


General Management Plan

GLACIER NATIONAL PARK

A Portion of Waterton-Glacier International Peace Park
Flathead and Glacier Counties, Montana

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





Dedicated to the Memory of
Cindy White Cameron
1960 – 1998

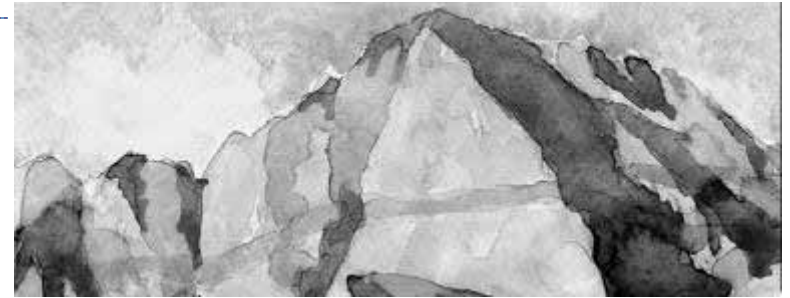
A seasonal “trail dog” who enriched the lives of visitors who hiked the wilds of this Peace Park,
and who taught Glacier’s children the joy of music and song,
singing, “Let there be peace on earth and let it begin with me”

She lived her song.

Without employees like Cindy, Glacier could not be.

Dear Friends,

What you have before you is the culmination of a four-year effort, in which we worked with you to determine how best to manage Glacier National Park for the future. It has been neither an easy process nor a quick one, and for good reason. Many of you wish to see little change. Many of you believe we must change to reduce impacts to natural resources. Many believe we must meet the demands of greater numbers of visitors. Many of you have actively championed various issues, be they wilderness, visitor access, research, or retaining the heritage of the past that is also the image of Glacier. And all of you feel very strongly about Glacier! I thank you all for taking the time to understand the issues and Glacier's values and for giving us your thoughts.



Glacier — a unit of Waterton-Glacier International Peace Park — is special to us all. It is the first national park in the world to be legislatively paired with another as an “international peace park.” Its cultural significance predates its national park status. To the Blackfoot Nation, Going-to-the-Sun is not just the name of a spectacular road over the “backbone” of their world.

Nowhere else in the contiguous states is found a complete complement of predators and prey that are interdependent on our ability to manage across national frontiers. Glacier's bears, wolves, and raptors are not “Glacier's” at all, but are part of a “Crown of the Continent” ecosystem that is at the core for survival of endangered species in neighboring states. If we cannot preserve these species here in the Waterton-Glacier International Peace Park with the help of Alberta, British Columbia, and Montana, then what does that mean for them in Idaho, Washington, and Wyoming?

Waterton-Glacier International Peace Park is an incredibly complex natural system of which humans are a part, even if only visiting for awhile. The challenge of preserving park resources while using them for the benefit of people is as complex as the systems themselves. The National Park Service rises to meet this management challenge every day in every way, whether funding research to better understand why bull trout in upper Kintla Lake spawn upstream, rebuilding a washed-out trail bridge, or continuing a visitor use that has become “traditional.” And, every employee — from the seasonal employee serving a first year, to the concessioner providing visitor services, to NPS employees who have served their entire careers here — is truly dedicated to doing what is best to preserve Glacier for present and future visitors.

It pleases us to know that so many of you realize that trying to keep the essence of Glacier little changed — while our world around us changes constantly — is a daunting challenge. Yet these challenges are the essence of our duty as national park managers to preserve Glacier for the benefit and use of future generations. Thus, we must actively manage this world treasure, especially where visitors and park resources meet, to meet this responsibility. This General Management Plan will guide our efforts.

In ten short years Glacier will begin to celebrate its centennial. We are fortunate that almost a hundred years of national park management has enabled public use of this great park to enrich the lives of so many while little changing the park. The implementation of this General Management Plan can help ensure a continuation of use by visitors who become dedicated, through their experience, to Glacier's preservation.

David A. Mihalic
Superintendent

Contents

Introduction	3
Guiding Principles for Glacier National Park	5
General Philosophy / Geographic Areas	17
Many Glacier	22
Goat Haunt-Belly River	24
Going-to-the-Sun Road Corridor	26
Two Medicine	30
Middle Fork	32
North Fork	34
Critical Issues Facing Glacier National Park	39
Visitor Use on the Going-to-the-Sun Road	41
Preservation of the Going-to-the-Sun Road	44
Preservation of Historic Hotels and Visitor Services	48
Scenic Air Tours	53
Personal Watercraft	57
Winter Use	59
Divide Creek Flood Hazard	60
West Side Discovery Center and Museum	62
Implementation Plan	68

Introduction



Glacier National Park is a legacy to the American people and to the world. It allows rare glimpses of the natural world and holds superb examples of western cultural history. The park means different things to different people. For some, its importance is based in its nearly intact complement of native plants and animals. For others, it is a reminder of the human story, beginning before written record and continuing through this country's westward expansion. People have stood for thousands of years beneath these peaks; many nations include them in their cultural legacy. American Indians still revere the mountains that are the spiritual backbone of their world.

Glacier National Park exemplified the value of wilderness long before wilderness became rare. As visitors hike its rugged trails and sleep in its grand lodges and backcountry chalets, they gain more than memories – they take away a dramatic appreciation of the wild, a reverence for its beauty, and a sense of place in time. Visitors from many nations can learn how special this place is, and in doing so they may be able to take some small measure of peace away with them. People from places torn by strife can be inspired by this place where two countries, sharing an undefended boundary, continue to prove that people can work together in peace and goodwill.

Glacier National Park straddles the Continental Divide in northwestern Montana and encompasses more than a million acres of incomparable mountain scenery. Its sculptured peaks and crystalline lakes are remnants of extensive glaciation in the last ice age. Nearly 40 active glaciers remain in the park. The unsurpassed scenery attracts almost 2 million visitors a year to northwestern Montana.

Glacier includes large expanses of undeveloped land and is the relatively undisturbed core of a large ecosystem that supports a wide variety of plants and animals. It is one of the few places in the world where all native predators and most of their prey survive in the wild. Threatened and endangered species have found a safe haven here. Gray wolves, grizzly bears, and bald eagles thrive in the park.

Far away in northwestern Montana, hidden from view by clustering mountain peaks, lies an unmapped corner – the Crown of the Continent – slow-moving ice rivers still plow their deliberate ways, relics of mightier glaciers, the stiffened streams which in a past age fashioned the majestic scenery of today.

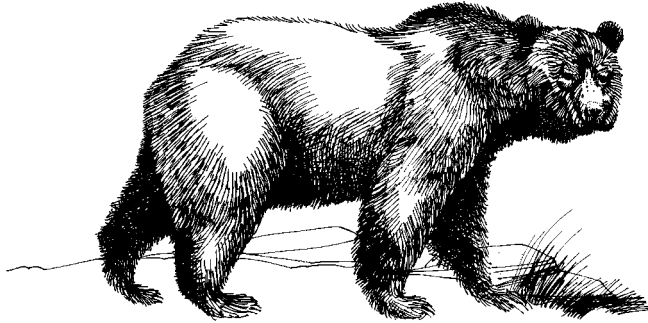
George Bird Grinnell
Century Magazine, September 1901

Glacier National Park is an investment in the heritage of America. Our primary mission is the preservation of world class natural and cultural resources, allowing us to ensure that current and future generations have the opportunity to experience, enjoy, and understand the legacy of Waterton-Glacier International Peace Park.

Glacier National Park's Government Performance and Results Act mission statement

Glacier has become an increasingly popular destination for visitors with a wide range of abilities and expectations. Visitors can enjoy the park in their own vehicles and drive the famous Going-to-the-Sun Road. They choose among such activities as horseback riding, canoeing, and fishing, and they take boat tours on the lakes and stay in historic hotels or campgrounds. Visitors can hike on 735 miles of trails throughout the park.

This document presents the General Management Plan for Glacier National Park, which will guide decisions for the next 20 years or more. It presents a management philosophy and a strategy to guide future decisions. This strategy involves six management areas. Each geographic area has a philosophy and management zones; appropriate types of development and activities are described for those zones. The plan then presents resolutions to eight critical issues facing the park.



Guiding Principles for Glacier National Park

This General Management Plan (GMP) provides a management strategy to address issues and guide decisions for the next 20 or more years. The management strategy includes the purpose, significance, and guiding principles for management of the park. This guidance is consistent with legislation that established Glacier National Park, National Park Service policies, and other laws and directives that form the basis for NPS decision making (see appendix A in the 1999 Final General Management Plan and Environmental Impact Statement for Glacier National Park).

The Final General Management Plan and Environmental Impact Statement for Glacier National Park states the purposes of the park as outlined in the legislation that established it. Purpose statements clarify the reasons that Glacier National Park was established. Significance statements explain Glacier's importance relative to its natural and cultural heritage. Significance statements describe the park's distinctive qualities and place them in their regional national and international contexts.

GLACIER'S PURPOSE

- Preserve and protect natural and cultural resources unimpaired for future generations (1916 Organic Act).
- Provide opportunities to experience, understand, appreciate, and enjoy Glacier National Park consistent with the preservation of resources in a state of nature (1910 legislation establishing Glacier National Park).
- Celebrate the ongoing peace, friendship, and goodwill among nations, recognizing the need for cooperation in a world of shared resources (1932 International Peace Park legislation).

GLACIER'S SIGNIFICANCE

Significance statements explain Glacier's importance relative to its natural and cultural heritage. Significance statements describe the park's distinctive qualities and place them in their regional, national, and international contexts.

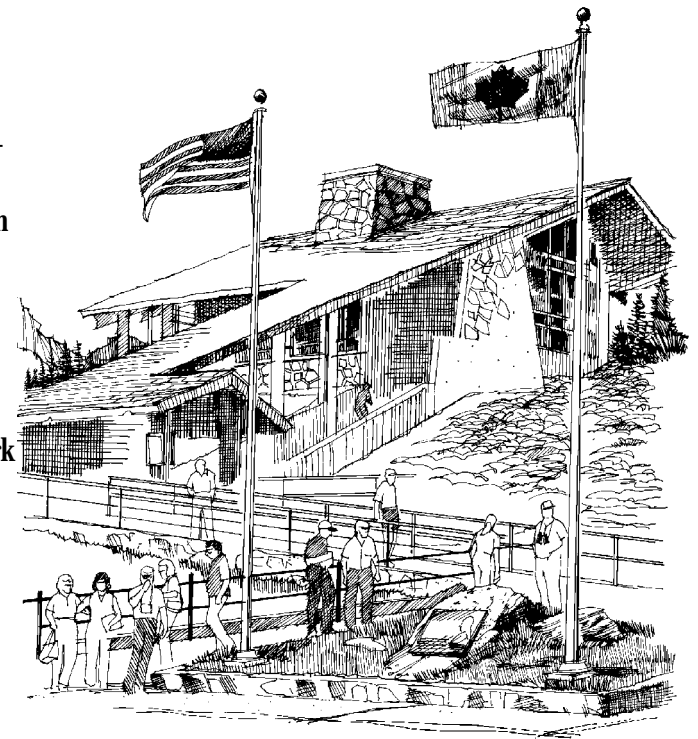
- Glacier's scenery dramatically illustrates an exceptionally long geologic history and the many geological processes associated with mountain building, and glaciation.
 - Glacier has the finest assemblage of ice age alpine glacial features in the contiguous 48 states, and it has relatively accessible, small-scale active glaciers.
 - Glacier provides an opportunity to see evidence of one of the largest and most visible overthrust faults in North America, exposing well-preserved Precambrian sedimentary rock formations.
 - Glacier is at an apex of the continent and one of the few places in the world that has a triple divide. Water flows to the Atlantic, Pacific, and Arctic Oceans.
- Glacier offers relatively accessible spectacular scenery and increasingly rare primitive wilderness experiences.
 - The Going-to-the-Sun Road, one of the most scenic roads in North America, is a national historic landmark.
 - Glacier offers a challenging primitive wilderness experience and opportunities to listen to natural sounds.
- Glacier is at the core of the "Crown of the Continent" ecosystem, one of the most ecologically intact areas remaining in the temperate regions of the world.
 - Due to wide variations in elevation, climate, and soil, five distinct vegetation zones overlap in Glacier and have produced strikingly diverse habitats that sustain plant and animal populations, including threatened and endangered, rare, and sensitive species.
 - Glacier is one of the few places in the contiguous 48 states that continue to support natural populations of all indigenous carnivores and most of their prey species.
 - Glacier provides an outstanding opportunity for ecological management and research in one of the largest areas where natural processes predominate. As a result, the park has been designated as a biosphere reserve and Waterton-Glacier International Peace Park has been designated as a world heritage site.
- Glacier's cultural resources chronicle the history of human activities (prehistoric people, American Indians, early explorers, railroad development, and modern use and visitation) that show that people have long placed high value on the area's natural features.
 - American Indians had a strong spiritual connection with the area long before its designation as a national park. From prehistoric times to the present, American Indians have identified places in the area as important to their heritage.
 - The park's roads, chalets, and hotels symbolize early 20th century western park experiences. These historic structures are still in use today.
 - The majestic landscape has a spiritual value for all human beings — a place to nurture, replenish, and restore themselves.
- Waterton-Glacier is the world's first international peace park.
 - People of the world can be inspired by the cooperative management of natural and cultural resources that is shared by Canada and the United States.
 - Glacier National Park and Waterton Lakes National Park offer an opportunity for both countries to cooperate peacefully to resolve controversial natural resource issues that transcend international boundaries.

WATERTON-GLACIER INTERNATIONAL PEACE PARK

Glacier National Park and Waterton Lakes National Park together comprise the world's first international peace park. In 1932, largely through the work of the Rotary Clubs of Alberta and Montana and Rotary International, the Canadian Parliament and the United States Congress designated Waterton Lakes and Glacier National Parks as units of Waterton-Glacier International Peace Park. The designation was established to foster the long relationship of peace and goodwill between Canada and the United States. The peace park today also illustrates the need for cooperation in a world of scarce but shared resources. It is a symbol of the peace shared by two great nations and serves as an example for other countries whose borders straddle the world's special wild places.

We support the efforts of Parks Canada and Alberta to educate visitors and residents about the values of the international peace park, the world heritage site, and the biosphere reserve program. Glacier will continue to cooperate in these initiatives where common goals are shared and will work to achieve them where possible within each country's laws and policies.

The two national parks, their international designations and recognition, and the magnificent natural and heritage resources shared by the peace park region offer an opportunity for the two countries to promote and encourage environmental stewardship as these resources become more prized and attractive to their citizens. By encouraging employees' and visitors' greater understanding of each country's national park mission and heritage values and the common purpose of both countries, the international peace park can be an example to all nations that share scarce natural resources or the heritage of humankind across their boundaries. And by doing so peacefully, Glacier and Waterton Lakes together can model behavior that may help secure for future generations the bounty and promise of the remaining wild places on earth to all peoples.



WORLD HERITAGE SITE

In 1995 the Waterton-Glacier International Peace Park was designated as a world heritage site by the Convention Concerning the Protection of the World Cultural and Natural Heritage, part of the United Nation's Educational, Scientific and Cultural Organization. Waterton-Glacier met all criteria established for natural area nominations, and its designation as a world heritage site recognizes Waterton-Glacier as an area of outstanding universal value to people throughout the world.

The designation of Waterton-Glacier provides greater protection for resources because Canada and the United States have agreed through the ratification of the world heritage treaty to refrain



from taking actions that might damage the values of the other country's world heritage site. They have also each agreed to take the measures necessary within their own laws to protect their own sites. Resource impacts that may become issues for both parks include management of endangered species and wildlife, natural fire management, mineral development, air quality, use of water resources, logging near the parks, and increasing levels of visitor use.

BIOSPHERE RESERVE

In 1976 Glacier National Park was designated as a biosphere reserve under the Man and Biosphere Programme of the United Nations Educational, Scientific, and Cultural Organization. The designation says, in part, that a reason for the park's biosphere reserve status is "to conserve for present and future human use the diversity and integrity of biotic communities and to safeguard the genetic diversity of species" and to "provide areas for ecological research, including baseline studies both within and adjacent to Glacier." This language lends greater depth and support to park themes of preservation, research, education, and human use. Waterton Lakes National Park was designated three years later. The two main tenets of the Man and Biosphere Programme are the preservation of the core natural values and encouraging a sustainable area economy that will protect those values. Glacier will continue to work and cooperate with park neighbors and owners of adjacent lands to carry out the tenets of these programs.

PROPOSED WILDERNESS

A wilderness study for Glacier was conducted, and findings were presented to Congress in 1974. Approximately 95 percent of the park is now identified as suitable for inclusion in the national wilderness preservation system (see Wilderness map). However, Congress has not formally designated any land in Glacier as wilderness. NPS policy requires that the proposed wilderness land in Glacier be managed as wilderness until such time as Congress either formally designates the land as wilderness or rejects the designation.

[Proposed wilderness areas] shall be administered for the use of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness areas, so as to provide for the preservation of their wilderness character . . .

. . . Park visitors must accept wilderness largely on its own terms, without modern facilities provided for their comfort or convenience. Users must also accept certain risks, including possible dangers arising from wildlife, weather conditions, physical features, and other natural phenomena that are inherent in the various elements and conditions that comprise a wilderness experience and primitive methods of travel (NPS Management Policies 1988)

INTERPRETIVE, EDUCATIONAL, AND OUTREACH PROGRAMS

One goal of the National Park Service is to connect parks to people by offering the highest quality services possible. These programs and interpretive media for visitors and for local, national, and international communities provide understanding and support for preservation and facilitates thoughtful, safe, and minimal-impact use of the park and, when successful, develop public understanding of and support for the park's significant cultural, natural, and recreational values.

The interpretive message is conveyed through walks, talks, hikes, campfire programs, visitor centers, wayside exhibits, and brochures. The media and the Internet are also used. As new communication technology becomes available, it will be developed for use in educating the public.

None of this can be accomplished without the help of others. Educational partners include Waterton Lakes National Park, Glacier Natural History Association, Crown of the Continent Environmental Education Consortium, the U.S. Forest Service, local school districts, colleges and universities, the tourism industry, chambers of commerce, civic groups, clubs, and organizations. There is an ongoing formal relationship between Glacier National Park and the Glacier Institute, which is a private, nonprofit educational organization based in Kalispell, Montana.

PRESERVATION OF NATURAL RESOURCES

Glacier National Park was set aside in 1910 largely because of its scenic, wild ruggedness and intrinsic natural values. We now better understand the significance of the park in the context of a "world class" ecosystem and the role this ecosystem plays in attracting visitors to the park and providing enjoyment and understanding of natural processes. Some specific natural resource concerns are identified in this document (personal watercraft, scenic air tours). Overall natural resource strategies are addressed to varying degrees under "Critical Issues and Alternatives" and "General Philosophy for Managing Glacier."



Additional plans (such as the Resource Management Plan (NPS 1993b)), regulations, and laws exist to direct and guide the management of natural resources throughout the park; therefore, they are not specifically addressed in this General Management Plan. Nationally and at Glacier, the need for professional management of resources has been identified. In addition to servicewide efforts, this deficiency is the subject of a separate and encompassing efforts to develop a parkwide staffing plan. Appendix G in the Final General Management Plan and Environmental Impact Statement contains a GMP staffing plan that includes at least six natural resource positions.

Natural resources are managed in accordance with NPS policy “to understand natural processes and human-induced effects; mitigate potential and realized effects; monitor ongoing and future trends; protect existing natural organisms, species populations, communities, systems, and processes; and interpret these organisms, systems, and processes to the park visitor” (NPS 1991g). Natural resource management programs will be conducted in a cooperative spirit with other agencies and landowners and will include inventory and research, mitigation, monitoring, and protection (see Wildlife Considerations map).

PRESERVATION OF CULTURAL RESOURCES

Glacier National Park is the steward of many of America’s most important cultural resources. In accordance with the Organic Act of 1916, which established the National Park Service, the agency, and subsequently the staff of Glacier National Park, are charged to preserve the park’s cultural resources unimpaired for the enjoyment of present and future generations. If these resources are degraded or lost, so is part of the essence of Glacier National Park.

Cultural resources are managed in accordance with NPS guidelines by conducting research, planning, and stewardship. Research identifies, evaluates, documents, registers, and establishes other basic information about cultural resources. Planning ensures that this information is well integrated into management processes for making decisions and setting priorities. Stewardship is carried out by planning decisions, ensuring that resources including museum collections are preserved, protected, and interpreted to the public.

AMERICAN INDIAN RELATIONS

Glacier, like many national parks, was recognized as a special place long before it was formally designated as part of the natural heritage of the United States. The park has many prehistoric sites,

some dating to 2,000 years ago. Glacier has long served the hunting, gathering, and spiritual needs of native people. More recently, the Salish, Kootenai, and Pikuni (Blackfeet) people, among others, used the park for their livelihood and to fulfill spiritual needs. The mountain passes provided travel corridors to the Great Plains for seasonal buffalo hunts for people west of the Continental Divide and as trade routes for people east of the divide.

American Indians revere Glacier and did so long before contact with European people. The park is filled with sites that are sacred to nearby tribes. Chief Mountain, a spectacular geologic feature, has long been a spiritual focus for the Plains tribes. The Two Medicine Valley takes its name from two medicine lodges that once were erected there. The Kootenai and Salish tribes still have sacred sites in Glacier National Park.

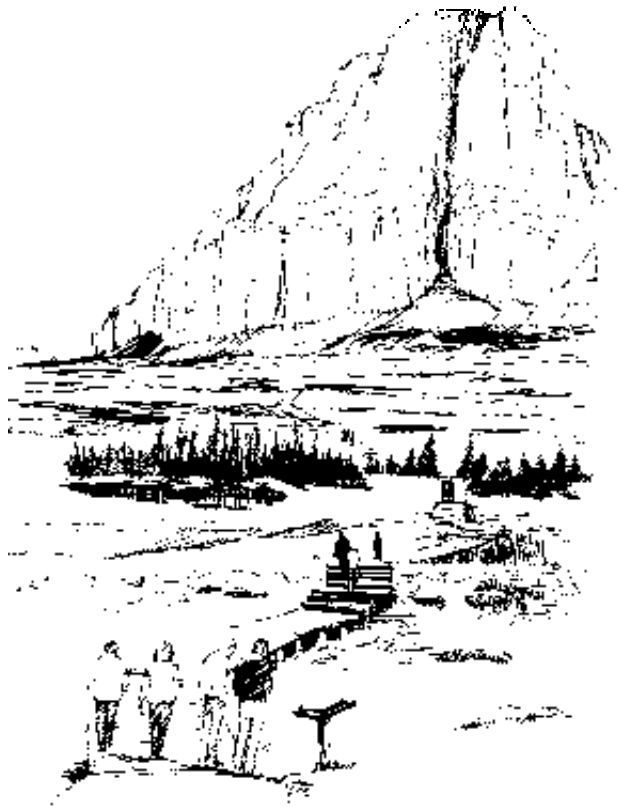
The first formal treaties between these tribes and the United States were in 1855. While these treaties had many purposes, they resulted in the cession of land to the United States and the reservation of land for the tribes.

The U.S. government approached the Blackfeet in 1895 with an offer to purchase a portion of their reservation just east of the Continental Divide. What is known today as the “ceded strip” comprises the eastern half of the park and the Badger-Two Medicine portion of Lewis and Clark National Forest. Along with the land cession, the Blackfeet reserved the right of entry, fishing and hunting (under Montana law), and the cutting of timber. With the establishment of Glacier National Park, most of these rights ended, although some do not agree with this interpretation. Regardless, tribal members still consider this to be a special place. The Department of the Interior reopened treaty negotiations with the Blackfeet in 1999. The right of free entry has been agreed upon for Blackfeet as well as Kootenai and Salish tribal members.

Some of the land reserved in 1855 remains as reservations today. Native sovereignty is recognized on that land. The Department of the Interior has a special trust relationship with these “dependent domestic nations,” which is grounded in a long history in law. National park policies govern how the park and the National Park Service relate to and deal with Indian tribes. For example, consultation with tribal governments on actions of mutual concern, the various historic preservation policies, the repatriation of funerary objects and human remains, and access for practice of American Indian religions are well established, as are other laws and policies in working with tribal governments. The General Management Plan must comply with these laws and policies.

The National Park Service appreciates the significant cultural and historical ties that the Salish-Kootenai and Blackfeet have to the area. The park staff appreciates the emotional kinship that these tribes feel for the area. Through the General Management Plan, the park will continue to work to





enhance its relationship with the three tribes. The park's social, economic, and religious character to American Indians is a park value, and park management will continue to honor it. The obligations of the treaties of the past as well as the congressional acts establishing Glacier, the National Park Service, and the international peace park will continue to protect and respect the traditional tribal and heritage values of the park.

Park management will continue to work with the Confederated Salish and Kootenai Tribes to protect traditional values. Where contemporary goals are mutual, an effort will be made to use the authorities granted the tribes under their self-governance status. The park will continue to work with the Blackfeet Tribal Business Council to recognize tribal rights and to work toward the resolution of issues on which there has not been complete agreement. In addition, the park will continue to work proactively with tribal governments on economic development in cases where such activities will serve national park objectives and needs.

MANAGING IN AN ECOSYSTEM ENVIRONMENT

The resource goals at Glacier cannot be achieved without the cooperation of park neighbors, and the park staff must not forget that park actions have effects beyond park boundaries. The National Park Service is committed to cooperating with other governments and agencies, as well as with owners of adjacent property, to avoid adverse impacts on both park resources and visitor experience from adjacent land use activities.

FIRE MANAGEMENT

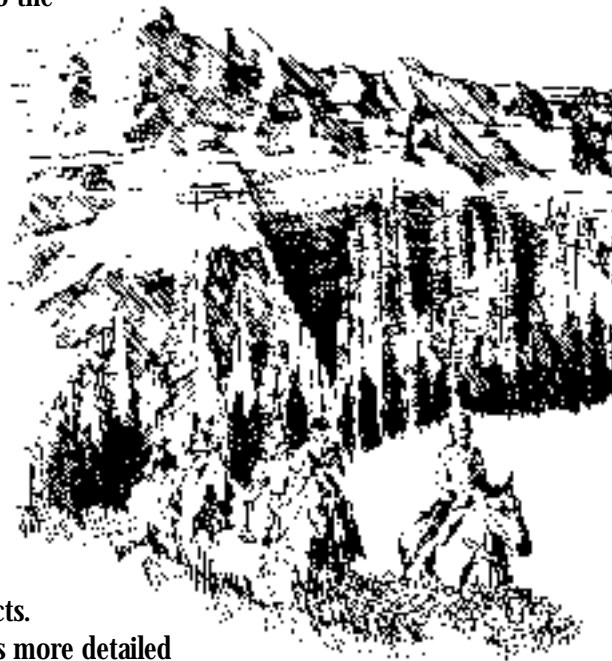
Throughout the 20th century, fire management policy has evolved in response to land and resource management needs, the growing knowledge of the natural role of fire, and the increased effectiveness of fire suppression. As knowledge, understanding, and experience expanded, it became increasingly obvious that complete fire exclusion did not support a balanced resource management program. Fires in Glacier National Park are managed to achieve a balance between suppression to protect life, property, and resources and fire use to achieve and maintain healthy ecosystems. Glacier uses the full range of appropriate fire management responses from aggressive suppression to management-ignited fires with very specific weather and fuels prescriptions to achieve goals and resource objectives. Wildland and prescribed fires are means to an end. They represent planning and implementation actions carried out to facilitate protection and resource management

objectives described in fire management plans. These objectives are a direct link to decisions and management goals stated in the Resource Management Plan and the General Management Plan. Human-caused fires will be managed through a suppression response derived from an analysis of the local situation, values to be protected, management objectives, and external concerns.

RESEARCH

An important goal of research in Glacier National Park is to provide a sound basis for management decisions. Glacier also provides a nearly pristine location for scientists to improve human understanding of physical, biological, and cultural resources. Whenever possible, sound research and science in Glacier should contribute to the general body of knowledge. The National Park Service places particular research emphasis on conserving biodiversity and genetic resources, on detecting ecosystem change, and on research that could be applicable to biosphere reserves in other regions of the world.

Research in the park must comply with NPS policy and should help achieve Glacier's scientific and resource management goals. It cannot harm park resources. In most instances research cannot be overly intrusive on wildlife or destructive to vegetation, it should not be easily visible to visitors, and it must not conflict with the goals of other park projects. Glacier's Resource Management Plan provides more detailed direction for research needs in the park.





General Philosophy / Geographic Areas

This overwhelming majority of the people who commented during the development of this General Management Plan have indicated that they would like to “keep Glacier the way it is.”

Put simply, Glacier National Park would be managed to retain its classic Western national park character. This does not mean “frozen in time.” The park will retain its classic character within the context of changing resource, social, and economic conditions while continuing traditional visitor service, and facilities. A management strategy has been developed that will guide management decisions over the next two decades. This strategy recognizes the distinctive character of individual geographical areas in the park and the suitability of various zones in these areas to provide for a range of visitor experiences. For example, some areas of the park are better suited for intensive visitor uses (such as the Going-to-the-Sun Road corridor), while other areas are more suited to backcountry experiences (such as the Middle Fork).

Retaining the distinctive characteristics of individual areas is dynamic and must be managed within the context of changing resource, social, and economic conditions while traditional visitor services and facilities are continued in areas of the park that historically have supported those services and facilities.

The park has been divided into six well-known geographic areas, each with its own management philosophy: Many Glacier, Goat Haunt-Belly River, the Going-to-the-Sun Road corridor, Two Medicine, Middle Fork, and North Fork (see Geographic Area map).

The six geographic areas are each divided into four management zones: the visitor service zone, the day use zone, the rustic zone, and the backcountry zone. Each of the four management zones has a different set of desired resource conditions, visitor experiences, types of management activities, and development.

The overall guiding philosophy is to manage most of the park for its wild character and for the integrity of Glacier’s unique natural heritage, while traditional visitor services and facilities remain. Visitors will be able to enjoy the park from many vantage points. Visitor use will be managed to preserve resources, but a broad range of opportunities will be provided for people to experience, understand, study, and enjoy the park. Cooperation with park neighbors will be emphasized in managing use and resources.

A high encounter rate means that the National Park Service will tolerate high levels of use in a particular area, if use increases. However, it does not mean that a second-rate experience will be provided, nor that the National Park Service will take steps to increase the use of particular areas.

Measurable indicators will be selected for monitoring key aspects of the visitor experience and resource health at Glacier. Standards will be identified that represent the points at which visitor experience or resource conditions become unacceptable in each zone and require management action.

Management area philosophies and management zoning are based on the park's purpose and significance and on the overall guiding philosophy, which describes the range of visitor experiences and resource conditions that park managers intend to provide.

MANAGEMENT ZONES — GENERAL DESCRIPTIONS

These management zones and the following descriptions for each geographic area are common to all action alternatives.

The maps showing the zones are intended to be a conceptual representation of these zones and how they appear on the ground. A revised backcountry management plan and a new comprehensive use plan for the Going-to-the-Sun Road will be developed to further delineate these zones and place them more specifically on the ground. Subzoning may be implemented in some cases. Measurable indicators will be selected to help the park determine if the desired resource and visitor experience conditions are being met. Standards will then be developed.

The following zone descriptions replace those described in the park's 1977 Master Plan. The new zone descriptions are in accordance with NPS management policies for managing proposed wilderness and with Director's Order No. 2: Park Planning orders for the National Park Service. The latter was formally adopted on May 27, 1998.

Visitor Service Zone

The visitor service zone will include developed areas, paved roads, and campgrounds with potable water and sanitation facilities. Natural resources will be managed to protect visitor health and safety, promote enjoyment of the setting, and mitigate the effects on surrounding areas. Natural resources along road corridors will be managed to allow safe travel and a high quality experience, recognizing that park roads bisect critical biological habitats and wildlife travel corridors. In this zone a range of services and facilities will continue to be provided to support the visitor's ability to experience the park. Visitors will find a social, relatively safe, comfortable atmosphere. The park will provide educational and interpretive opportunities. Lakes in the visitor service zone are characterized by having one or more of the following attributes: accessibility by paved roads, tour boats, formal docking facilities, no limits on motorboat horsepower, or impoundment structures. Lakes in this zone will be managed to tolerate a high level of use, including large tour boats and motorized craft. Most facilities will be fully accessible. Cultural resources will be managed to preserve historic districts, landmarks, and national register properties and the elements that contribute to their designations. Visitors can expect congested conditions.

Day Use Zone

The day use zone will include selected areas generally with specific destinations that visitors can reach easily within a day from visitor use zones. Natural resources will be managed to ensure a high degree of resource integrity, enhanced by the proper location and design of trails and facilities. Natural processes will be allowed to proceed unimpaired to the extent possible with relatively high levels of use. Resource degradation will not be allowed outside the trail corridor. Some parts of this zone will be in the park's proposed wilderness, where natural sounds predominate. Travel may be by boat, foot, or horseback. Trails may be developed for visitors with disabilities where appropriate, and the standards of trail maintenance will be high. Wider travel surfaces and tread improvements will accommodate a higher level of use and present a lower level of difficulty while protecting resources. Visitors can expect to meet more people in this zone than in the backcountry. Lakes in the day use zone might have tour boats and launch facilities, and there will be limits on motorboat horsepower where motors are permitted. Docks will be provided on selected lakes. Conflicts between visitors and wildlife will be managed by exploring a range of strategies from education to closure; the goals are to protect wildlife and provide for visitor safety. Activities that connect visitors to Glacier's values will be emphasized. Interpretive hikes and other educational interpretation will be encouraged. Concentrated use of trail corridors and destinations will be expected. Cultural resources will be preserved and protected.



Rustic Zone

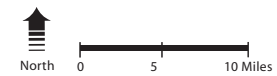
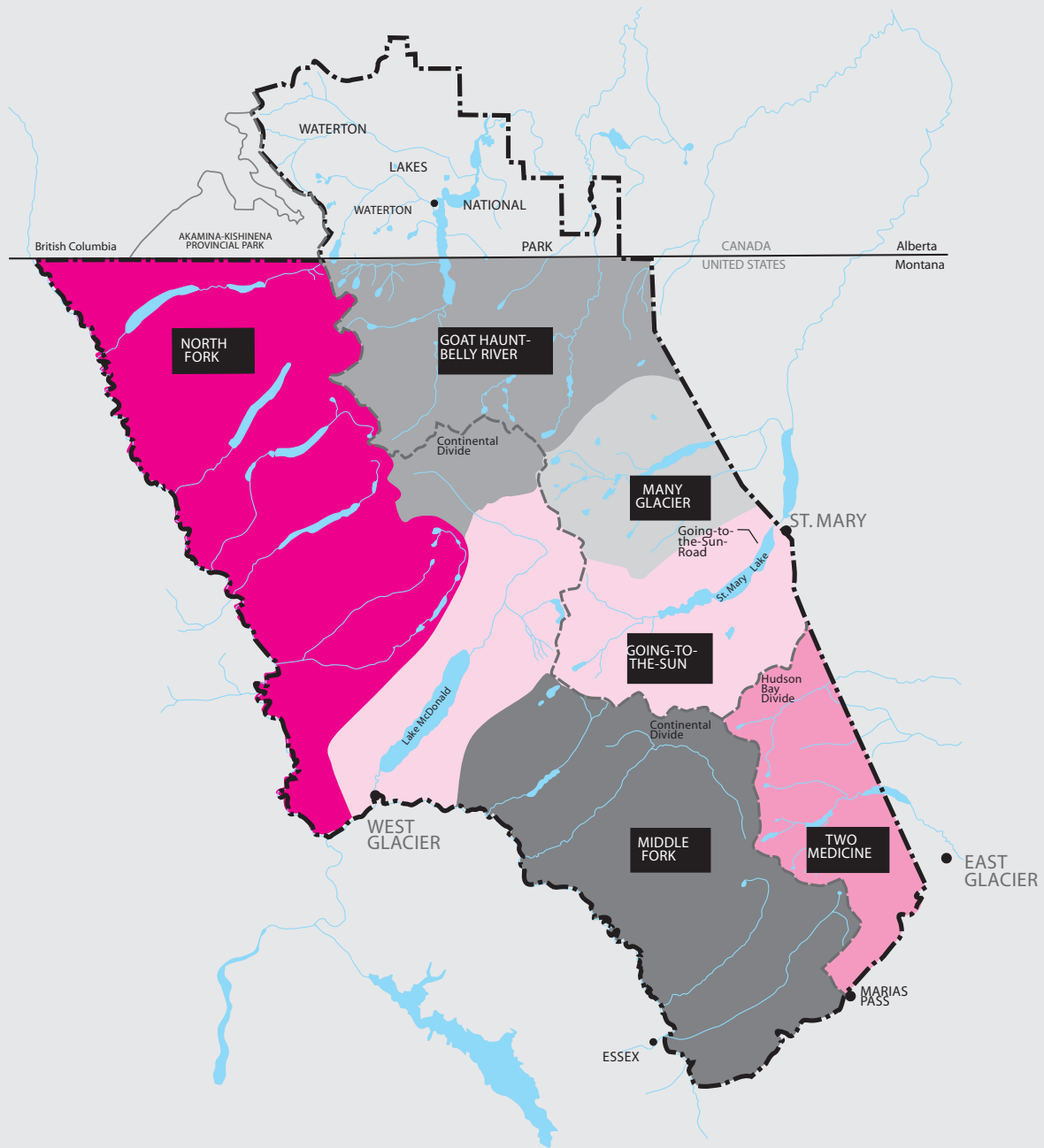
The rustic zone will include primitive facilities and campgrounds representative of early western national park development and traditional visitor experiences in them. Modest impacts on natural resources will be tolerated, mostly near campgrounds and facilities. Travel along road corridors is intended to be slow; only limited improvement will be done on surfaces and corridors. This will enhance wildlife security, particularly in the North Fork, where roads are extensively used by many species. The facilities also serve as staging areas for the use of the surrounding backcountry zone. While modest in scale, this zone will allow visitors to understand and appreciate the human and the natural histories of the park. Most facilities in this zone will be fully accessible. Visitors will experience a slow-paced atmosphere and less formal visitor programs. Natural quiet will predominate. Fewer visitors will be encountered than in the visitor service zone. Cultural resources will be managed to preserve historic values. Conflicts between visitors and wildlife will be managed by



strategies ranging from relocation and aversive conditioning (causing wildlife to want to avoid an area) to closure. No concession facilities will be permitted.

Backcountry Zone

Natural resource management in the backcountry zone will focus on protection and (when necessary) restoration of resources and natural processes. Information about the nature, status, and trends of natural resources in this zone will be emphasized. The visitor experience in the majority of the backcountry will be characterized by predominantly pristine natural conditions. There will be some primitive facilities such as trails, bridges, and campsites. Outstanding opportunities will be offered for visitors seeking solitude. Natural quiet will predominate. The expectations of visitors will be for few encounters with other visitors most of the time and to have a variety of hiking, horseback riding, and climbing experiences. Impacts on natural resources will be confined to trail corridors and designated camping areas. Cultural resources will be preserved and protected in accordance with the law and NPS policy. Formal interpretive and educational opportunities will be minimal and in keeping with the qualities desired for this zone. Conflicts between visitors and animals in this zone will be managed to minimize disturbance to wildlife, yet still provide for visitor safety. In most cases, areas will be closed to visitors when dangers arise. Natural processes will prevail. Animals will rarely be removed from the area. No commercial activity will be allowed off trail. Most of the proposed wilderness lands are zoned as backcountry and will need to be managed in accordance with NPS policy on proposed wilderness areas.



**GENERAL
MANAGEMENT PLAN
GEOGRAPHIC AREAS**

GLACIER NATIONAL PARK
 United States Department of the Interior • National Park Service
 DSC • JUNE 98 • 117 • 20,0029



PHILOSOPHY. The Many Glacier area would be managed to preserve its wild character while providing visitors with opportunities to experience such activities as observing wildlife, hiking, camping, and sightseeing. Nationally significant historic resources would be preserved and managed to maintain the grand hotel and family lodge traditions.

Many Glacier

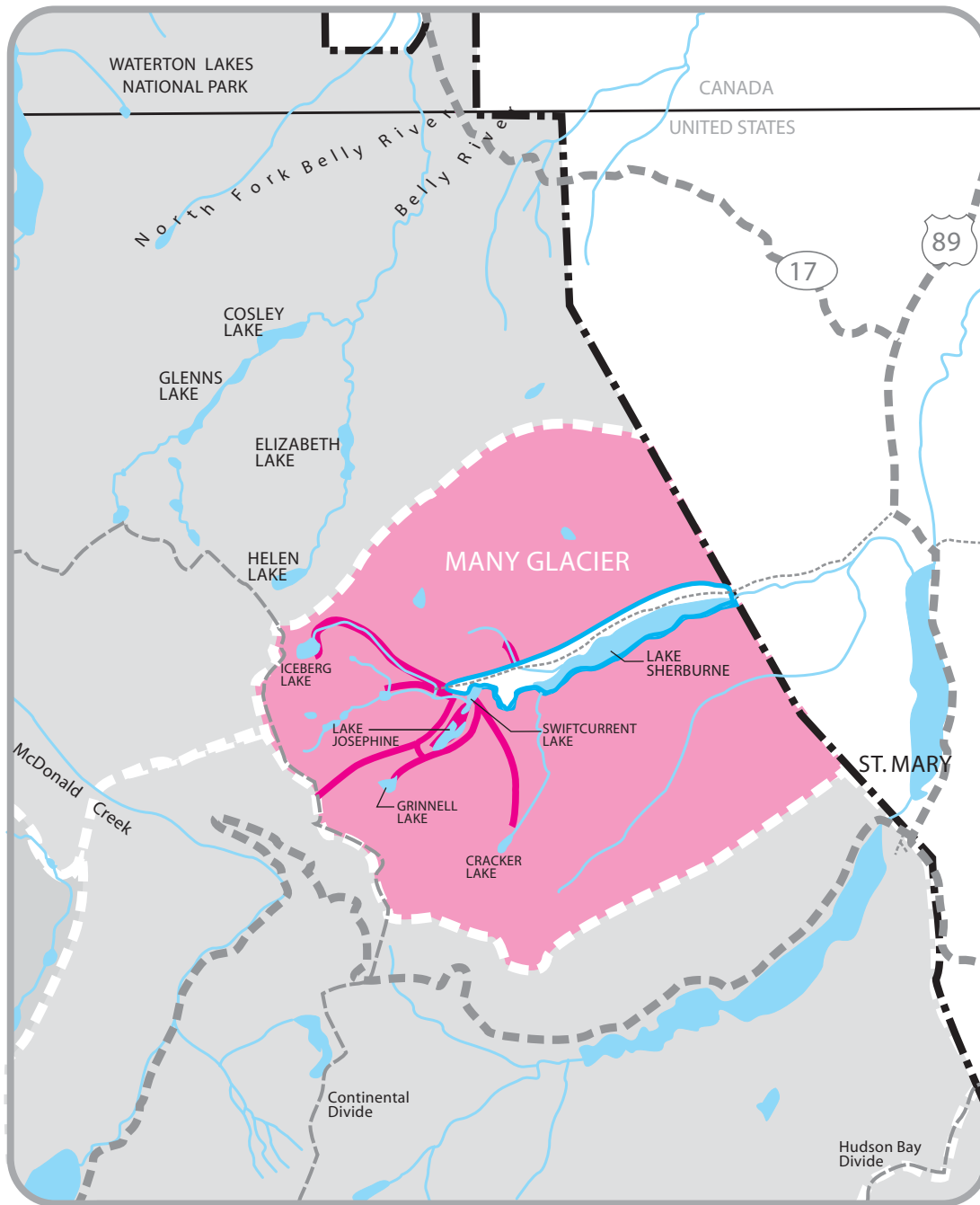
How this area will be managed:

- Resources will be managed to prevent degradation of the high quality wildlife habitat, including winter range, and to minimize conflicts with visitor use.
- Two separate developed areas (Swiftcurrent and the Many Glacier Hotel) will be maintained and managed to provide traditional visitor services as well as support services for NPS and concession operations.
- Some of the area will be managed to accommodate high levels of day use, while the rest would provide greater solitude and fewer visitor encounters.
- The Many Glacier area will be divided into a visitor service zone, a day use zone, and a backcountry zone.

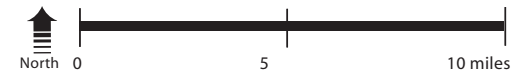
The visitor service zone will include the roads and Lake Sherburne, as well as two separate developed areas (see the Many Glacier map). These areas will be managed to continue to provide a range of services and facilities, including ranger stations, employee housing, food services, gift shops, campstores, and overnight accommodations. Significant cultural resources will be managed to preserve historic structures and their traditional uses. A range of developments will continue in this zone from hotels and associated facilities needed to serve the visitor to administrative structures for park and concession management. New or replacement development may occur. This area will be managed to retain its character and to accommodate current levels and types of uses. Some increases in use may occur subject to analysis of resource impacts, infrastructure capacities, relationships to services provided outside the park, and other factors necessary to maintain the park's character.

The day use zone will include Swiftcurrent Lake and trails, Josephine Lake and trail, and destinations such as Apikuni and Red Rock Falls, Grinnell Lake, and Iceberg Lake. It will be managed for traditional recreational experiences such as hiking, boat tours, and horseback rides. Conflicts between hikers and horse users will be minimized where possible. Interpretive services such as guided hikes and exhibits will be available. Development will be limited to trails, signs, waysides, bridges, boardwalks, overlooks, and sanitation facilities.

The backcountry zone will encompass the rest of the Many Glacier area. It will be managed to understand and maintain natural processes. Visitor use will consist mostly of hiking and backcountry camping, with "leave no trace" skills and ethics encouraged. Development will be restricted to trails, signs, campsites, sanitation facilities, and other low-impact developments. Historic structures will be managed according to NPS policy.



- VISITOR SERVICE ZONE
- DAY USE ZONE
- BACKCOUNTRY ZONE



MANY GLACIER

GLACIER NATIONAL PARK
 United States Department of the Interior • National Park Service
 DSC • JAN 99 • 117 • 20,035B

(CONCEPTUAL REPRESENTATION OF ZONES)



Goat Haunt-Belly River

PHILOSOPHY. The area will be managed for its international importance to park visitors, for its wild character and wildlife, and for the shared natural and cultural resources of adjoining nations. As in other areas of the park, management actions will emphasize cooperation and coordination in the spirit of the international peace park, world heritage site, and man and the biosphere designations.



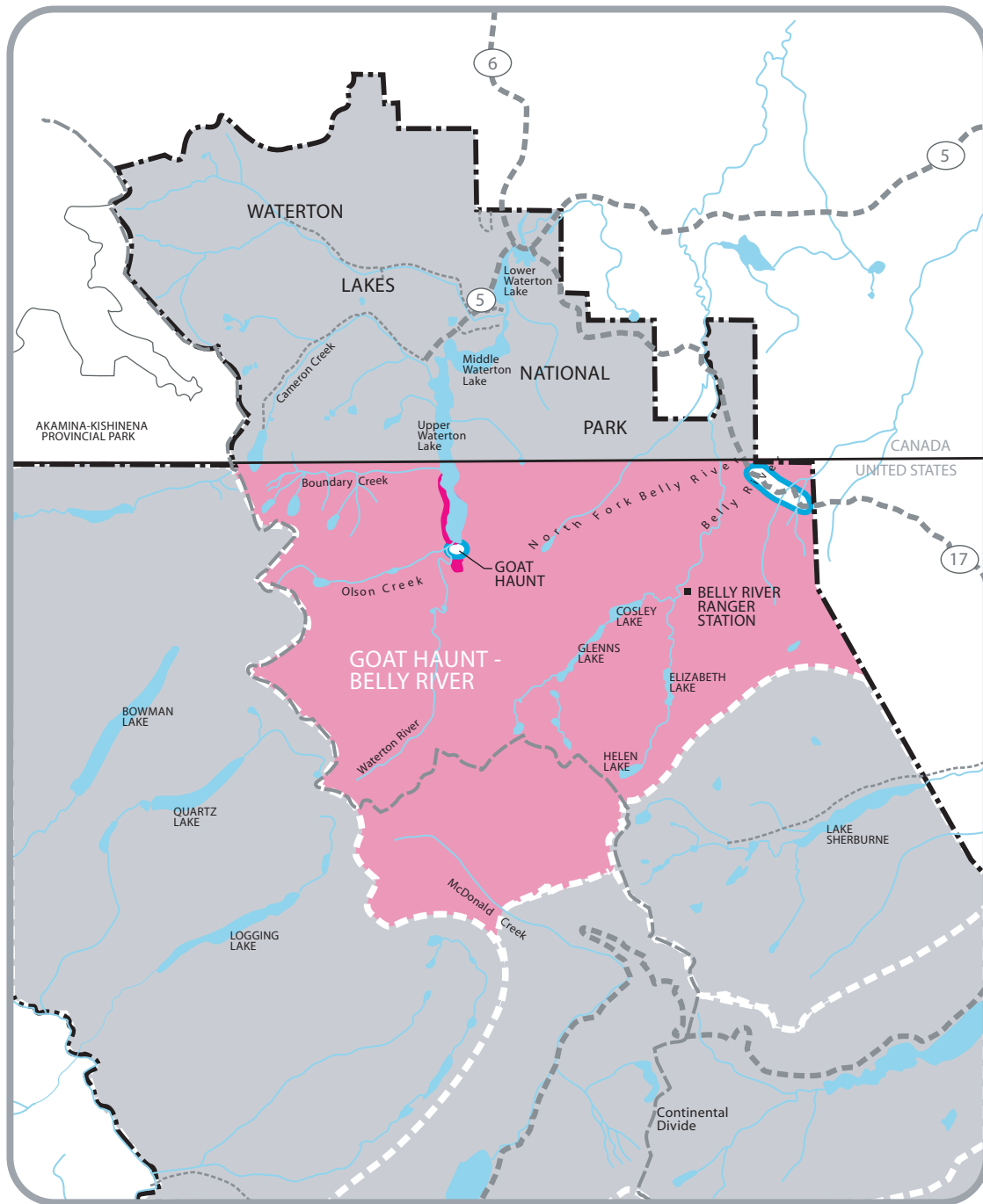
How this area will be managed:




- Resources will be managed to protect the pristine character of the area and the integrity of biologic communities.
- No overnight accommodations or food services will be provided.
- Visitor services will be supported by the full range of services at Waterton Townsite. Boat landings, visitor orientation, information and interpretation services, backcountry access, and administrative facilities will be available at Waterton Townsite, at Goat Haunt, and along the Chief Mountain Highway.
- The international peace park and world heritage site values will be emphasized as primary interpretive themes.
- Goat Haunt-Belly River area will be divided into a visitor service zone, a day use zone, and a backcountry zone.

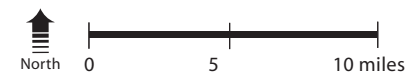
The visitor service zone at Goat Haunt and along the Chief Mountain Highway will be managed as staging areas for access to the surrounding backcountry (see the Goat Haunt-Belly River map). Waterton Lake is also included in this zone. Services will be limited to providing information and interpretation as well as customs and immigration. Development will be limited to that necessary to support those functions but may include contact and customs stations, boat docks, corrals, campsites, sanitation facilities, administrative facilities, and employee housing. Interpretive needs will be met with kiosks, exhibits, and personal services.

The day use zone in the Goat Haunt-Belly River area will include the lakeshore trail and the trail to Rainbow Falls. It will be managed to continue the traditional boat tours and guided hikes. Developments will be limited to trails, bridges, overlooks, and sanitation facilities. Cultural resources will be protected.

The backcountry zone will encompass the remainder of the Goat Haunt-Belly River area. It will be managed to maintain natural processes. Visitor uses will include hiking, horseback riding, and backcountry camping. “Leave no trace” skills and ethics will be encouraged. Developments will include trails, campsites, primitive signs, sanitation facilities, and patrol cabins. Historic structures will be maintained.



-  VISITOR SERVICE ZONE
-  DAY USE ZONE
-  BACKCOUNTRY ZONE



GOAT HAUNT - BELLY RIVER

GLACIER NATIONAL PARK
 United States Department of the Interior • National Park Service
 DSC • JAN 99 • 117 • 20,031B

(CONCEPTUAL REPRESENTATION OF ZONES)



PHILOSOPHY. The Going-to-the-Sun Road corridor will be managed to provide all visitors with an opportunity to experience the scenic majesty and historic character of the park through a wide range of visitor activities, services, and facilities. The cultural significance and traditional use of the Going-to-the-Sun Road will be emphasized.

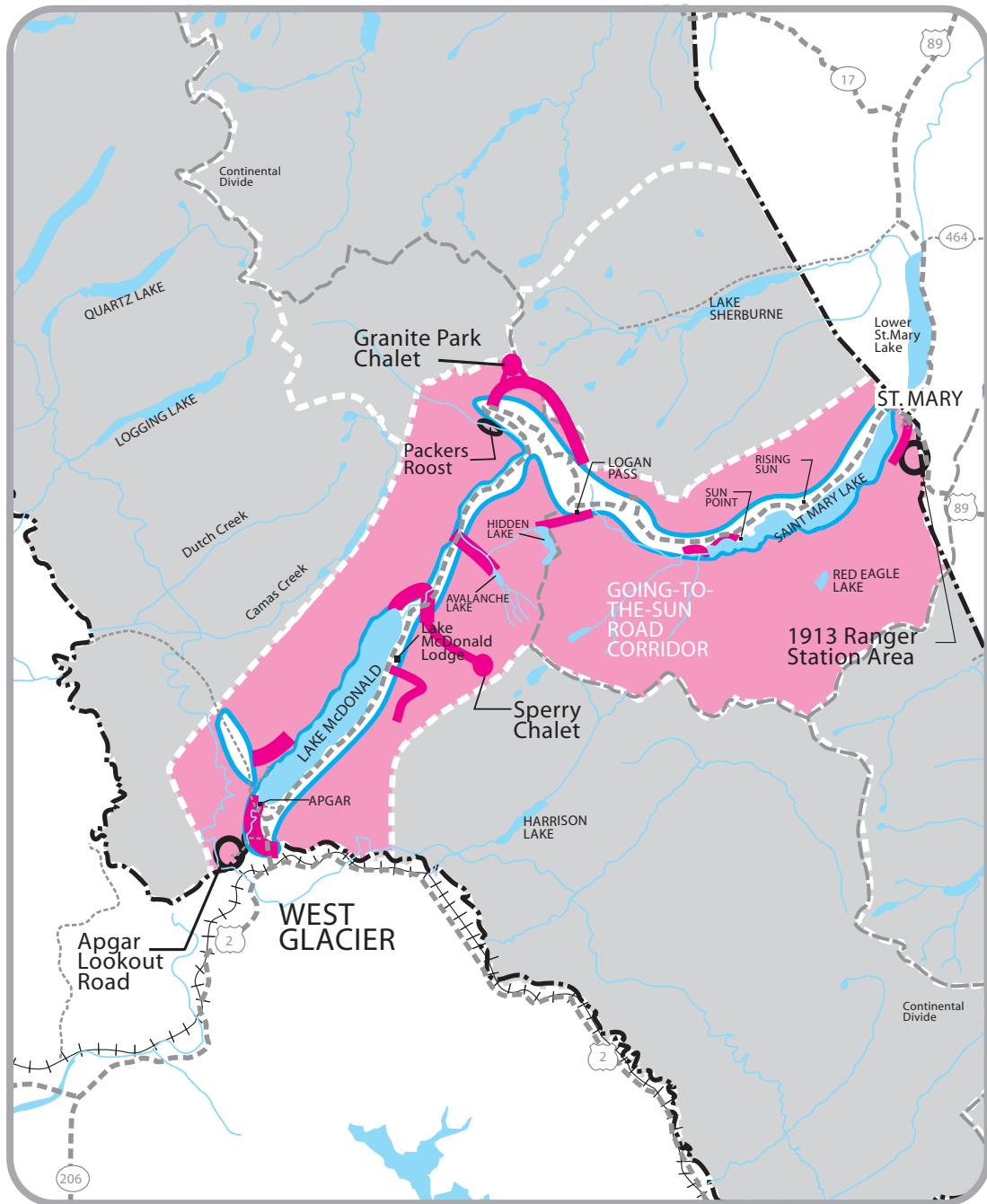


Going-to-the-Sun Road Corridor

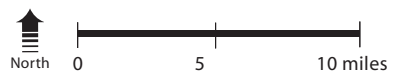
How this area will be managed:

- The tremendous biological diversity found in this corridor, which encompasses all park ecoregions, will be protected to ensure its overall integrity.
- A full range of visitor services will be provided at Apgar Village, Lake McDonald Lodge, Rising Sun, and in the vicinity of St. Mary.
- Sperry and Granite Park Chalets will provide traditional accommodations for backcountry visitors.
- As a national historic landmark, the Going-to-the-Sun Road will be managed to retain its historic character and to allow opportunities for visitors to experience the park's magnificent scenery and historic character.
- The Going-to-the-Sun Road corridor will be divided into a visitor service zone, a rustic zone, a day use zone, and a backcountry zone.

The visitor service zone will include the Going-to-the-Sun Road, developed areas along the road, Lake McDonald, St. Mary Lake, and administrative facilities (see the Going-to-the-Sun Road map). They will be managed to provide the traditional recreational opportunities for which the road was designed. Driving the Going-to-the-Sun Road will remain the principal visitor experience. The corridor will continue to accommodate interpretive opportunities, overnight use, food services, boat tours, hiking, and horseback riding. Interpretive activities will include orientation to the park at the two primary entrances as well as exhibits designed to emphasize park values. The road and Lake McDonald Lodge will be managed as historic resources in keeping with their national landmark status. Other properties will be managed to preserve their historic values. Development, where permitted, will serve a broad range of visitor, concession, and park administrative needs. New or replacement development may occur. This area will be managed to retain its character and to accommodate current levels and types of uses. Use could increase, subject to analysis of resource



- VISITOR SERVICE ZONE
- DAY USE ZONE
- BACKCOUNTRY ZONE
- RUSTIC ZONE



GOING-TO-THE-SUN ROAD CORRIDOR

GLACIER NATIONAL PARK
 United States Department of the Interior • National Park Service
 DSC • JAN 99 • 117 • 20,032B

(CONCEPTUAL REPRESENTATION OF ZONES)



impacts, infrastructure capacities, relationships to services provided outside the park, and other factors necessary to maintain the park's character.

After the housing, maintenance, and administration are moved from Divide Creek (see the "Divide Creek Flood Hazard" section, below), the area from which those facilities were removed will be zoned for day use and/or backcountry. Overnight use will be discontinued in that area.

The day use zone will include such popular trails as the Highline Trail, trails to Avalanche and Hidden Lakes, McDonald and St. Mary Falls, and others. The chalets will be managed in keeping with their national landmark status. Recreational opportunities such as hiking and horseback rides will be available. Conflicts between hikers and horse users will be minimized where possible. Interpretation will consist of guided walks and modest exhibits. This zone will be managed to serve large numbers of visitors. Management of natural resources will seek to achieve nearly pristine conditions. Development will be limited to interpretive waysides, directional signs, trails, boardwalks, bridges, and sanitation facilities.

The rustic zone in the Going-to-the-Sun Road area will include areas such as the Apgar Lookout Road, the Quarter-Circle Bridge, Packer's Roost, and the 1913 Ranger Station. Management will concentrate on adaptive use of historic structures. There will be minimal interpretive services and exhibits. Development will be limited to sanitation facilities, administrative facilities, small parking lots, trails and trailheads, and unpaved roads.

The backcountry zone will be managed to maintain natural processes. Visitor use will consist primarily of hiking and backcountry camping, and visitors will be encouraged to practice "leave no trace" skills and ethics. Development will be limited to trails, campsites, primitive signs, and sanitation facilities.



“The Going-to-the-Sun Road possesses extraordinary integrity to the period of its construction. Other than the first two miles of the road (which have had various alignments during the park’s history and are not included in the NHL district), Going-to-the-Sun Road provides nearly the same experience for visitors that it did during the historic period. The original alignment of the road remains true to the locations that Thomas Vint suggested and which Frank Kittredge, W. G. Peters, and A.V. Emery finalized.”

From page 4 of the National Historic Landmark Nomination for the Going-to-the-Sun Road, September, 1996.

Two Medicine

PHILOSOPHY. The area will be managed to preserve its culturally significant resources, wild character, and important wildlife habitat. Frontcountry and backcountry camping will continue. Traditional visitor services will be available in the Two Medicine Valley.

How this area will be managed:

- Resources will be managed to protect the wild character of the area, particularly the area of transition between the plains and the mountains.
- While Two Medicine is a developed area, it will be small and will not provide all services.
- The Two Medicine area will be divided into visitor service, day use, rustic, and backcountry zones.

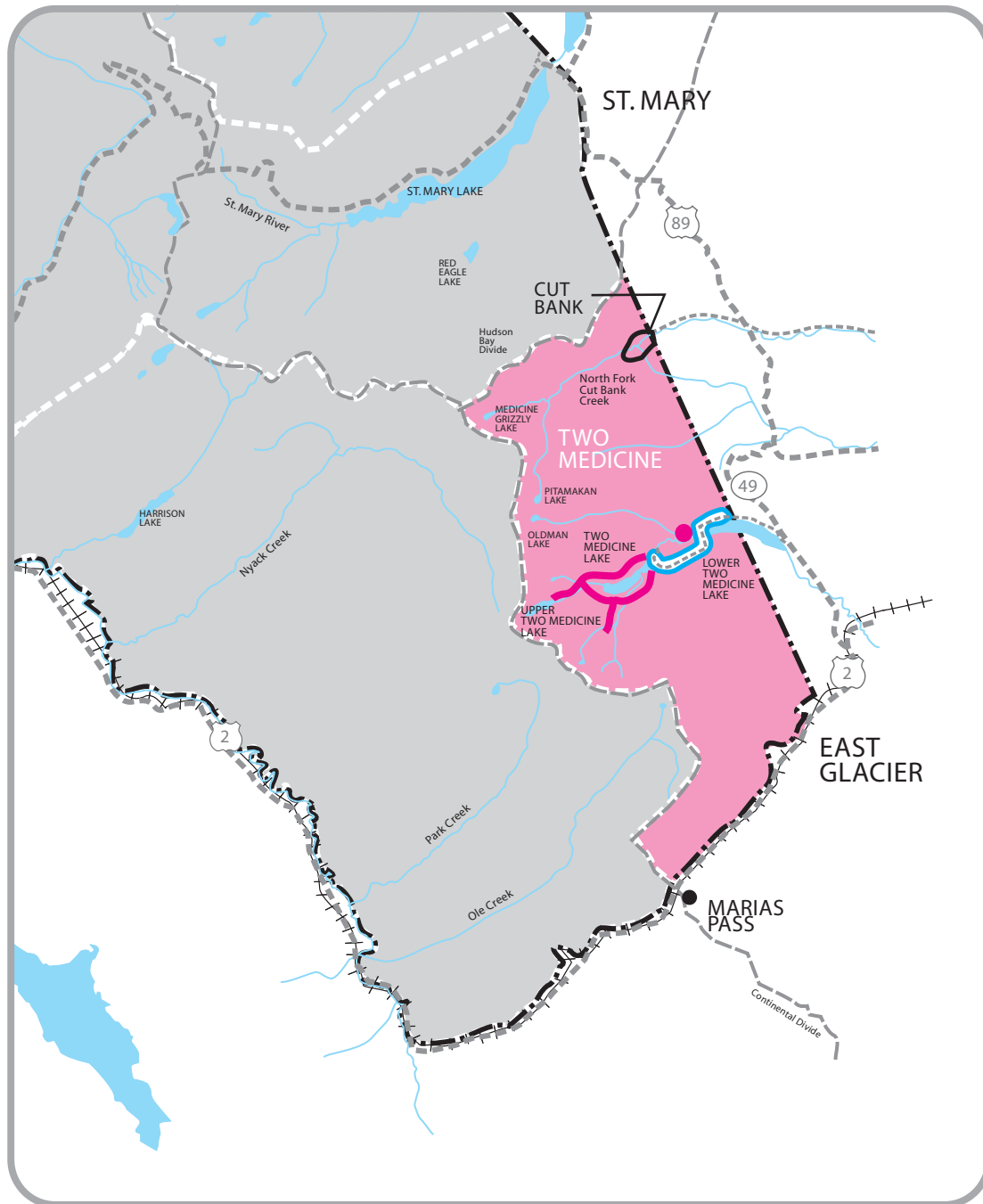
The visitor service zone will include the entrance road, picnic area and campground, ranger station, concession facilities, Lower Two Medicine Lake, and administrative facilities at Two Medicine Lake (see Two Medicine map). This area will continue to provide traditional recreational and visitor services, including camping. Adaptive use of the national historic landmark might include overnight lodging. Changes in use of existing facilities may occur subject to resource impacts, infrastructure capabilities, relationship to services provided outside the park, and other factors necessary to maintain the park character. Historic structures will continue to be preserved.

The day use zone will include Two Medicine Lake and its associated trails. It also includes Paradise Point, the trail to Upper Two Medicine Lake, and Rockwell and Running Eagle Falls. The area will be managed to provide for traditional uses such as hiking and commercial boat tours. Interpretive services such as guided hikes will continue. Development will be limited to interpretive exhibits, waysides, signs, overlooks, trails, boardwalks, bridges, and toilets.

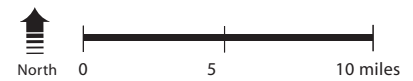
The rustic zone includes the Cut Bank Ranger Station and campground. Like the North Fork, the Cut Bank area is among the least visited yet most beautiful places in the park. It is reminiscent of early park development, and park managers will prefer to keep it as it is. This zone will be managed to provide interpretive services and exhibits that describe early use of the area. Historic resources and traditional uses will be preserved. Development will be limited to primitive campgrounds, sanitation facilities, administrative offices, NPS employee housing, small parking lots, trails and trailheads, and unpaved roads.

The backcountry zone will be managed to maintain natural processes and ensure that visitors can understand them. Visitor use will consist primarily of hiking and backcountry camping, and visitors will be encouraged to practice “leave no trace” skills and ethics. Development will be limited to trails, campsites, sanitation facilities, and primitive signs.





- VISITOR SERVICE ZONE
- DAY USE ZONE
- BACKCOUNTRY ZONE
- RUSTIC ZONE



TWO MEDICINE

GLACIER NATIONAL PARK
 United States Department of the Interior • National Park Service
 DSC • JAN 99 • 117 • 20,033B

(CONCEPTUAL REPRESENTATION OF ZONES)



Middle Fork

PHILOSOPHY. The area will be managed to preserve its remote and wild character through a range of primitive visitor experiences. Visitor and administrative facilities will occur only along U.S. Highway 2.

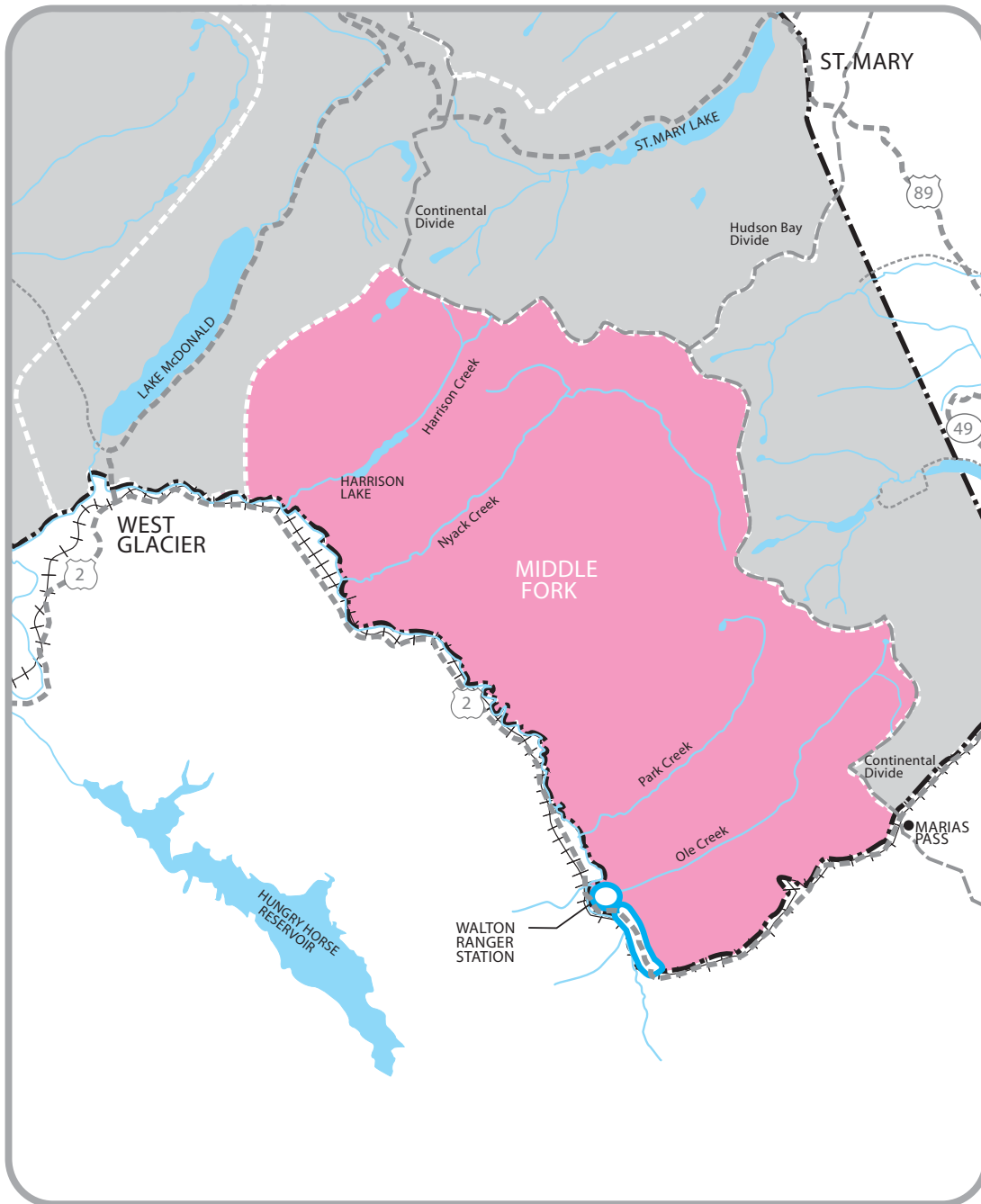
How this area will be managed:

- Resources will be managed to preserve their remote and pristine character; visitor access and trail facilities will be limited and challenging in most of the area.
- Trails, sanitation facilities, hitching posts, primitive signs, patrol cabins, and campsites will be the only development allowed in the backcountry.
- Key wildlife areas and travel corridors will be protected and interpreted through cooperation with others (such as Burlington Northern Environmental Stewardship Area) where appropriate.
- The Walton Ranger Station will serve the management and visitor needs of the area.
- A portion of the backcountry will be managed to allow for camping in undesignated areas and to provide more opportunities for off-trail travel.
- The Middle Fork area will be divided into a visitor service zone and a backcountry zone.



The visitor service zone will include the U.S. Highway 2 corridor, the Goat Lick, and Walton Ranger Station (see Middle Fork map). It will be managed to provide information and interpretive services. Development will include the highway, signs, trails, trailheads, waysides, sanitation facilities, parking lots, pullouts, picnic areas, exhibits, and staging areas.

The backcountry zone, all of which is in proposed wilderness, will constitute the majority of the Middle Fork area and will be managed to achieve a wild character and maintain natural processes. Visitor use will consist primarily of hiking, horseback riding, and backcountry camping, and visitors will be encouraged to practice “leave no trace” skills and ethics. Development will include trails, sanitation facilities, and campsites. A portion of the backcountry will be managed to allow camping in undesignated areas.



- VISITOR SERVICE ZONE
- BACKCOUNTRY ZONE



MIDDLE FORK

GLACIER NATIONAL PARK
 United States Department of the Interior • National Park Service
 DSC • JAN 99 • 117 • 20,034B

(CONCEPTUAL REPRESENTATION OF ZONES)

PHILOSOPHY. The North Fork will be preserved to contribute to the integrity and primitive character of the transboundary watershed. Management actions will reflect the importance of interagency and international cooperation. Visitor facilities will be rustic and will preserve a national park quality and style of development that has become increasingly rare. Management actions will preserve that primitive character.



North Fork

How this area will be managed:

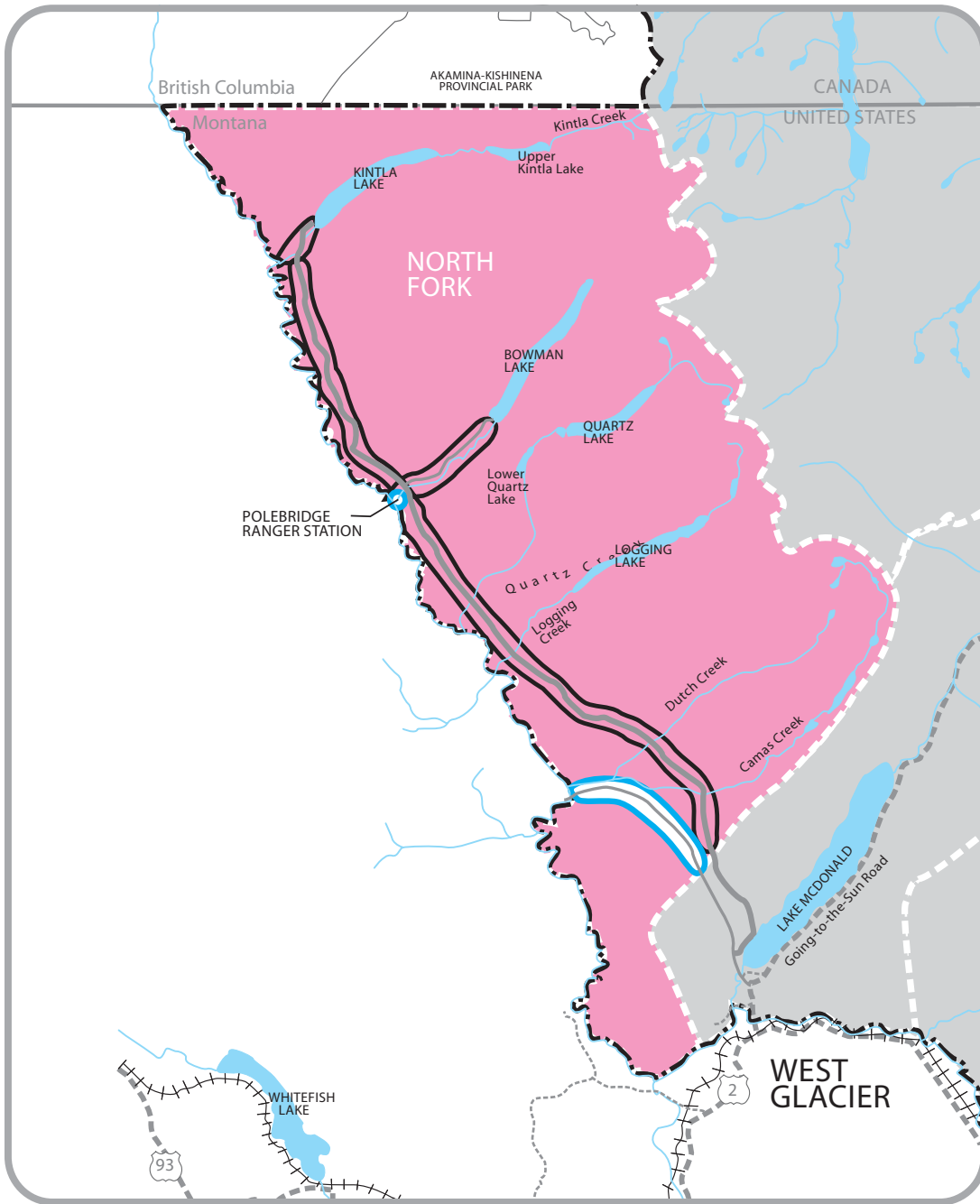
- Resources will be managed to preserve the wild character of the area and the important linkage to the entire North Fork Valley, including the Canadian portion, for wildlife conservation.
- Commercial development or new commercial activities will not be permitted.
- Small primitive auto campgrounds will continue at Kintla Lake, Quartz Creek, Bowman Lake, and Logging Creek.
- The inside North Fork Road will remain narrow and unpaved.
- The North Fork will be divided into a visitor service zone, a rustic zone, and a backcountry zone.






The visitor service zone will encompass the service area at Polebridge and the corridor of the Camas Road (see North Fork map). It will be managed to provide information, camping, and interpretive and similar basic services. Developments will include paved roads, pullouts, trails, entrance stations, exhibits, and parking lots.

The rustic zone will encompass the road corridor of the inside North Fork Road and roads to Bowman and Kintla Lakes. It will be managed to provide basic informational and interpretive services such as exhibits and waysides. Cultural resources will be preserved. The inside North Fork Road will be managed as an unpaved road accessible to vehicles, bicycles, and foot traffic. The narrow road width and the current approximate alignment will be maintained. Development will include informational and interpretive signs, employee housing, ranger stations, campgrounds, sanitation facilities, small parking lots, trails and trailheads, small boat launching facilities, paved and unpaved roads.

The backcountry zone will encompass most of the North Fork area. It will be managed to maintain natural processes. Visitor use will consist primarily of hiking and backcountry camping. Visitors will be encouraged to practice “leave no trace” skills and ethics. Development will include trails, primitive signs, campsites, primitive administrative facilities, and sanitation facilities.



(CONCEPTUAL REPRESENTATION OF ZONES)

-  VISITOR SERVICE ZONE
-  RUSTIC ZONE
-  BACKCOUNTRY ZONE



NORTH FORK

GLACIER NATIONAL PARK
 United States Department of the Interior • National Park Service
 DSC - JAN 99 • 117 • 20,0108

Critical Issues Facing Glacier National Park

This General Management Plan charts the course for Glacier National Park into the 21st century. In addition to presenting the management strategy, it provides direction for resolving the eight critical issues facing the park, which are summarized below and discussed in more detail later in this section.

Visitor Use on the Going-to-the-Sun Road

THE NATIONAL PARK SERVICE WILL continue to protect the Going-to-the-Sun Road as a national historic landmark, retaining the historic character of the road and thus maintaining its traditional use. Visitors will continue to have the freedom to drive personal vehicles. An efficient public transportation system will be sought. A comprehensive use plan will be developed to address the increasing use of the road corridor and the accompanying congestion.

Preservation of the Going-to-the-Sun Road and its Repair

THE NATIONAL PARK SERVICE WILL continue to protect the Going-to-the-Sun Road as a national historic landmark. The road's historic character and significance will be preserved, and the needed repairs will be completed before the road fails. The National Park Service will minimize the impacts on natural resources, visitors, and the economy; the cost of reconstruction also will be minimized. Until additional studies can be completed, the National Park Service will continue its current program to perform critical road reconstruction so as to preserve the road and address safety and structural concerns. A citizens advisory committee will be established to help with decisions about how the road will be reconstructed, how traffic will be managed, and what mitigation will be necessary.

Preservation of Historic Hotels and Visitor Services

THE NATIONAL PARK SERVICE WILL strive to safeguard the historic structures and provide for the preservation of these important elements of America’s cultural heritage. Funding will be sought for a comprehensive rehabilitation effort to preserve the national historic landmarks and the park’s other historic lodging. A historic structures report will be completed, and the National Park Service will explore alternatives for the rehabilitation of the buildings. A commercial services plan will be developed that will incorporate the economic feasibility of rooms and services. The value of the concessioner’s possessory interest will be determined. The National Park Service will ensure the design integrity of any new facilities with the historic structures and will upgrade utilities, housing for concession employees, accessibility, and infrastructure where applicable.

Scenic Air Tours

THE NATIONAL PARK SERVICE WILL request that the Federal Aviation Administration prohibit commercial sightseeing tours over the park. It will also request that the Federal Aviation Administration prohibit the operation of all new commercial scenic air tours. A scenic air tour management plan will be developed.

Personal Watercraft

THE NATIONAL PARK SERVICE WILL permanently ban personal watercraft from all park waters.

Winter Use

THE NATIONAL PARK SERVICE WILL respond to an increase in winter use only within the existing facilities and/or infrastructure. Snow will be plowed only to Lake McDonald Lodge, the 1913 Ranger Station, and to the park boundary on the Many Glacier road. Adequate parking and restroom facilities will be provided at these points, as well as at the eastern end of the Camas Road. The National Park Service will mitigate impacts on wildlife that may result from increased visitor use during the winter.

Divide Creek Flood Hazard

THE NATIONAL PARK SERVICE WILL strive to relocate employee housing and administrative and maintenance facilities that are now in the Divide Creek flood hazard zone to a safe location(s) in or outside of the park. The entrance road will not be moved, although the actual entrance may need to be relocated. Divide Creek will ultimately be allowed to follow its natural channel to St. Mary Lake.

West Side Discovery Center and Museum

THE NATIONAL PARK SERVICE WILL construct a discovery center and museum inside the park in the vicinity of the T-intersection north of the West Glacier entrance station.

More specific information on each of the eight critical issues and Glacier's resolution of those issues is presented below.

VISITOR USE ON THE GOING-TO-THE-SUN ROAD

Background

Experiencing the Going-to-the-Sun Road has become the premier experience for more than 80 percent of the visitors to Glacier National Park. It was not always so. Visitors first traveled through Glacier on foot and horseback. The early chalet system and high-country tent camps supported early visitors' exploration of the park's backcountry. The hotels were located nearer the park's perimeter along the early roads. Visiting Glacier was not easy and required a major investment in time and money.

As automobiles became more common and more affordable, so did the desire to make Glacier a more affordable park. With the idea of a "trans-park" road to allow visitors to see the spectacular vistas and scenic beauty of the interior of the park came the idea to make Glacier available to all. The Going-to-the-Sun Road democratized Glacier. The road was completed in 1932, and despite the Great Depression, visitation quickly doubled and has been increasing ever since. The road was placed on the National Register of Historic Places in 1983; it was declared a national historic civil engineering landmark in 1985, and in 1997 it was designated a national historic landmark. Its width, scenic vistas, and classic stone walls all contribute to those designations. The character of the road is part of a spectacular park experience that should be preserved.

The Going-to-the-Sun Road is the only route through the park that directly links the east and west sides, and its value is unparalleled. Each year hundreds of thousands of visitors are attracted to the area and drive this scenic route. Local and regional economies have become dependent on these visitors. Any change in use that might alter visitor patterns will have direct and indirect effects on these economies.

Because the road is the park's primary automotive route, it defines the circulation pattern. The road accesses principal points of interest and offers many stunning views. Use has increased from fewer than 40,000 cars in 1933 to more than 660,000 cars annually in recent years. Increased traffic volume causes crowding at pullouts and parking areas along the road. Visitors who are frustrated by the lack of parking and who want to stop to experience the park pull off and park in undesignated areas, causing resource damage and safety problems.

Issue

Visitor use on the Going-to-the-Sun Road approaches its peak in July and August. Traffic is congested, and the demand for parking and pullouts often exceeds available spaces. A 1994 study of visitor use showed that 43 percent of summer visitors believed that traffic congestion and parking shortages detracted from their visits, and many said this was unacceptable.

Public transportation has been available in the park since the first hotels were built. Glacier was one of the many western parks that used fleets of touring cars. This culminated in the historic "red bus fleet" in the 1930s. There are national parks in the West that still have a token historic bus in use or on display, but Glacier is the only park where a fleet is still in use. Today's visitors can still ride "the reds" just as visitors did decades ago.

Public transportation provides a service to visitors who arrive without vehicles, have overlength vehicles, or simply do not want to drive. In 1992 a shuttle service was initiated to meet the needs of hikers, but the demand is low. Some people believe that the shuttle system has not been effective because of high cost to users, limited capacity, and a limited schedule. Others think that the shuttle system works well, but they will like to see it expanded to increase its usefulness. It is not subsidized, and there is no funding for or authority to provide such a system for park visitors. The management challenge is to continue private vehicle use, as desired by the public, while ensuring an effective transportation system.

Increasing numbers of bicycles have also presented a safety concern, especially when combined with heavy automobile traffic on narrow sections of the road. All these visitor uses must be managed while both the traditional driving experience and the historic character of the road are maintained.

■ Resolution: Expand Visitor Opportunities

The National Park Service will continue to manage the Going-to-the-Sun Road as the premier visitor experience for Glacier National Park. The road will be managed as a motor nature trail. The focus will continue to be on maintaining the historic character of the road and on the experience offered by easy access to the park's interior. Visitors will continue to have the freedom to drive personal vehicles and stop at will at various viewpoints along the road.

For visitors who require or prefer to use public transportation, that option will continue. An efficient and convenient public system will be provided. A federal government subsidy might be necessary. Transportation systems will require parking facilities to accommodate hundreds of vehicles. These facilities might intrude on park values, but they could be developed according to the management goals for the Going-to-the-Sun Road corridor.

To help alleviate congestion at Logan Pass, the Loop, Sunrift Gorge, Avalanche, and other popular spots, a comprehensive use plan will be developed for the Going-to-the-Sun Road. The plan will include analysis of alternatives to address increasing visitor use of the road while maintaining a high-quality, slow-paced experience for people who choose to travel the road either in private vehicles or by a mass transportation system. Alternatives considered will include adding more pullouts, offering interpretive and short hiking opportunities along the road, incentives (not requirements) for visitors to use a transportation system, carrying capacity, and limits on the number of visitors allowed on the road at any one time or place.

The road will be protected as a national historic landmark regardless of the alternative or alternatives chosen from this additional study. The study will not reexamine the issue of closing the road to private vehicle traffic. The opportunity and choice to drive the Going-to-the-Sun Road in one's own private automobile will be ensured for all visitors.

The following actions will be taken:

- Assess an expanded transportation system as discussed in the 1990 Transportation Plan.
- Develop a comprehensive use plan for the Going-to-the-Sun Road that includes consideration of a variety of alternatives that will maintain a high-quality, slow-paced experience for visitors in the face of increasing visitation on the road and road corridor. Develop standards and indicators as part of this plan to determine when and if the road is at capacity and what type of management action should be taken, and when. Alternatives to be considered will include building pullouts to replace those that have been removed, with the new ones in

more appropriate locations; providing additional interpretive and short hiking opportunities along the road; and placing limits on the number of visitors allowed on the road at any one time or place.

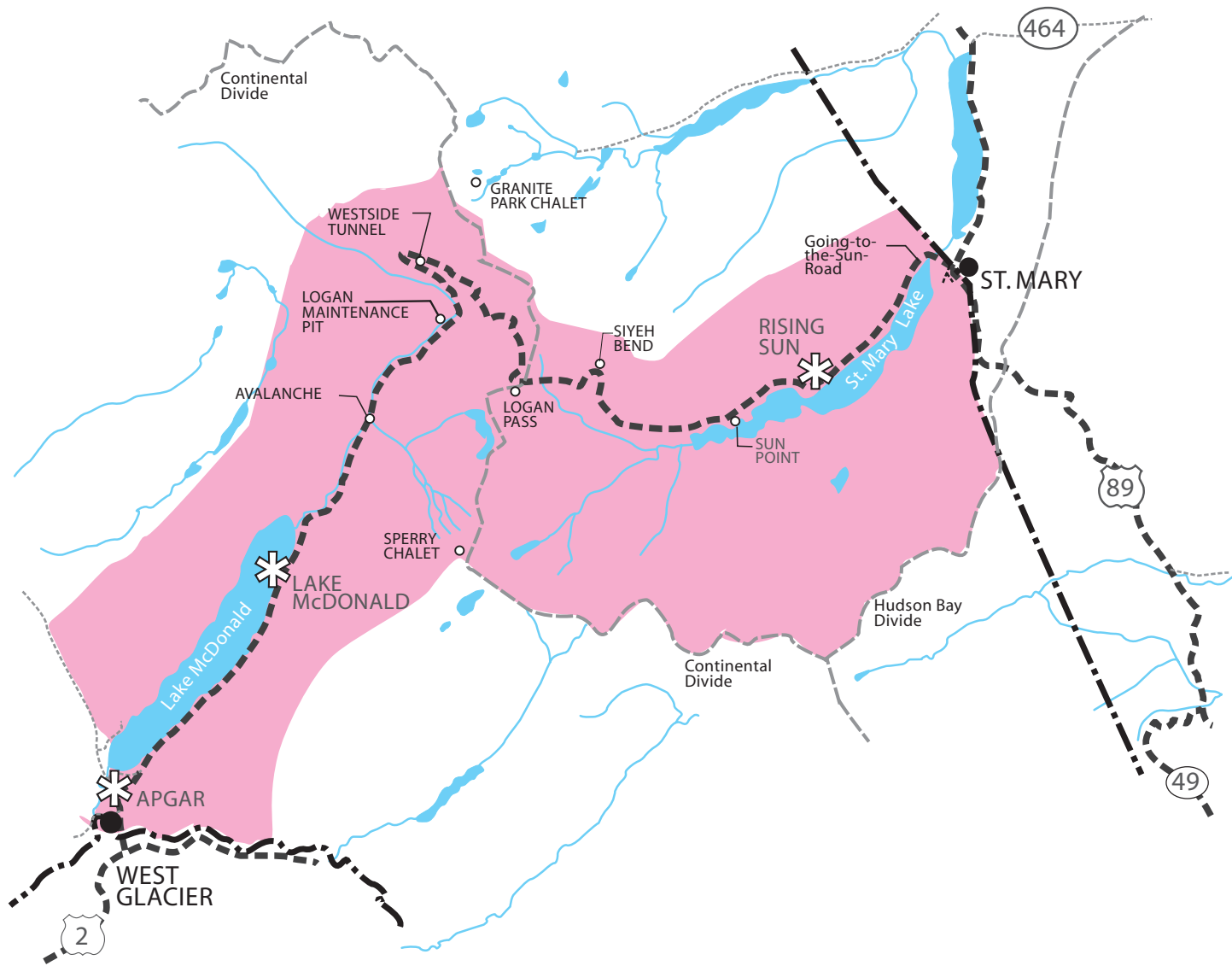
- Retain tour services on the Going-to-the-Sun Road, including the red bus tours.
- Continue to restrict bicycle use during peak use periods.
- Continue restrictions on vehicle length and width.

PRESERVATION OF THE GOING-TO-THE-SUN ROAD

Background

Conservative economic models project that approximately \$145 million and 2,100 jobs are generated annually in Montana by Glacier National Park. These figures were revised from the Draft General Management Plan and Environmental Impact Statement to reflect a new analysis that was conducted in 1997. It is believed that the drop in numbers was due to a decrease in visitation. Much of this economic activity takes place during the 4-5 month period that the Logan Pass section of the Going-to-the-Sun Road is open. Clearing the road of snow and opening it each spring is a major feat; clearing begins in April and opening usually is in early June. Since the road was dedicated in 1933, the upper reaches have not been substantially repaired or rehabilitated. Today, that section of the road is in need of major work. The Going-to-the-Sun Road was designated a national historic landmark in 1997. The road's width was one of the contributing elements to its designation.

Before 1982, the funding for road repairs was minimal and came entirely from the park's annual operating budget. In 1982 Congress passed the Surface Transportation Assistance Act, which included funding for federal road reconstruction projects. In partnership with the Federal Highway Administration, the National Park Service established a road improvement program. Seven projects have been funded in Glacier since then. Approximately \$18 million has been spent to complete work on 20 miles of the road. The completed 20 miles have been mostly in lower sections of the road; less than 1 mile of the high mountain section has been completed.



GOING-TO-THE-SUN ROAD

GLACIER NATIONAL PARK

United States Department of the Interior • National Park Service
DSC • JUNE 98 • 117-20,040

Issue

At the heart of the issue is the fact that most road construction can be done only in summer and fall, which is also the only time that the public can experience the Going-to-the-Sun Road.

After the 1995-96 Logan Pass-Oberlin Bend reconstruction project, the Federal Highway Administration and the National Park Service determined that present funding levels are inadequate to ensure long-term use of the Going-to-the-Sun Road. Visitors experienced long and frustrating delays during that reconstruction, and contractors had difficulty repairing the road and maintaining traffic flow. The experience at Logan Pass led engineers and planners to conclude that approximately 50 years will be needed to finish repairing the road if the current approach was used. It is likely that some segments of the road will fail during that time, closing the road and necessitating unplanned emergency repairs.

The National Park Service and the Federal Highway Administration have jointly developed alternatives for a road reconstruction program based on the following criteria:

- The historic character and significance of the Going-to-the-Sun Road, including its width, must be preserved.
- Critical repairs must be performed before the road fails catastrophically.
- The cost of the reconstruction must be minimized.
- Impacts on visitors must be minimized.
- Impacts on the local economy must be minimized.
- Impacts on natural resources must be minimized.

Approximately 30 miles of the road still must be reconstructed. An 11-mile critical section was identified between the west side tunnel and Siyeh Bend. Because in some places it is seemingly carved out of the side of the mountain, this alpine section of the road will be the most difficult part of the road to reconstruct. This section, the most spectacular part of the road, was studied as the controlling reconstruction element in any long-range program to repair the road. The reconstruction of this section has the greatest potential to result in impacts on both visitors and the local economy. There are many historically significant stone masonry features, including historic stone retaining walls and stone masonry guardwalls. The narrow road corridor, the short construction season, and extreme and unpredictable weather conditions will affect both the integrity of the road

and the reconstruction effort. Avalanches, snow creep, and repeated freezing and thawing continually deteriorate road features and jeopardize public safety.

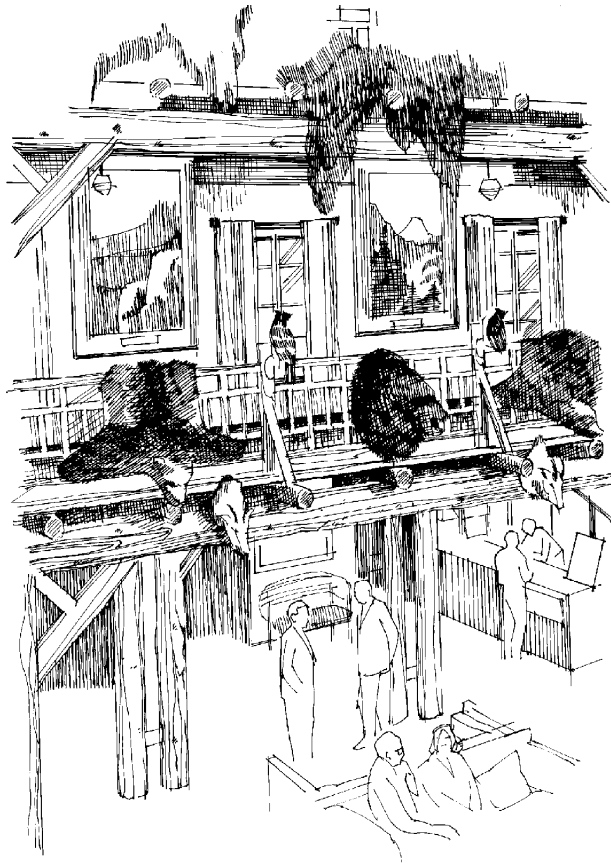
The 1998 Retaining Wall Inventory Update (FHWA 1998) listed serious structural problems at 76 of the 126 walls on the Going-to-the-Sun Road. Repair needs were identified and listed by priorities 1, 2, and 3. A total of 35 walls were identified as priority 1 or 2. The recommended repairs on these walls should be completed within three years, including 5 walls that require major structural work. If the repair is not done within this timeframe, the risk for catastrophic failure will substantially increase. Fifty-four walls are rated priority 3, and the repairs could be deferred for a short time.

However, even though the original Retaining Wall Inventory (FHWA 1997) and other evaluations did not identify major problems with the remaining walls, at some point those walls will require reconstruction. Funding (\$2.7 million) has already been secured for some stone wall repair during fiscal year 1999. Work will concentrate on the most serious structural problems. The alpine section has approximately 2 miles of stone masonry guardwalls that are in need of reconstruction. Work on 19 miles of the lower segments of the road should be programmed around the work needed in the alpine section.

■ Resolution: Comprehensive Reconstruction

The preferred alternative for the Going-to-the-Sun Road initially was to undertake a fast-track reconstruction effort of the road – The road will have been reconstructed in a comprehensive manner and on an accelerated schedule. In that scenario, engineering analysis projected that four to six years would be needed for completion. The road would have been closed for up to two years on the west side and up to two years on the east side. The cost would have been between \$70 million and \$85 million. Present funding allocations do not allow addressing road reconstruction in this manner; therefore, the National Park Service will seek sufficient funds to reconstruct the road comprehensively rather than incrementally, as is currently done.

Because of public concern, further studies will be carried out to determine how the Going-to-the-Sun Road will be reconstructed. Congress recently appropriated \$1 million to conduct additional analysis on reconstructing the road. Therefore, further studies will be carried out (with public input) to determine how long reconstruction will take, how traffic will be managed during reconstruction, and what mitigation can be used to preserve resources. The studies also will deter-



mine how to minimize any adverse effects on the economy. The results of these studies will be used to establish methods of reconstructing the road, as well as a recommendation from an advisory committee to be established. The National Park Service will continue to try to schedule reconstruction around the state of Montana's Lewis and Clark bicentennial celebration.

Until additional studies are completed, the National Park Service will continue its current program to perform critical road reconstruction as necessary and within available funding to preserve the road and address safety concerns.

PRESERVATION OF HISTORIC HOTELS AND VISITOR SERVICES

Background

Glacier has a long tradition of visitor service and hospitality. Early visitors came by train and horseback and then traveled by tour boat to the lodge at Lake McDonald. They arrived first by stage and then by automobile at the Many Glacier Hotel. Early in the park's history, the many chalets and tent camps allowed visitors to stay overnight in the backcountry. Later, lodging was provided at Swiftcurrent, Rising Sun, and Apgar. There were chalets at Gunsight Lake, Cut Bank, and Goat Haunt. There was a magnificent hotel at Sun Point. Smaller hotels, cabins, and chalets were at Many Glacier, St. Mary Lake, and Two Medicine.

People watched the sunsets from the porch at Gunsight Lake and the sunrise from the chalet at Many Glacier. They ate dinner at St. Mary and Two Medicine chalets and spent the night at Swiftcurrent, Goat Haunt, and Sun Point. The chalets at Sun Point, Many Glacier, and St. Mary each hosted between 100 and 150 guests per night. Two other grand hotels built during the same era were the Glacier Park Lodge in East Glacier and the Prince of Wales Hotel in Waterton Townsite, Alberta. These two hotels lie outside the park's boundaries, but they are part of a system of lodging in the area.

During the 1930s and 1940s these classic structures deteriorated because of the economy, decreased visitation, and a world war. By the end of World War II most of these structures had been closed or had fallen into disuse. The choice was to rehabilitate them or tear them down. Most were razed for economic reasons. Except for the lodging at Lake McDonald, Many Glacier, Sperry, and Granite Park, all the chalets, cabins, and camps are gone. What remains is recognized as historically significant. Three of the remaining buildings — Many Glacier Hotel, Lake McDonald Lodge,

and Two Medicine Lodge (now a campstore) — have been designated national historic landmarks. These and over 350 other structures in the park are listed on the National Register of Historic Places.

Issue

About 100 historic structures operated by the primary concessioner offer lodging and food services. All these structures require some level of rehabilitation to address deficiencies and to keep them functioning as visitor accommodations well into the next century. Some are not as historically significant as others in the park and could be replaced. Each year complaints are received from visitors who are dissatisfied with the conditions encountered at the facilities. The deficiencies must be addressed if the concessioner is to continue to provide services in a safe, healthy, and acceptable manner. With continued deterioration and visitor dissatisfaction, there would be little economic incentive for a concessioner to invest more money without an adequate return on the investment. Eventually this would result in the loss of historic structures.

Rehabilitating the structures would be expensive. Several solutions have been considered over the past 10 years, and cost estimates vary by study (depending on the approach taken to correct the problem). It has been estimated that \$61 million (1992 dollars) would be necessary to rehabilitate all the concessioner facilities in the park. In 1996 a proposal was received from the concessioner that estimated that \$82 million would be necessary to rehabilitate and improve the facilities. Another study the same year estimated that \$85 million would be required to correct the problems, allow a modest increase in the number of lodging units, and make upgrades. If the estimates were updated for inflation, the cost could be more than \$100 million by the time rehabilitation could begin. Some of the studies did not include costs of infrastructure improvements such as sanitation systems, road access, or additional parking.

Investigations continue to determine which engineering and architectural solutions would be best. Funding the preservation work at the hotel is at the heart of the matter. Private funding would require additional development to allow for a return on the investment. Additional development for these reasons is unacceptable in a national park. All funding sources would be evaluated, but ownership must remain with the National Park Service, and any additional development would be considered only if necessary to serve visitor needs.



Lake McDonald Lodge is the oldest hotel in the park. This national historic landmark offers 100 guest rooms of varying types, including some associated cabins. In the developed area there are two restaurants, a lounge, a campstore, a gift shop, and a small post office. The complex has a mix of concessioner-owned, government-owned, and privately owned structures. The lodge was partially renovated in the 1980s, but much remains to be done. Some facilities do not meet current fire and electrical codes, pose risks from asbestos, and are not accessible for people with disabilities. Parking is inadequate. The 1960s-era restaurant is poorly located and architecturally inappropriate to the historic district. The support facilities and utility systems are not winterized. Many of the employee dormitories lie within the 100-year floodplain of Snyder Creek and are not adequate to meet current needs. Estimates for improvements are \$23 million to \$36 million.

The Many Glacier Hotel provides 211 guest rooms and a restaurant, a lounge, a gift shop, and a snack bar. The hotel has been designated a national historic landmark. The facilities are concessioner-owned, but the title is vested with the National Park Service. There are extensive problems with the facilities, including electrical systems that do not meet modern fire codes; failing structural elements such as exterior balconies, walls, floors, and foundations; inadequate and inefficient heating systems; asbestos hazards and bat infestations; inadequate utility systems, poor pedestrian circulation; and limited access for visitors with disabilities. There are no operable elevators, and the rooms have undersized bathrooms and no soundproofing or insulation. Employee housing is inadequate. Improvements to address these concerns would cost \$35 million to \$48 million.

Swiftcurrent Motor Inn developed area has 62 motel units, 26 cabins without bathrooms, a restaurant, a campstore, public showers, and a laundry. Many of the facilities, which are concessioner-owned, lie within the national historic district at Swiftcurrent and are listed on the National Register of Historic Places. Problems identified include asbestos hazards, inadequate public shower facilities, inadequate access for visitors with disabilities, and poor pedestrian circulation. Many of the structures have deteriorated beyond simple rehabilitation. The motel units, which were built in 1955, are not within the boundaries of the historic district. Most of the cabin units were rebuilt following a forest fire in 1936, but one circle of 12 cabins is original, and these are part of the historic district at Swiftcurrent. Redevelopment is a possibility. Improvements to address these concerns would cost between \$3 million and \$8.3 million, depending on how they were restored.

Rising Sun Motor Inn developed area is largely a designated historic district. The cabin camp was built in 1941, and the area is listed on the national register as a historic district. The designation excludes the 1959 restaurant and motel units. The motor inn includes 37 motel rooms

and 35 cabins, a restaurant, a campstore, and public showers. A serious problem is that employee housing and visitor lodging are within the 100-year floodplain. Other problems include inadequate access for visitors with disabilities, inadequate public showers, structural deterioration, and asbestos hazards.

This camp is one of the best remaining examples of a 1930s-era automobile cabin camp. Improvements are estimated at between \$5 million and \$10 million, depending on the method of restoration.

Two Medicine Lodge, a designated national historic landmark, houses a campstore and a snack bar. Recognized problems include asbestos, accessibility and structural problems. To correct these deficiencies would cost about \$600,000.

The Village Inn is a government-owned 36-room motel on the shore of Lake McDonald at the outlet of McDonald Creek. It is in Apgar Village near private lodging, restaurants, gift stores, and visitor facilities. Shoreline erosion near walkways and low room entrances threatens the integrity of the motel and presents hazards to guests. The facility is an intrusion on Lake McDonald, but its government-regulated rates moderate the rates of privately owned lodging nearby. Having a modern architectural style, the Village Inn is not historically significant.

■ Resolution: Rehabilitate National Landmark and Other Historic Visitor Facilities

The National Park Service will seek funding to undertake a comprehensive rehabilitation effort to preserve the national landmark properties and the other historic lodging in Glacier National Park. All work will be accomplished in accordance with the Secretary of the Interior's Standards and Guidelines for the Treatment of Historic Properties. This will ensure the preservation of a structure's essential elements that contributed to its designation as a national historic landmark or placed it on the National Register of Historic Places.

Historic visitor lodging experiences will continue to be available in Glacier, from camping cabins to the grand hotels, as appropriate to the geographic area and management zones. The overall mix of services to be offered will be determined through the development of a commercial services plan. The type and level of these services will be guided by the management philosophy of the General Management Plan to retain Glacier's classic Western park character. A minimum of 500 rooms will be retained. The maximum will be identified in the commercial services plan.

The following actions will be taken:

- Complete a historic structures report on buildings to identify the significant elements, and explore alternatives for rehabilitation as a lodge and/or motel.
- Conduct additional structural analysis where needed.
- Develop a commercial services plan that analyzes visitor needs, expectations, and demands and resource constraints and implications. Determine the economic feasibility of establishing the number of rooms and services that should be made available in the park. However, the addition of new rooms will be allowed, depending on the viability and ability to retain Glacier's classic Western park character.
- Revise and/or develop site-specific design plans for all five locations.
- Conduct feasibility analysis for rehabilitation, including the evaluation of a variety of funding methods (such as congressional appropriations, other forms of public monies, and private investment).
- Develop priorities and phasing plan for the rehabilitation.
- Pursue funding sources.
- Determine the value of the concessioner's possessory interest in preparation for new contract development or, if necessary, to facilitate the expenditure of federal funds on the rehabilitation.
- Rehabilitate all historic visitor service structures and adaptively use them where possible to preserve other historic structures and to avoid the need for new construction.
- Ensure the design integrity of new facilities with historic structures.
- Upgrade utilities, concessioner employee housing, and infrastructure where required.
- Provide access for visitors with disabilities at all facilities.
- Study the Village Inn as part of an Apgar comprehensive design plan, and consider razing the facility and replacing it with a new lodging facility away from the lakeshore that could also serve the residential needs of the Glacier Institute near the proposed discovery center and museum.

SCENIC AIR TOURS

Background

Commercially operated scenic air tours began in the early 1980s in Glacier with one vendor. There have been as many as five or six, primarily on the west side, who advertised scenic air tours or offered to fly visitors over the park. At present two primary vendors on the park outskirts provide this service.

The Federal Aviation Administration regulates aviation throughout the United States, including the airspace above national parks. The National Park Service and the Federal Aviation Administration are developing regulations to guide aviation activities in national parks.

Issue

For some park visitors, including those who have disabilities, flying over the park can be a wonderful way to experience the grandeur of Glacier's roadless interior. For others, aircraft are a noisy, unwelcome intrusion on their park experience. The Going-to-the-Sun Road was built to provide access to the interior of Glacier National Park for people unable to hike or ride horseback. Before the road was built, Glacier's interior was available only to people who had the time and physical and financial ability to reach that area. The building of the road changed that, making the interior of the park available to all. The Going-to-the-Sun Road offers a singular experience, comparable to seeing the park by air. The impressive heights and spectacular vistas along the Going-to-the-Sun Road have thrilled visitors for decades. Many other roads in and around the park also provide magnificent views. Most importantly, this experience is readily available to everyone, including the elderly or people unable to hike into the backcountry.

The millions of visitors to Glacier National Park concentrate mostly along the travel corridors or the finger lakes that dominate the valleys on each side of the park. Some 735 miles of trail provide access for people who want to hike into the interior of the park. Often these visitors seek the peace, tranquility, and solitude that are increasingly hard to find as technology makes more places accessible.

The reason this issue, while an emotional one, has not yet been resolved is that the regulation of aviation activity is not within the authority of the National Park Service, even though it occurs over the park. Aircraft that fly over the park fall under the jurisdiction of the Federal Aviation

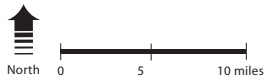
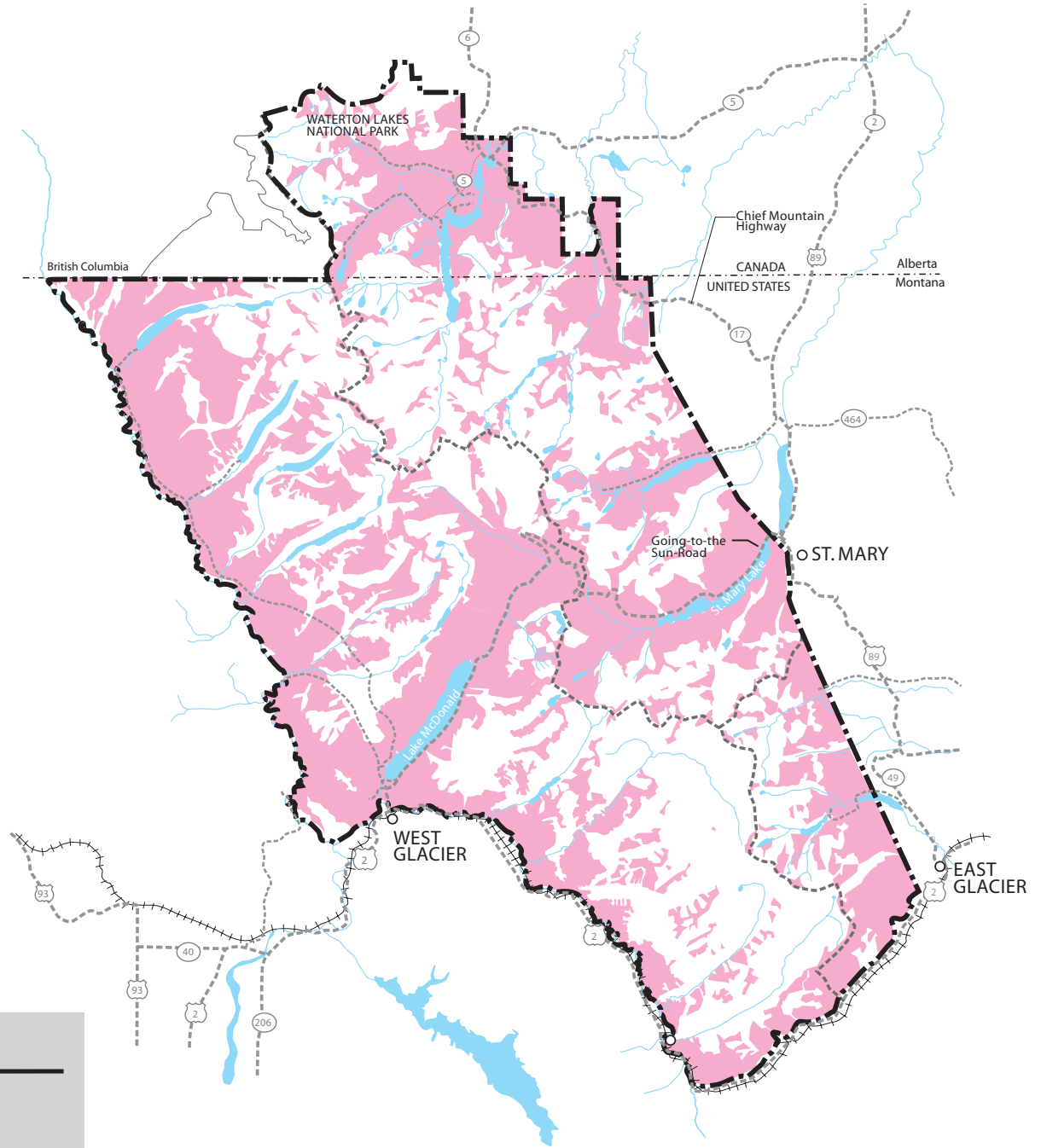
I've stood in some mighty-mouthed
hollow
That's plumb-full of hush to the brim....

Robert Service, "The Spell of the Yukon"

There is no area in America more replete with beauty of the highest order than that comprised within these two national parks. Tremendous mountains with carved cerfs in which the snows and glaciers of countless ages are encompassed, innumerable lakes, each a gem of its kind, canyons of that character described by Robert Service when he speaks of "canyons plumb full of hush"; these are the describable features of this region. But it has about it something indescribable. Perhaps the imminent presence which broods over it and which is universally felt may best be described as peace.

From Senate Report 460. 1st Session of the
72nd Congress
Establishment of Waterton-Glacier International
Peace Park
March 23 (calendar day, March 24), 1932
Report to accompany H.R. 4752

- 42% OF PARK AREA VISIBLE FROM ROADS
- NOT VISIBLE FROM ROADS
- ROADS
- CONTINENTAL DIVIDE



AREAS SEEN FROM MAJOR ROADS

GLACIER NATIONAL PARK
 United States Department of the Interior
 National Park Service
 DSC • FEB 99 • 117 • 20,041A

Administration, not the National Park Service. Even if park managers determined that scenic air tours were inappropriate or delineated where they could be appropriate, the National Park Service could not regulate where, when, or even if aircraft flew over the park. Park managers must request that the Federal Aviation Administration regulate scenic air tours.

Ongoing rulemaking and legislative actions will determine how the management of air space will be influenced by the Federal Aviation Administration and the National Park Service and by the laws and policies governing the management of national parks. That issue, and its integration with NPS management, must be reconciled at a national level before changes are likely to be seen in Glacier. Such changes would also allow the National Park Service to work with the Federal Aviation Administration to develop a scenic air tour management plan for each park. These plans would have to be in concert with each park's general management plan. While such regulations are not yet final, park management has determined that the general management plan should provide guidance.

Other uses of aircraft include commercial flights at high altitudes that fly over the park only incidentally, private aircraft that occasionally fly in or through the park, military flights, and the administrative use of aircraft (such as for fires, searches, maintenance of backcountry facilities, and research projects). In some of these, the park is only incidental to the purpose of the flight, but for others, the flight is dependent on the park and its resources, especially those involved with sightseeing.

The purpose of Glacier is unique among national parks. Glacier's scenic values are what first attracted the idea of national park designation. The park's natural values were recognized when Congress instructed the secretary of the interior to take special care of the wildlife resources and to regulate the park "so as to preserve it in a state of nature." The National Park Service has a responsibility to protect park resources beyond just determining how an activity might affect the enjoyment of park visitors. Scenic air tours often are characterized only by the effect of noise on visitor enjoyment.

In the congressional designation of Glacier National Park and Waterton Lakes as the world's first international peace park, Glacier's peacefulness and tranquility were cited among the characteristics that lent the designation of "peace" to the area. Glacier's values for solitude and tranquility are also recognized in its 1974 wilderness recommendation to Congress. Thus, while noise and its effects are important considerations, the impact of these kinds of visitor activities and their appropriate use must be decided in the context of the national park values and wilderness qualities that could be altered, including visual effects.

Scientific observations have demonstrated that airplanes and helicopters flown near the ground can disturb wildlife. Animals such as grizzly bears have been observed running from feeding areas, and birds have been observed leaving nesting areas. Specific research has not been done at Glacier to determine at what altitude aircraft might operate and not harm wildlife.

Of the public comments received on this issue, more than 90 percent expressed concerns about disturbance or the appropriateness of overflights. Many said that overflights diminished their experience in the park. Most of these comments referred specifically to commercial helicopter sightseeing tours. Much of the concern and comment related to both noise and whether or not such a use is appropriate in Glacier, given its purpose and significance. This plan will guide federal decisions on this issue, taking into consideration that the National Park Service has no authority to take direct action at this time.

■ Resolution: Prohibit Commercial Sightseeing Tours over Glacier National Park

Glacier's enabling legislation states the park is to be "for the benefit and enjoyment of the people" and should be regulated to provide "for the preservation of the park in a state of nature . . . and for the care and protection of the fish and game within." Although commercial sightseeing tours benefit some visitors, they reduce the enjoyment of others. This plan provides actions to be taken to manage commercial scenic air tours over Glacier National Park. Concern by Glacier visitors and the public at large has focused on helicopter air tours. However, commercial air tours over Glacier are also available in fixed-wing aircraft, although to a lesser extent. The National Park Service does not distinguish between the two types of aircraft used in commercial scenic air tours because both offer a service that depends on the park and its resources; therefore, the two types of tours should be treated similarly. These air tours do meet the affirmative responsibilities to preserve park resources or park values "in a state of nature" or to care for them properly.

The National Park Service will request that the Federal Aviation Administration prohibit all commercial scenic air tours over Glacier National Park. The Going-to-the-Sun Road will continue to provide access to interior portions of the park for all visitors, especially those unable to hike or ride horseback.

The following actions will be taken:

- Request that the Federal Aviation Administration prohibit the operation of all new commercial scenic air tours over Glacier National Park.
- Develop a scenic air tour management plan with the Federal Aviation Administration and the public that will include a phaseout of commercial air tour operations existing as of 1997.

PERSONAL WATERCRAFT

Background

Personal watercraft are marketed under brand names such as Jet-Ski, Waverunner, and Sea-Doo. These are small vessels that use inboard motors powering water jet pumps as the primary source of power. They are designed to be operated by sitting, standing, or kneeling on the vessel. Personal watercraft are high-performance vessels designed for speed and maneuverability and are often used to perform stunts. Horsepower typically ranges from 50 to 100, and the craft are capable of traveling more than 60 mph.

Under park regulations, all boats with motors greater than 10 horsepower are prohibited on all but Lake McDonald, St. Mary Lake, Lake Sherburne, and the United States portion of Waterton Lake. Waterton Lakes National Park bans personal watercraft on the Canadian part of Upper Waterton Lake. NPS policy states that personal watercraft are banned in all NPS areas unless specifically allowed by the superintendent.



Issue

The use of personal watercraft has increased dramatically over the past five years in areas around the park. Personal watercraft are permitted on Flathead Lake, Hungry Horse Reservoir, Whitefish Lake, and many other lakes in the region. Glacier officials analyzed the potential impacts of personal watercraft use on the park environment and concluded that the craft could degrade park resources and the experiences of park visitors engaged in other recreational activities. This conclusion was reached after reviewing the purpose of Congress in establishing the park and the international peace park, NPS guiding policy and regulations, and research done elsewhere on the

effects of personal watercraft on natural resources. Consideration included the banning of personal watercraft by Waterton Lakes National Park and potential environmental and sociological impacts.

Glacier's superintendent implemented a temporary prohibition on personal watercraft use in the park in 1996. This ban was intended only as an interim measure pending review of the issue as part of the general management planning process. Waterton Lakes National Park had banned personal watercraft in 1994 because residents, visitors, and park managers believed they were inappropriate in the park and interfered with other boaters.

The National Park Service has the authority to regulate recreational use in Glacier National Park. The United States Code recognizes that boating in national parks falls under the jurisdiction of the National Park Service as long as NPS regulations complement those of the U.S. Coast Guard. As new types of recreational activities are proposed, the National Park Service must evaluate each activity individually to ensure that it is consistent with approved management direction. The National Park Service must ensure that natural and cultural resources are protected and that acceptable use levels are established. Activities that are inconsistent with the park purpose may be disallowed.

The use of personal watercraft is being considered in this General Management Plan because when the temporary ban was initiated in 1996, it included a commitment to conduct further public input and study of the issue before a permanent strategy was put into place.

■ Resolution: Ban Personal Watercraft on All Park Waters.

This plan permanently bans personal watercraft from all waters in the park. This regulation will be placed in the Code of Federal Regulations. The prohibition will preserve the natural quiet and opportunity for solitude on all park waters.

The following action will be taken:

- Make permanent the temporary ban on personal watercraft.

WINTER USE

Background

Glacier National Park has long provided for visitor use in winter, and nonmotorized quiet recreational activities such as backcountry camping, cross-country skiing, snowshoeing, and hiking have contributed to visitors' wintertime enjoyment of the park. Winter overnight accommodations have not been provided, not because of policy, but because there has been no market for them.

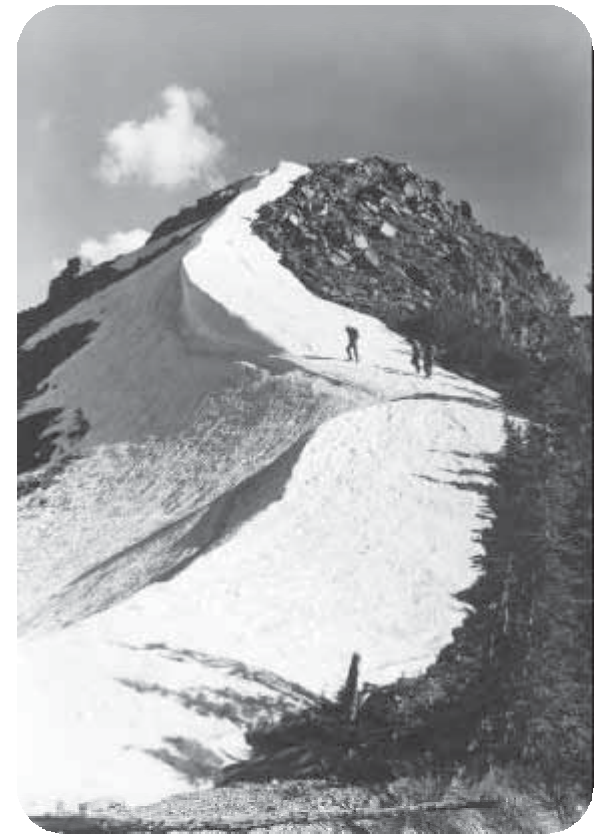
Issue

Northwestern Montana's winter tourism market is maturing. In the Flathead Valley there is one well-established downhill ski area, and a second opened in 1999. Snowmobiling is popular with local residents and visitors to areas adjacent to Glacier. Increasing development and expanding populations in the area probably will result in more winter use of the park. The population of the Flathead Valley has grown by 21 percent, and Glacier County has grown 4.7 percent since 1990. Visitor use studies have documented that 80 percent of the winter visitation to the park is by local residents. Increasing summer visitation has resulted in many more visits during fall, winter, and spring because of displacement. During winter, parking at the head of Lake McDonald becomes congested on many days, making it difficult to plow snow. Parking at this point has also made it easier to access areas along the Going-to-the-Sun Road where there are avalanche hazards.

Winter visitor numbers are not high, and voluntary winter day use registration has decreased since 1995; however, the National Park Service prefers to plan for increased use rather than wait until problems arise. This plan provides that opportunity.

■ Resolution: Prepare for More Winter Day Use

This plan identifies actions that will be taken in response to an increase in winter visitor use or a demand for increased winter visitor opportunities. The nonmotorized activities that have been a part of park visitors' wintertime enjoyment will be perpetuated, should winter visitation and associated use increase. Some opportunities could be expanded to accommodate an increase in winter day use, but overnight facilities will not be opened, and groomed trails will not be provided. Increased use will be accommodated only within the available facilities in the park. No new facili-



ties such as parking lots will be constructed. Resource impacts associated with winter use will continue to be closely monitored. If unacceptable impacts should result from increased winter day use or the implementation of all or part of this alternative, immediate action will be taken to mitigate or eliminate the impacts.

The following actions will be taken:

- Plow snow from roads only to Lake McDonald Lodge, and provide parking and restroom facilities.
- Plow the road to the 1913 Ranger Station, and provide parking and restroom facilities.
- Provide adequate parking and restrooms at the beginning of the Camas Road at the current location.
- Plow Many Glacier Road to the park boundary, and provide adequate parking and sanitation facilities.
- Proceed with caution in areas where there is winter wildlife activity, and monitor wildlife impacts from increasing use. Take action if necessary.

DIVIDE CREEK FLOOD HAZARD

Background

At St. Mary the administrative and maintenance facilities and employee housing are in the flood hazard zone of Divide Creek and are subject to dangerous floods that put life and property at risk. There are 36 park employee housing units, one administrative building, and a maintenance facility that includes 24 buildings. Divide Creek has flooded three times since 1991, placing lives and government facilities in danger. Riparian areas (zones adjacent to rivers and lakes, usually in floodplains) are sensitive to high levels of visitor use and possible contamination from hazardous materials.

Issue

There are NPS facilities, including housing, in a flood hazard zone. To provide for their protection and safety, stream channels and related natural processes are being manipulated, which is not in accordance with NPS policy.

■ Resolution: Relocate Structures out of Floodplains and Flood Hazard Zone

This plan includes relocating park employee housing and administrative and maintenance facilities. The structures and associated activities will be moved out of the flood hazard zone of Divide Creek in St. Mary to a site in or outside the park, or perhaps both. Sites that might be considered in the future are Rising Sun, Many Glacier, East Glacier, and Babb. Analysis of these sites is not included because at this point they are only ideas. A separate analysis would be done in the future. The National Park Service assessed an alternate location and the cost of moving the facilities. This information will be used to select suitable locations. Housing and administrative facilities might be separately located from the maintenance facilities. The entrance road to the park, which is also in the floodplain, will not be moved; roads are exempted from compliance with Executive Order 11988 (floodplain management) and NPS guidelines for implementing that order. Stream crossing improvements necessary to accommodate streamflows will continue. Because the bridge over Divide Creek is at risk from flooding, at some point in the future the entrance to the park may need to be changed.

The following actions will be taken:

- Determine safe locations for the facilities that are now in the flood hazard zone of Divide Creek.
- Consider moving these facilities to separate areas inside and/or outside the park.
- If necessary, seek necessary legislative authority and acquire needed property if the selected location is outside the park.
- Design and construct replacement housing and administrative and maintenance facilities.
- Remove floodproofing and all structures and allow Divide Creek to follow its natural channel to St. Mary Lake.
- Conduct a value analysis to determine the minimal development necessary for park operations.



WEST SIDE DISCOVERY CENTER AND MUSEUM

Background

About 60 percent of visitors to Glacier enter the park through the west entrance. The Apgar Visitor Center (probably more appropriately called a contact station) is a converted two-bedroom house that attracts about 190,000 people annually. Park visitation in recent years has been over 1.7 million. The Apgar facility is small and frequently crowded. Only a few exhibits are on display. The value of Glacier's resources and the park's important stories cannot be adequately described. A needed larger facility has not been built because of disagreements on location and waning support for partnering, along with lack of construction funds.

The park's museum collection contains around 20,000 natural and cultural objects. These items, which are critical for educating visitors and for research, are stored in five separate locations near park headquarters. The collection is growing, and space that meets professional museum standards is lacking. The objects are irreplaceable, and very few pieces from the collection are on public display because of lack of space and appropriate conditions to protect them.

When visitors come to the park, we believe they expect an educational experience. The Apgar facility is woefully inadequate to meet the basic park functions of providing orientation, safety protection, and interpretive and educational messages. A new center and museum on the west side of the park has been a recognized visitor need for many years.

Issue

Glacier is a special place to many people. It is a national park, an international peace park, a biosphere reserve, and a world heritage site. No other place in America has those four designations, yet there is no place in Glacier that tells the story of the park's importance. The need for a discovery center and interpretive museum on the west side of the park has long been recognized. The current visitor contact station is difficult to locate, lacks adequate parking, is too small to serve many more visitors, lacks adequate interpretive and museum exhibit space, and has limited facilities for school groups and their educational programs.

The current facility was meant to serve an interim solution by adaptively using a small house as a contact station. Many visitors miss the contact station and arrive at Logan Pass before they encounter a ranger-staffed facility. This may contribute to longer stays and more congestion at the

pass. Visitors need to receive important messages about resource protection, safety, educational and orientation messages upon entry to the park, not halfway through their visits.

■ Resolution: Construct a West Side Discovery Center and Museum inside the Park

Visitor service, education, and exhibition of museum objects can be provided with the construction of a new discovery center and museum inside the park. A facility will be built north of the Going-to-the-Sun and Camas Roads T-intersection, in the Apgar area. Many more visitors will be attracted to a facility at this location than any other since it will be conveniently located for visitors entering from either direction along Highway 2 or the Camas Road. If the county or the state should eventually pave the North Fork Road from Columbia Falls at least as far as the Camas Road junction, more visitors might enter from this direction.

The NPS decision to place the west side discovery center and museum within the park is based on the premise that a center inside the park will be the best place to “connect people to the park” (an NPS goal for interpretation), prepare visitors for an appropriate experience, and provide the highest level of visitor service. The exhibits at the center will trace history from the earth’s first lifeforms, represented in Glacier’s oldest rocks, to modern-day events. Items from the park’s collection of museum objects (from historic vehicles to prehistoric artifacts) will help visitors better understand Glacier’s place in American heritage. A discovery center will also serve people who want to learn about the international peace park and world heritage values in order to apply those principles elsewhere in the world.

Important resource protection messages will be conveyed to visitors at the center, which will encourage safer visits and better preservation of the park’s resources. The facility will improve the exhibition of many more of the park’s museum items, meet professional curatorial standards, and increase public access to the collection(s).

The new center, which will replace the interim contact station at Apgar, will be a full-service, accessible, year-round facility. It will offer information services, interpretive and educational programs, innovative exhibits, and environmental education space. The needs of the Glacier Institute’s year-round outdoor education and student programming may also be addressed at the facility. Highlighting the international peace park, it will offer resources for groups seeking solutions for critical issues and conflicts facing the world. The future use of the Apgar facility has not been determined.



North Map not to scale

WEST SIDE
DISCOVERY CENTER AND MUSEUM
PREFERRED LOCATION

GLACIER NATIONAL PARK
United States Department of the Interior • National Park Service
DSC • FEB 99 • 117 • 20,036A

TO
WEST
GLACIER

The T-intersection is strategic in that it is the point past which all visitors who enter the park on the west side will drive. It is the first location in the park where visitors entering from all three directions on the west side of the park converge. No location outside the park is so strategically located as to be convenient for visitors to pull into a center and receive critical park messages.

The National Park Service has a dual mission: to protect park resources and to provide for visitor enjoyment. A well-designed educational facility strategically located at the T-intersection near Apgar can accomplish the service's mandate most effectively for these added reasons:

- A center inside the park will allow for easy access by all west side visitors, encourage repeat visits to the center during a stay in the park (hence offering a greater learning opportunity), allow for pedestrian access from Apgar, and allow for school and visitor programs to begin at the center and proceed directly into the park. Based on experience in other parks, we know that visitors are more willing to seek out educational messages once they are inside the park than before they enter. The nature of visitors' questions can be different at a center outside the park than inside the park. Hence, the discovery center can become a place for people to "connect with the park" and not just a stopping point before entry.
- Locations for a visitor center outside the park were intensively studied in 1989. Several of the most favored locations have now been developed by others (Alberta Visitor Center and Minuteman Helicopter). Only less desirable locations remain available.
- Building a discovery center outside the park would involve either the government buying the necessary land (land would be removed from the county tax rolls, resulting in the loss of property tax dollars) or working through the General Services Administration to have a building constructed and leased for use as a visitor center. Either option would be more expensive than building within the park on land the government already owns.
- Some of the needed utility systems, including a sewage system and a wastewater treatment plant (both of which are slated for improvements), already exist in the Apgar area. These are not fully available at any site immediately outside the park. A new discovery center and museum can be added into the existing system at less cost than developing a method to handle sewage for a new facility outside the park, where no sewage plant now exists. For instance, constructing a sewerline from outside the park, across the Flathead River, and into the park's treatment facility would be extremely expensive.

- The proposed site is north of the T-intersection and flanked by existing development on three sides. A wildfire that burned through the area in 1929 resulted in a forest that is predominantly lodgepole pine, making impacts fewer here than other sites along the main entrance road in the park. Wildlife migration routes exist in the area, but they are primarily south of the intersection along the entrance road and toward park headquarters. The site north of the intersection was purposely suggested to minimize impacts on flora and fauna while serving the greatest number of park visitors. Flora and fauna inventories will be conducted before the facility is sited.
- A key use of the new center will be to offer educational programming for youth. Nearly 5,000 students attend educational programs, many based out of the existing, but cramped, Apgar visitor center (a converted 2 bedroom house) and/or the environmental education cabin (converted small cabin) in Apgar. Winter snowshoe walks are among the most popular programs. A new center in the park will allow us to serve them better with improved classroom space, and then they can continue the educational opportunity by snowshoeing right out the back door into the park. Locating a new center outside the park would not have the same effectiveness and would mean students would start their educational experience in the center, reboard the school bus for a trip to Apgar, and reboard the bus again to return to the center. Thus, it would be more difficult to connect the students to the park and its resources. Students come to Glacier to experience the park, and having the new center in the park will provide the greatest opportunity for that to occur.
- Around 20 years of planning has gone into trying to pick a suitable location, find a suitable partner or partners with whom to develop a center, and in the end nothing has been built to better serve the needs of visitors to Glacier National Park in the “crown of the continent” ecosystem. No other organization has urged a combined facility during this planning process.
- Park visitors want and deserve a well-designed, effective learning center, and a center in the park can best meet the objective of providing the highest level of visitor service.
- Developing an effective center in the park with adequate space for the sale of interpretive and educational materials will allow for the reduction or elimination of that activity at Logan Pass Visitor Center, which now serves as the west side visitor center for many visitors because they miss the existing Apgar Visitor Center.

- **Building a center inside the park to tell the park story will not preclude another joint venture outside the park at some future date with other organizations or agencies. Two centers would complement each other and provide complementary messages and information.**

The following actions will be taken:

- **Complete a comprehensive design plan and environmental analysis for the Apgar area that includes the new center and determines the related visitor uses, needs, and services that should be incorporated into the new center.**
- **Based on that analysis and planning, construct a west side discovery center and museum with related infrastructure north of the T-intersection near Apgar.**
- **Modify the T-intersection to improve traffic flow.**



Implementation Plan

This General Management Plan represents but the first step in advancing the future of Glacier National Park. Much remains to be done to implement the plan.

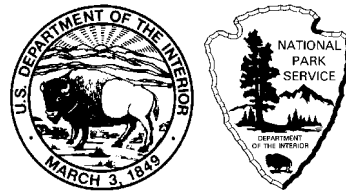
The National Park Service will undertake more detailed evaluation of the management zones applied to each of the six geographic areas established by the plan. The challenge is to develop a set of indicators and standards for each geographic area to ensure the long-term preservation of desired resource conditions and the appropriate types and levels of visitor use. These processes will include public involvement.

This plan has identified steps that will be necessary to implement the resolution for each of the eight critical issues. These actions include a variety of additional studies, as well as more detailed design analyses where appropriate. In some instances, regulations will need to be promulgated before the action can be undertaken.

The following actions will be initiated after the General Management Plan is approved.

- Conduct additional engineering, economic, cultural resource, and environmental studies on the comprehensive reconstruction of the Going-to-the-Sun Road.
- Seek funding to prepare a commercial services plan to determine the type, level, and location of commercial visitor services for the park. Evaluate subzoning of the visitor services zone.
- Begin developing a comprehensive visitor use plan for the Going-to-the-Sun Road.
- Revise the Resource Management Plan and include more detailed strategies for science in the park.
- Review existing park planning documents for consistency with the General Management Plan, and identify necessary revisions.

- **Formalize the boundaries of the park's proposed wilderness, provided a Glacier National Park wilderness bill is introduced into Congress.**
- **In partnership with the Federal Aviation Administration, begin the process of developing an air tour management plan for the park, provided the necessary enabling legislation and/or rules are in place.**
- **Prepare program documents and investigate funding sources for constructing the west side discovery center and museum, beginning with the funding of a comprehensive design plan and environmental analysis of the Apgar area.**



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

Watercolors by Philip Thys. Illustrations by Ruth Eitel. Graphic design and layout by Glenda Heronema and Joan Huff. Editing by Lou Layman.