without a camping permit. The alternatives reflect a variation of restrictions for permitting overnight use. Although permits detract from a visitor's opportunity for unconfined recreation in wilderness, they are necessary for human safety, preserving solitude and a quality visitor experience and protecting the natural quality of wilderness. Therefore, this alternative was considered but dismissed.

Providing additional mooring buoys for boats. The NPS considered but dismissed providing additional access for boaters to Isle Royale wilderness by providing mooring buoys for overnight use. Isle Royale currently does not provide any mooring buoys for overnight use. Mooring buoys are for shipwreck diving and are not available for overnight use. While buoys may be desirable for other reasons, they would be outside wilderness, and so are outside the scope of this plan.

Providing additional mooring buoys for planes. The NPS considered but dismissed providing additional mooring buoys for planes. While buoys may be desirable for other reasons, they would be outside wilderness, and so are outside the scope of this plan.

Relocating administrative uses from Amygdaloid Island to nonwilderness. Amygdaloid is the only NPS administrative facility on the north side of the island. Since the establishment of the park, the NPS has invested significant resources in developing infrastructure necessary for the administration of wilderness and other park resources on Amygdaloid Island. NPS staff are necessary for to support operations on the north side of the island, including patrol and law enforcement, search and rescue, emergency medical, visitor contact, and natural and cultural resources management.

Belle Isle is the only nonwilderness area on the northeast side of the island. The current infrastructure on Belle Isle, including the existing dock, is not capable of supporting the current administrative activities supported by Amygdaloid. Additionally, Belle Isle does not have any existing facilities that could support NPS personnel. Therefore, relocation to Belle Isle would require significant funds for building out appropriate infrastructure. Additionally, significant mitigation of sensitive archeological resources would be required before relocation could take place. Relocation of NPS administrative use to Belle Isle would also displace current and future public uses at Belle Isle, which would adversely impact visitor opportunities on the north side of the island, particularly for those seeking a camping experience outside wilderness.

The NPS considered other options for administrative use at Amygdaloid Island, including relocating staff to tents rather than using existing structures. The administrative operations at Amygdaloid require electricity. Considering the staff numbers at this location, the number of tents needed to house staff and gear, and the amount of additional gear needed to carry out work (e.g., solar panels), impacts to the natural and scenic wilderness quality would likely be significant. This option was dismissed because it would likely result in greater environmental and wilderness impacts than having staff sleep in existing historic structures and the duplex at Amygdaloid.

Revising wilderness boundaries. The proposed action is to fully implement the potential wilderness boundary as designated by Congress in Isle Royale's 1976 wilderness legislation. Some stakeholders asked the NPS to consider changing the potential wilderness boundary in Tobin Harbor to exclude

recreational resorts and cottages. Excluding those structures and installations from wilderness could accommodate occupation of historic structures in wilderness, if it were consistent with other park management plans (i.e., the 2022 CRMP/EA). Additional public comments received during scoping either recommended that the NPS change the potential wilderness boundary or make changes in zoning around historic districts or sensitive natural resources.

In considering these issues, the NPS reviewed several options, including direct removal from wilderness of historic property acreages, and an exchange between wilderness and nonwilderness. While determining proposed treatment options, the NPS also reviewed the maintenance needs of historic structures and determined that the tools and techniques required are generally compatible with minimum tools requirements. Importantly, the fifth quality of wilderness character (other features of value) recognizes the value of these historic structures in wilderness. Changing the wilderness boundary is inconsistent with the purpose of the plan and beyond the NPS's ability to implement. The scope and purpose of this plan include planning for the future of wilderness stewardship on Isle Royale under current authorities and does not include how or whether to divest of wilderness in the park. Additionally, this alternative was rejected because it would require a change to existing law. The NPS cannot alter wilderness boundaries designated by Congress.

Changes to ferry transportation options to the park. Changes to the ferry system, sea planes, or other means of access to the park were not considered for analysis because they would not directly meet the purpose of the plan, which is to outline strategies for preserving the wilderness character of the park while providing for its use and enjoyment by current and future generations. Therefore, this topic was dismissed from further analysis.

Public overnight use of historic structures in wilderness. The NPS considered but dismissed public overnight use of historic structures in wilderness for several reasons. It was unclear if the structures could be made safe for overnight public access. Public overnight use of structures in wilderness generally detracts from the opportunity for primitive, unconfined recreation and because the close proximity of the historic structures detracts from the opportunity to experience solitude. Additionally, some of the structures are proposed for administrative uses, which would conflict with overnight public access while others are too remote for administrative oversight. At other sites, significant obstacles related to human waste disposal exist, or the structure is intended to be used for another public use opportunity (day access) within wilderness. The threat of catastrophic loss of the structures from fire, other accidents, and vandalism would increase if the structures had regular overnight use. After all considerations, the NPS dismissed public overnight use of historic structures.

Additional trails and campgrounds. The park considered adding additional trails and campgrounds beyond those identified in alternatives A and B. The park dismissed this alternative because it was unable to identify a need for additional trails and campgrounds beyond those already proposed. Establishing trails and campgrounds requires staff resources, additional surveys, and has the potential to impact the natural quality of wilderness.

Opening park wilderness to hunting. Public hunting on Isle Royale is closed pursuant to 36 CFR 2.2.

TABLE 22. SUMMARY OF ALTERNATIVE ELEMENTS

| Element | Alternative A | Alternative B | Alternative C |
|-----------------------------------|---|---|---|
| General Management Plan Zones | See figures 4 and 5. | To align current and proposed uses under this alternative with appropriate GMP zones, various areas of the park would be rezoned. The pristine zone would be renamed to the wilderness immersion zone, amending a portion of the GMP; however, the description and use of this zone as outlined in the GMP would not change. Bangsund and Kemmer Cabins and related trails would be rezoned from wilderness immersion to backcountry to reflect current and proposed uses. Amygdaloid Ranger Station would be rezoned from backcountry to wilderness portal zone to reflect current and proposed ongoing use of the area for administrative use. The wilderness immersion zone (formerly the pristine zone) around the new Windigo Trail section within wilderness would be rezoned to backcountry to accommodate trail development for day users, allowing for better separation of users in this portal area. | Same as alternative A. Amygdaloid Ranger Station would be rezoned from backcountry to wilderness portal zone to reflect current and proposed ongoing use of the area for administrative use. |
| Island Visitor Use Levels | Managed per the GMP through the management of concessions and NPS-provided transportation limits. | The GMP would be revised. Visitor capacity would be managed through backcountry camping permits, trail management, and overnight and day group size limits. There would be no boat or sea plane visitor limits. Wilderness campers should possess a camping permit or access a permit prior to boarding/departure to ensure accommodations. | Same as alternative B, plus additional measures including the wilderness permitting systems, group size restrictions, and day use group size limits would be implemented to enhance solitude of wilderness visitors. |
| Wilderness Permitting Systems | Continue to issue backcountry/wilderness permits at the start of a trip, with no limit on the total number of permits issued. | An advance permitting system and monitoring program would be established, which would require visitors to obtain backcountry/wilderness permits in advance of a visit to the park. Backcountry/wilderness permits would allow flexible itineraries for parties of one to eight people. Advance permits would be issued until campgrounds are booked to 85% of capacity. The remaining 15% of campsites would not be booked in advance to allow for flexible itineraries and address overcrowding and conflicts in campgrounds. | Visitors would be required to obtain backcountry/wilderness permits in advance of their trip, as noted under alternative B. A reservation system would be established allowing visitors to make night-by-night reservations of campsites for specific dates, and all itineraries would be fixed. Up to 60% of all sites available park-wide would be available for reservations up to April 15, with 30% available for reservation after April 15, and 10% held for walk-ins or 48-hour advance bookings. NPS would use recreation.gov to administer the reservation system. Visitors would be required to pay a transaction fee for use of this website. |
| Overnight Group Size Requirements | Groups of 7 to 10 people would be required to register for group campsite reservations in advance. If a group exceeds 10 people, it must split into 2 parties, each independent and traveling on completely separate itineraries. Organizations may not have more than 20 people camping on the island at one time. | Groups of 9 to 12 people would be required to register for group campsite reservations in advance. Groups from the same organization would not be able to camp in the same campground at the same time. If a group exceeds 12 people, it must split into 2 parties, each independent and traveling on completely separate itineraries. Organizations may not have more than 24 people camping on the island at one time. The park would implement monitoring to determine whether changes to the group size limits should be adjusted. | Same as alternative A, the park would implement monitoring to determine when changes to the group size limits would be adjusted. |
| Day Use Group Size Requirements | Day use group sizes generally are based on the capacity of excursion vessels or ferries. The NPS would control group sizes through the appropriate permitting mechanism with group tour providers. | Frontcountry zone: Group size limit of 40 Wilderness portal, backcountry, and primitive zone: Group size limit of 24 (two groups of 12 or fewer). Hidden Lake and Lookout Louise would be exceptions, with group sizes of up to 40 people accepted. Any tours of more than 40 people to these excepted destinations would need to split into multiple smaller groups. Wilderness immersion zone (formerly the pristine zone) (Off-trail): Group size limit of 8. | Frontcountry zone: Group size limit of 20 Wilderness portal, backcountry, and primitive zone: Group size limit of 10. Hidden Lake, Lookout Louise, McCargoe Cove, and the Minong Mine would be exceptions, with group sizes of up to 20 people accepted. Any tours to these excepted destinations of more than 20 people would need to split into multiple smaller groups. Wilderness immersion zone: (Off-trail): Group size limit of 6. |
| Shelters and Associated Docks | Shelters maintained in wilderness: 20 Additional shelters constructed in wilderness: 0 Other shelters to be removed: Duncan Bay once the boat dock is removed. | Shelters maintained in wilderness: 22; existing shelters at Duncan Bay campground would be maintained. Additional shelters constructed in wilderness: 0 Other shelters to be removed: 0; however, Duncan Bay dock (nonwilderness) would be removed. | Shelters maintained in wilderness: 0 Additional shelters constructed in wilderness: 0 Other shelters to be removed: 20 shelters would be removed from wilderness and converted to campsites where possible. Shelters would be removed from Duncan Bay campground once the boat dock at this location is removed (in accordance with the GMP). |
| Campground Management | Camping would continue within all designated campgrounds. New campgrounds would be established at Crystal Cove, Fisherman's Home, and Wright Island, unless current resource concerns at those locations cannot be addressed, in which case, overnight use would be restricted to boat camping at docks. | Same as alternative A, except no campground would be established at Fisherman's Home or Crystal Cove. A new campground would be established at Wright Island, and a new campground for nonmotorized recreation users (canoe/kayak) would be established on Johns Island. New campsites may be established within existing campgrounds if monitoring for multiples lines of evidence documents the need for change. Monitoring would include: trail encounters, number of person overnights, resource damage, and visitor reports of crowding as identified in the Wilderness Assessment and Monitoring Plan. | All existing campgrounds would remain. Over time, the NPS would consider eliminating or relocating individual campsites within campgrounds to increase separation between campsites and promote solitude. The GMP would be amended to exclude additional campgrounds at McCargoe Cove, Fisherman's Home and Crystal Cove due to the potential for adverse impacts to resources. A new campground for nonmotorized recreation users (canoe/kayak) on Johns Island that would be established to reduce visitor conflict between motorized boat users and nonmotorized boat users. The Johns Island campground would be provided for nonmotorized recreation users (canoe/kayak) only. |

| Element | Alternative A | Alternative B | Alternative C |
|---|---|---|--|
| Campground Management – Group Campsites | Designated group campsites would be maintained at 17 campgrounds. A new group campsite may be established at Belle Isle campground. | Same as alternative A, including a group campsite would be established at Belle Isle (nonwilderness). This educational group campsite would be established in nonwilderness, and infrastructure would be constructed to enhance the recreational experience, minimize conflicts between different user groups, and enhance solitude. | Designated group sites at Chippewa Harbor and Lake Richie would be eliminated to provide additional opportunities for solitude for campers in these campgrounds. No new group campsite would be created at Belle Isle. |
| Campground Management – Cross-Country Camping | Cross-country or “off-trail” camping would remain an option for visitors seeking enhanced opportunities for solitude outside designated campgrounds. Special permits would be required. | Same as alternative A, except camping cannot be visible from the water or to another camping party and may not be within 0.25 miles of any existing campground. | Same as alternative B. |
| Trail Management | Per the 1998 GMP, no new trails would be built within wilderness. The Indian Portage Trail between the south and east ends of Lake Richie would be eliminated. | The GMP would be amended to allow trails to be rerouted to ensure water availability to hikers in wilderness, reduce maintenance costs, and address impacts to the natural quality of wilderness character, including resources such as nesting eagles or loons. The Indian Portage Trail between the south end and east ends of Lake Richie would be retained. New trails would be established (see figures 12 and 13). The NPS would continue to use chainsaws or other forms of motorized equipment for trail clearing. Use of chainsaws or other motorized equipment would be subject to an MRA. | No new trails would be established. The Bangsund Fishery Trail, which is an existing social trail that currently is not part of the Isle Royale trail system, would be added to the park’s trail inventory. The Bangsund Fishery Trail from Edison Fishery to Bangsund Fishery is 0.45 miles. The Indian Portage Trail between the south and east ends of Lake Richie would be eliminated consistent with the GMP. Trails would only be rerouted in case of resource damage or significant risk to public safety, and rerouting would be done keeping maximum solitude in mind. Trails would be rerouted in case of resource damage or significant risk to public safety, and rerouting would be done keeping maximum solitude in mind. Most maintenance tasks would be accomplished using primitive tools. |
| Bridges and Boardwalks | Bridges would be maintained where required for wet area crossings. Where possible, boardwalks in wilderness would be removed through introduction of short reroutes or more natural bridging methods such as placement of boulders and rocks. | The GMP would be amended to allow for more flexible management of bridges, including rerouting, removal, or improvements. Preference would be given to rerouting or use of natural bridging methods when possible. The existing bridge over the Siskiwit River would be removed in accordance with the CRMP/EA, and a structural crossing at the river would be retained. | The bridge structure at the Siskiwit River would be removed in accordance with the GMP, and a smaller structural crossing at the river could be considered. Boardwalks would be treated the same as proposed under alternative A. Where possible, boardwalks in wilderness would be removed through introduction of short reroutes or natural bridging methods. |
| Concessions and Commercial Services | Various concessions and commercial services provided to visitors of the park would continue, subject to extent necessary determinations. | Guided hiking, backpacking, guided interpretive tours and education programs and guided canoe/kayak trips would be permitted to continue, pending an extent necessary determination. | No guided backpacking or guided canoe/kayak trips that use wilderness campsites would be permitted. |
| Winter Closure | Isle Royale would continue to be closed to visitor access from November 1 through April 15. | Isle Royale would remain closed during the winter season. To provide additional opportunities for solitude, the closure would be reevaluated if open water existed during 100% of the winter season for at least five consecutive years. | The park would remain open during the winter season and would not be closed to public visitation. |
| Treatments for Historic Structures | No formal priority or treatment distinction would be established for historic structures and installations. Preservation activities would continue to be completed when funding, partnerships, and resources are available. | Historic structures and installations in wilderness would be identified for one of four different treatments in accordance with guidance provided in <i>Reference Manual 41: Wilderness Stewardship</i> (NPS 2022): preservation, stabilization, molder, or remove. Under alternative B, 52 structures or installations would be preserved, 23 would be stabilized, 18 would be allowed to molder, and 7 would be removed. | Treatment types would be the same as those proposed under alternative B. Under alternative C, 40 structures or installations would be preserved, 34 would be stabilized, 19 would be allowed to molder, and 7 would be removed. |
| Public Use of Historic Structures | See table 23 below. | See table 23 below. | See table 23 below. |
| Use of Structures for Administrative Uses | See table 23 below. | See table 23 below. | See table 23 below. |
| Conversion of Potential Wilderness Additions and Nonconforming Uses | All existing PWAs would remain potential wilderness. | All existing PWAs would be converted to designated wilderness except Davidson Island and Amygdaloid Island. Existing nonconforming uses (see table 2) would be evaluated for continuation or elimination under an MRA as part of the conversion. | All existing PWAs would be converted to designated wilderness. Existing nonconforming uses (see table 2) would be evaluated for continuation or elimination under an MRA as part of the conversion. |

TABLE 23. PROPOSED PUBLIC AND ADMINISTRATIVE USE OF HISTORIC STRUCTURES BY ALTERNATIVE FOR SELECTED STRUCTURES WITH PLANNED USE

| Area of the Park | Historic Structure | Alternative A (Current Use) | Proposed Use Alternative B | Proposed Use Alternative C |
|-----------------------------------|--|---|---|--|
| Bangsund Area | Main Cabin | Administrative Use: Overnight Use for Research | Day Use Interpretive Site for Wolf/Moose Research | Discovery |
| Bangsund Area | Sleeping Cabin | Administrative Use: Overnight Use for Research | Discovery | Discovery |
| Bangsund Area | Sleeping Cabin #2 | Administrative Use: Overnight Use for Research | Discovery | Discovery |
| Crystal Cove Area | Crystal Cove: Megeath Guest Cabin #2 | Discovery | Discovery | Discovery |
| Crystal Cove Area | Crystal Cove: Megeath Guest Cabin #1 | Discovery | Discovery | Discovery |
| Crystal Cove Area | Crystal Cove: Megeath Main Lodge | Discovery | Open for Public Visitor Day Use | Discovery |
| Fisherman's Home Area | Rude Cabin | Volunteers-In-Parks Agreement for Assistance with Administrative Activities | Administrative Use Only | Administrative Use Only |
| Fisherman's Home Area | Help's Quarters #1 | Volunteers-In-Parks Agreement for Assistance with Administrative Activities | Discovery | Discovery |
| Fisherman's Home Area | Help's Quarters #2 | Volunteers-In-Parks Agreement for Assistance with Administrative Activities | Discovery | Discovery |
| Fisherman's Home Area | Rude Guest Cabin | Volunteers-In-Parks Agreement for Assistance with Administrative Activities | Discovery | Discovery |
| Johnson Anderson Fishery Area | Johnson Island – Main Cabin and log sleeping cabin | Special Use Permit Agreement for Use | Open for Public Day Use | Discovery |
| Johnson Anderson Fishery Area | Johnson Island - Herman Johnson Cabin | Special Use Permit Agreement for Use | Discovery | Discovery |
| Johnson Anderson Fishery Area | Johnson Island - John Anderson Cabin | Special Use Permit Agreement for Use | Discovery | Discovery |
| Tobin Harbor Area – Beard Camp | Beard Cabin | Discovery | Discovery | Discovery |
| Tobin Harbor Area – Connolly Camp | Connolly Cabin | Special Use Permit | Discovery | Discovery |
| Tobin Harbor Area – Connolly Camp | Connolly Guest Cabin | Special Use Permit | Discovery | Discovery |
| Tobin Harbor Area – Dassler Camp | Dassler Cabin | Overnight Artist-in-Residence Program | Day Use: Artist-in-Residence Program; Incidental Administrative Use | Incidental administrative use |
| Tobin Harbor Area – Dassler Camp | Dassler Guest Cabin | Overnight Artist-in-Residence Program | Day Use: Artist-in-Residence Program; Incidental Administrative Use | Incidental administrative use |
| Tobin Harbor Area – Edwards Camp | Edwards "The Gem" | Volunteer Agreement | Discovery | Discovery |
| Tobin Harbor Area – Edwards Camp | Edwards Cabin and Dining Room | Volunteer Agreement | Discovery; Incidental Administrative Use | Discovery; Incidental Administrative Use |
| Tobin Harbor Area – Gale Camp | Gale Cabin | Volunteer Agreement | Discovery | Discovery |
| Tobin Harbor Area – Gale Camp | Gale Guest Cabin | Volunteer Agreement | Discovery | Discovery |
| Tobin Harbor Area – How Camp | How Cabin | Discovery | Discovery | Discovery |
| Tobin Harbor Area – How Camp | How Guest Cabin | Discovery | Discovery | Discovery |
| Tobin Harbor Area – Kemmer Camp | Kemmer Cabin | Discovery | Discovery | Discovery |
| Tobin Harbor Area – Kemmer Camp | Kemmer Guest Cabin | Discovery | Open for Public Visitor Day Use | Discovery |
| Tobin Harbor Area – Mattson Camp | Mattson Fishery Cabin | Special Use Permit | Open for Public Day Use | Discovery |
| Tobin Harbor Area – Merritt Camp | Merritt "Deer House" | Volunteer Agreement | Open for Public Visitor Day Use | Discovery |
| Tobin Harbor Area – Merritt Camp | Merritt "Moose Manor" | Volunteer Agreement | Open for Public Visitor Day Use Incidental Administrative Use | Discovery; Incidental Administrative Use |

| Area of the Park | Historic Structure | Alternative A (Current Use) | Proposed Use Alternative B | Proposed Use Alternative C |
|----------------------------------|---|--|--|--|
| Tobin Harbor Area – Merritt Camp | Merritt "Parsonage" | Volunteer Agreement | Open for Public Visitor Day Use | Discovery |
| Tobin Harbor Area – Merritt Camp | Merritt Cabin | Volunteer Agreement | Open for Public Visitor Day Use Incidental Administrative Use | Discovery; Incidental Administrative Use |
| Tobin Harbor Area – Siefert Camp | Siefert Cabin | Discovery | Discovery | Discovery |
| Tobin Harbor Area – Snell Camp | Snell Cabin | Volunteers-In-Parks Agreement | Discovery | Discovery |
| Tobin Harbor Area – Snell Camp | Snell Guest Cabin | Volunteers-In-Parks Agreement | Discovery | Discovery |
| Tobin Harbor Area – Stack Camp | Stack Guest Cabin | Discovery | Open for Public Day Use | Discovery |
| Tobin Harbor Area – Stack Camp | Stack Cabin | Discovery Incidental Administrative Use | Open for Public Day Use | Discovery Incidental Administrative Use |
| Other Structures | Amygdaloid Island - Anderson/Scotland Cabin | Seasonal Administrative Use | Same as alternative A | Same as alternative A |
| Other Structures | Davidson Island - Davidson House | Seasonal Administrative Use | Same as alternative A | Same as alternative A |
| Other Structures | Johns Island - Johns Cabin | Discovery | No use – will be demolished | No use – will be demolished |

CHAPTER 3: AFFECTED ENVIRONMENT

INTRODUCTION

This chapter describes the resources that could be affected as a result of implementation of any of the alternatives. These descriptions provide an account of baseline conditions of the resources against which potential effects of the proposed action are compared. There are two impact topics in this chapter, wilderness character and cultural resources. The description of wilderness character is organized to correspond to the resource impact discussions in “Chapter 4: Environmental Consequences.”

WILDERNESS CHARACTER

There are five tangible and measurable qualities of wilderness character: (1) untrammeled, (2) natural, (3) undeveloped, (4) opportunities for solitude or primitive and unconfined recreation, and (5) other features of value (including features of historical, scientific, and scenic value that collectively make up Isle Royale’s designated and potential wilderness). The following discussion includes descriptions of the wilderness qualities that are carried forward for analysis in this EIS. These descriptions are summarized from the “Isle Royale Wilderness Character Narrative” in the park’s Foundation Document (NPS 2016a) unless otherwise cited.

The untrammeled quality of wilderness character is not discussed further because the proposed action is not intended to and would not have the effect of controlling or manipulating ecological processes or components in wilderness. Potential effects to natural features as a result of actions taken to manage cultural resources are discussed under the “Natural” wilderness quality section. Understanding and accurately describing the qualities of wilderness at the park and the current condition of those qualities provides a basis from which informed decisions concerning park planning, monitoring, management, and stewardship can be made.

Visitor use and experience are addressed within the opportunities for solitude or primitive and unconfined recreation wilderness qualities. Historic structures, landscapes, and districts are described under the other features of value quality. The affected environment related to cultural resources is described following the “Wilderness Character” section.

Natural

A nondegraded natural wilderness quality shows minimal effects of modern civilization upon ecological systems and their biological and physical components. The dominating and dynamic natural environment at Isle Royale is characterized by an intricate, interdependent land, water, and atmospheric interface where clear air and waters envelop and shape the rugged coastline and expansive forests. With the exception of climate change, atmospheric pollution, and invasive species, the island remains relatively free from the overt effects of modern civilization and has a high degree of naturalness.

Island ecology is often explained by the theory of island biogeography. The coming and going of species to an island is a natural occurrence influenced by many factors, including degree of isolation, the size of the island, climate, and human activity. Some species, like the lynx, caribou, and coyote, have been extirpated from Isle Royale, whereas others may have come and gone over time. Human activity has greatly influenced the species composition of Isle Royale, resulting in an ongoing impact to the quality of naturalness. Moose may have made the swim to the island or may have been stocked as was the case with white-tailed deer (now extirpated). Trapping and hunting led to the extirpation of lynx and caribou,

respectively, from Isle Royale, and climate change is affecting the cisco, a cold water-adapted fish and may lead to extirpation of this species from the park's inland lakes.

Wolves have both migrated to and been introduced by humans to the island at different times. With the island's wolf population down to only two individual wolves in 2018, the NPS undertook an ecological restoration effort to introduce wolves to the ecosystem and restore predation as a key ecosystem process. Starting in September of 2018 through September of 2019, the NPS and its collaborators introduced 19 wolves from Michigan, Minnesota, and Ontario to the park. These wolves have formed packs, and litters of pups were produced each year from 2019 to 2022. Currently, the population is around 30 wolves, and the NPS is assessing whether further introductions are warranted to meet the objectives of the ecological restoration program. Management of wolves in the park includes periodic, temporary closures to visitors in some areas of the park to avoid wolf-human interactions, if necessary. Other closures may occur for monitoring such as telemetry, noninvasive fecal DNA-based approaches, and direct monitoring via photo documentation and/or observation. In general, due to its wilderness designation, Isle Royale employs the least intrusive methods that provide the needed data, such as remote sensing.



Wolf being released at Isle Royale

The waters surrounding Isle Royale are home to some of the healthiest native fish populations in the Great Lakes, including lake trout and one of the few remaining naturally reproducing populations of coaster brook trout.

The Fire Management Plan for Isle Royale (2004) provides a detailed program of actions for the park to take to improve prevention and suppression, where appropriate, reduce hazardous fuels, restore fire-adapted communities, and promote community assistance. All wildland fires and prescribed fires are monitored to determine when holding and suppression activities are needed. While a large wildland fire could affect thousands of acres on the island, most fires for which there is information have been relatively small. Prescribed fires may be used to accomplish vegetation management objectives, such as encouraging pine regeneration or creating wildlife habitat, and fuel hazard reduction objectives, such as removing fuel ladders and downed woody debris from the sub-canopy of pine stands (NPS 2004). The natural quality of wilderness character is degraded by the alteration of natural vegetation dynamics from the suppression of natural ignitions in fire-dependent forests.

The natural quality of wilderness is also degraded by the introduction and presence of plant and animal species. While the park has an active invasive species prevention program, the arrival of visitors by boat and seaplane provides the opportunity for unintentional introductions of new species that may have far-reaching impacts on many aspects of the natural system. Annually, the natural resources management staff at the park inventory and target specific invasive species for chemical and mechanical treatment. These species include wild parsnip, spotted knapweed, mountain bluet, common burdock, thistles,

creeping bellflower, curly dock, goatsbeard, butter and eggs, tansy, and common mullein. Herbicides employed for these species may change annually depending on inventory, effectiveness, development of new products, and consumer availability (NPS, Henquinet pers. comm. 2016b).

Scientific activities, such as the removal of scientific specimens, invasive scientific methods, and the reintroduction or augmentation of wildlife to replace depleted populations, have affected the natural quality. Impacts to physical resources, including some impacts that originate outside the park like air quality and light pollution impacts originating from urban and industrial sources on the mainland, also have also affected natural quality.

The climate of Isle Royale, which is strongly affected by Lake Superior, is characterized by short, cool summers and long, cold winters. Summers on the island are cooler, and winters are warmer than on the nearby mainland. Climate change may affect the natural quality of Isle Royale's wilderness through changes in water quality in the island's inland lakes and the reduction or disappearance of ice cover in Lake Superior during the winter, which may reduce dispersal of wildlife from the mainland to the island and make it easier for human visitors to access the island in winter. Additionally, climate change has contributed to warming of aquatic habitats and the waters of Lake Superior to the degree that the lake is less likely to support seasonal formation of an ice bridge to provide occasional connectivity to mainland wildlife populations. Due to the park's isolation, Isle Royale can provide a laboratory to evaluate changes in wildlife and plant species resulting from continued climate change (NPS 2016a).

Campsite Condition. Impacts on the natural quality of wilderness character from visitor use can be biophysical, social, or both. Biophysical impacts include effects on water resources, fish and wildlife, and sensitive vegetation. Campsite monitoring is one way the park measures the effects of visitors on wilderness character, as well as effects on natural resources and visitor experience. Campsite condition is presented in this section to provide a baseline for assessing effects of visitor use on the natural quality of wilderness character.

The overall size of a campsite is a combination of formal tent pads, informal tent pads that have become established by repeated use, and other areas stripped of vegetation by repeated use for things like cooking, sitting, and storing gear. The methodology for surveying campground impacts in the park was developed and originally implemented in 1996 (Marion and Farrell 2002). The types of data collected under this protocol are campsite area, soil compaction, soil erosion, tree damage, presence of satellite disturbed areas (i.e., trampled vegetation, bare ground), extent of visual screening between campsites, and number and length of unofficial social trails. These data are intended to measure impacts to the campground, campsites, and surrounding natural resources. Changes in these metrics between iterations of the survey are used to evaluate current conditions and impacts to resources. Available data on campsite condition dates back to 2002, and found that the cumulative area of campsites increased by approximately 10% from 1996 to 2002. The estimated area of exposed soil within these sites increased by approximately 50% in the same period. These changes were caused primarily by people using areas outside the intended campsite boundary. However, there are likely several contributing factors, such as maintenance and design of campsites that do not clearly establish the campsite boundaries, multiple parties doubling up in a site intended for one party, and tent pads that may be unappealing to campers because they are wet, uneven, or for some other reason. Park staff have observed the continuation of these conditions since these data were collected.

Undeveloped

The Wilderness Act states that wilderness is "an area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation," with "the imprint of man's work substantially unnoticeable." The presence of structures and installations and the use of motor

vehicles, motorized equipment, or mechanical transport affect the undeveloped quality of wilderness. These developments, including mechanical transport and use of equipment, are also prohibited by section 4(c) of the Wilderness Act, and are only permissible if they are “necessary to meet minimum requirements for the administration of the area” as wilderness.

The NPS manages the Isle Royale wilderness in its entirety with no private inholdings. The relative lack of development, in contrast to the mainland, reinforces the unique quality of the island as a place essentially without permanent improvement or human habitation. Minimal development on the island reinforces the need for personal preparedness with the recognition that modern human use of the island is largely dependent on provisioning from the mainland.

Designated and potential wilderness at Isle Royale contains a variety of administrative developments. Current uses within PWA that degrade the undeveloped quality of wilderness are described in table 24. Some developments, such as communication equipment, have little consequence to the other qualities of wilderness character and are only assessed as potential impacts on the undeveloped quality. Other structures and installations, such as ranger stations, bridges and boardwalks, signs, weather stations, fences, and campgrounds with accompanying picnic tables, campsites, fire rings, and privies (see chapter 2), may concentrate visitor use or result in a less self-reliant wilderness experience. In these cases, the impacts are assessed against the natural quality (under the “Campsite Condition” section) and the solitude (under the encounters section) and unconfined quality (under the “Developments” and “Restrictions” sections).

In addition to the developments noted above, a network of constructed trails serves recreational and administrative purposes and largely follows natural contours that accommodate overland travel. The trails used today often represent a continuum in time where prehistoric, historic, and modern routes of travel, changing in purpose from foot trails to mining roads and back to foot trails, are overlaid. Over time, many bridges on the trail system have been removed by either rerouting short sections of trail to avoid the need for bridging or by providing stepping stones or other more natural approaches to aid people across obstacles and reduce the impact to natural resources. While the existing constructed trail system degrades the undeveloped quality of wilderness character, removal of unnecessary improvements continues to enhance this quality of wilderness.

TABLE 24. POTENTIAL WILDERNESS ADDITIONS ON ISLE ROYALE, ACREAGE, AND CURRENT USES

| Location | Acres | Uses that Degrade the Undeveloped Quality of Wilderness |
|---------------------------------------|-------|---|
| Fisherman's Home | 5 | Historic structures, including structures used for temporary housing under a Volunteers-In-Parks agreement; historic and non-historic installations |
| Johns Island | 0.8 | Historic and non-historic structures, including structures used for housing under a Volunteers-In-Parks agreement |
| Wright Island | 1 | Not applicable |
| Davidson Island | 1 | NPS and researcher housing |
| Johnson Island | 5 | Historic structures, including structures used for housing under a special use permit |
| Amygdaloid Island | 11 | Ranger station with fuel storage and NPS residence |
| West Caribou Island | 5.6 | Unevaluated installations and structures |
| Passage Island | 3 | Boat house and trail to lighthouse for past US Coast Guard use |
| Edward Island and neighboring islands | 24.8 | Historic structures, including structures used for housing under a Volunteers-In-Parks agreement |

| Location | Acres | Uses that Degrade the Undeveloped Quality of Wilderness |
|--|-------|--|
| Tobin Harbor Islands and portions of the main island in vicinity | 10.2 | Historic structures, including structures used for housing under a special use permit, Volunteers-In-Parks agreements, and Artist-in-Residence Program cabin |
| Captain Kidd Island | 20.6 | Historic structures, including structures used for housing under a special use permit; historic installation |
| Crystal Cove | 5 | Historic structures, including structures used for housing under a Volunteers-In-Parks agreement |
| Total Acreage | 93 | |

Developments. The undeveloped quality is degraded by the presence of installations and structures, including historic structures and installations (described in the “Cultural Resources” section) and modern administrative structures and installations, including communication and other equipment.

A remote ranger station is maintained in the potential wilderness at Amygdaloid Island. Structures and installations at this station include docks, fuel storage, and ranger residences with associated utilities support (solar power, water treatment, and gas-powered generators for pumping boat fuel).

The NPS maintains communications installations within park wilderness. Communication installations are critical for park operations, resource protection, and providing for human safety in a park such as Isle Royale where communication often depends on radios, cell phones, and satellite phones. Three National Register-listed fire towers are within park wilderness; all were built in the 1960s. The NPS no longer relies on these towers for fire monitoring but continues to maintain them to varying degrees. Currently, the Mount Ojibway and Ishpeming Fire Towers includes communications equipment, such as a radio repeater and satellite transmitter powered by photovoltaic cells. Communications technology at a remote monitoring station on Mount Ojibway also relays monitoring data.

Structures in PWAs at Isle Royale include the Davidson Island Boreal Research Station, Amygdaloid Ranger Station (which also includes communications installations), and historic structures that are described further in the “Cultural Resources” section. The Bangsund Research Station is a former fishing camp that now hosts wolf and moose research activities during the summer. The Bangsund Cabin and two cabins remain from the original fishing camp. The station now includes an additional cabin and storage shed, satellite dish, wind turbines, an outdoor moose skull display on wooden benches, raised garden beds, an outhouse, a yurt, and a tree swing.

Installations in wilderness include concentrations of scientific instrumentations at the Wallace Lake environmental monitoring site and scattered research plot markers and instrumentation (including wildlife collaring) and two herbivory exclosure fences used by external research activities and NPS resource managers to gain knowledge of the impacts of moose herbivory on park resources.

In addition, a number of abandoned mine shafts exist within park wilderness. Although most mine shafts are in remote locations, some are close to trails and are currently fenced to ensure public safety. The NPS is actively closing some of these mines. As of February 2023, 5 abandoned mine shafts have been closed, and the NPS plans to close at least an additional 13 mine shafts. Activities associated with closure of these mines are being evaluated under separate NEPA processes and MRAs.

The undeveloped quality is also degraded by the use of motorized equipment and mechanical transport, even though such uses may be allowable as the minimum requirement for the administration of the area as wilderness. Such uses include the authorized use of chainsaws until June 15 each year for the purpose of pre-season trail clearing and the use of power tools to repair and maintain campgrounds in wilderness.

Aircraft are used for wildlife and other natural resources surveys, wildlife monitoring, and capture operations for wolves and moose and may land to allow ground personnel to disembark. Rarely, emergency landing of aircraft or wheeled litters are employed during search and rescue operations or may be needed in the event of an emergency related to operation of the aircraft. Chainsaws and water pumps may be used during fire suppression if such action is deemed necessary in wilderness.

Opportunities for Solitude or Primitive and Unconfined Recreation

The Wilderness Act states in section 2(c) that wilderness has “outstanding opportunities for solitude or a primitive and unconfined type of recreation.” Opportunities for solitude or primitive and unconfined recreation provide visitors a chance to connect with the natural world, practice traditional skills, and have transformative personal experiences. What constitutes solitude, primitive conditions, or unconfined recreation depends on the perceptions of individuals, and impacts on these experiential dimensions can be difficult to evaluate. Generally, opportunities for solitude or primitive and unconfined recreation are degraded by the presence of recreational structures and installations that decrease self-reliance, park management of these structures and installations, visitor use regulations pertaining to their use, crowding, and human-generated noise.

Isle Royale offers a range of wilderness and recreational activities throughout the visitor season and around the park. Visitors can experience Isle Royale on foot on well-maintained trails and in campgrounds or through more challenging off-trail travel, or they can travel around the park by motorboat or by paddle. Additionally, the lodge, ferries, and two campgrounds adjacent to developed areas offer opportunities to experience wilderness on day trips without the need for wilderness camping skills.

Common recreation activities in wilderness and backcountry include hiking, observing wildlife, fishing, and photography. Nonwilderness-related activities include motor boating, canoeing, kayaking, and sailing on the waters within the national park. Visitors can also spend much time learning about and exploring the park’s natural and cultural treasures (Pierskalla, Anderson, and Lime 1997). The presence of numerous historical structures in wilderness may negatively affect opportunities for solitude or primitive and unconfined recreation. Many of these features are concentrated in small, but often visited, areas of Isle Royale, and visitor encounters are frequent in these locations. These features may contribute to opportunities for solitude when visitors are free to explore these areas without the presence of others.

Visitors to Isle Royale are typical of most national park visitors in that they tend to travel in family or peer groups of two to four people and are usually highly educated. They differ from visitors to other parks in that most have more experience in backcountry settings, place high value on wilderness attributes, and stay longer than visitors to most national parks.

In 1970, at the time of the park’s wilderness recommendation, approximately 10,000 people visited the island annually. Visitation among overnight backcountry campers (i.e., the total number of overnight stays by campers, which may include multiple overnight stays by single individuals) peaked in 1996 and 2001 at over 46,000 and 49,000, respectively. Between 2012 and 2022 (excluding 2020 when park operations were limited due to the COVID-19 pandemic), overnight backcountry visitation ranged between 21,693 overnight stays in 2017 and 33,808 overnight stays in 2012, while stays in the concession lodging ranged from 6,225 in 2012 to 12,308 in 2019. During this period, overnight backcountry visitation has trended generally downward from 33,808 overnight stays in 2012 to 27,619 overnight stays in 2022. Stays in lodging have trended upward from 6,225 in 2012 to 11,119 in 2022 (an approximately 79% increase) (NPS 2023a). The overall distribution of visitors throughout the park’s operating season (from April through October) has been fairly consistent, with the majority of visitors coming in July and August (NPS 2023b).

Due to the difficulty in reaching the island, the majority of visitors stay for more than one day. In 2019, the park recorded 54,213 recreational overnight stays. Of these, the majority (50%) were by people who were backcountry camping. Concessioner lodging stays made up 23% of total recreational overnight stays, followed by miscellaneous overnight stays (18%), tent campers (9%), and concessioner campers (less than 1%) (NPS 2023a).

Solitude

GMP Management Zones. The NPS manages wilderness (which constitutes 99% of the park's total acreage) in three zones: backcountry, primitive, and pristine (proposed to be renamed the wilderness immersion zone under alternative B). Most trails and campgrounds are zoned as backcountry, indicating that they can accommodate moderate levels of use and groups. Some trails and campgrounds are zoned as primitive, indicating that visitors can expect to find fewer people and more primitive campgrounds. These areas include a portion of the Minong Trail, the Ishpeming Trail (the trail from the Greenstone Ridge to Malone Bay), the Lane Cove Trail, the trail from Mount Franklin to Lookout Louise, and the southern canoe portage loop. Off-trail cross-country areas are zoned as pristine. In the pristine zone, there are no campgrounds and encounters are minimal. Lake Superior open water, bays, and harbors are outside wilderness; some of these bays and harbors are zoned as quiet/no-wake areas. The 1998 GMP provides more detail with regard to these waters (NPS 1998).

Five sites make up the wilderness portal zone, described in the GMP (1998): Chippewa Harbor, McCargoe Cove, Daisy Farm, Malone Bay, and Belle Isle. These portals have water taxi and concession ferry services and docks to provide access into wilderness, and visitors experience more development and more frequent encounters with other visitors in these zones (NPS 1998). Many of the popular places on the island are concentrated in small areas, and visitor encounters with other visitors are frequent in these locations, in campgrounds, and near frontcountry areas and trailheads into the wilderness where day and overnight users tend to use the same trails.

Although most visitors to the wilderness hike on trails and camp in designated campgrounds with bridges, signs, outhouses, established tent pads, and other conveniences, the majority of the park's land base is within the pristine zone. In the pristine zone, recognizable human influences and reminders are minimal, and it is possible to travel for days without encountering another person. Even within the designated trail system and in designated campgrounds, it is possible to find superlative opportunities for solitude. With unpredictable weather, few ferries, and limited services provided by the NPS or concessionaires, early spring and late fall offer options of traveling for days alone with the added challenges of increased self-sufficiency, less maintained trails, and potentially severe weather conditions.

Trails and Trail Encounters. Isle Royale's network of hiking trails is approximately 165 miles long. All but a few miles of trail are within wilderness. The trails include approximately 14,000 maintained erosion control devices (e.g., drainage, water bars), 6 miles of bridging, and 160 trail and campground signs. All trails are maintained within standards that minimize erosion and trail widening, concentrating foot traffic while still providing reasonable access to primitive and unconfined recreational opportunities.

Trail crowding appears to be a less salient public concern than campground crowding, which is consistent with general research in wilderness recreation (NPS 2011a). However, crowding along trails, quantified through the number of trail encounters, remains an important factor in social conditions in the park's wilderness and backcountry. The average group size for backcountry parties in 2003, a fairly representative year, was three; the most common group size was two people. Six percent of parties were large groups (7 to 10 people) falling under the group reservation system, the majority of which were associated with organized trips through camps, outfitters, schools, or scout troops. In general, visitors to the park in May, September, and October traveled in smaller groups than those visiting in June, July, and

August. About 70% traveled in parties of one or two people, compared to less than 60% from June through August. Similarly, very few large groups (7 to 10 people) visited the park in May, September, and October (NPS 2011a). Park staff have noted these trends have continued since the 2011 study.

In 2022, the most recent year for which data are available, people who visited the island just for a day made up 17% of the total visitation to the island (20,274 visitors) (NPS 2023c). The majority of these people visited Windigo and the west end of the island. Because day visitors are in the park for at most four hours, they have little opportunity to travel far into the park's wilderness and backcountry, so crowding is expected near Windigo. Currently, overnight night groups are limited to 10 people. If a group exceeds 10, they must split into 2 parties. There is currently no limit on group size for day use.

In response to a 2022 online survey in support of a socioeconomic monitoring study at Isle Royale, 55% of respondents indicated they either somewhat disagreed or strongly disagreed with the statement, "Isle Royale is too crowded." The majority (over 90%) of respondents to this survey and an accompanying intercept survey at the park were nonlocal visitors to the park who were planning to stay multiple days (Otak, Inc. 2022). Compared to day visitors, overnight visitors would have more opportunity to disperse into the wilderness and backcountry areas of the park and would be less likely to encounter other parties or experience crowding on trails.

Campgrounds. Park managers have defined crowding in campgrounds as a campground being overfull, with parties who cannot find an available campsite, resulting in the need to either share a site with another party or break campground regulations and camp outside a designated site. Permit data, visitor surveys, reports from NPS backcountry staff, and computer simulation modeling have been used to quantify this problem over the course of several years (Pierskalla, Anderson, and Lime 1997, 1998; Mayo 2001; Lawson and Manning 2003a, 2003b). While the NPS does not have newer data on campground overcrowding, based on park observations, the trends discussed below continue to occur.

Currently the NPS maintains 36 campgrounds in the park, of which, 27 are located in wilderness. These campgrounds include 90 pit toilets, 88 shelters, and 112 individual tent sites. Slightly fewer than half of the campgrounds contain group campsites, for which reservations are required. The wilderness campgrounds range in size from 1 to 10 campsites.

Each campground has designated campsites and an outhouse; some have a dock, shelters, and picnic tables. Campsites within the campgrounds consist of either a rustic shelter or tent pads with a flattened eating area. Shelters and individual tent sites are designed to hold one party with up to six people. Tent sites have two to three 12-foot-by-12-foot tent pads clustered within a few feet of each other. Designated large group sites are designed with four or five closely clustered 14-foot-by-14-foot tent pads for one group with seven to ten people.

Campground Crowding. The majority of wilderness overnight visitors enter the park through Rock Harbor (57%) or Windigo (39%), with 4% entering at one of several remote entry points (Otak Inc. 2022). Consistent with this, campsites are more heavily concentrated on the east and west ends of the island, with fewer and smaller campgrounds in the center of the main island. The majority of backcountry and wilderness visitors stay in one of the park's designated campgrounds. Approximately 40% of parties traveling by powerboat or sailboat plan on sleeping on board their boat at a campground dock rather than camping (NPS 2011a).

Currently the NPS maintains 36 campgrounds (27 campgrounds within wilderness, with the 9 largest in nonwilderness) at Isle Royale. An additional 5 campgrounds were planned in the 1998 GMP; of these, the campgrounds at McCargo and Crystal Cove are not currently planned to move forward. Although campsites can and do hold more than one party when campgrounds are over capacity, typically there is no

screening between tent pads, and they sit within a few feet of each other so there is little to no privacy for multiple parties sharing sites. Similarly, shelters are one open area with three wood walls and one screen wall and do not offer any privacy for parties sharing a single shelter.

Detailed analysis of wilderness overnight visitor distribution in 2001, the most recent year for which these data are available, provides information on these issues. During the two-week peak in visitation in 2001, an average of 50 camping permits were issued per day, resulting in 203 permitted parties staying in campgrounds each night; on the busiest night, 231 parties were in campgrounds. With 244 campsites in the park, this translates to an average of campsite use at 83% of capacity and a maximum use at 95% of capacity. Under these conditions, an average of 24% of those parties would have needed to double-up at campsites in overfull campgrounds on a nightly basis. This estimate is consistent with data collected from visitors and NPS backcountry personnel on the frequency of campsite sharing in 1997 and 2000 (Pierskalla, Anderson, and Lime 1998; Mayo 2001). In a 2022 survey, campsite sharing was found to persist, with the top three campgrounds for sharing being Land Cover (45%), Three Mile (35%), and West Chickenbone (29%) (Otak Inc. 2022).

Although the total number of camping parties is below the park's total camping capacity, campers are permitted for campgrounds based on their itinerary preferences, not based on site availability. Under the current permitting system, the park does not have accurate information about site availability at the time of permitting. Additionally, permits are issued for flexible itineraries so visitors may change their camping itineraries at any time throughout their trip, without changing their permits. As a result, there may be more parties in a campground than there are campsites, while other campgrounds may have empty campsites.

Surveys and computer modeling have helped to identify where crowding is an issue. In general, campgrounds within the Rock Harbor channel tend to be more heavily used and overcrowded than others in the park. However, during the peak two weeks in visitation, most campgrounds appear to be used up to their capacities (although many may not be overfull, they are full, with little or no space to accommodate additional use). Park staff inform visitors of the likelihood of finding overcrowded campgrounds during the busy times, alerting visitors of the probability of needing to double-up in campsites if they choose to visit during these busier times. However, this issue remains one of the consistent problems raised by the public. Most recently, in response to the 2022 online survey, 23% of respondents indicated that they somewhat agree with the statement, "Isle Royale campgrounds are too crowded," while 11% of respondents indicated that they strongly agree with this statement (Otak, Inc. 2022). People may choose to socialize with other campers or to share their campsites, but the concern is when parties are forced to double-up for lack of available campsites.

Aside from the sheer numbers of parties in campgrounds, other factors are also important in how crowded people feel, or the level of privacy and solitude visitors can find in park campgrounds. The design of campsites are important factors. Some campsites are well-spaced, with abundant screening between sites and private water access points. Other campsites are within sight and sound of other campers, which can affect feelings of solitude. Improving the quality of campsites with adequate screening, spacing, and distance from docks is an ongoing goal of campground maintenance.

Crowding at Docks. Currently, the park allows rafting off docks adjacent to wilderness when dock space is unavailable and docked boaters are willing to have another boater (with a valid backcountry permit) raft off their boat. Although docks throughout the park are not usually crowded overall, docks at specific campgrounds are more likely to run out of docking space than others, including Caribou Island, Grace Island, and Hay Bay. During the 1996 visitor survey at the park, 50.8% of powerboaters surveyed identified "finding an available docking spot at docks" as a moderate to serious problem (Pierskalla,

Anderson, and Lime 1998). Based on current observation by park staff, complaints regarding crowding at docks have been reduced.

Noise. In a wilderness area like the park, natural sounds such as loon calls, other fauna, waves against the shore, and wind in the trees are all contributing elements of natural sounds. These sounds are expected in a wilderness and form the natural soundscape. Noise, by contrast, is defined as unwanted sound (INCE 1995). Human-generated noise, even at relatively low decibel levels originating from outside wilderness, can have a negative impact on visitor experience inside wilderness. While the sounds of birds and waves are expected in a wilderness, the sounds of mechanical devices are not. Lower decibel noises may seem louder in the wilderness because the soundscape is not crowded with the human-generated mechanical noises that fill modern life. An average home might have a background noise level of 50 dBA (A-weighted decibel); this level is much louder than in the wilderness, where 35 dBA is more typical. In these quiet conditions, a hiker on the Greenstone Ridge Trail might hear a boat motor at cruising speed in the Rock Harbor channel, miles away. This could be more disturbing to the hiker in wilderness than a much louder engine noise would be in a residential area where such noises are more common and expected and the general background noise of the area is much louder.

A logarithmic unit known as the decibel (dB) is used to represent the intensity of sound. The dB scale is similar to the Richter scale used to measure earthquakes. On the Richter scale, a 7.0 earthquake is 10 times stronger than a 6.0 earthquake. On the dB scale, an increase of 10 dB is equivalent to a 10-fold increase in intensity or power. Therefore, a sound registering 80 dB is 10 times louder than a 70 dB sound. To give an example of the range of audible sounds: a whisper has an intensity of 20 dB and can just be heard; 140 dB (a jet aircraft taking off nearby) is the threshold of pain. In wilderness, the typical sound level would be 30 to 40 dB (NPS 2011a; EPA 1974). Decibel measurements of noise are therefore often “A-weighted” to take into account the fact that some sound wavelengths are perceived as being particularly loud. A soft whisper is 20 dB, but on the A-weighted scale, the whisper is 30 dBA. Normal speech has a sound level of about 60 dBA. Sound levels above 120 dBA begin to be felt inside the human ear as discomfort and eventually pain at still higher levels (NPS 2011a). Representative sound levels in parks and suburban and urban areas are provided in table 25.

TABLE 25. REPRESENTATIVE SOUND LEVELS IN AND OUTSIDE OF PARKS

| Outdoor Setting | A-Weighed Sound Levels (Decibels) |
|-------------------------------------|--|
| Noisy Urban (daytime) | 70–80 |
| Commercial Retail Area | 60–70 |
| Suburban (daytime) | 50–60 |
| Suburban (nighttime) | 40–50 |
| Grand Canyon (along river) | 30–40 |
| Hawai'i Volcanoes (crater overlook) | 20–30 |
| Grand Canyon (remote trail) | 10–20 |
| Haleakala (in crater, no wind) | 0–10 |

Source: NPS 1994

Noise at Isle Royale originates from sources within and outside wilderness and includes human voices, motorized machinery, and aircraft. Noise from aircraft overflights, motorboat noise, mechanized maintenance equipment, large groups and adjacent visitors in campgrounds, and generators permeate Isle Royale’s wilderness. Aircraft can fly over the most remote sections of a national park to places where mechanical noise can present an interference to visitor experiences within wilderness. In recognition of

the ability of airplane noise to affect the entire park, Isle Royale has voluntary flight restrictions to minimize the number of low flights directly over the island. The Superintendent's Compendium identifies docks and piers that are open to non-administrative aircraft (seaplane) use, including docks at Tobin Harbor. While docks and piers are not in wilderness, the docks at Tobin Harbor are adjacent to wilderness, and use of these docks by seaplanes contributes to noise in wilderness.

Powerboats also move along the Isle Royale shoreline and produce noise capable of reaching locations within wilderness. Although boat motors generally have lower decibel levels than aircraft, especially four-stroke engines such as those used in most park boats at Isle Royale, open water creates a reflective surface over which sound waves can bounce and carry sound to sensitive receptors such as visitors in kayaks, canoes, or on land. Even a boat traveling well offshore can sometimes be heard by hikers miles away. Under certain wind conditions, motorboat noise at Isle Royale can be heard from ridge tops far into the interior of the island. Conversely, an offshore wind can greatly diminish motorboat noise reaching the island. Passing outboard motors can reach sound levels greater than 80 dBA when heard from shore, while chainsaws and propeller aircraft can reach 120 dBA at the source.

Generator use outside wilderness also can affect wilderness locations. Generators may produce sound levels ranging between about 50 dBA to 75 dBA at the source. The noise from these sources, while intermittent (not constant), may occur on a daily basis and penetrate well into wilderness areas of the park. The extent to which the sound penetrates depends on a variety of factors: dBA of the noise at the source; distance of the visitor from the source; number of sources operating at one time; presence of screening provided by hills or trees; and proximity to reflective materials like a wall, hillside, or to some extent, water (NPS 2011a). Boat generators at docks are another source of noise that carries into adjacent wilderness.

To reduce noise impacts in wilderness, the park has designated certain areas around the island as quiet/no-wake zones. This prohibits the use of portable generators in the park's wilderness and on-board vessel generators at docks adjacent to campgrounds in wilderness.

Administrative uses of generators also affect the soundscape. Large diesel generators at Mott Island, Rock Harbor, and Windigo support visitor services and park operations at these locations, and these generators may be heard from the Greenstone Ridge and other wilderness areas.

Primitive and Unconfined Recreation

Primitive recreation includes travel by nonmotorized and nonmechanical means and encompasses reliance on personal skills and self-reliance to travel and camp in an area, rather than reliance on installations or outside help (Landres et al. 2015). Opportunities for primitive recreation are degraded by the presence of recreational installations and NPS management of them (such as designated camp sites with tent pads and pit toilets) by reducing self-reliance. The presence of numerous recreational installations and structures, maintained trails, and other such installations in wilderness that are unavoidably encountered when traveling around the island, and management of visitor activities may negatively impact opportunities for primitive recreation.

Unconfined recreation encompasses attributes such as self-discovery, exploration, and freedom from societal or managerial controls (<https://www.wilderness.net/toolboxes/>). In the primitive area, wilderness users can maintain flexibility in travel plans, as well as experience off-trail camping for an unconfined recreation experience. The assessment of effects to this wilderness quality presented in chapter 4 will use changes in developments in wilderness, restrictions on visitor activities, and commercial services as metrics.

Developments. As described previously in this chapter under “Developments,” 27 campgrounds are located in wilderness. Campgrounds and trails are described in detail in previous sections. These developments detract from primitive and unconfined recreation.

Restrictions. Restrictions on visitors, such as campfire restrictions and group size, can reduce the unconfined quality of wilderness. In the park, regulations are established to protect natural features, preserve opportunities for solitude, and protect the primitive and undeveloped qualities of the park. Existing NPS regulations and developments may detract from the wilderness character of recreational opportunities on Isle Royale, and to some extent, limit unconfined experiences and self-sufficiency while adding reminders of modern society.

Regulations that limit human activities within Isle Royale wilderness include campfire bans, group size limits, prohibitions on collecting plants and minerals, area closures, the annual winter closure, and required permitting. Such regulations were enacted to protect vulnerable natural and cultural resources in the park, as well as to protect appropriate wilderness experiences and wilderness character. For instance, periodic, temporary closures to visitors in some areas of the park are implemented to avoid wolf-human interactions. These closures are generally in the pristine zone and occur from April 16 through September 1 (see figure 6 in chapter 2).

Approximately 4,400 backcountry camping permits are issued each year with peak use in summer months; no visitor or administrative use is allowed in winter except for scientific research activities. Yet, during the short summer season, Isle Royale reports more backcountry and wilderness overnight stays per acre than any other NPS unit with wilderness. This intensity of use gives rise to numerous visitor use restrictions that are in effect to manage human use of a finite space, but such permit requirements and area closures also serve to inhibit the unconfined nature of recreational opportunities in wilderness.

Parties of 7 to 10 people are required to secure reservations for designated group campsites before traveling to the park. Once they reach the park, parties with fewer than 7 people receive backcountry/wilderness permits to camp in the campground of their choice, regardless of campsite availability. People are limited in where they can camp outside designated campsites to protect sensitive wildlife, habitats, and cultural areas. In general, visitor freedom and flexibility has been maximized over management of visitor distribution to efficiently use camping space. As discussed under “Campground Crowding” above, this campground management approach can lead to crowding that affects visitors’ experiences of solitude.

Groups from the same organization are not able to camp in the same campground at the same time. If a group exceeds 10 people, they must split into 2 parties, each independent and traveling on separate itineraries. Organizations may not have more than 20 people camping on the island at one time. There currently are no size limits placed on any day trips, whether they occur in developed areas of the park or in the wilderness and backcountry.

Commercial Services. The NPS maintains contracts with private businesses and organizations, managed through concessions contracts and commercial use authorizations, to provide public services to park visitors. Most commercial services occur outside the wilderness, including ferries and seaplanes that provide transportation to the island for visitors not traveling by private boat or plane; water taxis around the island; fishing and dive charters; boat tours; and canoe, kayak and boat rentals. The only commercial services within the wilderness are guided recreational trips. Approximately, 1.5% of visitors participated in the charters, tours, and guided trips over the past few years (2013 and 2014) (Bickings 2015).

Other Features of Value

The Wilderness Act also provides for protection of “ecological, geological, or other features of scientific, educational, scenic, or historical value” that contribute to wilderness character. Given that Isle Royale is predominantly wilderness, it is worth highlighting an additional element that contributes to the park’s wilderness character: historic and cultural features. Historic and cultural features and associated scenic values that the Wilderness Stewardship Plan could affect are described in detail under “Cultural Resources” below as they relate to wilderness character. As noted in chapter 1, the wilderness management actions analyzed in this EIS are not expected to affect archeological resources or ethnographic resources in wilderness; therefore, these resource topics are not discussed further.

Prior to the creation of the national park, Isle Royale was frequented by many despite the difficulties of traveling to the island. These visitors included precontact and historic hunters, fishermen, and copper miners; lumbermen; lighthouse keepers; summer vacationers; and commercial fishers. Evidence of human use and interactions between humans and the natural environment, including the complex influences each has had on the other, is well-preserved on Isle Royale and can range from subtle indications of cultural uses or alterations of the natural landscape. Examples of precontact and historic human uses and environmental interactions remain intact in many locations in the park, including the structures and installations discussed under “Cultural Resources,” below. The park’s cultural resources in wilderness illustrate the difficulties of life on the island, human use of resources on the island, the adaptation of human visitors and residents to the maritime environment, and the fleeting nature of human intervention in wild lands.

Appropriate scientific activities will continue to be permitted in accordance with an approved MRA; therefore, this quality is preserved and is not described further in this document. No additional ecological, geological, or other educational features (previously addressed) contribute to the wilderness character in this park, or there would be no measurable change to these features.

CULTURAL RESOURCES

Historic Structures and Associated Districts and Landscapes

Recreational Resorts and Cottages

Beginning in the late 1890s, Isle Royale attracted a growing number of visitors seeking recreational opportunities. Through the 1910s and 1920s, several resort communities were established in the Rock Harbor region, at Tobin Harbor and Belle Isle, and on Washington Island. These communities were characterized by a diverse array of structures, including lodges, dining halls, rental cabins, auxiliary cabins and sheds, generator shacks, post offices, and docks. Although most of these early resort complexes are gone, some standing structures and associated archeological features remain. Between the 1940s and the 1980s, the NPS removed a large number of structures associated with recreational resorts, cabins, commercial fisheries, and logging operations, including most of the resort structures at Belle Isle, along with more than half of the structures in Tobin Harbor. Commercial fishing complexes were also removed at Hay Bay, Anderson (Tobin Harbor), Washington Island, Grace Island, Booth Island, and portions of Birch Island. The structures were not considered historic properties at the time of their removal (primarily in the 1950s), and most were in disuse or had been abandoned for an extended period. Some structures, including several backcountry ranger cabins, were also removed after designation of the Isle Royale Wilderness in 1976. The NPS undertook the first inventory of historic structures in accordance with the National Historic Preservation Act in 1976. Many of the island’s existing recreational cottages are linked to the resort era, as resort visitors became aware of land opportunities and opted for more private summer retreats. Approximately half of the cabins were removed after park establishment,

with most of the remaining cabins held under prior life-lease agreements that allowed for continued private use for specified periods.

Tobin Harbor. The Tobin Harbor Historic District is located at the northern end of the narrow harbor and contains a collection of structures and landscape features associated with a commercial fishery, tourist resort, and 14 seasonal camps. The historic district is important as a rare surviving example of a recreational enclave in the North Woods region of Minnesota, Wisconsin, and Michigan. It is listed on the National Register and significant at the national level. Tobin Harbor is not only a rare surviving property-type with high integrity, but it is also important for its ability to represent a distinct regional context within the national pattern of recreation. The majority of the properties considered similar to Tobin Harbor continued to experience incremental changes into the modern era, which resulted in a gradual loss of integrity. What distinguishes Tobin Harbor is its high level of historic authenticity.

The Tobin Harbor Historic District is significant under National Register Criterion A in the area of Entertainment/Recreation for its association with the emergence of tourism in the North Woods region of the Great Lakes in the late 19th and early 20th centuries. The historic district is also significant under National Register Criterion A in the area of Conservation for its association with the Isle Royale Protective Association. For more than 20 years, the organization served as an important advocate for the protection and preservation of Isle Royale. It lobbied to bring the vast corporate land-holdings on Isle Royale into public ownership and became an important champion for the creation of the park.

The historic district is also significant under National Register Criterion C in the area of Architecture for its distinctive architectural expressions that reflect the design of recreational properties during the first half of the 20th century. The architecture represents vernacular traditions that developed in the remote wilderness setting of Isle Royale. The structures are notable for the simplicity of their construction, the variety of their designs, and the strong contrast with their urban counterparts. Moreover, the district is significant under National Register Criterion C in the area of Landscape Architecture. Tobin Harbor represents a distinctive example of a vernacular landscape in a remote wilderness area of the North Woods/Great Lakes region. The sheltered harbor was a logical location for commercial fisheries and recreational properties because of the protection it afforded. The topography and vegetation shaped the selection of building sites and determined circulation patterns. Structures were sited atop cliffs or along hillsides or positioned strategically on islands to afford the best views and vistas, yet they were generally placed sensitively within the existing landscape with little manipulation of the wilderness setting.

Resorts. A single historic cabin associated with the Minong Lodge remains standing, 1 of approximately 35 structures that once stood at the site in 1935. Following its purchase by the park, the cabin was retained to house Passage Island Lighthouse staff during visits to the main island. This use ended after the Passage Island light was automated in the 1970s. The structure is currently in disrepair, and preservation needs are numerous. The location was originally developed as a resort by Gust Mattson in 1902. Mattson, associated with the adjacent fishery across the harbor, opened the lodge to augment his income from fishing. The location was sold a few times and was managed by Grace Smith at the time of park establishment.

Recreational Cottages. There are currently 40 historic summer cottage structures at 13 locations in Tobin Harbor. This number represents about one-third of the original total; most were removed following federal purchase. Most remaining structures are in good condition, primarily a result of continued use and maintenance through original life-lease agreements and subsequent special use permits. Some of the 1977 special use permits remain valid, and the lessees and their descendants perform maintenance. In cases where special use agreements have expired, park volunteers, including descendants of former leaseholders and parties with no former attachments, take care of maintenance.

The physical condition of the resort “camps” landscape is fair overall, and the landscape remains much as it did during its period of significance of 1900 to 1939. The vernacular landscape continues to demonstrate the community established through the private camps and lodge and the aspects of remote life by maintaining the majority of the landscape characteristics. Circulation and structures are contributing landscape characteristics, while the natural systems and features, land use, cluster arrangement, and views and vistas contribute to the feeling and setting of the historic district (NPS 2011b).

Many of the Tobin Harbor camps retain their original outbuildings and other associated structures, and although additions and repairs have been made over the decades, eight properties retain a high degree of integrity: the Snell Camp, Siefert Camp, Connolly Camp, Kemmer Camp, Beard Camp, Edwards Camp, Merritt Camp, and the Stack/Wolbrink Camp. In addition, four Tobin Harbor properties retain medium integrity: the Gale Camp, the How Camp, the Dassler Camp, and the Mattson Fishery. Significant properties that are now in a ruined state include the Savage Camp and Minong Lodge. Collectively, these properties exist as a historic district that retains a high integrity and expresses a continuum of use that began during the early 20th century. Although some of the associated families no longer return, 10 camps are still used through Volunteers-In-Parks agreements or special use permits by descendants of life-leaseholders during the summer. Several of the Tobin Harbor camps represent the families that advocated the Isle Royale National Park movement and formed the Isle Royale Protective Association in the early 1930s. Involved supporters included the Merritt, Connolly, Siefert, Smith, and Edwards families, among many others (NPS 2011b).

Changes that have occurred since the period of significance are mostly associated with deterioration due to neglected maintenance and the extreme winter climate. Vegetative cover on the islands may also be denser than it was historically. Properties such as the Minong Lodge and Savage Camp have been ruined due to a combination of historically adversarial park management policies and neglect. Two Mattson Fishery structures have caved in while two others were disassembled before they fell into the harbor. The other properties have generally fared better and retain the essence of their historic characteristics. The Tobin Harbor Historic District retains integrity as a historic vernacular landscape. Collectively, the resort camps exhibit the seven aspects of integrity as defined by the National Register including location, design, materials, workmanship, setting, feeling, and association (NPS 2011b).

Crystal Cove. The Crystal Cove Megeath Historic District is located on the northeast tip of Amygdaloid Island and near the northeast end of Isle Royale. The complex consists of the original Megeath Cabin, the main lodge, two guest cabins, a storage shed, and a generator house. George Megeath lived in Omaha, Nebraska, and presided over the Sheridan Coal Company. The Megeath compound was determined eligible for the National Register at a local level of significance (MI SHPO 2013). Its period of significance spans 1920 when construction began until 1939, when John Nixon, the subsequent owner, sold the property to the NPS.

Crystal Cove is significant under Criterion A in the area of Entertainment/Recreation for its role in the early 20th century tourism movement on Isle Royale as a private resort complex. It is also significant under Criterion C because it represents an excellent example of Rustic Architecture. George Megeath’s wealth is evident by the quantity and quality of building materials brought to both Crystal Cove and Captain Kidd. The historic log structures, considered to have been built by Emil Anderson, display a superior level of craftsmanship. The peeled logs are tightly joined with saddle notching and quarter round chinking.

The district is equally significant under Criterion C in the area of Landscape Architecture. It contributes to the quality of wilderness character because of the relationship of the structures to the landscape. The natural setting is characterized by the rocky promontory of Amygdaloid Island, crowned with stands of

balsam fir. The log construction of the structures and uncoursed stone chimneys reflect aspects of the natural surroundings; the structures are immersed within the environment rather than imposed upon it. The complex of structures along a sheltered cove on a remote island conveys an obvious association with Isle Royale's resort era. The physical isolation and wilderness character of Isle Royale that would have compelled Megeath to build a retreat remain unimpaired.

Captain Kidd. The Captain Kidd Historic District is located on the northeastern tip of Captain Kidd Island to the northwest of the northeastern portion of Isle Royale in a small sheltered cove on the eastern side. The complex consists of the McPherrren Cabin, Sleeping Cabin #1 (1920), Sleeping Cabin #2 (1922), Sleeping Cabin #3, Boat House, Bath House (1920), Tool Shed (1915), and Flag Pole. The Captain Kidd compound was determined eligible for the National Register at a local level of significance. Its period of significance spans 1920 when George Megeath began construction in conjunction with Crystal Cove until the 1940 acquisition by the NPS.

Captain Kidd is significant at a local level under Criterion A in the area of Entertainment/Recreation for its role in the early 20th century recreation movement on Isle Royale as a private resort complex. It is also significant under Criterion C because it represents Rustic Architecture integrated into island vernacular. Local fisherman Emil Anderson built the 1915–1922 structures to house the employees who served the George Megeath family at nearby Crystal Cove. The district, in its supporting role to Crystal Cove, was not as highly designed and far more basic and utilitarian. Yet these earlier log structures display a superior level of craftsmanship than the later structures. The peeled logs are tightly joined with saddle notching and quarter round chinking. The dimensional uniformity of the selected logs is quite striking and implies that they were ordered to specification and shipped to the site rather than felled locally.

Wayne McPherrren purchased the property in 1934. The McPherrrens followed the Rustic style in the construction of their main cottage, although the craftsmanship is not quite equal to Anderson's. Similar to other island communities, Isle Royale occupants frequently constructed their structures of recycled materials, whether using timber from an old boat or another structure. Often, the structures were relocated from camp to camp and island to island in their entirety. Thus, many of the camps display vernacular styles subject to what construction materials were on hand or could be repurposed. In this manner, the McPherrrens acquired a sleeping cabin and the bath house from Crystal Cove, and another sleeping cabin from Clay Island. Like Crystal Cove, the Captain Kidd complex is located in the more isolated eastern side of the Isle Royale wilderness.

Folk and Commercial Fisheries

For a century, from the 1830s until the establishment of the park, Isle Royale was a base for numerous commercial fishing interests. The largest operation was undertaken in the 1830s by the American Fur Company, which had fishing posts at Checker Point, Card Point, Belle Isle, and Rock Harbor. The American Fur Company left the island within a decade, but in the years that followed, many smaller outfits took root in the sheltered bays and harbors scattered island wide. These sites include several in wilderness, including Johnson Island, Fisherman's Home, and Wright Island. Many feature intact structures (fish houses, net houses, and cabins), docks, and boats.

Fisherman's Home. Fisherman's Home Historic District is located on Houghton Point near the southwest end of the park. The park covers approximately 2 acres of a small peninsula between a sheltered inlet and Lake Superior. It retains a high degree of historic integrity as a representative commercial fishery complex. The site contains a collection of associated structures and objects: the Rude Guest Cabin, Rude Cabin, Rude Privy, Rude Storeroom, Tool Shed, Rude Smoker, Help's Quarters#1, Help's Quarters #2, Rude Fish House, Rude Net House, and dry-laid stone wall. The period of significance spans the era of commercial fishing at Isle Royale from 1890 to 1955.

The fishery complex is eligible for the National Register at a state level of significance. It presents one of the best examples of a remote fishery and is eligible for the National Register under Criterion A, in the area of Ethnic Heritage/Commerce for its association with Isle Royale's commercial fishing history. The development of commercial fishing on Lake Superior coincided with the growth of the fur trade, which led to large-scale fishing operations on Isle Royale by 1837. The fishing industry on Isle Royale grew into the 20th century as transportation and shipping advanced. Technologies such as refrigeration, gas-powered boats, and new netting materials spurred a peak in fishing between 1915 and 1925. During that time, more than 200 people were involved with seasonally based commercial fisheries on Isle Royale. Beginning in the 1890s, Fisherman's Home was developed and operated by the Seglem family and served various crews of seasonal commercial fishermen. Sam and Elaine Rude moved to the site in 1937 and fished with Sam's father Andrew Rude until 1944, when Sam took over the operation.

The district is also eligible for the National Register under Criterion C, in the area of Architecture and Landscape Architecture. Fisherman's Home structures are all vernacular single-story, wood frame, gabled structures typical of the island's fisheries. Most of the structures are sheathed in vertical board, but many are covered with asphalt roll or building paper and held down with battens.

The Fisherman's Home complex contributes to the historical value of wilderness character because of its relationship to the landscape; the structures are immersed within the environment rather than imposed upon it. Fisherman's Home is noted for its isolated location. Situated on a narrow peninsula along the outer edge of Houghton Point, the landscape affords two very striking views. To the northwest, beyond the narrow breadth of Seglem's Harbor, is the tree-covered face of a steep and rocky ridgeline. To the southeast is the vast expanse of Lake Superior. The shoreline features large sandstone outcrops and stands of pine. Because neither view appears to have been overtly altered by human impact, both views exhibit a timeless quality that greatly contributes to the historic "feel" of the cultural landscape.

Fisheries are a fundamental category of cultural resources related to the park's purpose. The Isle Royale CRMP/EA recommends a Multiple Property National Historic Landmark evaluation of the park's fisheries, and Fisherman's Home will be included in this.

Johnson Fishery, Chippewa Harbor. Chippewa Harbor has been the site of commercial fisheries since the 1880s. The first fisherman to set up here was Godfrey Vodrey. Sam Johnson and his nephew Holger Johnson eventually fished here. The latter took residence about 1910 and fished into the 1950s. He operated a small resort in the 1930s. By 1940, at least 16 structures were present in Chippewa Harbor. Today only one structure remains standing; the others were removed after the Johnson family stopped fishing in the late-1950s. The single structure, having lost its context with the remainder of the fishery complex, is not eligible for the National Register, but as a historic fishery, is a fundamental resource of the park.

Wright Island. Wright Island may have been used as a commercial fishery as early as the 1830s when the American Fur Company reportedly rendered fish oil on-site. More recently, it was occupied by Sam Johnson, who had fished elsewhere on the island. Sam's son-in-law, Ed Holte, eventually took over the operation and fished into the 1970s. At one time, the site had seven structures associated with 20th-century fishing activities. Today two structures remain, the main residence and part of a separate residence structure. Both are in poor condition after numerous years of disuse but are still considered eligible for inclusion in the National Register as a fishery resource. Many of the other structures were removed over the years as they fell into disrepair.

Johns Island. The Johns Island location near the mouth of Washington Harbor is associated with the original Johns Bros. Fishery on today's Barnum Island. Four structures remain on the site, one of which is considered historic and eligible for inclusion in the National Register as a fishery resource associated with

the Johns Fishery on Barnum Island. The Johns Cabin was constructed to store boats during the winter. It served as an intermittent residence during the summer and was eventually repurposed as a residence after the Johns family ceased fishing operations. Three additional modern structures (a cabin, shed, and privy) are present on the site. The oldest of these was built ca. 1980. The historic Johns Cabin is in fair condition, and preservation maintenance is performed by family descendants under a Volunteers-In-Parks agreement. The cottage's appearance is marred by the immediately adjacent modern cabin structure, which features an enclosed dogtrot that connects the two structures.

Bangsund Fishery (Wolf/Moose Research Base). The Bangsund complex was originally established in the mid-1920s by brothers Jack and Bill Bangsund and was used as a fishery until the mid-1950s. In the late 1950s the location was reoccupied by researchers associated with the wolf/moose project. Since then, the complex has served as a residence and outdoor laboratory for Michigan Technological University research activities associated with the project. The complex now features a co-mingling of old and modern structures and installations, the former being in good condition. Although the older fishery structures have been determined ineligible for inclusion in the National Register, the park is considering a reevaluation of their integrity in relation to the wolf/moose research project, which itself is more than 50 years old.

Fire Towers

More recent historic structures include the three fire towers, all of which were erected during the NPS Mission 66 initiative. The Feldtmann, Ishpeming, and Mount Ojibway Fire Towers are located along the Greenstone and Feldtmann ridgelines and were constructed in the early 1960s to replace earlier wooden versions erected by the Civilian Conservation Corps. Each tower is constructed of galvanized metal framing with an enclosed watch room/residence at the peak. The Feldtmann and Mount Ojibway Fire Towers are approximately 50 feet tall; manned service was discontinued in the mid-1980s. The Ojibway Fire Tower is now used as the park's communications repeater with a modest array of antennae and research equipment mounted above and below. All towers are in good condition; each was effectively mothballed following conclusion of fire watches. The Ishpeming Fire Tower is approximately half the height of the Mount Ojibway and Feldtmann Towers and is now well below the surrounding forest canopy. Administrative use of this structure is limited as of 2022 to a modest radio repeater that fills in communication gaps around the central portion of the island. The Ishpeming and New Feldtmann Fire Towers were formally listed in the National Register on January 5, 2021, and the Ojibway Fire Tower was listed in the National Register on April 9, 2021, as part of the Isle Royale National Park Fire Towers multiple property submission (NPS 2021a,b,c).

Mining Structures

A single historic structure associated with the mining era, the Senter Point Powder House, still stands at the western end of Siskiwit Bay. It is a ruin that contributes to the overall integrity and historic significance of the larger archeological mining landscape.

Other Historic Structures and Installations

The following isolated structures are not part of larger districts or complexes and are in need of more formal National Register eligibility evaluations:

Moose Enclosures. Four separate moose enclosures were installed in the 1950s and are used intermittently for research. They are located in the vicinity of campgrounds at Siskiwit Bay, Daisy Farm, and Windigo. Each is historic and comprises a 50-foot by 50-foot fenced enclosure that prevents browsing of enclosed vegetation. Natural resource staff maintain the wilderness-based enclosures; maintenance

consists of occasional post replacement, vegetation clearing, and fencing repair. The moose enclosures are considered historic until a formal evaluation is possible.

Siskiwit River Bridge. The Siskiwit River Bridge is an artifact of the Mission 66 era (over 50 years) and spans a narrow stretch of its namesake river a few hundred meters inland from where it empties into Siskiwit Bay. The bridge is a modest construction, comprising cylindrical steel pilings with an upper structure of wood and steel tubing. The design does not appear to follow any of the more notable Mission 66 characteristics. It is now nearing the end of its useful life. The bridge is still in need of a formal evaluation of its eligibility for the National Register. Until this occurs, the bridge is considered historic.

Navigational Aids

There are two navigational aids previously owned by the US Coast Guard, one at Chippewa Harbor and one at Saginaw Point. These aids are necessary for safe navigation into Chippewa Harbor and around Saginaw Point. They are over 50 years old and need evaluation to determine whether they are significant.

Climate Change Considerations for Cultural Resources

NPS's Cultural Resources Climate Change Strategy establishes goals to preserve and maintain cultural resources as the climate continues to warm. Climate change may affect cultural resources of Isle Royale in numerous ways. Temperature changes that lead to warmer, longer summers would expand the territory of invasive species/pests such as termites that can cause significant damage to wooden structures. Changes in seasonality and phenology from changes in temperature may lead to increased growth of invasive vegetation in wilderness areas as a result of longer growing seasons. Increased precipitation and/or heavier precipitation may cause swelling/distortion of wooden building materials and architecture features from wetness and damp, increased risk of rot and fungal/insect attack, increased rates of deterioration from frost events in cold regions that were formerly dry, and erosion of supporting ground around structures. Finally, sea level rise may cause submersion/flooding of coastal sites due to increased flooding events. NPS actions that respond to potential climate change impacts include the actions described in the 2013 *Using Climate Change Scenarios to Explore Management at Isle Royale National Park Workshop Report* (NPS 2013b).

This page intentionally left blank.

CHAPTER 4: ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This “Environmental Consequences” chapter analyzes the beneficial and adverse impacts that would result from implementation of any of the alternatives considered in this EIS. The resource topics presented in this chapter correspond to the descriptions of existing conditions in “Chapter 3: Affected Environment.”

GENERAL METHODOLOGY FOR ASSESSING IMPACTS

The following analysis evaluates direct, indirect, and cumulative impacts on the human environment, such as physical, natural, and cultural resources, from the proposed alternatives in the EIS. The approach includes focusing the analysis to the greatest extent possible on management changes and associated issues that could have meaningful impacts on the resources or values being evaluated. It also includes using general analysis methods and assumptions that follow CEQ and US Department of the Interior regulations and guidance. The potential for significant impacts from wilderness management activities are assessed and described in each resource topic, as applicable.

CUMULATIVE IMPACTS

CEQ regulations for implementing NEPA require the assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as “the impact on the environment which results from the incremental impacts of the action when added to the other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such actions” (40 CFR 1508.1(g)(3)). Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

Cumulative impacts were determined by combining the impacts of each alternative with the impacts of other past, present, and reasonably foreseeable future actions in the analysis area and, if applicable, the surrounding region. Past actions are those that occurred or have been occurring, and reasonably foreseeable future projects are those that are likely to occurring in the future. Following the CEQ guidance, past actions were included, “to the extent that they are relevant and useful in analyzing whether the reasonably foreseeable effects of the agency proposal for the actions and its alternatives may have a continuing, additive, and significant relationship to those effects” (CEQ 2005). The effects of planned actions affecting each resource are included in the affected environment under the appropriate resource category along with the resource trend where applicable.

WILDERNESS CHARACTER

The focus of the wilderness impact analysis is on changes to wilderness character, specifically to the natural, untrammeled, undeveloped, and opportunities for solitude or primitive and unconfined recreation qualities and other features that would result from the alternatives (Landres et al. 2015). Potential impacts on wilderness were evaluated qualitatively, based on best professional judgment of park, region, and NPS Washington Office Wilderness program staff. The baseline conditions of wilderness character for the park potentially affected by the alternatives are described in chapter 3. Alternatives are evaluated against these baseline conditions to determine the changes to each wilderness quality expected under each alternative.

There are five qualities of wilderness character: untrammeled, natural, undeveloped, opportunities for solitude or primitive and unconfined recreation, and other features of value. The qualities are defined in

chapter 1 and further described in chapter 3. The untrammelled wilderness quality is not discussed further, as noted in chapters 1 and 3, because the proposed action is not intended to and would not have the effect of controlling or manipulating ecological processes or components in wilderness.

Alternative A: No Action (Implement the General Management Plan as Currently Written)

Natural

The Isle Royale wilderness currently displays minimal effects of modern civilization on its ecological systems and their biological and physical components. Two metrics used to illustrate potential effects and changes to the current condition are campsite condition and other actions with the potential to affect vegetation and soils. Other potential effects to this quality follow these two metrics.

Camp Site Condition. The sizes of existing campsites are expected to continue to increase and expand from repeated use, resulting in localized vegetation that crushes and compacts soil. Designated campsites contribute adversely and beneficially to the natural quality of wilderness. The natural quality becomes degraded in designated camping areas as a result of repeated use; however, the degradation is focused in those areas and not wilderness-wide, allowing much of the wilderness to retain its natural quality. Other actions associated with the implementation of the GMP that would affect campsite condition include the continued use of 20 camping shelters in wilderness and the creation of new campgrounds. These shelters would continue to be used in some camping areas and would be addressed in an MRA to show that they are the minimum necessary requirement and their continued use considers wilderness qualities. Visitors using shelters generally do not set up tents or camping apparatus outside the shelter, thereby confining and limiting impacts, which benefits nearby soils and vegetation and enhances the natural quality of wilderness in these areas. The creation of new campgrounds at Crystal Cove, Fisherman's Home, Wright Island, and a new group campsite at Belle Isle would detract from the natural quality in localized areas at these sites by removing vegetation, compacting soils, and otherwise manipulating the natural environment. Existing privies would be maintained, and continued implementation of Leave No Trace principles would prevent impacts to the natural quality by reducing the potential for spread of contamination.

Other Actions. The removal of the Indian Portage Trail between the south and east end of Lake Richie, and the prohibition of new trails in wilderness would enhance the natural quality of wilderness by reducing and avoiding disturbance to soils and vegetation. Periodic, temporary closures to visitors in some areas of the park would continue to avoid wolf-human interactions and benefit the natural quality. Additionally, maintaining the annual winter closure under this alternative would continue to benefit the natural quality by removing most human presence from Isle Royale and reducing unintended effects on wildlife, including disruptions of natural behaviors, during the winter.

Clearing vegetation around installations, historic structures, and cemeteries, and hazard tree removal would have a direct, adverse impact on the natural quality in these localized areas by disturbing and removing the natural vegetation. While some vegetation would be allowed to reestablish in these areas following clearing, this management activity would prevent establishment of woody vegetation in these areas, resulting in an adverse impact to the natural quality of wilderness over the life of this plan.

Undeveloped

Developments. Under this alternative, the NPS would continue to maintain existing administrative structures and installations and about 100 historic structures and installations (see table 1 in chapter 2) in Isle Royale's wilderness, which detract from the undeveloped quality of wilderness. The presence of

installations and structures would continue to degrade the undeveloped quality of wilderness because they are a noticeable imprint of human work within wilderness. These developments are improvements and are sights and sounds of modern human habitation from the past and present.

Public use and access to historic structures would continue as described under alternative A in chapter 2. Day and overnight use of many of these structures would contribute to the degradation of the undeveloped quality as a result of human occupation. These developments and occupation would result in an adverse impact to this quality over the life of this plan because under this alternative, these structures would remain an imprint of “human’s work” within wilderness.

The removal of the boat dock at Duncan Bay would have a slight benefit to the undeveloped quality in this area of the wilderness. Although the park’s boat docks are not located in wilderness, they do provide access for visitors and park staff to other developed areas within the wilderness, contributing to the degradation of this quality.

There would be no changes in the use of motorized and mechanized equipment, including chainsaws, wheelbarrows, and generators, under alternative A. The use of mechanized equipment detracts from wilderness character by drawing attention to the imprint of human management. These activities detract from the undeveloped quality, though these activities generally occur during low visitation periods.

Opportunities for Solitude or Primitive and Unconfined Recreation

Solitude

GMP management zones, encounters with other people on trails and in campgrounds, and noise are the metrics used to assess impacts to solitude. Trends, visitation numbers, numbers of people in groups, and activities sought by visitors are not expected to change greatly over the life of this plan.

GMP Management Zones. The existing GMP zones, as designated in the 1998 GMP (shown on figures 4 and 5 in chapter 2) would remain the same. All zoning within designated and potential wilderness areas would stay the same under this alternative, resulting in no new effects on visitor expectations for solitude.

Encounters on Trails. In wilderness, with the removal of the Indian Portage Trail, the NPS would continue to maintain approximately 164 miles of trails, boardwalks, and bridges. The 1998 GMP notes that removal of the approximately 1-mile-long segment of the Indian Portage Trail would “relieve use pressure in the area, separate uses, and protect area archaeological resources” (NPS 1998). Removal of this trail segment would reduce crowding in this area and result in benefits to solitude in wilderness over the life of this plan.

Under alternative A, the NPS would continue to manage group size consistent with the past, resulting in no change from current conditions for opportunities for solitude. Visitors may encounter other groups, regardless of where they are in the park. Visitation has been increasing in recent years, which is expected to result in higher trail encounters with larger day use groups particularly near the east and west ends of the island and near docks. Increased visitation would result in an adverse impact on the opportunity for solitude. The lack of day use group size limits provides no predictability on where a visitor could go to avoid large numbers of visitors. Commercial guided trips may also contribute to the chance that visitors encounter other groups. Therefore, the current lack of restriction on day use group size for private groups and commercial trips would detract from the opportunity for solitude in wilderness.

Administrative uses of historic structures increase the likelihood of encountering NPS staff, volunteers, researchers, and other users in the areas near these structures. These encounters have an adverse impact

on solitude in these areas. Three National Register-listed fire towers are visible from many locations within wilderness and attract visitors, resulting in a degraded sense of solitude. The many other structures and installations in Isle Royale's wilderness also detract from the opportunity for solitude because these structures attract visitors or are occupied, and wilderness visitors would continue to encounter people at these structures.

Encounters in Campgrounds. The NPS would continue to maintain 27 campgrounds in wilderness. Overall, overcrowding at existing campgrounds would continue. The construction of new campgrounds would reduce congestion in some existing campgrounds and would slightly enhance solitude at other campgrounds and potentially on trails because visitors would be more widely dispersed across the park. Cross-country camping would continue to provide the best opportunity for solitude by separating users and reducing the chance of encounters with other visitors. Maintenance of these campgrounds increases the likelihood of encountering NPS staff and would result in an adverse impact on solitude in these areas.

The overcrowding conditions at boat docks and nearby campgrounds would remain and would continue to have an adverse impact on solitude. Removal of the boat dock and shelters at Duncan Bay under this alternative may contribute to crowding at other docks and campgrounds.

Noise. The sources of noise from within and outside wilderness are not expected to change under alternative A. Therefore, impacts on solitude from human-made noise from human voices, motorized machinery, motorboats, aircraft, and generators at docks would continue to be adverse over the life of this plan where human noise is audible over natural sounds.

Primitive and Unconfined Recreation

Developments. Recreational developments and the maintenance of these developments in the form of campgrounds and designated campsites, privies, picnic tables, fire rings, shelters, trails, and bridges detract from the opportunity for unconfined recreation. These developments decrease the challenge and self-reliance needed for hiking and camping in this environment. New campgrounds proposed under alternative A in accordance with the GMP would further degrade unconfined recreation by limiting self-reliance and self-discovery. Cross-country camping access would continue to provide the greatest unconfined recreational opportunity and promote self-reliance, self-discovery, and a physical and mental challenge. Removing the dock and shelters at Duncan Bay, eliminating trails, and prohibiting new trails would benefit the opportunity for unconfined recreation in these areas.

The many other structures and cabins in wilderness would continue to detract from the opportunity for unconfined recreation. Boat docks, outside wilderness, would continue to detract from the opportunity for unconfined recreation due to the easy access that they provide to wilderness areas.

Restrictions. Regulations that limit human activities include fire bans, group size limits, prohibitions on collecting plants and minerals, and area and winter closures. These regulations would degrade the opportunity for primitive and unconfined recreation by decreasing the opportunity for challenge and self-reliance. Under alternative A, the annual winter closure would continue, and the opportunity for visitors to experience increased solitude, challenge, and need for self-reliance would continue to be restricted.

Commercial Services. Guided recreational trips would continue to be allowed within the wilderness. Wilderness managers would conduct an extent necessary determination prior to authorizing any commercial services in Isle Royale wilderness. Although guided trips support wilderness recreational opportunities, these guided trips would degrade the opportunity for primitive and unconfined recreation

by decreasing the challenge and self-reliance, although this impact would be minimal since guided groups do not overnight in wilderness.

Other Features of Value

Historic Structures and Districts and their Associated Cultural Landscapes. In instances where historic structures and installations are preserved, these structures and districts would continue to contribute to the story of human and natural interactions in wilderness at Isle Royale and therefore benefit “Other Features of Value.”

Under alternative A, the park would continue current preservation activities for historic structures when funding, partnerships, and resources are available. No formal priority or treatments would be established for historic structures. The lack of a formal program to preserve and maintain historic structures would increase the likelihood that historic structures that contribute to Isle Royale’s wilderness character would deteriorate. Where preservation is no longer possible for structures that exhibit advanced stages of deterioration, historic structures would be allowed to further deteriorate and be reclaimed by natural processes. The remains of these structures would likely persist on the landscape for indefinite periods and could serve as discovery sites for future visitors to experience the history of the site. The remains of historic structures could benefit this quality, although the eventual loss of these resources would result in a permanent, adverse impact to wilderness character because these structures would no longer be present on the landscape to convey historic values of Isle Royale’s wilderness associated with habitation of the island by people of European descent.

Cumulative Impacts

Past, present, and reasonably foreseeable future actions with the potential to have cumulative impacts with alternative A include the ongoing implementation of the current Fire Management Plan; ongoing management of invasive species at the park; the final plan to address the presence of wolves; noise generated by seaplanes, generators, and other motorized equipment; closure of abandoned mines; and past management of cultural resources, including the removal of historic structures, as well as ongoing preservation maintenance for selected historic properties in wilderness. These ongoing and planned projects are described in the “Affected Environment” section.

Under the current Fire Management Plan (NPS 2004), most naturally ignited fires are allowed to burn as a part of this dynamic system. Prescribed burns are sometimes used to accomplish vegetation management objectives, and most human-caused fires are suppressed. The use of prescribed burns and suppression of human-made fires would continue to have a beneficial impact on the natural quality of the wilderness but would continue to degrade the untrammeled quality. The use of mechanized equipment in the suppression of fires would continue to result in an adverse impact on the undeveloped quality of wilderness. Areas or campgrounds may be temporarily closed due to fire, which would result in an adverse impact to opportunities for primitive and unconfined recreation.

Actions to address invasive plants are typically concentrated in disturbed areas such as trails and campgrounds. Actions include physical removal and chemical applications. In addition, vegetation is managed and monitored through the installation of research installations to study the impact of herbivory on Isle Royale’s vegetation communities. These actions would continue to have a beneficial effect on the natural quality and contribute to the degradation of the untrammeled and undeveloped qualities of Isle Royale wilderness. These actions may result in minimal, adverse impacts on solitude due to encounters with park staff; however, these actions are not expected to have any noticeable effects on the primitive and unconfined quality of wilderness or the scenic values or historic structures.

The plan to address the presence of wolves began implementation in 2018 and has affected wilderness character. Human manipulation and intervention resulting from the introduction of wolves detracts from the untrammelled quality but continues to benefit the natural quality. This action restored ecological functions on the island to a set of natural conditions more heavily influenced by an apex predator. The selected alternative has resulted in minimal impacts to the undeveloped quality and solitude through the use of radio collars and occasional use of helicopters, fixed-winged aircraft, snowmobiles, or boats for management activities. This plan is not expected to affect the primitive and unconfined quality of wilderness or the scenic quality or historic structures.

Past and ongoing wolf management activities include periodic closures, monitoring, and data collection. The closures have a short-term, beneficial effect on natural quality, reducing human and wolf interactions and an adverse impact on the unconfined qualities through additional restrictions on visitors. Monitoring and data collection activities could involve motorized vehicles and mechanized equipment or installations in the wilderness, which would result in an adverse impact to the undeveloped quality and solitude.

The use of motorized equipment and mechanical transport in wilderness is restricted to the minimum requirement for the administration of wilderness, and the park limits the use of seaplanes, generators, and boat motors to reduce noise impacts in wilderness as discussed in chapter 3 under “Wilderness Character.” However, noise from mechanical sources may still affect visitors’ experience of solitude in wilderness when equipment and transport vehicles are in use; these impacts are expected to continue in the future. Depending on weather conditions, the amount of screening provided by hills or trees, and other factors, noise from mechanical sources may penetrate well into the island’s wilderness.

The NPS is actively closing abandoned mine shafts at Isle Royale. As of February 2023, the NPS has closed 5 abandoned mine shafts and plans to close at least an additional 13 mine shafts. While many of these mine shafts are in remote areas of wilderness, fencing and warning signs have been installed at mine shafts in proximity to trails. Mine shafts and associated structures and installations, including fencing and signage, constitute developments in wilderness and degrade the undeveloped quality of wilderness character. Closure of abandoned mine shafts likewise would result in impacts to the undeveloped quality of wilderness character while closure activities are occurring due to the use of mechanized equipment. These closures would have permanent, beneficial effects to the undeveloped quality once these activities are completed because the extent of development in wilderness to support defunct mining operations or protect human safety would be reduced.

Recreational resorts, cabins, commercial fisheries, and logging operations, including more than half the structures in Tobin Harbor, have been removed from wilderness. Structure removal has resulted in permanent, beneficial impacts on the undeveloped quality of wilderness character while also resulting in adverse impacts on other features of value, including historical and cultural features and associated scenic values. Past and ongoing preservation maintenance for selected historic properties (e.g., recreational cottages, fisheries) undertaken by the NPS and under cooperative agreements between the NPS and partners, concessioners, and volunteers has resulted in adverse impacts on the undeveloped quality of wilderness. However, historic structures contribute to and “tell” the story of the wilderness at Isle Royale, and maintenance of these structures results in beneficial effects on other features of value.

The Windigo Development Concept Plan includes new roads and trails, interpretative areas and exhibits, and other upgrades. Trails proposed as part of this plan are addressed in the earlier impacts assessment for the plan. Improving amenities at one of the primary entry areas of the park may increase day use, and additional camp cabins would increase overnight use in this area. This would have an indirect, adverse impact on solitude in the wilderness areas and trails around Windigo over the life of these facilities.

Beneficial and adverse impacts to the natural quality from fire management, wolf reintroduction, management of invasive species, and management of brook trout would continue; and short-term, adverse impacts on the undeveloped quality from fire management, wolf reintroduction, past and current wolf management activities, closure of abandoned mine shafts, and management of invasive species while management activities are occurring. Once work to close abandoned mine shafts is completed, these closures would have permanent, beneficial effects on the undeveloped quality of wilderness character. Fire management, wolf reintroduction, past and current wolf management activities, and management of invasive species would have short-term, adverse impacts on opportunities for solitude or primitive and unconfined recreation during management activities and temporary area closures. Planned projects and improvements at Windigo would have a permanent, adverse impact on solitude in the immediate area around Windigo, and continued use of seaplanes and mechanized equipment in areas in and outside wilderness would have adverse impacts on solitude in the park's wilderness during management activities. Fire management may have a minimal, adverse impact to scenic resources. Removal of historic structures in wilderness would result in permanent, beneficial impacts on the undeveloped quality of wilderness character with permanent, adverse impacts on other features of value, while ongoing maintenance of historic structures would result in beneficial effects on other features of value. Past and current wolf management activities would have beneficial effects on the natural quality. When the incremental impacts of alternative A are added to the past, present, and reasonably foreseeable future impacts, the overall cumulative impacts on wilderness would vary. The incremental impacts of alternative A would contribute noticeably to adverse impacts to the following qualities of wilderness: natural, undeveloped, opportunities for solitude and primitive and unconfined recreation, and other features of value.

Alternative B (Proposed Action and Preferred Alternative)

Impacts from management of installations, vegetation clearing, and management of public use in wilderness alternative elements would be the same as described under alternative A.

Natural

Camp Site Condition. The advance camping permitting requirements proposed under alternative B would benefit the natural quality because camping permits would not be issued beyond campground capacity. This restriction would ensure that campers do not camp outside designated campsites and expand impacts to soils and vegetation, therefore benefiting the natural quality of wilderness over the long term. Additionally, increasing group size would not have adverse impacts on the natural quality of wilderness because existing group campsites have the infrastructure to support larger groups, and allowing larger groups would not require additional development within campgrounds in wilderness. Reducing campground crowding may result in less social trailing at the campgrounds, resulting in beneficial impacts on the natural quality of wilderness near campgrounds over the life of this plan.

The establishment of new campsites, as opposed to new campgrounds, would allow the park to adapt to high use and high demand in certain areas without having to create new campgrounds, which would benefit the natural quality of wilderness by limiting impacts to vegetation and soils in wilderness areas that would otherwise be developed for campgrounds. Establishing new campgrounds at Wright Island and Johns Island would have an adverse impact on the natural quality in these areas of the park over the life of this plan from vegetation removal and soil compaction, although new campgrounds could relieve crowding at other campgrounds. Campers would be required pitch their tents on defined tent pads, which would avoid impacts on natural resources in the vicinity of these campgrounds.

Management of campfire rings by rotating the rings based on availability of down and dead wood would allow for the protection and regeneration of vegetation near campsites, resulting in beneficial impacts on

the natural quality of wilderness near campgrounds. Campground maintenance would benefit the natural quality of surrounding wilderness areas by minimizing the size of campsites through restoration of vegetation if campsite use extends beyond boundaries established by the park. Privies also confine human waste and reduce spread of contamination, resulting in a beneficial effect to the natural quality. The park would maintain privies in wilderness, as appropriate, for visitor and administrative use. As privies are repaired or replaced, the park may replace privies with designs that are less visible. Maintenance of privies that is necessary for health and safety and to limit environmental impacts from human waste would not result in adverse impacts to the natural quality.

Other Actions. Rerouted trails would benefit the natural quality by moving visitors away from sensitive resources, including nesting species, although the new trail alignment would detract from the natural quality of wilderness in that area. Creating new trail segments in Tobin Harbor, Windigo, on Minong Island, and formalizing the Bangsund Fishery Trail would add approximately 1.7 miles of new trail and degrade the natural quality of nearby wilderness as a result of changes to vegetation and soils from the establishment of a trail. The Bangsund Fishery Trail is already a social trail; therefore, additional degradation in this area would be minimal. The Indian Portage Trail would be retained under this alternative; therefore, the benefits to the natural quality that would occur with removal of this trail (as proposed under the no-action alternative) would not occur.

Removal of historic structures and restoration of natural vegetation at the sites of these structures would result in permanent, localized, beneficial impacts on the natural quality in these areas. Vegetation clearing around historic structures and installations that would be preserved under this alternative would continue to have a localized, adverse impact on the natural quality by removing vegetation.

Trail maintenance in trail zones and maintenance to keep social trails from forming would have a beneficial effect on the natural quality of wilderness. Under alternative B, trails would be rerouted to avoid the need for bridges, and existing bridges would be removed wherever possible, which would benefit the natural quality over the life of this plan.

Periodic, temporary closures to visitors in some areas of the park would continue to benefit the natural quality, while maintaining the annual winter closure under this alternative would continue to benefit the natural quality by removing most human presence from Isle Royale and reducing unintended effects on wildlife, including disruptions of natural behaviors, during the winter. Under alternative B, the park may reevaluate the winter closure if open water exists in Lake Superior during 100% of the winter season for at least five consecutive years. Opening the park to visitation during winter may have adverse impacts on the natural quality of wilderness over the life of this plan because human presence in wilderness could occur year-round and may result in unintended disruptions to wildlife, such as wolves and moose, including disruptions in behavior, during months when weather conditions may be harsh and food less abundant. In addition, human-caused changes in the landscape, such as compressed snow on walking paths, could change where and how wildlife move around the island.

Undeveloped

Developments. The park would remove bridges where trails can be rerouted to avoid the need for a bridge, benefiting the undeveloped quality of wilderness. Bridges would be relocated where relocation is necessary to protect a natural resource. If the relocation of any bridge would require the use of mechanized equipment, an MRA would be completed before taking action. Any bridge removal would result in a direct, permanent, beneficial effect to the undeveloped quality of wilderness.

Chainsaws would be used only when necessary and only on a minimal basis. The use of chainsaws to remove trees and other mechanized equipment for maintenance would detract from the undeveloped

quality, though chainsaw and other mechanized equipment use generally would occur during low visitation periods.

Under alternative B, 81 acres of PWAs would be converted to designated wilderness. PWAs already are managed as wilderness; however, conversion of PWAs may result in an indirect, permanent, beneficial impact to the undeveloped quality of wilderness if existing nonconforming uses are removed. If alternative B is selected, additional site-specific analysis would be completed to address the continuation or elimination of nonconforming uses as part of the conversion of PWAs to designated wilderness. Ongoing existing nonconforming uses in areas converted to designated wilderness would continue to degrade the undeveloped quality in these areas.

Relocation of the research activities at Bangsund Research Station to nonwilderness and removal of bridges park-wide would have a beneficial impact on the undeveloped quality in these areas from the reduction in structures and development. Administrative use of the structures on Amygdaloid and Davidson Islands and the periodic use of other historic structures would continue, resulting in adverse impacts to the undeveloped quality in these areas over the life of this plan from the continued presence of development. Campgrounds would be added at Wright Island and on Johns Island, resulting in direct, adverse impacts to the undeveloped quality in these areas from adding development to wilderness. Boardwalks and other recreational developments, including campgrounds with associated privies, picnic tables, campsites, and fire pits, would also contribute to development in the wilderness and result in degradation to this quality.

Under alternative B, 51 historic structures and installations in wilderness would be preserved, 23 would be stabilized, 19 would be allowed to molder, and 6 would be removed. Removing structures would have an immediate and direct benefit to the undeveloped quality at the time the removal occurs. Structures and installations that are preserved would detract from the undeveloped quality while they are on the landscape. Structures that are allowed to molder would detract from the undeveloped quality until they molder into the landscape, at which point beneficial impacts to the undeveloped quality would occur. The preservation of the majority of historic structures and installations in wilderness would continue to result in localized, adverse impacts on the undeveloped quality of the wilderness over the life of this plan due to the presence of these developments.

Opportunities for Solitude or Primitive and Unconfined Recreation

Solitude

GMP Management Zones. Under alternative B, the NPS would amend the GMP to rename the pristine zone the wilderness immersion zone. The description and use of this zone would not change; therefore, this amendment would not affect wilderness qualities. To align current and proposed uses under alternative B with appropriate GMP zones, the Bangsund and Kemmer Cabins and related trails and the area around the new Windigo Trail section within wilderness would be rezoned from pristine to backcountry. These zoning changes would reflect ongoing and new uses in these areas and allow for better separation of user types. The backcountry zone is intended to provide visitors the sense of being immersed in the natural landscape and somewhat distant from modern comforts and conveniences. The probability of encounters with other visitors is moderate in this zone. The proposed rezoning in these areas would not affect the solitude quality of wilderness but rather reflect current and proposed uses that contribute to a higher likelihood of visitors encountering other visitors or groups in these areas, compared to areas in the pristine zone (which would be renamed the wilderness immersion zone under this alternative). Rezoning these areas would allow visitors to align their expectations for solitude with the probability of encounters with other visitors expected in these areas.

Amygdaloid Island Ranger Station would be rezoned from backcountry to wilderness portal zone to accommodate ongoing use of the area for administrative uses. The wilderness portal zone allows for access and facilities to experience or manage other zones. This zone provides a wider range of activities and allows more diverse user types and user group sizes than other wilderness zones. Visitors would not expect the same level of solitude in these areas as in backcountry, primitive, or wilderness immersion zones. Rezoning Amygdaloid Island to a wilderness portal area would allow visitors to align their expectations while in this area, resulting in an indirect benefit to solitude. The group size restrictions proposed under this alternative in the various wilderness zones and on trails within those zones would also benefit solitude by reducing the size of groups in the more remote areas of wilderness and restricting how larger groups travel through wilderness.

Encounters on Trails. Overall, opportunities for solitude would improve under alternative B. The new permitting system would ensure that campsites would not be overbooked. The advance permitting system may also result in fewer trail encounters because visitors would be better dispersed across the various trails.

Allowing larger groups in some locations may adversely impact solitude for some visitors when they encounter a larger group on trails and at campsites. However, visitors seeking more solitude could find campgrounds without group campsites in the primitive zone, thereby limiting adverse impacts of larger groups to only those camping in developed, backcountry, and wilderness portal zones. The expectation of solitude is less in these areas, so larger groups may not detract from visitor experiences. Limiting day use group sizes by zones and locations would enhance solitude in more remote areas in the wilderness immersion zone, while still providing access for those individuals wishing to travel with a group. If a visitor does not want to encounter a large group, the visitor can select an itinerary that avoids areas where there may be larger groups, thereby reducing potential visitor conflict.

Under alternative B, trails closer to Rock Harbor and Windigo would be cleared of debris at the beginning of the spring season. Visitors seeking more solitude or a more challenging experience would be able to find this experience by traveling on trails in the wilderness immersion zone, where trees and trail hazards would not be removed early in the season.

Allowing public use in and around historic structures attracts visitors to these areas, thereby increasing the likelihood of encountering other visitors. Maintaining administrative use of historic structures on Amygdaloid Island, and periodically at other structures, increases the likelihood of encountering park staff or volunteers at these locations and reduces opportunities for solitude in these areas.

Encounters in Campgrounds. Two new campgrounds would be established at Wright Island and Johns Island in accordance with the GMP. Under alternative B, the campground at Johns Island would offer a new opportunity specifically for nonmotorized recreationists traveling via canoe or kayak. Although boating would still be allowed in the area, creation of a campground for nonmotorized recreationists would provide a new opportunity for solitude because docking would not be allowed, and this campground would be substantially free from boat noise, providing a remote camping experience. The establishment of new campsites at existing campgrounds would allow the park to adapt to high use and high demand in certain areas without having to create new campgrounds. While the creation of new campsites may detract from solitude by allowing more campers in certain campgrounds, this action may also reduce existing impacts to solitude caused by overcrowding by reducing the need for campers to double-up at campsites. This action may also enhance solitude by building better designed campsites that reduce noise and visual intrusions at neighboring sites. A new group campsite at Belle Isle campground or elsewhere in nonwilderness would have beneficial effects on wilderness character by providing a place for groups to camp outside wilderness. This may enhance solitude for wilderness visitors because they would be less likely to encounter these groups in wilderness campgrounds or along trails in wilderness.

Changes to dispersed camping opportunities at Johns Island for users of nonmotorized watercraft would enhance the solitude opportunities at this location. Compared to existing conditions, alternative B would offer an additional area for nonmotorized boat users to camp. Overall, impacts to wilderness likely would not be noticeable because of the requirement for campers to be dispersed away from the water and other campers.

Alternative B includes changes to public use allowed in various areas. Visitors could use the docks at Bangsund Cabin and Fisherman's Home for day use and the docks at Crystal Cove and Wright Island for overnight use. Overnight use of the dock at Crystal Cove would provide a new use to this area, which is currently not available. The use of the structures may detract from solitude because wilderness visitors would encounter people at these structures. Visitor expectations for encounters in this area should include encountering structures and other visitors. The public use anticipated in Tobin Harbor would be consistent with the expectations for that zone—namely that solitude and quiet would be available some of the time, but there would be bursts of activity, and adventure and challenge would be low in this area.

The boat dock at Duncan Bay campground would be removed. This would eliminate crowding at the dock and adjacent camping area, which would be maintained under this alternative, resulting in a benefit to solitude over the life of this plan.

Noise. Under alternative B, activities including maintenance and creation of trails and removal of historic structures would result in localized, adverse impacts to solitude by contributing to intrusive noise in wilderness areas. Six historic structures would be removed under this alternative, including the McGeath Generator House and McGeath Smokehouse at Crystal Cove; the Main Cabin, Mike Johnson Cabin, and Privy at the Wright Island fishery; and Johns Cabin on Johns Island. Park maintenance staff may also use power tools and chainsaws for preservation of historic structures or clearing trails and hazard trees. These mechanized tools would create noise in the wilderness and result in localized, adverse impacts to solitude during these activities. The magnitude of these noise impacts would depend on the methods and types of equipment used. Temporary impacts to visitors could be reduced if the park completes these activities during periods of low visitation. Any use of chainsaws or other forms of motorized equipment and mechanical transport would be subject to an MRA.

Over the long term, the park would continue public and administrative uses at historic and non-historic structures in wilderness as described in chapter 2. Other structures, such as the Rude Cabin at Fisherman's Home, which may be used for administrative overnight stays for approximately four to six weeks per year under this alternative, and multiple structures at Tobin Harbor, which would be open to public day use, would be newly opened to administrative or public use. These uses would result in adverse impacts to natural sounds in wilderness over the life of the plan due to the increased human noise in these areas.

Under alternative B, visitors could use the docks at Bangsund Cabin and Fisherman's Home for day use and the docks at Crystal Cove and Wright Island for overnight use. Although not in wilderness, noise and the presence of boats at the dock would adversely impact solitude in the adjacent wilderness because the noise may be heard within wilderness, and wilderness visitors may see visitors on the dock.

Primitive and Unconfined Recreation

Developments. The GMP would be amended to allow for retention of the Duncan Bay shelters under alternative B. There would be no change to development in these areas.

Rerouted trails in wilderness and the creation of new trail segments in Tobin Harbor, Windigo, and Bangsund would detract from the opportunity for unconfined recreation because most visitors would stay on formal trails. However, maintenance of formal trails helps keep social trails from forming; social trails

detract from the opportunity for unconfined recreation by concentrating foot traffic in areas that are intended to be off-trail.

The continued presence of signs, picnic tables, campsites, fire rings, privies, and boardwalks, while installed to protect the natural resources, limit self-reliance and challenges, and therefore have an adverse impact on the primitive and unconfined qualities of wilderness.

Removal of the Big Siskiwit River Bridge would have an indirect, beneficial effect on the unconfined recreation quality over the life of this plan because bridges reduce self-reliance.

Campgrounds would provide new recreational opportunities that are consistent with the public purpose of wilderness for recreational use. However, these installations would reduce self-reliance and would detract from the opportunity for unconfined recreation. Likewise, new campsites would detract from the unconfined recreation quality by limiting self-reliance and the challenge of camping in the wilderness.

As stated previously, under alternative B, 51 of historic structures would be preserved, 23 would be stabilized with the long-term intention of preservation if funds are available, 19 would be allowed to molder, and 6 would be removed. Removing structures would have an immediate benefit to the primitive and unconfined recreation quality because visitors would not encounter these structures. Structures that are allowed to molder would detract from this quality until they molder into the landscape. Preserving and stabilizing other structures would continue to result in an adverse impact on the primitive and unconfined recreation quality of the wilderness from their presence. Likewise, day use of structures would detract from solitude and primitive recreation.

Restrictions. Regulations that limit human activities include fire bans, prohibitions on collecting plants and minerals, and area and winter closures would be the same as described for alternative A. These regulations would have an adverse impact on cross-country campers by decreasing the opportunity for challenge and self-reliance. The new advance permitting system would apply more restrictions related to group sizes and campground reservations, resulting in more restrictions for overnight and day use groups. However, the new permitting system, including establishment of a permitting office on the mainland, would benefit smaller parties in the unconfined recreation wilderness character by allowing flexible itineraries, which would enhance self-discovery and self-reliance.

Under alternative B, the park would reevaluate the winter closure if open water existed in Lake Superior during 100% of the winter season for at least five consecutive years. Discontinuing the winter closure at a later date could have a beneficial effect on opportunities for solitude or primitive and unconfined recreation over the life of this plan by allowing visitors to access Isle Royale's wilderness during the winter when more opportunities for solitude are expected. If the winter closure were removed in the future, winter visitors would not have access to immediate search and rescue or other amenities offered during the current open season, which would offer a greater test of self-reliance and discovery.

Commercial Services. Impacts from commercial services largely would be the same as described for alternative A. Under alternative B, the park may allow commercial filming in wilderness in accordance with NPS policy and subject to a special use permit. Commercial filming in wilderness may intrude on other visitors' solitude and unconfined recreation while film crews are temporarily occupying an area. Special use permits would include stipulations intended to reduce impacts on other visitors and wilderness qualities.

Other Features of Value

Historic Structures and Districts and their Associated Cultural Landscapes. Under alternative B, the historic structures and associated districts that contribute to wilderness character under this quality would experience both beneficial and adverse impacts, as described below under “Cultural Resources.” These historic features are located in wilderness and contribute to the story of wilderness at Isle Royale.

Overall, alternative B would retain some of the features that contribute to this quality of wilderness character but would allow for the mouldering or removal of some structures that would detract from this character. The remains of structures that would be allowed to molder would likely persist on the landscape for indefinite periods and could serve as discovery sites for future visitors to experience the history of the site, thereby benefiting this quality. When the structures have been reclaimed by the landscape, they would no longer contribute to the story of human presence in Isle Royale’s wilderness, resulting in an adverse impact to this quality of wilderness.

Cumulative Impacts

Overall, past, present, and reasonably foreseeable future actions would be the same as those described for alternative A. Preservation actions would result in beneficial impacts on other features of value over the life of this plan, while removal and mouldering of historic structures would result in permanent, adverse impacts on these features of value. When the incremental impacts of alternative B are added to the past, present, and reasonably foreseeable future impacts, the overall cumulative impacts would be beneficial and adverse to the undeveloped, natural, and other features of value qualities of wilderness. Alternative B would only contribute to the adverse impacts to the undeveloped, natural, and other features of value qualities of wilderness. Effects would be beneficial for opportunities for solitude or primitive and unconfined recreation.

Alternative C

Impacts from the management of installations, vegetation clearing, and management of public use in wilderness alternative elements would be the same as described under alternative A. Impacts from standard operations (trail maintenance, administrative overnight use of historic structures in wilderness [except Amygdaloid and Dassler Cabin and Dassler Guest Cabin], and fire management for historic structures) and management of public use in wilderness (establishment of a backcountry office, group size restrictions by zone, campground/campfire management, human waste management, and wilderness interpretation and public signage) would be the same as described for alternative B.

Natural

Camp Site Condition. Under alternative C, visitors would be required to stay in designated campsites. Campsite reservations and fixed itineraries would ensure that campgrounds are not overcrowded. Increasing separation between campsites by removing or relocating individual campsites may result in adverse impacts to the natural quality because vegetation would be removed, and soils would be compacted in areas where campsites are relocated; however, this disturbance would be contained within existing campgrounds. Removal of campsites and implementation of the reservation system would benefit the natural quality over the life of this plan by eliminating crowding in campgrounds, allowing vegetation to reestablish in areas around campsites.

Impacts to the natural quality from vegetation clearing and campground and privy maintenance would be the same as described for alternative B.

The removal of 20 shelters would result in additional impacts to vegetation and soils in these areas. The removal of group campsites at Chippewa Harbor and Lake Richie may also increase demand on existing group campsites within wilderness and create additional impacts to soils and vegetation. These actions would result in localized, adverse impacts to the natural quality over the life of this plan.

Other Actions. Under alternative C, trails would be managed for volume, and less maintenance would be required on lesser-used trails, which would result in a beneficial impact to the natural quality. Trails would be rerouted to mitigate damage to resources to the extent possible, which would result in the same benefits described under alternative B. The park would close approximately 1 mile of the Indian Portage Trail and would allow natural succession to occur, benefiting the natural quality of wilderness in this area. The Bangsund Fishery Trail would be added to the park's trail inventory, adding about 0.45 miles of trail to the park trail system. This trail currently exists as a social trail, which degrades the natural quality of wilderness in a localized area from changes to vegetation and soils. Formalizing this trail could reduce damage to surrounding natural resources by discouraging the expansion of social trails in the area. Formalizing this trail is not expected to result in additional adverse effects to the natural quality of wilderness character.

The removal of the Siskiwit River Bridge could result in adverse impacts to the natural quality of wilderness if visitors still have access to this crossing point. The park would consider adding a smaller structural crossing to mitigate impacts to vegetation, riparian areas, and other natural resources if needed to reduce or avoid impacts to the natural quality in this area.

Removal of historic structures and restoration of surrounding areas would result in localized, permanent, beneficial effects to the natural quality in areas where structures are removed as described under alternative B. Vegetation clearing around historic structures that are preserved would continue to have a localized, adverse impact to the natural quality.

Periodic, temporary closures to visitors in some areas of the park would continue to benefit the natural quality. Opening the park to visitation during winter may have adverse impacts on the natural quality of wilderness over the life of the plan because human presence in wilderness could occur year-round and may result in unintended disruptions to wildlife, including disruptions in behavior.

Undeveloped

Development. Under alternative C, no new trails would be constructed; approximately 1 mile of the Indian Portage Trail between the south and east ends of Lake Richie would be eliminated; the bridge at Siskiwit River would be removed; and six historic structures would be removed. This would result in a permanent, beneficial effects to the undeveloped quality of wilderness at these locations. The Bangsund Fishery Trail would be added to the park's inventory, and maintenance standards would be applied to this trail. No new noticeable effects are expected to result.

Impacts associated with the removal of historic and administrative structures would be the same as those described for alternative B.

The undeveloped quality is degraded from the use of motorized equipment and mechanical transport and would continue to be degraded by their use under alternative C. However, fewer trails to maintain would require less chainsaw use under this alternative than in the other alternatives. Under alternative C, primitive tools would be used for the majority of trail maintenance. Use of chainsaws and other mechanized equipment, if determined to be required through an MRA, would usually occur during low visitation periods.

Under alternative C, all PWAs, including Amygdaloid and Davidson Islands, would be converted to designated wilderness, adding 93 additional acres to the parks' designated wilderness. PWAs already are managed as wilderness; however, conversion of PWAs may result in a permanent, beneficial effect to the undeveloped quality of wilderness if existing nonconforming uses are removed. If alternative C is selected, additional site-specific analysis would be completed to address the continuation or elimination of nonconforming uses as part of the conversion of PWAs to designated wilderness. Continuation of existing nonconforming uses in areas converted to designated wilderness would continue to degrade the undeveloped quality in these areas.

Opportunities for Solitude or Primitive and Unconfined Recreation

Solitude

GMP Management Zones. To align current and proposed uses under alternative C with appropriate GMP zones, Amygdaloid Ranger Station on the south end of Amygdaloid Island would be rezoned from backcountry zone to wilderness portal. The wilderness portal zone provides the access and facilities to experience or manage other zones. Visitors would not expect the same level of solitude in these areas as in backcountry, primitive, or pristine zones. Although there would be no change to solitude in this area, it would allow visitors to modify their expectations while in the area. Continued implementation of group size restrictions (the same as those discussed under alternative A) and decreased day group size limits would also benefit solitude by removing the potential for encounters with large groups in wilderness.

Encounters on Trails. Additional measures would be implemented to enhance solitude of wilderness visitors. A reservation system would be implemented, requiring all wilderness visitors to make reservations ahead of their visit. Flexible itineraries would not be allowed. This system would result in more effective separation of users and increase opportunities for solitude. These measures would result in beneficial effects to solitude over the life of this plan.

Smaller groups would enhance the opportunity for solitude for visitors because visitors would be unlikely to encounter large groups of people in wilderness. Smaller groups would reduce noise in campgrounds and along trails. These measures would result in beneficial effects to solitude over the life of this plan. Removing the Indian Portage Trail may adversely impact solitude for some visitors in the area. With removal of this trail, visitors would not be as widely dispersed in the area, increasing the chance for visitor encounters.

Discontinuing the Artist-in-Residence Program at Dassler Cabin and Dassler Guest Cabin and removing nonconforming uses from Amygdaloid Island would result in a benefit to solitude in these areas over the life of this plan because the potential for encounters with park staff or other visitors would be reduced. Removal of six historic structures in wilderness also would result in an indirect, permanent benefit to solitude in these areas by removing attractions to the area.

Encounters in Campgrounds. As stated, flexible itineraries would not be allowed, which would ensure that campsites are not overbooked and increase the opportunity for solitude, which would result in beneficial effects to solitude over the life of this plan. Some group campsites would be removed. The removal of these campsites may put greater demand on remaining group campsites within wilderness. The dispersal of campsites within campgrounds would make it less likely that campers would hear and see other campers. Removal of shelters and associated picnic tables would also result in the potential for an increase in opportunities for solitude.

The boat dock and shelters at Duncan Bay campground would be removed. Under this alternative, a new campground would be added at Johns Island for nonmotorized recreation users. Both actions would

benefit solitude over the life of this plan by eliminating crowding at the Duncan Bay dock and providing a new, dispersed campground for nonmotorized recreation users.

The potential opening of Isle Royale for winter use would provide opportunities for visitors to experience the greatest level of solitude because the total number of visitors during this season would be low.

Noise. Under alternative C, maintenance activities and removal of historic and other structures may result in localized, adverse impacts on solitude by contributing to intrusive noise in wilderness areas. Primitive tools would be used for trail maintenance to the extent possible. Under this alternative, 6 historic structures (McGeath Generator House; McGeath Smokehouse; the Main Cabin, Mike Johnson Cabin, and Privy at the Wright Island fishery; and Johns Cabin) and 20 shelters would be removed from wilderness. Any use of chainsaws or other forms of motorized equipment during these activities would be subject to an MRA.

At campgrounds, campers would be less likely to hear other campers due to dispersal of campsites. However, opening the park in the winter could extend impacts from non-natural noise sources from seasonally to year-round, resulting in adverse impacts to solitude, although visitation would be lower during the winter season.

Primitive and Unconfined Recreation

Development. Under this alternative, fewer camping opportunities would be available for visitors who use campgrounds and shelters because 20 shelters and associated picnic tables would be removed within wilderness. This could result in an increase in demand for existing campsites. All camping in wilderness would be a challenge and require self-reliance because campers could experience harsher weather conditions than when using a shelter. The removal of some campgrounds would benefit the opportunity for unconfined recreation, but may reduce visitor access to the island during desired timeframes if campgrounds are booked. Removal of shelters could also lead to a decrease in use of the area, which would increase the ability for primitive and unconfined recreation. The continued presence of signs, campsites, fire rings, privies, and boardwalks, while installed to protect the natural resources, limit self-reliance and challenges, and therefore have adverse impacts on the primitive and unconfined qualities of wilderness.

No day use or overnight public use of structures would be permitted under this alternative, which would improve solitude and the opportunity for primitive and unconfined recreation.

Restrictions. Under alternative C, the reservation system would require advance reservations and would effectively prohibit visitors from changing plans due to weather or other obstacles. This would have an adverse impact on the unconfined recreation aspect of wilderness character by decreasing self-discovery options and imposing more restrictions. The system would limit day use group size, which may limit access for some visitors. Although smaller groups may enhance the opportunity for solitude for visitors, group size limits would detract from the opportunity for unconfined recreation on Isle Royale. Other regulations for fire bans and prohibitions on collecting plants and minerals would be similar to those described for alternative A.

Seasonal area closures would have an adverse impact on the unconfined recreation aspect of wilderness character by decreasing self-discovery options and imposing more restrictions on visitors (same as alternative B). The potential opening of Isle Royale for winter use would provide additional opportunities for unconfined recreation and the greatest level of self-discovery. Visitors would not have access to immediate search and rescue or other amenities offered during the current open season, which would offer a greater test of self-reliance and discovery.

Commercial Services. Prohibiting guided hiking and kayaking trips that use wilderness campsites would benefit the unconfined recreation wilderness character quality. However, some visitors may not have the skills to experience the wilderness without a guide and would be adversely impacted under this alternative. Most commercial services at Isle Royale operate outside wilderness, often on the waters on the exterior of wilderness. However, many commercial operators bring visitors for overnight stays in campgrounds in wilderness. In many cases, camping within the wilderness boundary is the only viable overnight option. Therefore, the prohibition of commercial services within wilderness may have a larger adverse impact on commercial operators primarily operating outside the wilderness boundary but who use wilderness campgrounds.

Impacts on this quality as a result of commercial filming in wilderness would be the same as described for alternative B.

Other Features of Value

Historic Structures and Districts and their Associated Cultural Landscapes. Impacts to those features of value under alternative C would be similar to those described for alternative B. Alternative C would preserve fewer historic structures compared to alternative B (41 historic structures compared to 51 historic structures under alternative B) and would stabilize more historic structures compared to alternative B (34 compared to 23 historic structures under alternative B). Similar to historic structures that would be preserved, stabilized structures would continue to contribute a beneficial impact to this quality of the park's wilderness while they are on the landscape. The NPS would evaluate the condition of stabilized structures over a six-year cycle. During the six-year cycle after the completion of this plan, if a structure is in poor condition and no NPS resources or resources under a partnership program are available to bring it to fair or good condition, the NPS would document the structure, and it would be left to deteriorate. The remains of structures that are left to deteriorate would likely persist on the landscape for indefinite periods and could serve as discovery sites for future visitors to experience the history of the site, thereby benefiting this quality. When the structures have been reclaimed by the landscape, they would no longer contribute to the story of human presence in Isle Royale's wilderness, which would result in a permanent, adverse impact to this quality of wilderness.

Cumulative Impacts

Overall, past, present, and reasonably foreseeable future actions would be the same as those described for alternative A. Alternative C would result in adverse impacts to the natural quality during vegetation clearing and maintenance activities and over the life of the plan as a result of closure of group campgrounds and shelters and opening the island to visitation during the winter. Permanent, beneficial impacts would result from removal of historic structures under this alternative. This alternative would continue to result in adverse impacts to the undeveloped quality from the use of mechanized equipment and mechanical transport during vegetation clearing and maintenance activities. Beneficial impacts to the undeveloped quality over the life of the plan would result from removal of 1 mile of the Indian Portage Trail and removal of the Siskiwit River Bridge, and permanent, beneficial impacts may result from conversion of PWAs to wilderness and removal of historic structures. The opportunities for solitude and primitive recreation would be beneficial in many areas of the wilderness over the life of the plan, with a few, localized, adverse impacts under alternative C during area closures or in areas where recreational structures or installations detract from this quality. However, additional restrictions would slightly increase the adverse impact on opportunities for unconfined recreation compared to alternative B. Preservation actions would result in beneficial effects on other features of value over the life of the plan, while removal or mouldering of structures would result in permanent, adverse impacts on these features of value through loss of features that contribute to the story historical human presence in Isle Royale's wilderness. When the incremental impacts of alternative C are added to the past, present, and reasonably

foreseeable future impacts, the overall cumulative impacts would be beneficial and adverse to undeveloped, natural, and other features of value qualities. Effects would be beneficial to opportunities for solitude or primitive and unconfined recreation.

Conclusion

Under alternative A, Isle Royale's wilderness would remain largely unchanged from current conditions. Under alternative B, the park would take some actions to improve recreation and the opportunities for solitude that would detract from the natural quality of wilderness in localized areas. In contrast, actions proposed under alternative C would result in permanent, beneficial impacts to the natural quality and potentially offer the greatest degree of solitude and opportunities for challenge and self-reliance but would have adverse impacts on visitor opportunities and access to wilderness.

Campsites and campgrounds are expected to continue to increase and expand from repeated use under alternative A, and overcrowding at existing campgrounds is expected to continue, resulting in adverse effects to the natural quality and solitude over the life of the plan. The advance permitting requirements and additional campgrounds and campsites proposed under alternative B and reservation system proposed under alternative C would benefit these qualities overall. It is important to note that while the reservation system would benefit solitude, this system would result in an adverse effect on unconfined recreation because of the requirement to define a fixed itinerary before a visit to the island's wilderness.

Opening the park to visitation during the winter would have adverse effects on the natural quality over the life of the plan under alternatives B and C, if the conditions discussed in the alternative analysis are met. However, winter visitation under these alternatives would allow for the greatest degree of solitude and challenge in wilderness.

Alternative C would offer the greatest benefits to the undeveloped quality of wilderness character due to the removal of six historic structures in wilderness (the same number proposed under alternative B) and an increased number of structures selected for mouldering, discontinuation of administrative uses at various structures in wilderness, and potential removal of nonconforming uses from PWAs converted to designated wilderness. Alternative A would result in the least benefit to the undeveloped quality because all historic structures would remain on the landscape, and nonconforming uses would remain in PWAs.

The park would formalize treatments for historic structures in wilderness under alternatives B and C, resulting in both beneficial and adverse effects. Preservation or stabilization of historic structures would have a beneficial effect on these features of value in Isle Royale's wilderness over the life of this plan. Removing or allowing structures to molder would result in a permanent, adverse effect once these structures are no longer present on the landscape. While the park would preserve additional historic structures under alternative B (52 structures compared to 40 structures under alternative C), a similar number of structures would be preserved or stabilized under both alternatives (75 structures preserved or stabilized under alternative B, compared to 74 structures under alternative C). Similar numbers of structures would be allowed to molder or be removed under both alternatives. Therefore, while alternative B offers additional beneficial effects on this quality of wilderness character, beneficial and adverse effects under these alternatives overall would be similar. As noted above, while removal or mouldering of historic structures would result in adverse effects to the other features of value quality, these actions would result in permanent, beneficial effects to the undeveloped quality once these structures are no longer on the landscape.

Under alternatives A and B, the park would conduct an extent necessary determination before authorizing any commercial services in Isle Royale wilderness. Under alternative C, the prohibition on commercial services would likely not be noticeable within wilderness because most commercial services are offered

outside the wilderness boundary. However, some of those commercial services rely on campgrounds within wilderness for overnight stays. Under this alternative, the park may become less accessible for those using commercial operators outside wilderness that rely on camping within wilderness for overnight stays.

CULTURAL RESOURCES

Alternative A: No Action (Implement the General Management Plan as Currently Written)

Historic structures would continue to be identified, documented, and evaluated with respect to National Register criteria. In instances where historic structures are retained, they would be preserved and maintained in accordance with the Secretary of the Interior's Standards for Treatment of Historic Properties as well as the requirements for preserving wilderness character. Prioritization of historic structures would continue to follow the GMP, with no prioritization of which structures should be retained and preserved. The structures' design and materials, character-defining features, rustic appearance, setting, feeling, and association with recreation in a remote island setting would be maintained. Elements of the natural settings surrounding historic structures (e.g., topography, vegetation, views, and vistas) have remained largely unchanged from the period of significance and would continue to be managed to provide a rustic and overall natural or wilderness setting. Retaining historic structures would generally have beneficial impacts on the historic character of these structures over the life of this plan. The structures would maintain the integrity of associated historic districts and cultural landscapes by retaining the vernacular design characteristics and spatial relationships of contributing structures and landscape elements that reflect the period of historical significance.

Where preservation is no longer possible for structures that exhibit advanced deterioration, structures would further deteriorate and be reclaimed by natural processes. The remains of these structures would likely persist on the landscape for indefinite periods of time, retaining their spatial relationships and serving as discovery sites for future visitors to experience the history of the site. Nevertheless, allowing the structures to deteriorate would represent an adverse impact on them and their districts, and NPS staff would carry out appropriate measures to mitigate adverse impacts, including documenting and recording historic structures prior to abandonment. Because the historical integrity of National Register districts may be compromised if critical numbers of structures are removed or allowed to deteriorate, NPS staff would consult with historic preservation stakeholders to determine means of preserving district integrity or mitigating its loss.

Cumulative Impacts

The primary action that would contribute to cumulative impacts for cultural resources is the past removal of structures in wilderness and the past and ongoing maintenance of historic structures in wilderness. The removal and relocation of large numbers of structures, undertaken largely to reduce the footprint of past human activities and accentuate the park's natural and wilderness values, diminished the character-defining qualities of historic properties (historic districts, structures, and sites). Structure removal resulted in permanent, adverse impacts on associated cultural landscapes.

Past and ongoing preservation maintenance for selected historic properties (e.g., recreational cottages, fisheries) is undertaken by the NPS and under cooperative agreements between the NPS and its partners, concessioners, and volunteers. Agreements such as those through the Volunteers-In-Parks program for many of the family cabins, and with Michigan Technological University for the Bangsund Research Station, outline the scope and conditions of the preservation work. By serving to abate the damaging effects of weathering and other factors on the integrity of historic properties, preservation maintenance

undertakings carried out in accordance with the Secretary of the Interior's Standards have had, and continue to have permanent, beneficial effects on contributing elements of the park's historic structures.

Impacts on cultural resources from past removals of historic structures and past and ongoing maintenance of historic structures would be permanent. Other primarily past actions associated with the removal of structures have resulted in permanent, adverse impacts on historic structures. Ongoing preservation maintenance of selected structures has resulted in permanent, beneficial impacts for those structures. The impacts associated with implementation of the no-action alternative would have permanent, beneficial, and limited, adverse impacts on historic structures and districts. When the incremental impacts of alternative A are added to the past, present, and reasonably foreseeable future actions, there would be permanent, adverse impacts on historic structures and districts, mostly due to expected continued loss of structures to deterioration in places with already reduced numbers of contributing structures to the historic district. The no-action alternative would contribute a relatively small component of the adverse cumulative impact.

Alternative B (Proposed Action and Preferred Alternative)

Under alternative B, historic structures in wilderness would be preserved, stabilized (made weather resistant until a broader partnership program is in place that permits future decisions on their disposition or ultimate treatment), allowed to molder, or removed, as identified in tables 3–11.

Tobin Harbor. At Tobin Harbor, 28 structures would be preserved in accordance with the Secretary of the Interior's Standards. Preservation of these core structures would provide a sense of the architectural styles and other features contributing to the significance of the historic recreational, resort, and fishing community. Surviving features of the vernacular cultural landscape would also be preserved to reflect the district's 1900 to 1960 period of significance. Although reduced in number, the surviving structures and their clustered arrangement, patterns of circulation, natural systems and features, land use, and views and vistas would continue to contribute to the feeling and setting of the historic district.

Eighteen historic structures would be stabilized pending future decisions on whether they could be maintained by partners/organizations or allowed to molder because of advanced deterioration. This option recognizes that stabilized structures are vital to protect the integrity of the historic district as a nationally significant historic property. In addition, some of these structures are necessary to understand the historic activities that are recognized as significant contributions to the story of life in this remote area (including a boat house, guest cottages, and outbuildings). Initially, structures would be stabilized to make them weather tight, a beneficial impact that lengthens the life of the structure. If cooperative agreements could be found for stabilized structures, their preservation would contribute to and significantly benefit the overall integrity of the historic district by ensuring an appropriate assemblage of structures are retained, preserved, and able to continue to represent the architectural styles and spatial relationships among constructed features and structures. However, if cooperative agreements could not be found, and stabilized structures could not be reasonably preserved, their subsequent deterioration and loss would result in a permanent, significant, adverse impact on the integrity of the district. A loss of all stabilized structures could result in the loss of the national significance of the Tobin Harbor Historic District.

Under alternative B, not all historically significant components of the Tobin Harbor Historic District would be maintained. One installation, Kemmer Steps, and five structures, including the Store House and Mattson Fishery Fish House, Net House and Fishery Cabin, and Minong Lodge Cabin would be allowed to deteriorate in place. Many of these individual structures are currently in poor condition with compromised individual integrity, and some have already deteriorated by neglect and severe weathering (structures within the Mattson Fishery are approaching a state of collapse). Their loss would adversely impact the historic integrity of the individual structures, but their continued presence as deteriorating

ruins would help maintain the overall integrity of the historic district. These structures and installations would remain on the landscape for some time, continuing to contribute to the vernacular spatial arrangement and design of the historic property. Eventually, as the structures and installations naturally disappear from the historic scene, the impact of their deterioration would increase, and that spatial understanding would be lost. However, they would ultimately become archeological resources with their informational content persisting for indefinite periods of time.

Mouldering of structures and installations would represent an adverse impact, and appropriate recordation and documentation would be carried out as part of an approved mitigation strategy. Such recordation would also take place if and when any future decisions are made to allow the deterioration of a stabilized structure.

Fisherman's Home. All 11 existing historic structures would be preserved in accordance with the Secretary of the Interior's Standards. Preservation of structures would enable the structures to remain on the landscape, reflecting the architectural styles and clustered pattern of development and contributing to the historical significance of the Fisherman's Home community and cultural landscape.

Crystal Cove. Preservation of four core structures in accordance with the Secretary of the Interior's Standards would represent a beneficial impact on the historic character of Crystal Cove, protecting a semblance of the site's former architecture and community development. Removal of two other structures and allowing another three already severely deteriorated structures to further molder in place, would represent a permanent, adverse impact and loss of district/cultural landscape integrity. Archeological evidence of the deteriorated structures would persist on the landscape, as would the foundational remains of two of the structures proposed for removal. Overall, the integrity of the remaining district and landscape would be retained through the preservation of four significant structures in association with the archeological remains of the deteriorated and removed structures and installations. Preservation of the two guest cabins, lodge, and house along with the two sheds and boardwalk allowed to molder would continue to convey the historic character and significance of the site. Appropriate recordation and documentation of the structures removed and allowed to molder would be carried out as part of a mitigation strategy.

Captain Kidd Island. Seven of the eight historic structures at Captain Kidd Island would be allowed to molder in place. The McPherrin Cabin, which is the primary building in the complex, would be stabilized. The remote area is difficult to access, and most of the historic building materials are log and would molder naturally. Other synthetic or human-made materials would be removed as feasible and as the structures and installations deteriorate. Deterioration and eventual loss of most of the structures would represent a permanent, significant, adverse impact to the individual structures and the historic district they are a part of, as only one standing structure would remain on the landscape. Eventually, there would be little recognizable habitation on the site, but because the structures would not be removed, their archeological remnants would continue to exist into perpetuity. Appropriate recordation and documentation would be carried out as part of a mitigation strategy.

Johnson Island. Preservation of the Anderson Main Cabin, adjoining cabin, and privy would have a beneficial impact on the structural integrity of the structures. Two other structures would be stabilized, allowing their continued contribution to the architectural, spatial organization, and pattern of historic use of the complex, for at least some period of time. If a partnership program is developed that enables the full stabilization and preservation of the two stabilized structures, then a significant, beneficial impact would be realized at the camp, which would be fully preserved to the Secretary of the Interior's Standards. Should resources under a preservation partnership program not be available to preserve these structures, eventual deterioration of stabilized structures would diminish the integrity of the Johnson Island complex, resulting in a permanent, adverse impact. That impact would likely not be significant as the retention of the primary historic structure at the site, as well as the archeological remnants of the

associated outbuildings could retain the integrity of the resource. Ultimately, because of the reliance on stabilization, the overall impact to the historic camp is unknown. Recordation would occur if and when any future decisions are made to allow the deterioration of a stabilized structure.

Wright Island. Removal of three structures would permanently diminish the historic integrity and setting of this fishery site. Removal of these three structures would result in an immediate, significant, adverse impact on the historic character of the site, which would no longer exist, and neither the structures nor the site or landscape would continue to be eligible for listing in the National Register, a significant, adverse impact. Appropriate recordation and documentation would be carried out as part of a strategy to mitigate the adverse impacts of building removal.

Bangsund. Permanent preservation and stabilization of structures at the Bangsund Research Station is predicated on an evaluation of its historic significance as a research facility. If the site is found to be historically significant, the main residence would be preserved in accordance with the Secretary of the Interior's Standards. The other two potentially historic sleeping cabins would be stabilized, providing the potential for an overall beneficial impact on the integrity of historic community. Nevertheless, the two stabilized sleeping cabins could eventually molder and disappear from the landscape if a partnership program is not brought to bear on their preservation, which would result in an adverse impact with an unknown level of effect, as the site has not yet been evaluated. Recordation would occur if and when any future decisions are made to allow the deterioration of a stabilized structure. If those structures are not determined to be significant, they would be removed. Non-historic structures and installations would be removed. This action would not have an adverse impact.

Other Historic Structures and Installations. Other isolated historic structures and installations in wilderness proposed for preservation include the Anderson/Scotland Cabin (Amygdaloid Island); Davidson House (Davidson Island), the Powder House Ruins and Hoist Engine at the Island Mine complex; and the Mount Ojibway Fire Tower. The Feldtmann Fire Tower, Holger Johnson Fishery and Resort, and Horner Cabin would be allowed to deteriorate, and Johns Cabin (Johns Island) would be removed.

Preservation of selected structures would represent a beneficial impact because the structures would be preserved to the Secretary of the Interior's Standards and would retain their historic character and integrity. In the case of the ruins associated with the Island Mine complex, their preservation would further benefit the integrity of the surrounding archeological resources because the integrity the entire site would be protected.

Removal of the Johns Cabin would adversely impact the historic integrity of the structure, and it would no longer be eligible for listing in the National Register. The Johns Cabin is linked to the Barnum Island Historic District but, because of its compromised integrity and distance from the primary features of Barnum Island, its removal would minimally impact the historic district or landscape. Non-historic structures would also be removed, which would not have an adverse impact.

Allowing the Feldtmann Fire Tower, Holger Johnson Fishery and Resort, and the Horner Cabin to deteriorate in place would adversely impact their historic integrity and character. They are isolated structures, and these actions would not impact a greater cultural landscape or district. Despite their eventual loss, archeological remnants of their past presence would persist in their historic locations. The Mount Ojibway and Ishpeming Fire Towers would be maintained as representative resources of the park's fire tower history. Appropriate recordation and documentation would be carried out as part of a mitigation strategy for all structures relocated, removed, or allowed to deteriorate.

Cumulative Impacts

Overall, past, present, and reasonably foreseeable future actions would be the same as those described for alternative A. Specifically, the primary actions that contribute to the cumulative impacts on historic structures, districts, and landscapes are those that involved the past removal of buildings and the past maintenance of structures that remain in place.

The impacts associated with implementation of the alternative B would have permanent, beneficial impacts on selected core historic structures, and the integrity of associated historic districts would be enhanced by the preservation of core contributing historic structures. However, permanent, significant, adverse impacts would be realized on any individual historic structure or installation relocated from its historic setting, removed from its historic setting, or allowed to deteriorate in place. In addition, permanent, adverse impacts would result from substantial reductions in the number of historic buildings in historic districts that could further compromise and diminish the integrity and cultural landscape characteristics of the former resorts, recreational cottages, and fishing communities. When the incremental impacts of alternative B are added to the past, present, and reasonably foreseeable future actions, the impacts on historic structures and districts would be permanent and adverse, mostly due to expected loss of structures to deterioration or removal in places with already reduced numbers of contributing structures to the historic district. Alternative B would contribute a noticeable component of the adverse cumulative impact.

Alternative C

Under alternative C, like alternative B, historic structures in wilderness would be variously preserved, demolished, moldered, relocated, or stabilized as identified in tables 13–21.

Tobin Harbor. Actions taken at Tobin Harbor under alternative C would be similar to those taken under alternative B. The primary differences are that nine structures slated for preservation under alternative B would be stabilized under alternative C; three structures stabilized under alternative B would be preserved, and one structure, the Kemmer Store House, which would be left to molder under alternative B would be preserved under alternative C.

Preservation of the Kemmer Store House and three privies would have a beneficial impact on the historic district and landscape because the privies, which are rarely found intact, would be retained within the district. Under this alternative, the same potential for both beneficial and significant, adverse impacts to the integrity of the Tobin Harbor Historic District and landscape would be realized by the uncertainties of preservation outcomes presented by the stabilization actions.

Beneficial effects on the district are expected from the actions taken to preserve 23 historic structures to the Secretary of the Interior's Standards, and moderate, adverse impacts are expected from allowing 5 structures to molder in place. Ultimately, the impact to the district is expected to be beneficial when all 24 stabilized structures are preserved under cooperative agreements, but because those agreements are not yet in place, and significant, adverse impacts are expected if they are unsuccessful, the overall impact of the alternative is unknown.

Crystal Cove. Under alternative C, the four most important structures to the history and significance of the camp at Crystal Cove would be preserved in accordance with the Secretary of the Interior's Standards. Preservation of selected structures would represent a beneficial impact on the historic character of the site, providing a semblance of the site's former architecture and community development. Three other associated outbuildings in the camp would be documented and allowed to molder in place. This action would represent a permanent, adverse impact and loss of district/cultural landscape integrity, though for

some period of time, the mouldering structures would continue to contribute to spatial understanding of the complex and historic use of the site. Ultimately the deteriorating structures would be reduced to archeological sites that would persist on the landscape indefinitely, unseen, but continuing to contribute the historic integrity of the district. Two structures, the generator house and smoke house, would be demolished, which would represent a permanent, adverse impact and loss of district/cultural landscape integrity. Appropriate recordation and documentation would be carried out as part of a mitigation strategy for moldered and demolished structures.

Fisherman's Home Area. Impacts would be identical to alternative B.

Johnson Island. Impacts would be identical to alternative B.

Wright Island. Impacts would be identical to alternative B.

Bangsund. Impacts would be identical to alternative B.

Other Historic Structures and Installations. The treatment for the other historic structures and installations would be the same as described for alternative B, except that the Powder House Ruins and Hoist Engine at the Island Mine complex would be stabilized under alternative C rather than preserved.

Cumulative Impacts

Overall, past, present, and reasonably foreseeable future actions would be the same as those described for alternative A. The impacts associated with implementation of the alternative C would have permanent, beneficial impacts on selected core historic structures, and the integrity of associated historic districts would be enhanced by the preservation of core contributing historic structures. However, permanent, significant, adverse impacts would be realized on any individual historic structure relocated from its historic setting, removed from its historic setting, or allowed to deteriorate in place. In addition, permanent, adverse impacts would also result from substantial reductions in the number of historic buildings in historic districts that could further compromise and diminish the integrity and cultural landscape characteristics of the former resorts, recreational cottages, and fishing communities. When the incremental impacts of alternative C are added to the past, present, and reasonably foreseeable future actions, impacts on historic structures and districts would be permanent and adverse, mostly due to the expected loss of structures to deterioration or removal in places with already reduced numbers of contributing structures to the historic district. Alternative C would contribute a noticeable component to this adverse cumulative impact.

Conclusion

Under the no-action alternative, permanent, beneficial impacts on historic structures would result from the continued efforts to inventory and document historic structures, perform National Register eligibility evaluations, and the continued preservation and maintenance of some historic structures. However, permanent, adverse impacts on the integrity of historic structures and districts would result from the progressive weathering, deterioration, and potential loss of historic structures that cannot be maintained and preserved. The lack or elimination of coordinated preservation cooperative agreements has the potential to contribute to adverse historic structure impacts as contributing site features deteriorate or receive minimal preservation direction or attention. In addition, the lack of prioritization represented in ad hoc preservation of structures, based on individual condition and interests of volunteers, may lead to loss of integral historic features while less significant ones are retained. Under the no-action alternative, there would be no attempt to prioritize which structures are retained or determine where the park would focus financial resources. Under this alternative, the park could potentially lose high-and low-integrity

historic structures across the park. Overall impacts to historic districts are unknown because there is no guarantee that the park would be able to focus financial resources for maintaining and restoring the most significant historic resources throughout the park.

Impacts to historic structures, installations, and their associated districts under alternative C would be the same as those described under alternative B except for Tobin Harbor, Crystal Cove, and the Power House Ruins and Hoist Engine at Island Mine complex. For Tobin Harbor, five fewer structures would be preserved, and would be stabilized instead. The two cabins, lodge, and house at Crystal Cove and the Power House Ruins and Hoist Engine at Island Mine complex would be stabilized rather than preserved under alternative C. The number of demolished structures under alternative C would be the same as under alternative B. There would be one fewer moldered structure under alternative C compared to alternative B.

When compared to the no-action alternative, permanent, beneficial impacts on historic structures are expected from both alternatives B and C from efforts to preserve them in accordance with the Secretary of the Interior's Standards, though fewer properties would be preserved under alternative C. Thus, alternative B would have the most permanent, beneficial impact on historic structures. The integrity of associated historic districts would be enhanced by the preservation of contributing primary historic structures. However, permanent, adverse impacts would also result under both alternatives B and C from the loss of individual historic structures and from substantial reductions in the number of historic structures in historic districts that could further compromise and diminish the integrity and cultural landscape characteristics of the former resorts, recreational cottages, and fishing communities. Similar to alternative B, removal of six structures would result in permanent, adverse impacts on the historic character of their former communities. Similarly, allowing some structures to deteriorate would be an adverse impact, although traces of the structures are expected to persist on the landscape for an indefinite period, continuing to impart spatial integrity and historic context associated with their functions onto their associated districts and landscapes. Ultimately, structures allowed to deteriorate would be reduced to unseen archeological sites, but they would continue to exist within their districts and retain archeological integrity. Overall, the adverse impacts associated with removal and deterioration of individual structures would not be significant because these character-diminishing actions would be limited to structures of less historic significance and would not result in loss of National Register district eligibility.

UNAVOIDABLE ADVERSE IMPACTS

Federal agencies are required to consider whether the alternative actions would result in impacts that could not be fully mitigated or avoided (NEPA section 101(c)(ii)). The following discussion describes the potential unavoidable adverse impacts by alternative.

Alternative A: No Action

Under alternative A, there would be unavoidable, permanent, adverse impacts to the undeveloped and other features of value qualities of wilderness character at Isle Royale. The persistence of historic installations and structures in wilderness would continue to degrade the undeveloped quality of the park's wilderness. In contrast, the progressive weathering, deterioration, and eventual loss of historic installations and structures would result in a loss of elements in the landscape that contribute to wilderness character and an adverse effect to features of historical value.

Alternatives B and C

Under alternatives B and C, although there would be unavoidable, adverse impacts to other features of value from the permanent removal of historic structures that contribute to this quality, there is a tradeoff

to the degree in which the natural and undeveloped qualities would be enhanced through the removal of these structures. There would also be an adverse impact to the historic structures and associated districts themselves from the mouldering or removal of these structures and the impacts of those removals on the associated districts.

SUSTAINABILITY AND LONG-TERM MANAGEMENT

In accordance with NEPA, consideration of long-term impacts and the effects of foreclosing future options should be included throughout any NEPA document. According to the World Commission on Environment and Development, “sustainable development is that which meets the needs of the present without compromising the ability of future generations to meet their needs.” For each alternative considered in a NEPA document, considerations of sustainability must demonstrate the relationship between local, short-term uses of the environment and the maintenance and enhancement of long-term productivity (NEPA section 102(c)(iv)). This is described below for each alternative. Agencies must consider if the effects of the alternatives involve tradeoffs of the long-term productivity and sustainability of resources for the immediate short-term use of those resources. This EIS also considers the effects of the alternatives over the long term and the potential for adverse environmental effects to future generations.

Alternative A: No Action

Alternative A would not result in any actions that would affect the long-term productivity and sustainability of resources at the park.

Alternatives B and C

Under the action alternatives, there would be a short-term commitment of human resources and short-term impacts to the wilderness on Isle Royale during plan activities. The plan could result in protection of the long-term productivity of the overall island ecosystem and the sustainable use of park resources.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Federal agencies must consider if the effects of the alternatives cannot be changed or are permanent (that is, the impacts are irreversible). The NPS must also consider if the impacts on park resources would mean that once gone, the resource could not be replaced; in other words, the resource could not be restored, replaced, or otherwise retrieved (NEPA section 102(c)(V)).

Alternative A: No Action

Under alternative A, the absence of any active efforts to enhance opportunities for solitude and unconfined primitive recreation would not result in an irreversible and irretrievable commitment of resources.

Alternatives B and C

Alternatives B and C have the potential to result in irreversible and irretrievable commitment of resources related to wilderness stewardship and maintenance at Isle Royale, including the removal of historic structures that detract from the undeveloped quality of wilderness character, as well as establishment of trails that enhance opportunities for solitude and unconfined recreation.

CHAPTER 5: CONSULTATION AND COORDINATION

NEPA regulations require an “early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action” (40 CFR 1501.9). This chapter describes the scoping process and consultation that occurred during development of the document and includes a list of recipients of the draft EIS.

THE SCOPING PROCESS

Scoping is an essential component of the NEPA planning process. The formal scoping process for this draft EIS consisted of public scoping and consultation with federal and state agencies and Tribal governments. The formal NEPA process and 30-day public scoping period was initiated on October 21, 2022, with the publication of a Notice of Intent in the *Federal Register* (87 FR 64091). In addition, preliminary information regarding the EIS was provided to the public and other interested parties through a press release and public scoping newsletter. Consulting parties and Tribes were sent letters informing them of the release of the Notice of Intent, and a newsletter was distributed to members of the public providing updates on the planning process.

During the public scoping period, the NPS received 1,651 correspondences from interested members of the public, agencies, and other organizations. Table 26 summarizes the public comments received combined into comment themes (also called concern statements), including the number of correspondences in which these themes occurred. All public comments received are provided in appendix F.

TABLE 26. SUMMARY OF COMMENTS FROM OCTOBER 2022 PUBLIC SCOPING

| Code | Concern Statements | Total Correspondences |
|---|--|---|
| AL1000 – Alternative A – No Action (Continuation of Existing Management Practices) | Commenters stated their preference with maintaining the existing management of the park and not implementing any new actions. Some commenters stated their disapproval of the no-action alternative and said that it should not be selected. | 29 |
| AL1100 – Alternative Concept B – Enhance Wilderness Character and Provide Additional Access Opportunities | Commenters stated both support and opposition to alternative B. Commenters expressed confusion regarding the purpose and/or objective of alternative B and requested additional details and clarification for the alternative elements. Some comments stated that the Notice of Intent and newsletter did not provide sufficient details. | 55 |
| AL1200 – Alternative Concept C – Enhance Wilderness Character by Improving Solitude | Commenters stated both support and opposition to alternative C. Some supporting alternative C noted it was the best way to protect the park and its wilderness quality, adding that mouldering structures in wilderness should be removed. Commenters expressing opposition noted concerns about the consequences of reduced access to the park and impacts to the commercial access for a broader community. They further stated that more amenities should be provided to serve more people and that alternative C is too restrictive in access to the public. Additionally, they felt that adding more wilderness would provide more barriers to access. Commenters also noted that potential wilderness should not be reclassified as designated wilderness if NPS continues to maintain any structures within it. | 1,303 (which includes 950 form letters) |

| Code | Concern Statements | Total Correspondences |
|--|--|-----------------------|
| AL1300 – Range of Alternatives | Commenters provided thoughts on the preliminary range of alternatives, including comments supporting, opposing, presenting specific ideas, or suggesting that the preliminary range is/is not sufficient. Some specific suggestions included creating a mix of elements from alternatives B and C. | 4 |
| AL1400 – Considering Climate Change | Commenters discussed the type and intensity of management that should be considered given the influence of climate change. Some commenters suggested the EIS discuss climate change and the impact it has on the proposed actions. Other commenters suggested a “hands-off” approach, meaning there should be no human intervention or human influence in the wilderness. | 4 |
| AL1500 – Alternatives and Alternative Elements | Commenters made suggestions related to the preliminary alternatives and alternative elements presented in the newsletter. Suggestions included consideration of additional day use options; more options for boaters and fishermen; additional access to historic sites; more recreational options, including kayaking and boat rentals; suggestions to eliminate commercial use and hammock use. Some commenters suggested the use of clean energy sources to eliminate generator use or eliminating generator use overall. | 4 |
| AL1501 – Campground Reservations/Management | Commenters voiced their support or opposition to a permit or reservation system for campgrounds including the increased maintenance burden to the park and concerns about deferred maintenance. Some commenters suggested increasing or maintaining shelters and other improvements such as composting toilets, boardwalks, and bridges. | 43 |
| AL1502 – Winter Access | Commenters expressed both support and opposition for being able to access the park during the winter. They expressed concern about the ability of the park to staff winter operations, as well as safety and potentially dangerous search and rescue operations. Other commenters noted that the winter is a time of recovery for park flora and fauna and questioned the impact of winter use on these resources as well as on the research studies that occur during the winter. Commenters recommended that if winter use is allowed, there should be limits on duration, education, and detailed itineraries. | 17 |
| AL1503 – Bangsund Management | Commenters noted support for the continued operation of the Bangsund Research Station and the properties associated with the site. | 38 |
| AL1504 – Trails Management | Commenters expressed both support and opposition for creating new trails. Suggestions related to trail operation and maintenance included providing better accessibility on trails for the elderly and disabled communities by making them wider, maintaining existing trails to reduce social trailing, adding campsites, adding connector trails to distribute people to other areas to reduce crowding, and adding trail shelters to provide comfort, quiet, and solitude. Specific locations suggested for additional trails included adding looped hiking trails to those backcountry campsites similar to the Scoville Point trail out of Rock Harbor. | 20 |

| Code | Concern Statements | Total Correspondences |
|--|--|-----------------------|
| AL1505 – Permit/Reservation System | <p>Commenters expressed both support and opposition for a park-wide permitting and/or reservation system and for limitations on day use. Those in support of limitations stated they were needed because of overcrowding, inability to find an open campsite, or lack of solitude. Those opposed felt that restrictions to park access are against the mission of national parks. Suggestions for a park reservation system included implementing timed-entry, having a set process for cancellations, limiting group sizes, using a “blind draw” permit, and setting overnight caps. Commenters expressed concern that people would make risky decisions to keep reservations, such as visiting in bad weather or pushing beyond an individual’s abilities. They also noted that the absence of a reservation system provides a greater unconfined wilderness experience.</p> | 23 |
| AL1506 – Management of Historic Properties – Cabins, Buildings, District, etc. | <p>Commenters discussed the management of historic properties, including historic private cabins in wilderness and support for the long-term preservation of historic structures in wilderness. There were specific requests for preservation of Edison Fishery, Rock Harbor Lighthouse, Bangsund, and the Passage Island, Managerie and Rock of Ages lighthouses.</p> <p>Commenters noted areas they felt were not discussed in the Notice of Intent such as Edison Fishery, Barnum, Washington and Grace Islands, and Davidson Island, as well as the docks which they asked to be considered as historic structures. Specific suggestions for structures in wilderness included conducting tours of the structures to generate income, relocating structures outside wilderness, using structures for housing or renting them out, and discontinuing or prohibiting life-leases held by private owners that allow them more access to the island than others.</p> <p>Commenters requested that properties that have been determined eligible for the National Register should be called “historic properties” to match the language with the National Historic Preservation Act/Section 106. Other comments suggested that structures be retained and the land around not converted to wilderness. Commenters expressed confusion about the definitions of the preservation terms used and asked the NPS to include descriptions of the process for deciding treatment of the properties in the document.</p> | 75 |
| AL1507 – Management of Non-Historic Structures (i.e., shelters) | <p>Commenters provided suggestions for management of non-historic structures including increasing the number of shelters to reduce the impact that concentrations of visitors have on vegetation and the area immediately surrounding the shelter. Some commenters suggested adding three shelters at Rock Harbor, two at Siskiwit Bay, and two shelters each at Feldtmann Lake, Huginn Cove, and Lane Cove. Some commenters stated that the existing structures do not detract from the wilderness, contribute to the rustic character of the park, and should remain.</p> <p>Some commenters noted opposition to any structures in wilderness and requested they be removed; other commenters suggested that removal should be limited to private residences.</p> | 10 |

| Code | Concern Statements | Total Correspondences |
|--|--|-----------------------|
| AL1600 – Other/New Alternative or Alternative Elements | Commenters provided suggestions for elements not currently being considered such as eliminating all commercial use, limiting or prohibiting generator use at docks, and responding to naturally occurring fires in wilderness. | 3 |
| CC1000 – General Comments | Commenters requested additional consultation with the kayaking community and asked that the NPS consult with the Anishinaabe (Ojibwe) Community/Tribe. | 10 |
| GA1000 – General Impact Analysis | One commenter requested that the document quantify recent and projected visitation numbers, along with corresponding potential increases or decreases in the development and use of trails, concessions, camping accommodations, and historic structures for operational purposes. | 1 |
| IT1000 – Wilderness | Commenters noted the desire to preserve wilderness and remove all structures from wilderness. Commenters requested clarification on the conversion of wilderness from potential to designated, and some requested that potential wilderness with historic structures not be reclassified to provide a wilderness buffer. Commenters requested the plan address who the wilderness is supposed to serve and requested no cost be associated with accessing the wilderness. Concerns were raised about Leave No Trace principles being observed and enforced. | 13 |
| IT1200 – Other/New Impact Topics | Commenters noted impact topics not included in the Notice of Intent they felt should be evaluated, including fire in wilderness (both ideas for fire prevention and the use of prescribed burning), soundscapes including addressing noise from large groups and boaters, impacts to wolf populations, and climate change. One commenter suggested maintaining Krefting exclosures in wilderness. | 10 |
| IT1300 – Seaplanes | Commenters expressed concern with seaplane operations and their impact to soundscapes. Specific suggestions included reducing seaplane operation by 25% and creating daily operation limits. | 10 |
| ON1000 – Other NEPA Issues | Commenters had questions and concerns on the planning process in general, including how this process will complement the CRMP/EA and noting that this process should be transparent. Commenters requested public hearings for the draft EIS and better ways of obtaining public input. Commenters raised concern about public, Tribal, and local government input into the process, as well as concerns regarding a wilderness eligibility assessment being completed. | 2 |
| RF1000 – Suggested References | Several commenters and external agencies suggested certain references to use for the analysis process. | 8 |

Public Involvement for the Draft EIS. CEQ regulations require issuance of both draft and final versions of an EIS (1502.9). CEQ regulations also require a draft EIS public comment period of at least 45 days (1506.11) after publication of the Notice of Availability in the *Federal Register*. This draft EIS will be available for a 60-day public comment period. The public comment period will be announced by a press release, posts on the PEPC website, and by electronic mail sent to the park mailing list. Associated agencies and Tribes will be also notified by letter. Hard copies of the document will be available for review at park headquarters in Houghton, Michigan. The NPS will host in-person and virtual public

meetings during the public comment period to provide information on the plan/EIS and an opportunity for the public to ask questions. Meeting dates, times, and locations will be announced at the same time as the availability of the draft EIS.

During this time, the public is encouraged to post comments online at <https://parkplanning.nps.gov/ISRWilderness> or mail comments to “Isle Royale National Park, Attention: Superintendent Denice Swanke, Draft Wilderness Stewardship Plan/EIS, 800 East Lakeshore Drive, Houghton, MI 49931.” Following the close of the comment period, all public comments will be reviewed and analyzed. NPS will then issue responses to substantive comments received during the comment period and make the appropriate changes resulting in a final EIS.

AGENCY CONSULTATION

Tribal Consultation

The need for government-to-government Native American consultation stems from the historic power of Congress to make treaties with American Indian Tribes as sovereign nations. Consultations with federally recognized Tribes are required by various federal laws, executive orders, regulations, and policies. They are needed, for example, to comply with section 106 of the National Historic Preservation Act. Implementing regulations of the CEQ for NEPA also call for American Indian consultations. Isle Royale is in the area covered by the 1842 Treaty of LaPointe and the 1844 Isle Royale compact; therefore, the NPS consults with Tribes who were signatories of that treaty. The NPS engages in Tribal consultation for multiple efforts at the park, including the shared commitment to co-stewardship. Additionally, the new co-stewardship policy provides a stronger framework—beyond traditional consultation—to help park managers facilitate and support working relationships with Tribes. The coordination described below was conducted for multiple efforts, including the CRMP, and also included ongoing coordination for wilderness planning.

In November 2010, letters were sent to the following Lake Superior Chippewa Tribes to announce the start of this plan, inform them of the public listening sessions, and to invite their participation in this planning process: Red Cliff, Bad River, Lac Courte Oreilles, Lac du Flambeau, Keweenaw Bay, Lac Vieux Desert, Fond du Lac, Grand Portage, and Milles Lacs. A consultation meeting was held in December 2010 in Duluth, Minnesota, with the Grand Portage and Bois Forte Tribal Historic Preservation Officers to discuss this plan. The park followed up with a letter in December 2010 formally inviting Bois Forte to participate in this planning process because of their close connection to Grand Portage and Isle Royale.

Invitation letters to an April 2011 meeting in Duluth, Minnesota, were sent to the above-listed Tribes with the addition of Sault Ste. Marie and Bay Mills as additional Lake Superior Chippewa Tribes in Michigan. Milles Lacs and Bad River sent representatives to the consultation meeting held on April 28, 2011, in Duluth, Minnesota. Grand Portage and Bois Forte were invited to visit the island in the summers of 2011 and 2012, but the Tribal historic preservation officers and Tribal chairmen could not fit visits into their schedules.

Newsletter 1 was sent to the Tribes in November 2011 to keep them informed of this planning process. Tribes were informed of the traditionally associated people determination (families who fished commercially at the park prior to the park’s designation) by a letter sent via email in August 2012. The letter noted that “this determination does not change or impact any treaty rights that exist at Isle Royale or the government-to-government relationship we share.”

During a team meeting in Grand Portage, Minnesota, in April 2013, the planning team met with the Grand Portage Tribal Council to discuss this plan and associated resources. When the Notice of Intent was published in June 2013, Tribes were notified by letter, updated on this plan, and informed of the upcoming public meetings. A letter with updates on the section 106 and NEPA process was sent in September 2013 and newsletter 2 was mailed to them in November 2013 with an offer to meet in December 2013 or January 2014.

A consultation meeting was held in February 2014 in Grand Portage, Minnesota, with the Grand Portage Tribal Council. One item on the agenda was a discussion of the CRMP/EA draft preliminary alternatives. Also in February 2014, a meeting was held at the Grand Portage National Monument visitor center for the Grand Portage community to discuss Isle Royale and this plan.

A consultation meeting was held with the Grand Portage Tribal Council on January 11, 2016. The Tribe was briefed on the NPS preferred alternative. In July 2016, park staff attended a meeting of the Great Lakes Indian Fish and Wildlife Commission Voigt Intertribal taskforce. The CRMP/EA was discussed, and the Tribes were invited to attend consultation meetings in the fall to review and discuss this plan and alternatives.

All above-mentioned Tribes were invited to participate in meetings in fall 2016 and winter 2017 to review plan alternatives. Tribes will be provided a copy of this draft EIS for review. On October 20, 2022, the NPS sent a letter to the Tribes noted above to inform them of the publication of the EIS Notice of Intent and the commencement of the 30-day scoping period for the EIS.

The NPS is strongly committed to building a more effective day-to-day working relationship, respectful of Tribal sovereignty, and the park endeavors to undertake activities affecting Native American Tribal interests and consultation in a knowledgeable, sensitive manner. The park continues its consultation with the Grand Portage Band and other Tribes to ensure their views are appropriately considered in the development of this plan.

Non-Tribal Section 106 Consultation

Agencies that have direct or indirect jurisdiction over historic properties are required by section 106 of the National Historic Preservation Act to take into account the effect of any undertaking on properties listed or eligible for listing in the National Register. The NPS initiated consultation regarding treatments of historic properties in wilderness in 2010. A number of discussions and meetings with non-Tribal consulting parties occurred between 2010 and 2016 as part of the CRMP/EA process, with consultation continuing to occur for this draft EIS. More documentation on those meetings is available in the CRMP/EA.

In 2015, after considering a request by one of the section 106 non-Tribal consulting parties, the NPS began working with the US Institute for Environmental Conflict Resolution to hire a third-party neutral facilitator to continue and coordinate the section 106 consultation process. Through conversations with the US Institute for Environmental Conflict Resolution, the NPS decided that the facilitated section 106 consultation would include both the CRMP/EA and the Wilderness Stewardship Plan. During fiscal year 2016, the details of the section 106 consultation process were confirmed.

In August 2016, the section 106 facilitator held a teleconference/webinar with the NPS and non-Tribal consulting parties to clarify the section 106 process. This process involved a series of remote webinars, conference calls, and face-to-face meetings and responses to questions on the process from September 2016 to August 2017. As part of the consultation, the section 106 consulting parties were provided a copy of the CRMP/EA for review.

Since 2015, a number of other organizations have requested to be included as non-Tribal consulting parties. The Sierra Club and Wilderness Watch requested status as non-Tribal consulting parties in August 2016, noting their interest in the undertaking and its effect on historic properties—the NPS approved their request. In January 2023, the National Parks Conservation Association requested this status. Non-Tribal consulting parties include the following organizations: Michigan State Historic Preservation Office, Isle Royale Families and Friends Association, North Shore Commercial Fishing Museum, Michigan Historic Preservation Network, the National Trust for Historic Preservation, Sierra Club, Wilderness Watch, Johns Hotel Historical Point Association, Washington Harbor Preservation Group, and the National Parks Conservation Association.

Section 106 consultation for this EIS and the Wilderness Stewardship Plan is ongoing. On October 20, 2022, the NPS sent a letter to the consulting parties to inform them of the publication of the EIS Notice of Intent and the commencement of the 30-day scoping period for the EIS.

United States Fish and Wildlife Service

Consultation with the US Fish and Wildlife Service (USFWS) pursuant to section 7 of the Endangered Species Act was initiated on October 21, 2022, in the form of a letter informing the USFWS that the Notice of Intent was going to be published in the *Federal Register* and informing the USFWS of the associated public scoping period. The USFWS responded that consultation should occur through the Information for Planning and Consultation (IPaC) system. The NPS will submit information through IPaC as part of the review of the draft plan/EIS.

LIST OF RECIPIENTS OF THE ENVIRONMENTAL IMPACT STATEMENT

Upon publication of the Notice of Availability of the draft EIS in the *Federal Register*, a press release was issued announcing the availability of the document for public review. Notice will be provided to interested individuals and organizations via the park website, email, Facebook, or postcard.

Federal Agencies

- US Fish and Wildlife Service,
Ecological Services, East Lansing Field
Office
- US Environmental Protection Agency
- Advisory Council on Historic
Preservation

Tribal Governments and Organizations

- 1854 Authority
- Keweenaw Bay Indian Community
- Lac Vieux Desert Band of Lake Superior Chippewa
- Bay Mills Indian Community
- Sault Tribe of Chippewa Indians
- Fond du Lac Band of Lake Superior Chippewa
- Grand Portage Band of Lake Superior Chippewa
- Mille Lacs Band of Ojibwe
- Minnesota Chippewa Tribal Executive Committee
- Bois Forte Band of Chippewa
- Bad River Band of Lake Superior Chippewa
- Lac Courte Oreilles Band of Lake Superior Chippewa
- Lac du Flambeau Band of Lake Superior Chippewa
- Red Cliff Band of Lake Superior Chippewa
- St. Croix Chippewa Indians of Wisconsin
- Sokaogon Mole Lake Chippewa Community
- Great Lakes Indian Fish and Wildlife Commission

State Governmental Agencies

- Michigan Department of Natural Resources
- Michigan State Historic Preservation Office
- Michigan Office of the Governor

Organizations/Others

- Clean Wisconsin
- Forever Resorts
- Friends of the Boundary Waters
- Grand Portage Isle Royale Transportation Line
- Isle Royale and Keweenaw Parks Association
- Isle Royale Boaters Association
- Isle Royale Families and Friends Association
- Isle Royale Institute
- Isle Royale Sea Plane
- Isle Royale Line, Incorporated
- Keweenaw Chamber of Commerce
- Madison Audubon Society
- Michigan Historic Preservation Network
- Michigan Technological University
- Michigan United Conservation Club
- National Parks Conservation Association
- National Trust for Historic Preservation
- National Wildlife Federation
- North Shore Commercial Fishing Museum
- Park Employees for Environmental Responsibility
- Sierra Club
- The Wildlife Society

- Upper Peninsula Environmental Coalition
- Wilderness Society
- Wilderness Watch
- Wisconsin League of Conservation Voters

LIST OF PREPARERS AND CONSULTANTS

| Name | Title | Responsibilities | Qualifications |
|------------------------------|---|--|---|
| National Park Service | | | |
| Joshua Kleinman | Project Manager, Environmental Quality Division | NEPA project manager; provided input and review; point of contact for project-related questions and concerns | 15 years NPS NEPA and National Historic Preservation Act project management. BA Sociology and Anthropology, University of Redlands; MA Anthropology/Archeology, Northern Arizona University |
| Lindsay Gillham | NEPA Technical Lead, Environmental Quality Division | Document reviewer; provided input and review; point of contact for project-related questions and concerns | 15 years NPS NEPA Project Manager, 4 years USFWS Planner, BS Natural Resources Tourism, Colorado State University; JD, Univ. of Oregon School of Law |
| James Lange | Planning and Compliance Division Manager for Midwest Region | Document reviewer | 11+ years managing planning and compliance projects for the NPS at the regional level. MLS with Environmental Law Specialization, University of Nebraska |
| Stephanie Stephens | Associate Regional Director for Cultural Resources, Midwest Regional Office | Document reviewer; cultural resources subject matter expert | 30+ years cultural resources and museum collections management |
| Nancy Finley | Associate Regional Director, Midwest Regional Office | Document reviewer | 30+ years of experience with natural resource management and science technical support to the NPS and other land management agencies |
| Rene Ohms | Environmental Protection Specialist | Document reviewer | 23 years of NPS natural and cultural resources management with 8 years managing park NEPA and NHPA compliance programs and 2 years as Regional NEPA Specialist. BS Biological Sciences, University of Arizona |

List of Preparers and Consultants

| Name | Title | Responsibilities | Qualifications |
|--------------------|---|--|--|
| Denice Swanke | Superintendent, Isle Royale National Park | Document reviewer; NPS Recommending Official | 30+ years natural and cultural resources/federal land management; BS Earth Sciences/Biology; W. Oregon University; MPA Public Administration, University of Montana |
| Mark Romanski | Biologist/Natural Resources Program Manager, Isle Royale National Park | Document reviewer | 25 years NPS natural and cultural resources planning, BS Biology, UW Stevens Point; MS Applied Ecology, Michigan Technological University |
| Elizabeth Valencia | Program Manager, Interpretation, Education and Cultural Resources | Document reviewer | 30+ years NPS experience including cultural and wilderness planning. BA History, UW Platteville; MA History, Purdue University |
| Seth DePasqual | Archeologist and NEPA Specialist, Isle Royale National Park | Document reviewer | 14+ years NPS cultural and natural resource planning, 3 years Forest Service cultural resource planning. BA Anthropology/Archeology, University of Wyoming; MS Industrial Archaeology, Michigan Technological University |
| Roger Semler | Washington Support Office National Wilderness Stewardship Program Manager | Document reviewer; wilderness subject matter expert | |
| Kathy Boden | Tribal Relations Program Coordinator | Document reviewer | 20+ years in anthropology/Tribal relations. BA Anthropology, University of New Mexico; MA Anthropology, Colorado State University |
| WSP | | | |
| Lori Fox, AICP | Project Manager / Vice President | Responsible for project management and senior technical review | 22 years of experience. BS Environmental Policy, University of Michigan; MCP Urban and Land Use Planning, University of Maryland |

CHAPTER 5: CONSULTATION AND COORDINATION

| Name | Title | Responsibilities | Qualifications |
|------------------|--|---|--|
| Jessica Forbes | Deputy Project Manager / Environmental Planner | Responsible for project management and oversight of NEPA analysis and documentation, authored Wilderness analysis | 16 years of experience, BA Environmental Studies, Randolph-Macon Woman's College; Certificate of Environmental Communication, Duke University Nicholas School of the Environment |
| Camilla McDonald | Lead Consultant Historian | Authored Cultural Resource analysis | 24 years of experience, MS Historic Preservation, Ball State University |
| Deborah Mandell | Senior Technical Editor | Responsible for document editing, formatting, and accessibility | 32 years of experience. BA Government, Wesleyan University; MBA Finance and Marketing, Northwestern University |
| Rudi Byron, AICP | Director | Responsible for quality assurance and quality control | 18 years of experience. BS Environmental Policy and Politics, University of Maryland; MURP Urban and Region Planning, Virginia Tech |