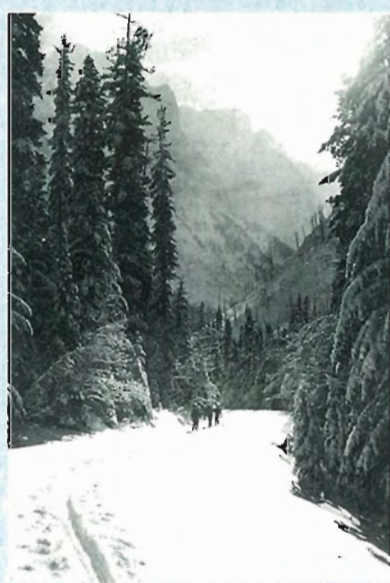




The Plan

*Guiding Principles
Management Strategy
Issues and Alternatives*





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Guiding Principles for Glacier National Park

The *Final General Management Plan and Environmental Impact Statement* (GMP/EIS) provides a management strategy for park staff to use to address issues and make 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).

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 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.

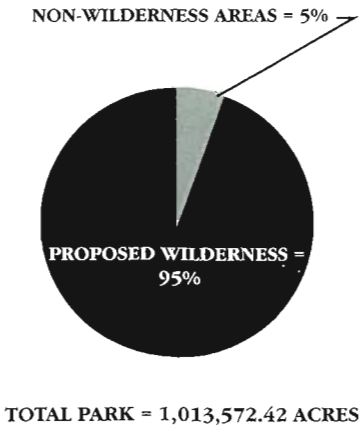
The designation of Waterton-Glacier provides greater protection for resources because Canada and the United States have agreed through the ratification of the World Heritage treaty to refrain from taking actions that might damage the values of the other country's world heritage site. They have also each 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, and . . . 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 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 for Managing Glacier

The 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 would 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 would 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 would remain. Visitors would be able to enjoy the park from many vantage points. Visitor use would be managed to preserve resources, but a broad range of opportunities would be provided for people to experience, understand, study, and enjoy the park. Cooperation with park neighbors would be emphasized in managing use and resources.

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 manage-

ment plan and a new comprehensive use plan for the Going-to-the-Sun Road would further delineate these zones and place them more specifically on the ground. Subzoning could be implemented in some cases. Measurable indicators would be selected to help the park determine if the desired resource and visitor experience conditions were being met. Standards would 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** would include developed areas, paved roads, and campgrounds with potable water and sanitation facilities. Natural resources would 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 would 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 would continue to be provided to support the visitor's ability to experience the park. Visitors would find a social, relatively safe, comfortable atmosphere. The park would 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 would be managed to tolerate a high level of use, including large tour boats and motorized craft. Most facilities would be fully accessible. Cultural resources would be managed to preserve historic districts, landmarks, and national register properties and the elements that contribute to their designations. Visitors could expect congested conditions.

Day Use Zone

The **day use zone** would include selected areas generally with specific destinations that visitors could reach easily within a day from visitor use zones. Natural resources would be managed to ensure a high degree of resource integrity, enhanced by the proper location and design of trails and facilities. Natural processes would be allowed to proceed unimpaired to the extent possible with relatively high levels of use. Resource degradation would not be allowed outside the trail corridor. Some parts of this zone would be in the park's proposed wilderness, where natural sounds predominate. Travel could be by boat, foot, or horseback. Trails could be developed for visitors with disabilities where appropriate, and the standards of trail maintenance would be high. Wider travel surfaces and tread improvements would accommodate a higher level of use and present a lower level of difficulty while protecting resources. Visitors could 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 would be limits on motorboat horsepower where motors were permitted. Docks would be provided on selected lakes. Conflicts between visitors and wildlife would 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 would connect visitors to Glacier's values would be emphasized. Interpretive hikes and other educational interpretation would be encouraged. Concentrated use of trail corridors and destinations would be expected. Cultural resources would be preserved and protected.

Rustic Zone

The **rustic zone** would include primitive facilities and campgrounds representative of early western national park development and traditional visitor experiences in them. Modest impacts on natural resources would be tolerated, mostly near campgrounds and facilities. Travel along road corridors is intended to be slow; there would be only limited improvement to surfaces and corridors. This would enhance wildlife security, particularly in the North Fork, where roads are extensively used by many species. The facilities also serve as staging areas for use of the surrounding backcountry zone. While modest in scale, this zone would allow visitors to understand and appreciate the human and the natural histories of the park. Most facilities in this zone would be fully accessible. Visitors would experience a slow-paced atmosphere and less formal visitor programs. Natural quiet would predominate. Fewer visitors would be encountered than in the visitor service zone. Cultural resources would be managed to preserve historic values. Conflicts between visitors and wildlife would be managed by strategies ranging from relocation and aversive conditioning (causing wildlife to want to avoid an area) to closure. No concession facilities would be permitted.

Backcountry Zone

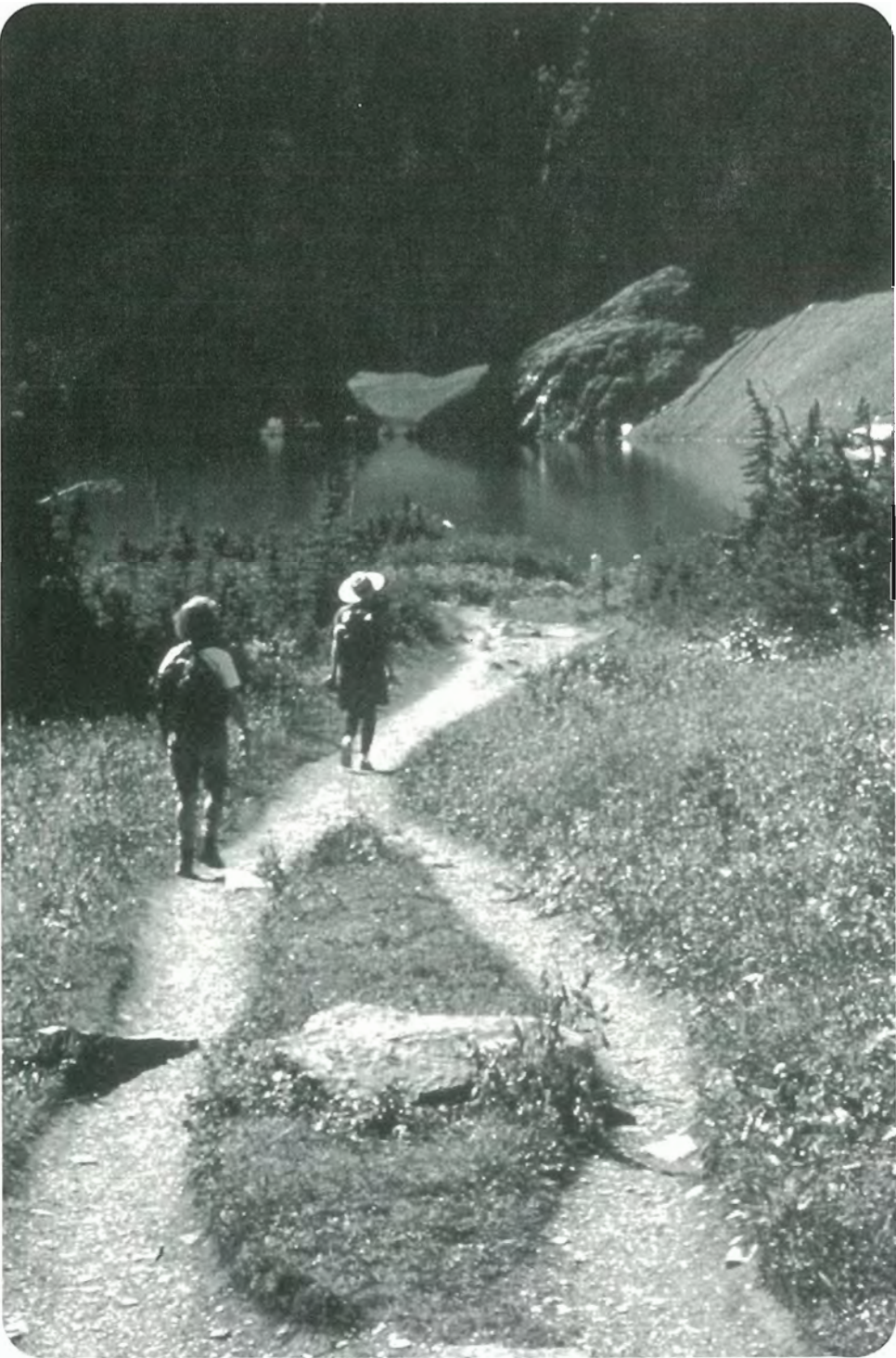
Management of natural resources in the backcountry zone would focus on protection and (when necessary) restoration of resources and natural processes. Information about the nature, status, and trends of natural resources in this zone would be emphasized. The visitor experience in the majority of the backcountry would be characterized by predominantly pristine natural conditions. There would be some primitive facilities such as trails, bridges, and campsites. It would offer outstanding opportunities for visitors seeking solitude. Natural quiet would predominate. The expectations of visitors would 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 would be confined to trail corridors and designated camping areas. Cultural resources would be preserved and protected in accordance with the law and NPS policy. Formal interpretive and educational opportunities would be minimal and in keeping with the qualities desired for this zone. Conflicts between visitors and animals in this zone would be managed to

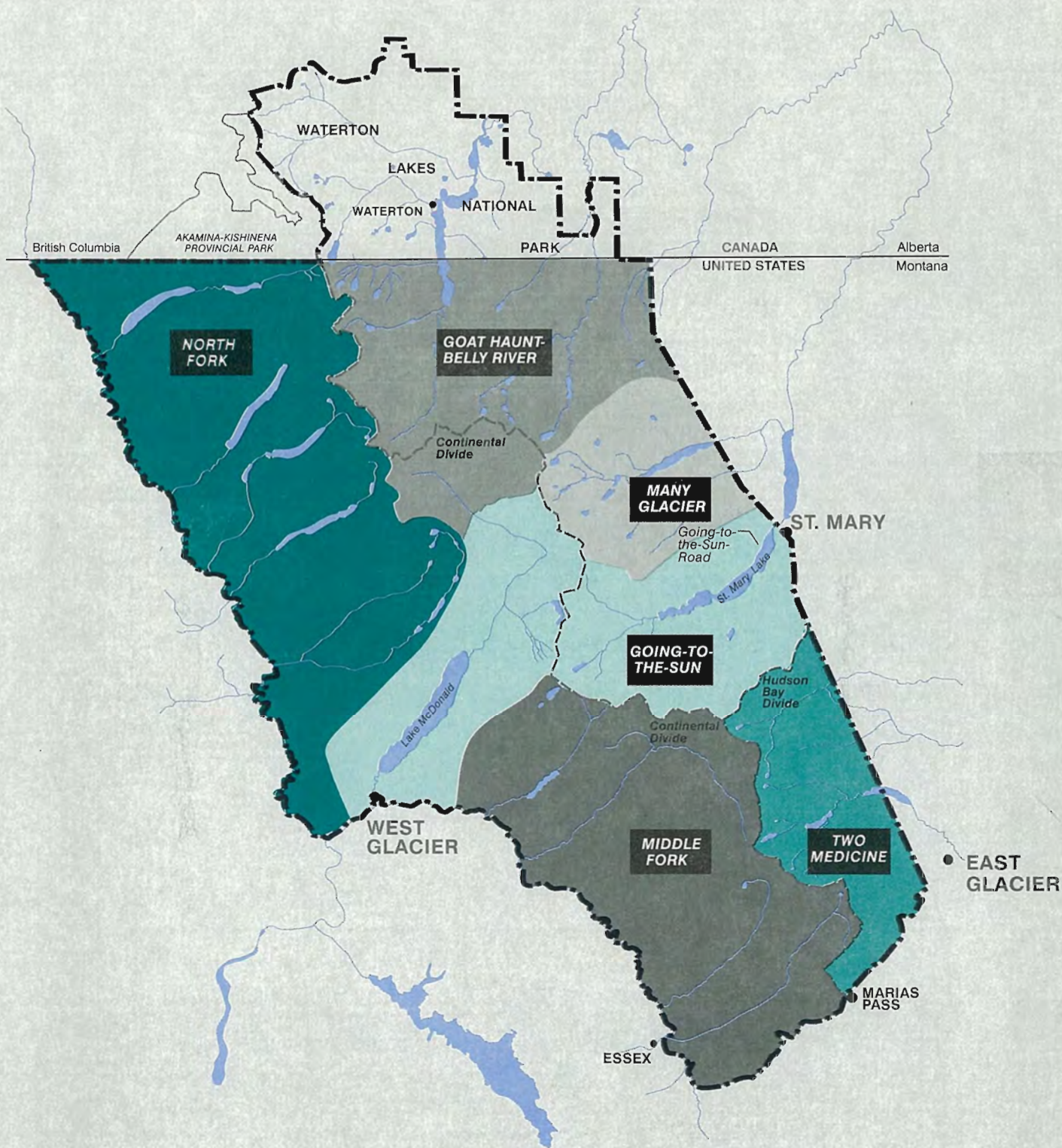
A high encounter rate means that the NPS would tolerate high levels of use in a particular area, if use increased. However, it does not mean that a second-rate experience would be provided, nor that the National Park Service would take steps to increase use of particular areas.

Measurable indicators would be selected for monitoring key aspects of the visitor experience and resource health at Glacier. Standards would 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.

minimize disturbance to wildlife, yet still provide for visitor safety. In most cases, areas would be closed to visitors when dangers arose. Natural processes would prevail. Animals would rarely be removed from the area. No commercial activity would be allowed off trail. Most of the proposed wilderness lands are zoned as backcountry and would need to be managed in accordance with NPS policy on proposed wilderness areas.





North 0 5 10 Miles

GENERAL MANAGEMENT PLAN GEOGRAPHIC AREAS

GLACIER NATIONAL PARK

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Many Glacier

How this area would be managed:

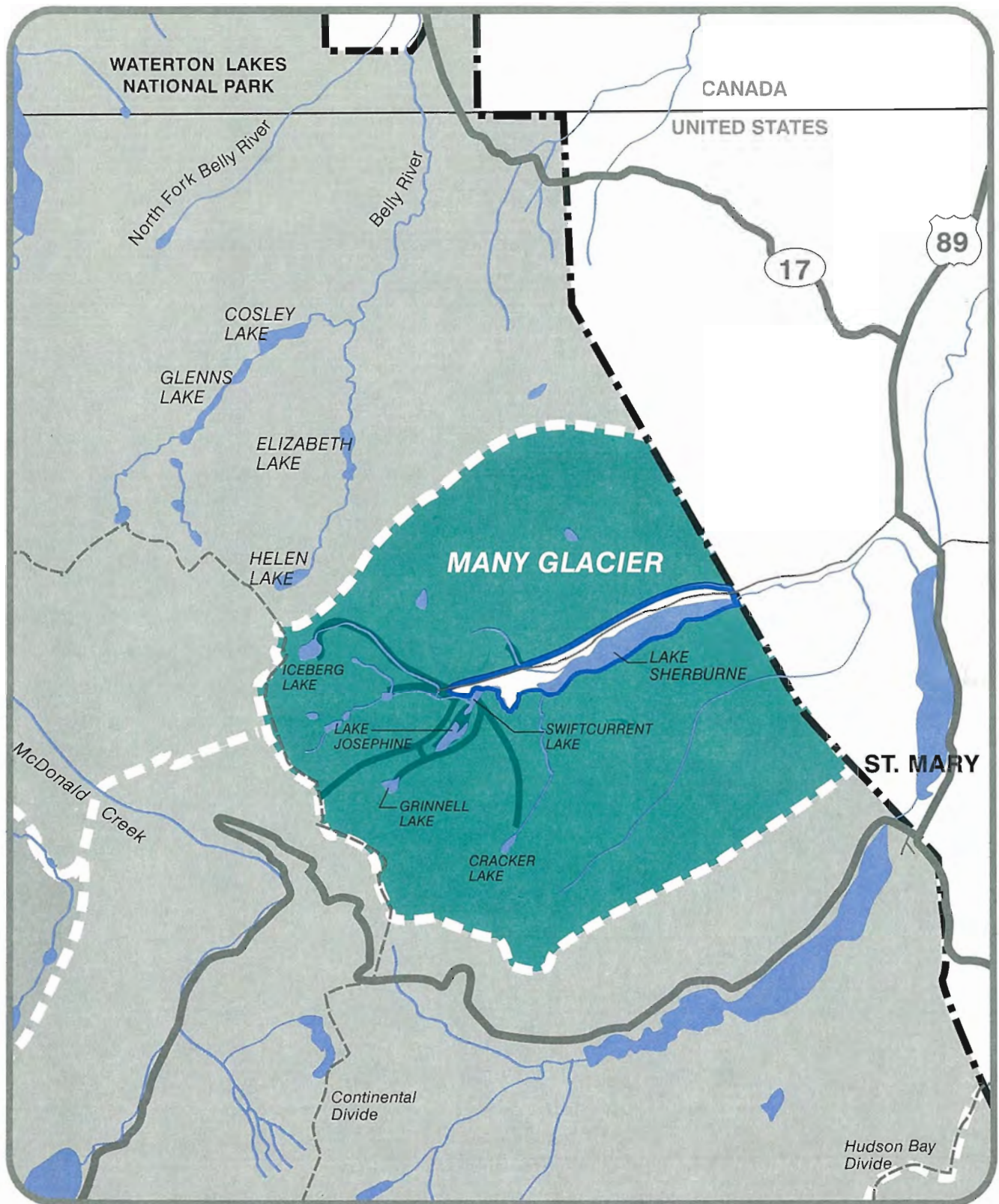
- Resources would be managed to prevent degradation of the high quality wildlife habitat, including winter range, and to minimize conflicts with visitor use.
- Two separate developed areas (Swiftcurrent and the Many Glacier Hotel) would be maintained and managed to provide traditional visitor services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

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.

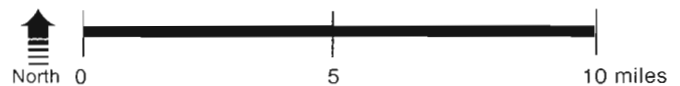
The **visitor service zone** would include the roads and Lake Sherburne, as well as two separate developed areas (see the Many Glacier map). These areas would be managed to continue to provide a range of services and facilities, including ranger stations, employee housing, food services, gift shops, campstores, and overnight accommodations. Significant cultural resources would be managed to preserve historic structures and their traditional uses. A range of developments would 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 could occur. This area would be managed to retain its character and to accommodate current levels and types of uses. Some increases in use could 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** would include Swiftcurrent Lake and trails, Josephine Lake and trail, and destinations such as Apikuni and Red Rock Falls, Grinnell Lake, and Iceberg Lake. It would be managed for traditional recreational experiences such as hiking, boat tours, and horseback rides. Conflicts between hikers and horse users would be minimized where possible. Interpretive services such as guided hikes and exhibits would be available. Development would be limited to trails, signs, waysides, bridges, boardwalks, overlooks, and sanitation facilities.

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



(CONCEPTUAL REPRESENTATION OF ZONES)



- VISITOR SERVICE ZONE
- DAY USE ZONE
- BACKCOUNTRY ZONE

MANY GLACIER

GLACIER NATIONAL PARK

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Goat Haunt-Belly River

PHILOSOPHY. The area would 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 would emphasize cooperation and coordination in the spirit of the international peace park, world heritage site, and man and the biosphere designations.

How this area would be managed:

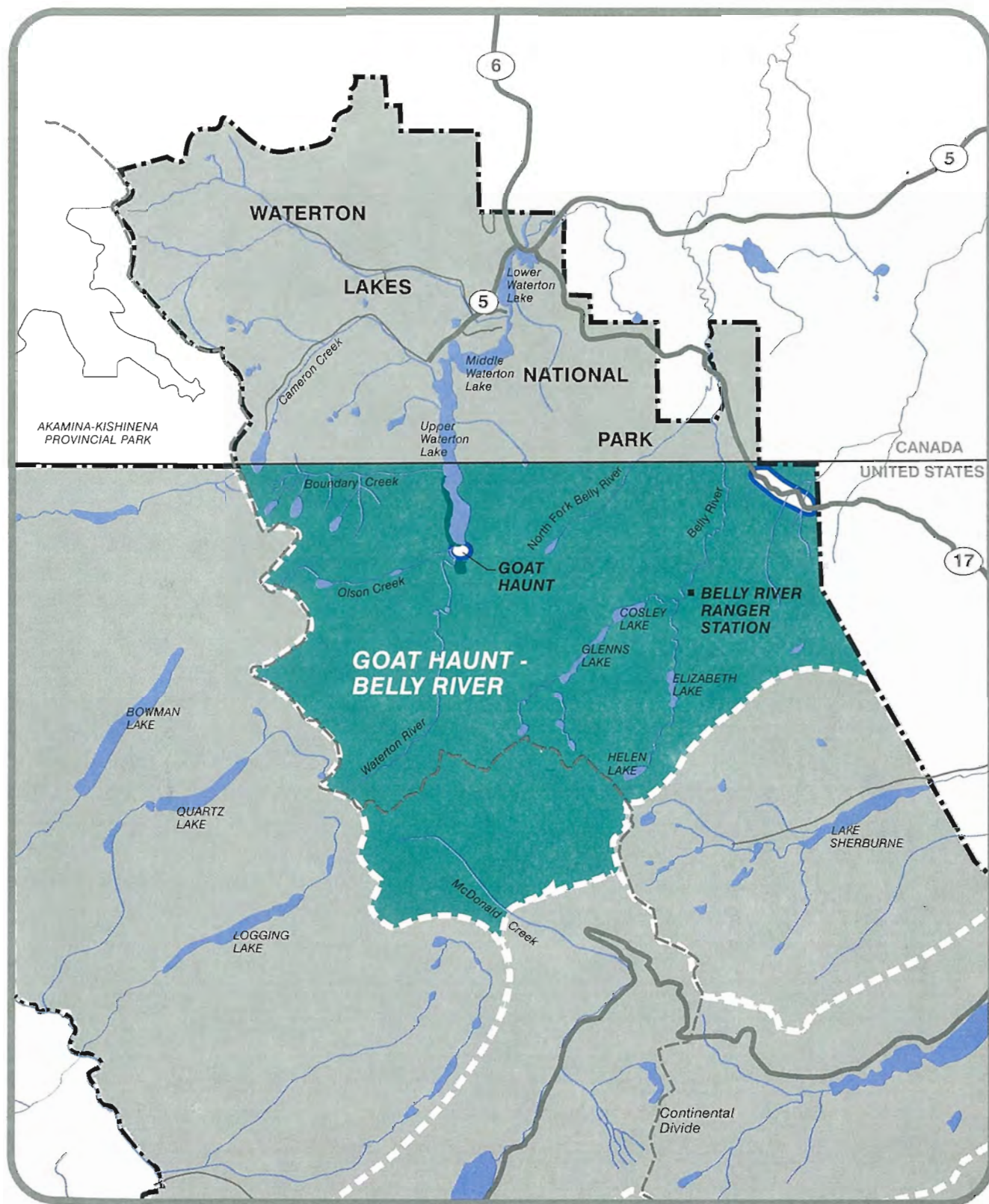
- Resources would be managed to protect the pristine character of the area and the integrity of biologic communities.
- No overnight accommodations or food services would be provided.
- Visitor services would be supported by the full range of services at Waterton Townsite. Boat landings, visitor orientation, information and interpretation services, backcountry access, and administrative facilities would be available at Waterton Townsite, at Goat Haunt, and along the Chief Mountain Highway.
- The international peace park and world heritage site values would be emphasized as primary interpretive themes.
- Goat Haunt-Belly River area would 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 would 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 would be limited to providing information and interpretation as well as customs and immigration. Development would be limited to that necessary to support those functions but could include contact and customs stations, boat docks, corrals, campsites, sanitation facilities, administrative facilities, and employee housing. Interpretive needs would be met with kiosks, exhibits, and personal services.

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

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



(CONCEPTUAL REPRESENTATION OF ZONES)

- VISITOR SERVICE ZONE
- DAY USE ZONE
- BACKCOUNTRY ZONE

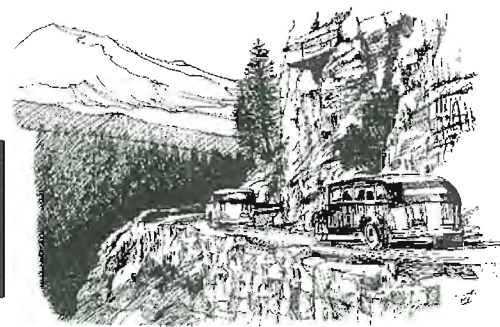
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GOAT HAUNT - BELLY RIVER

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Going-to-the-Sun Road Corridor



PHILOSOPHY. The Going-to-the-Sun Road corridor would 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 would be emphasized.

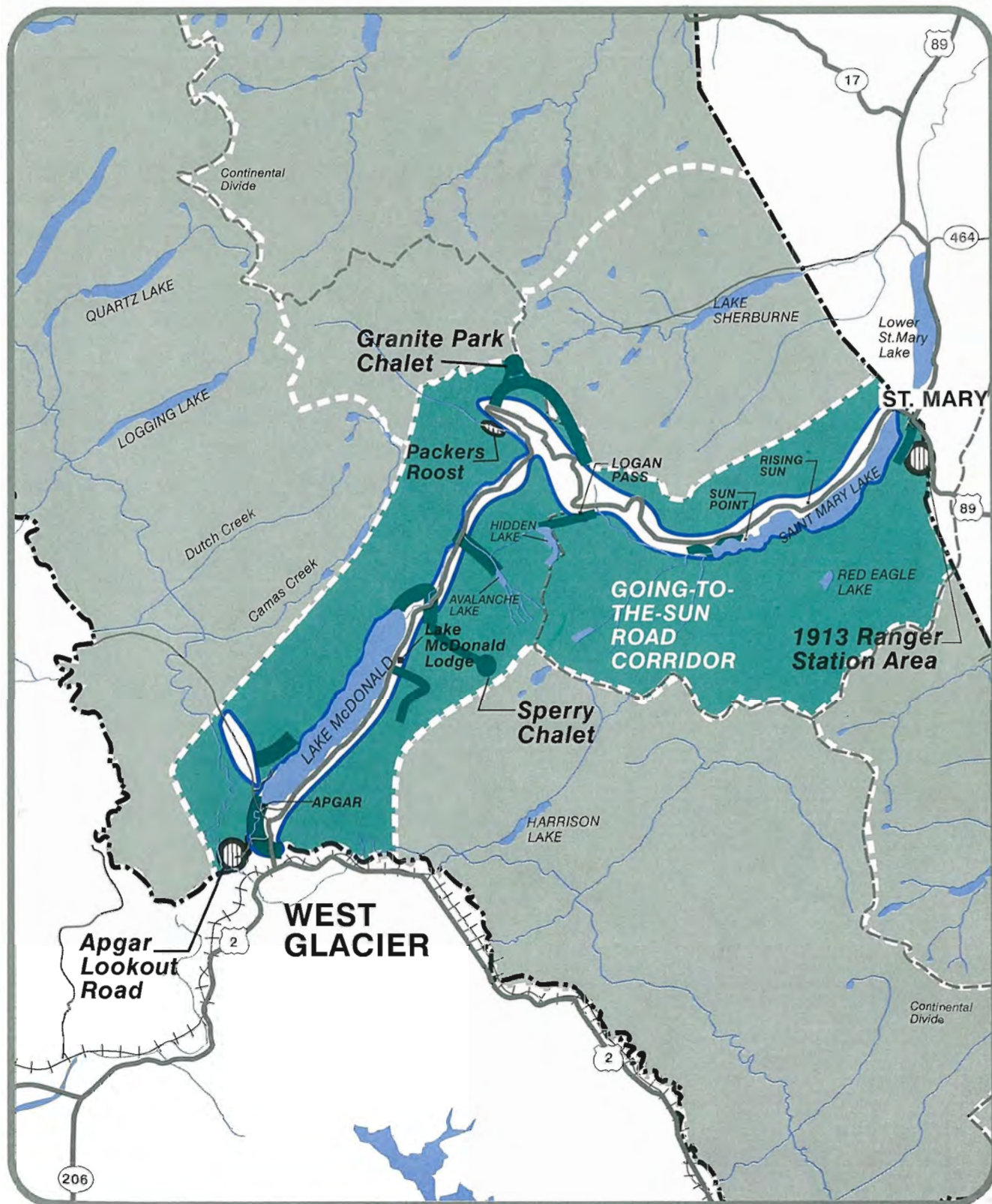
How this area would be managed:

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





The **visitor service zone** would 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 would be managed to provide the traditional recreational opportuni-

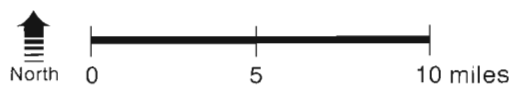


ties for which the road was designed. Driving the Going-to-the-Sun Road would remain the principal visitor experience. The corridor would continue to accommodate interpretive opportunities, overnight use, food services, boat tours, hiking, and horseback riding. Interpretive activities would include orientation to the park at the two primary entrances as well as exhibits designed to emphasize park values. The road and Lake McDonald Lodge would be managed as historic resources in keeping with their national landmark status. Other properties would be managed to preserve their historic values. Development, where permitted, would serve a broad range of visitor, concession, and park administrative needs. New or



(CONCEPTUAL REPRESENTATION OF ZONES)

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



GOING-TO-THE-SUN ROAD CORRIDOR

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“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.

replacement development could occur. This area would be managed to retain its character and to accommodate current levels and types of uses. Use could increase, 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.

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

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

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

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



Two Medicine

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

How this area would be managed:

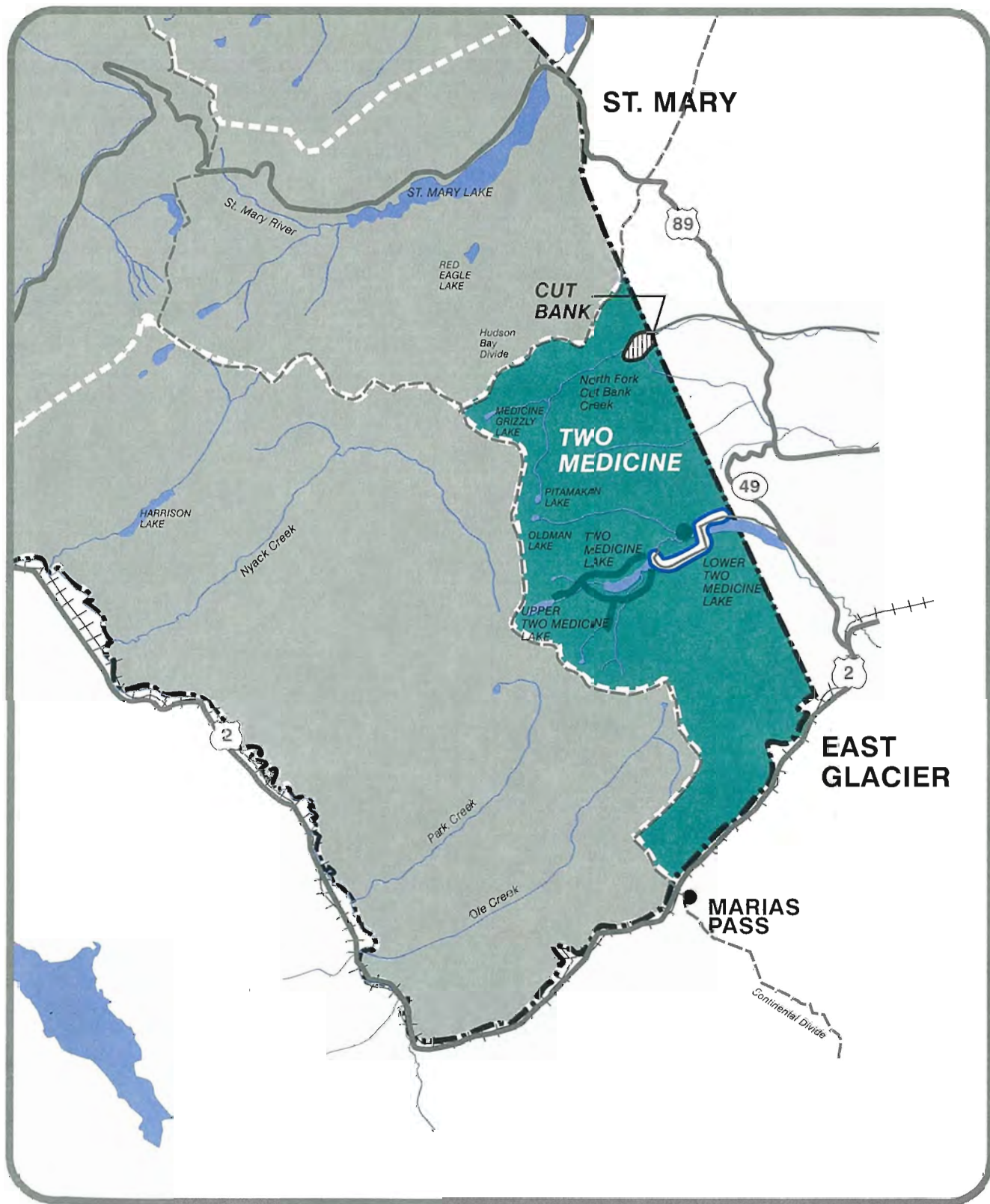
- Resources would be managed to protect the wild character of the area, particularly the area of transition between the plains and the mountains.
- While Two Medicine is a developed area, it would be small and would not provide all services.
- The Two Medicine area would be divided into visitor service,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







The **visitor service zone** would 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 would continue to provide traditional recreational and visitor services, including camping. Adaptive use of the national historic landmark could include overnight lodging. Changes in use of existing facilities could 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 would continue to be preserved.

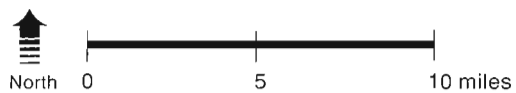
The **day use zone** would include Two Medicine Lake and its associated trails. It also includes Paradise Point, the trail to Upper Two Medicine Lake, and Rockwell and Running Eagle Falls. The area would be managed to provide for traditional uses such as hiking and commercial boat tours. Interpretive services such as guided hikes would continue. Development would 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 would prefer to keep it as it is. This zone would be managed to provide interpretive services and exhibits that describe early use of the area. Historic resources and traditional uses would be preserved. Development would be limited to primitive campgrounds, sanitation facilities, administrative offices, NPS employee housing, small parking lots, trails and trailheads, and unpaved roads.



(CONCEPTUAL REPRESENTATION OF ZONES)

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



TWO MEDICINE

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





Middle Fork

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

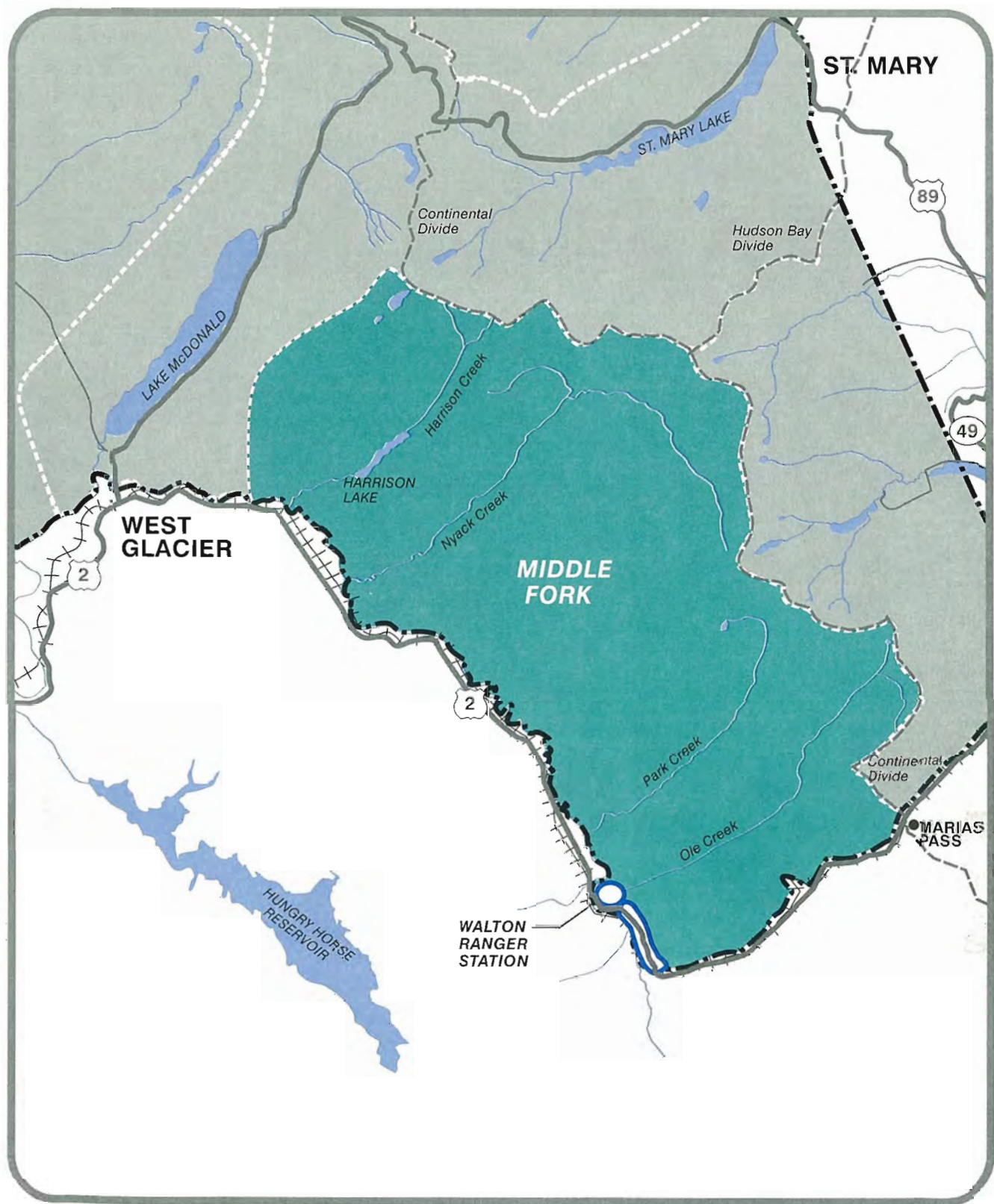
How this area would be managed:

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

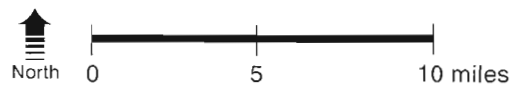
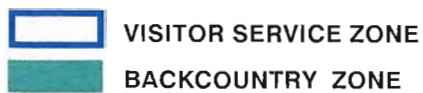


The **visitor service zone** would include the U.S. Highway 2 corridor, the Goat Lick, and Walton Ranger Station (see Middle Fork map). It would be managed to provide information and interpretive services. Development would include the highway, signs, trails, trailheads, waysides, sanitation facilities,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

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



(CONCEPTUAL REPRESENTATION OF ZONES)



MIDDLE FORK

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North Fork

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

How this area would be managed:

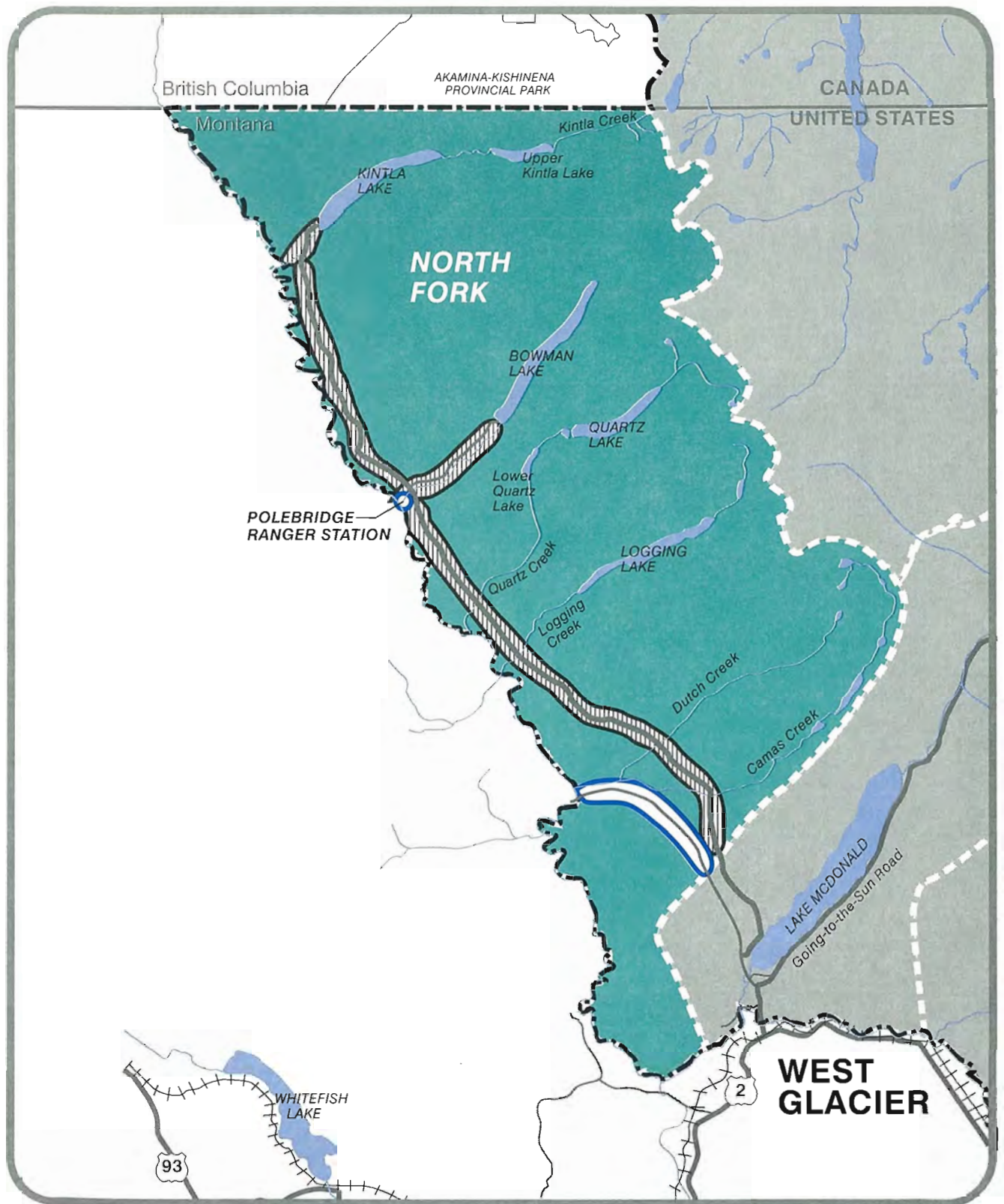
- Resources would be managed to preserve the wild character of the area and the important linkage to the entire North Fork Valley, including the Canadian portion, for wildlife conservation.
- Commercial development or new commercial activities would not be permitted.
- Small primitive auto campgrounds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

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




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

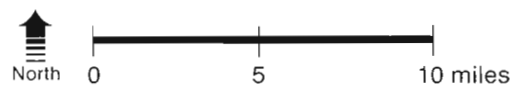
The **backcountry zone** would encompass most of the North Fork area. It would be managed to maintain natural processes. Visitor use would consist primarily of hiking and backcountry camping. Visitors would be encouraged to practice "leave no trace" skills and ethics. Development would include trails,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





(CONCEPTUAL REPRESENTATION OF ZONES)

-  VISITOR SERVICE ZONE
-  RUSTIC ZONE
-  BACKCOUNTRY ZONE



NORTH FORK

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CRITICAL ISSUES

- Visitor use on the Going-to-the-Sun Road
- Preservation of the Going-to-the-Sun Road
- Preservation of historic hotels and visitor services
- Scenic air tours
- Personal watercraft
- Winter use
- Divide Creek flood hazards
- West side discovery center and museum

Critical Issues and Alternatives

A number of issues and concerns were identified by the public, other agencies, Indian tribes, special interest groups, and National Park Service staff during public meetings held in Montana, Alberta, and British Columbia in 1995-96. These are the most critical and pressing issues (see box).

The preferred alternative for each issue, favored by the National Park Service at this time, and the rationale for its proposed adoption is identified at the end of each alternative discussion. The no-action or "status quo" alternative for each issue, which is required by the National Environmental Policy Act, is also presented. This alternative describes what the National Park Service would continue to do without a new general management plan. The no-action alternative for each issue provides a baseline for evaluating the changes and related environmental impacts proposed under the action alternatives.

The management strategy previously described applies to each of the action alternatives.

Issues raised by the public and discussed in *Newsletters 1 and 2* were considered during the development of this *General Management Plan*.

Some issues were determined to be largely operational issues. Others were rejected for other reasons. Upon further analysis, the list of issues that this plan would address was narrowed down to the eight critical issues listed above. All issues raised but not addressed in this plan are discussed in the section "Alternatives, Ideas, and Strategies Considered but Rejected."

Numerous challenges face park managers now and for the future, and the resolution of many issues is critical for the protection and perpetuation of the natural and cultural resources in Glacier. Some of these are the result of stresses external as well as internal to the park. Some major ecosystem concerns are the preservation of our air and water quality, the protection of wildlife habitat and travel corridors, and the recovery of threatened and endangered species. A major internal challenge is preserving the integrity and diversity of the park's plant communities through restoration and weed eradication, as are protecting habitat and perpetuating natural fire regimes to maintain habitat. The specific goals, objectives and strategies from inventories and needed research to monitoring are contained in the park's *Resource Management Plan* and other operational plans.

The critical issues that we have selected to address in the *General Management Plan* have widely varied and possibly controversial alternative solutions that were specifically identified by the public and others during scoping, along with chosen preferred solutions. The selection of these critical issues was not intended to dismiss or diminish the importance of other critical issues. Having the scientific knowledge to make informed decisions, a sufficient and knowledgeable management staff, and the partnership of a supportive and informed public are critical to addressing these issues and others that are yet unknown.

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

BACKGROUND

Experiencing Glacier along the Going-to-the-Sun Road has become the premier park experience for over 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 the automobile became more affordable and common, 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 (see appendix B). In 1983 the road was placed on the National Register of Historic Places. In 1985 it was declared a national historic civil engineering landmark. In 1997 it was designated as a national historic landmark. Its width, scenic vistas, and classic stone walls all contribute to that designation. 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 drawn to the area and drive this scenic route. Local and regional economies have become dependent upon the visitors drawn to Glacier. Any change in use that might alter visitor patterns would 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 over 660,000 cars annually. 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

In July and August the Going-to-the-Sun Road approaches its peak capacity. Traffic is congested, and the demand for parking and pullouts often exceeds available spaces. In 1994 a visitor use study showed that 43 percent of summer visitors felt that traffic congestion and parking shortages detracted from their visits, and many felt that this was unacceptable (Univ. of Montana 1994).

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 many are still in use. Today, park 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 who 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 would like to see it expanded to increase its usefulness. The current transportation system is not subsidized. The management challenge is to continue private vehicle use, as desired by the public, while ensuring an effective transportation system.

Increasing numbers of bicycles and automobiles have also presented a safety concern. All these visitor uses must be managed while maintaining both the traditional driving experience and the historic character of the road.

ALTERNATIVE A1 — ENHANCE VISITOR OPPORTUNITIES ALONG THE GOING-TO-THE-SUN ROAD (PREFERRED ALTERNATIVE)

The National Park Service would continue to manage the Going-to-the-Sun Road as the premier visitor experience for Glacier National Park. The road would be managed as a motor nature trail typified by low speed limits and interpretive opportunities. Focus would remain on maintaining the historic character of the road, as well as on the experience offered by easy access to the park’s interior. Visitors would continue to have the freedom to drive personal vehicles and stop at viewpoints along the road.

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

To help address congestion at such places as Logan Pass, the Loop, Sunrift Gorge, Avalanche, and other popular spots, a comprehensive use plan would be developed for the Going-to-the-Sun Road. The plan would identify and analyze alternatives to manage visitors' use of the road while maintaining a high-quality, slow-paced experience for people choosing to travel the road either in private vehicles or by a transportation system. Alternatives considered could include adding more pullouts, offering interpretive and short hiking opportunities along the road, incentives (not requirements) for visitors to use a transportation system, and limits on the number of visitors allowed on the road at any one time or place. The road would be protected as a national historic landmark regardless of the alternative or alternatives chosen from this additional study. The study would 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 would be ensured for all visitors.

The following actions would be taken under this alternative:

- Assess an expanded transportation system as discussed in the 1990 *Transportation Plan* (NPS 1990d).
- Develop a comprehensive use plan for the Going-to-the-Sun Road that would include consideration of a variety of alternatives that would 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 was at capacity and what type of management action should be taken, and when. Alternatives to be considered would 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.
- Continue to restrict bicycle use during peak use periods.
- Continue restrictions on vehicle length and width.

ALTERNATIVE A — EXPAND VISITOR OPPORTUNITIES ALONG THE GOING-TO-THE-SUN ROAD

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

For visitors who required or would prefer to use public transportation, that option would continue. An efficient and convenient public system would be provided. A federal government subsidy might be necessary. Transportation systems

would require facilities to accommodate hundreds of vehicles. These facilities could be intrusive on park values, but they could be developed according to the management goals for the Going-to-the-Sun corridor.

To help alleviate crowding at such places as Logan Pass, the Loop, Sunrift Gorge, Avalanche, and other popular spots, use would be dispersed along the entire length of the road. More opportunities for visitors to pull off the road, park, picnic, and take short walks in a variety of locations would be provided. Protection of the road as a national historic landmark would be ensured. Additional interpretive waysides and sanitation facilities would be developed. If a variety of small efforts were made to make more opportunities available, congestion could be reduced at popular sites along the road.

Actions to be taken include:

- Assess an expanded transportation system.
- Identify and assess modifying existing pullouts and/or adding pullouts, picnic areas, and short trails (consider resource values, visitor experience, dispersal of use, and objectives for the corridor); areas that would be considered include along Lake McDonald, the Logan maintenance pit, Road Camp, Sun Point, Moose Country, Lunch Creek, and Sunrift Gorge.
- Retain tour services on the Going-to-the-Sun Road
- Restrict bicycle use during peak periods.
- Continue vehicle length and width restrictions.

ALTERNATIVE B — EXPAND LOGAN PASS PARKING LOT

Logan Pass is arguably the park's most popular location. The natural resources and alpine vistas are a primary attraction, but it is also one of the few spots along the road where visitors can rest, experience the park in a direct manner, and receive visitor information. The reconfiguration of the lot in 1996-97 added 64 automobile parking spaces and seven oversized vehicle parking spaces, but the lot is still crowded. One means of alleviating crowding at extremely popular sites in Glacier is to develop additional parking and services to meet the demand. The issue of increasing use and congestion at Logan Pass would be addressed by constructing additional parking either underground or aboveground. The amount of parking could be increased on the surface or by adding tiered surface or subsurface parking.

Actions to be taken:

- Expand Logan Pass parking area.
- Retain shuttle service.
- Retain tour services on the Going-to-the-Sun Road.
- Retain bicycle restrictions on the Going-to-the-Sun Road during peak use periods.
- Retain vehicle length and width restrictions.
- Expand Logan Pass utilities systems to accommodate increased use.

- Continue roadwork to correct safety problems and reduce or eliminate the size and number of pullouts and turnoffs according to the *Transportation Plan* (NPS 1990d).

After further consideration of public comments and analyses, the National Park Service has modified the preferred alternative from the one that appeared in the *Draft General Management Plan and Environmental Impact Statement*. The preferred alternative is A1 because this alternative offers the best way to manage increasing use while protecting resources and it would maintain the historic visitor experience along the road.

ALTERNATIVE C — NO ACTION / STATUS QUO

The National Park Service would continue to manage the Going-to-the-Sun Road as the principal place where visitors would experience Glacier National Park's varied resources. Private vehicle use would continue as it currently exists. No change in road capacity, design character, or day use opportunities would be made in the corridor except for those identified in the *Transportation Plan* (NPS 1990d). Actions outlined in the 1977 *Master Plan* would continue.

Actions to be taken:

- Continue to work with the Federal Highway Administration to correct safety problems and reduce or eliminate the size and number of pullouts and turnoffs according to the *Transportation Plan*.
- Continue the shuttle service.
- Retain tour services on the Going-to-the-Sun Road.
- Retain bicycle restrictions on the Going-to-the-Sun Road during peak use periods.
- Retain vehicle length and width restrictions.
- Retain the Logan Pass parking lot as it is.

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 (see appendix C). 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 and opening it each spring is a major feat; clearing begins in April and opening usually is in early June. Since the road was completed in 1932, the upper reaches have not been substantially repaired or rehabilitated. Today, that section of the road is in need of major rehabilitation. 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 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 (FHWA), the National Park Service established a road improvement program. Since then seven projects have been funded in Glacier. Approximately \$18 million has been spent to reconstruct 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 (Oberlin Bend 1995-97).

ISSUE

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

After the Logan Pass-Oberlin Bend reconstruction project, the Federal Highway Administration and the National Park Service determined that present funding levels were inadequate to ensure long-term use of the Going-to-the-Sun Road. During 1995-96 visitors experienced long and frustrating delays, 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 would be needed to finish repairing the road if the current approach was used. It is likely that some segments of the road would 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:

- Preserve the historic character and significance of the Going-to-the-Sun Road, including its width.
- Minimize impacts on visitors.
- Minimize impacts on the local economy.
- Perform critical repairs before the road fails catastrophically.
- Minimize the cost of the reconstruction.
- Minimize impacts on natural resources.

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

One of the major work elements is the work of repairing the historically significant stone retaining walls along the Going-to-the-Sun Road. The 1997 *Retaining Wall Inventory* (FHWA 1997) was referred to in the draft document as the source of detailed analysis of the condition of these retaining walls. Although that information was accurate at the time, the Federal Highway Administration continues to update it as ongoing annual inspections are carried out under what is

termed the Glacier Wall Management Program. This program was started in response to the recognition that the walls continue to deteriorate with time and new repair needs must be identified.

The 1998 *Retaining Wall Inventory Update* (FHWA 1998) listed structural problems at 76 of the 126 walls inventoried and examined on the Going-to-the-Sun Road. Some of these walls exceed 30 feet in height. Repair needs were identified and listed by priorities 1, 2, and 3. A total of 24 of the 76 walls were identified as priority 1 or 2. The recommended repairs on these walls should be completed as soon as possible, including 6 walls that require major structural work. If these are not done within this timeframe, the risks for catastrophic failure would substantially increase. Fifty-two walls are rated priority 3, and the repairs could be deferred for a short time. These 52 walls will become priority 1 or 2 if the work is not done in 3-8 years (FHWA 1998).

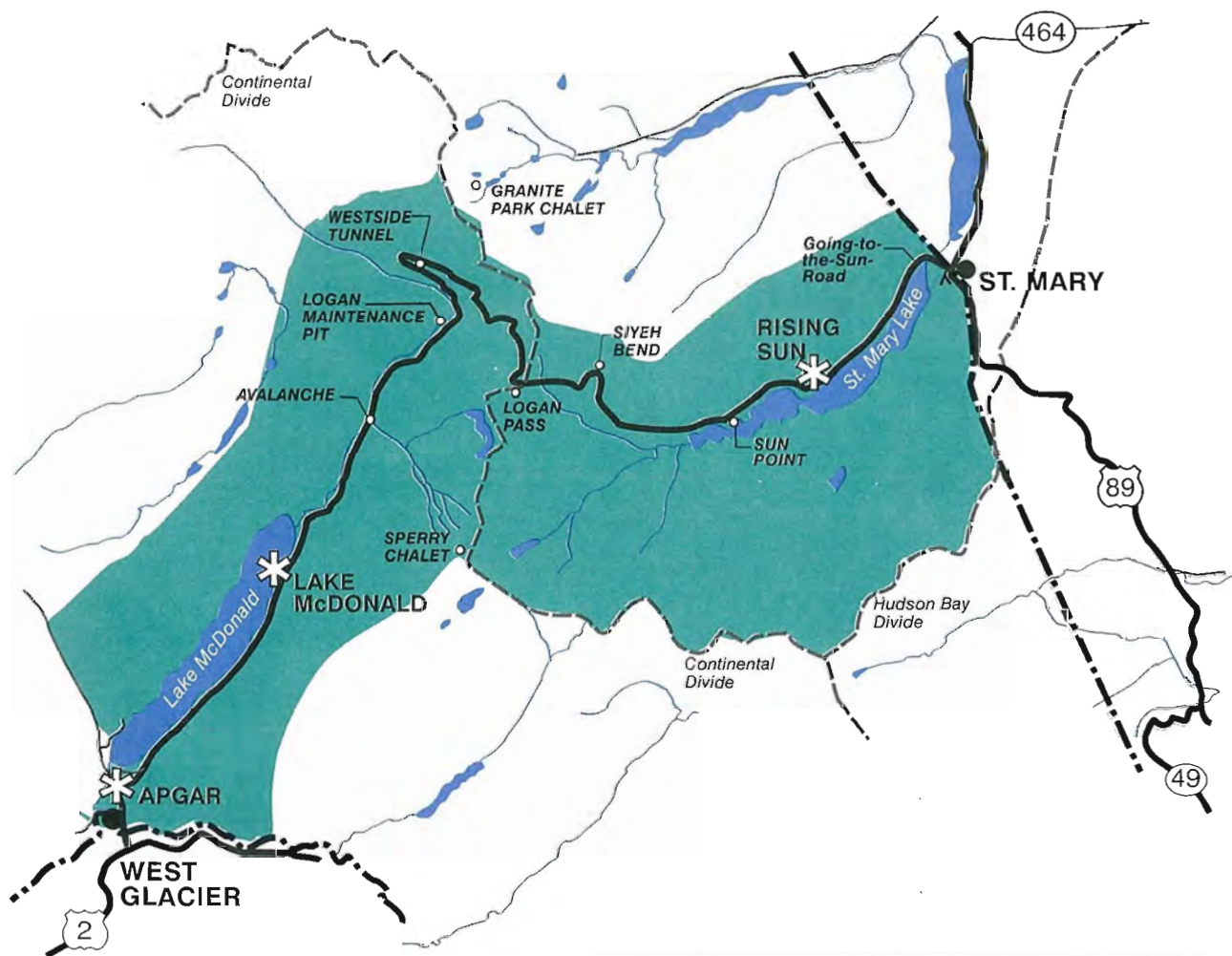
However, even though the 1998 retaining wall inventory and other evaluations have not identified major problems with the rest of the walls, at some point those walls will require reconstruction. Funding (\$2.7 million) has been secured for some stone wall repair during fiscal year 1999 (FY99 and 2000). 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 as of 1999.

Engineering studies have defined 11 major work elements as needing to be performed to rehabilitate the Going-to-the-Sun Road. Only one of these work elements is the repair of the historic retaining walls. Other major work elements are the repair of stone masonry guardwalls, removable guardwalls in avalanche areas, outside lane deficiencies (slumping), drainage improvements, upgrading of turnouts, and providing a new pavement structure.

ALTERNATIVE A1 — RECONSTRUCTION OF THE GOING-TO-THE-SUN ROAD (PREFERRED ALTERNATIVE)

Initially the preferred alternative for the reconstruction of the Going-to-the-Sun Road was to undertake a fast-track reconstruction effort. 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 and \$80 million.

Because of public concern on the preferred alternative, a new preferred alternative has been developed. Under the new one, the National Park Service would reconstruct the Going-to-the-Sun Road to preserve its historic character and significance, complete the needed repairs before the road could fail, minimize impacts on natural resources, visitors, and the local economy; and minimize the reconstruction costs.



GOING-TO-THE-SUN ROAD

GLACIER NATIONAL PARK

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

In the 1999 Department of Transportation Appropriations Act, \$1 million of existing funds was redirected to be spent on additional engineering and economic studies. As specified in the act, these studies would be completed in consultation with a federal advisory committee. The public would also participate in this process. Appropriate levels of environmental documentation would be completed to analyze the impacts. Alternatives would determine how long reconstruction would take, how traffic would be managed during reconstruction, and what mitigation would be used to preserve resources and minimize adverse affects on the economy. The National Park Service would continue to consider scheduling reconstruction around the state of Montana's Lewis and Clark bicentennial celebration.

Until additional studies can be completed, the National Park Service will continue its current program to perform critical road reconstruction actions as necessary and within available funding to preserve the road and address safety concerns. Additional environmental analysis would be completed for actions not addressed in the 1990 *Transportation Plan and Environmental Assessment* (NPS 1990d). The accompanying environmental impact statement for the general management plan does not address these actions.

ALTERNATIVE A — FAST-TRACK RECONSTRUCTION (4-6 YEARS)

A 4-6 year reconstruction scenario would be necessary to rehabilitate the road and repair or rebuild historic stone retaining walls and guardwalls. During this period, Logan Pass would remain accessible from one side or the other, but there would be no through traffic. For 2-3 years the road from Avalanche to Logan Pass would be closed for repair, then would be reopened while the section between Logan Pass and Rising Sun would be closed for about 2-3 years. Large contracts would be let for the reconstruction work.

A west side staging area (Logan maintenance pit) and an east side staging area (Sun Point with no visitor use) would be required for the contractors' operations and storage of construction materials and advance production and stockpiling of cut stone. Resources would be protected by avoidance, or mitigating measures would be developed to protect park values.

The estimated total cost of this alternative is \$70-\$85 million. Glacier presently receives an average of \$2 million per year for road reconstruction. This alternative would take less time than any other alternative because of the large construction contracts and because there would be no vehicle traffic to interfere with work. Construction with total road closure would probably start no earlier than 2004. This would allow for time to complete engineering design, prepare early contracts for material production and stockpiling, and schedule around the state's Lewis and Clark Bicentennial celebration. It would also allow local businesses to have time to develop contingency plans for the reconstruction period of the road. Critical road reconstruction actions necessary to preserve the road would continue.

ALTERNATIVE B — ACCELERATED RECONSTRUCTION (10± YEARS)

About 10 years would be required to complete all the repair work. A variety of road closures would be needed, including night closures for excavation and hauling large quantities of materials. There would be limited daytime closures and daytime delays due to one-lane traffic. Alternating one-way traffic across the Going-to-the-Sun Road would occur for an entire season. Full closure after Labor Day would also be required for some portion of that time. The road opening would be delayed each year to accommodate the staging for construction. The public could expect the road to be available for visitor use for only 6-8 weeks each summer.

There would be staging areas on both the west and east sides for construction operations and storage of materials. These staging areas would probably be at the Logan maintenance pit and at Sun Point. Sun Point would be closed to visitor use. Resources would be protected by avoidance or by mitigating measures designed to protect park values.

This alternative is estimated (class D; FHWA estimate) to cost approximately \$90-\$105 million during the 10 or more years of work on the road. Accelerated construction using the partial closures would probably start no earlier than 2004 due to the time required for the major engineering design, the early contracts for material production and stockpiling, and the need to schedule around the state's Lewis and Clark Bicentennial celebration.

The accelerated alternative would require that there be only one-way traffic from one side of the park to the other for several years at a time. New use patterns would emerge and some businesses could be impacted for a decade or longer.

ALTERNATIVE C — NO ACTION / STATUS QUO

The current level of road reconstruction would continue. Approximately \$2 million would be spent annually. It would take approximately 50 years and between \$195-\$210 million to complete the repair of the road. Visitor use of the Going-to-the-Sun Road would be retained during construction to the extent possible. There would be a series of small, site-specific construction projects spread out over time. Before all required improvements to the approximately 30 miles could be completed, the earlier sections would have deteriorated, and additional rehabilitation would be required. The result would be continual construction because the rate of deterioration would exceed the rate of improvement.

The National Park Service prefers an alternative that would preserve the historic character and significance of the Going-to-the-Sun Road; complete the needed repairs before the road failed; minimize impacts on natural resources, visitors, and the local economy; and minimize the cost of reconstruction. In consideration of public comments and concerns about the effects of reconstruction, the National Park Service has modified the preferred alternative described in the draft GMP and EIS. Information from additional studies developed with the public and a recommendation from a newly established federal advisory committee would be used to decide how the road would be reconstructed, how traffic would be managed, and what mitigation would be necessary. Until such time as the additional studies can be completed, the National Park Service will continue its current program to perform critical road reconstruction actions as necessary 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 Lake McDonald Lodge. 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 original chalets, cabins, and camps are gone. What remains is recognized as historically significant. Five of the remaining buildings — Many Glacier Hotel, Lake McDonald Lodge, Sperry and Granite Park Chalets, 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 are operated by the primary concessioner and provide lodging and food services. Although by law the fee title to the structure is vested with the United States, the primary concessioner has rights to compensation for its interest in most of the concessioner-operated facilities. For example, the Many Glacier Hotel was originally built and operated by the Great Northern Railroad. Compensable interest in this facility was sold to the succeeding concessioners and today is owned by Glacier Park, Inc. By law, compensation is due to concessioners that make capital improvements on the structures. 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 will 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 (NPS 1990a) that \$61 million (1992 dollars) would be necessary to rehabilitate all the concessioner facilities in the park. In 1996 a proposal (Glacier Park Incorporated 1996) was received from the concessioner that estimated that \$82 million would be necessary to rehabilitate and improve the facilities. Another study the same year (NPS 1996) 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 (also see appendixes D and E).

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. It is a national historic landmark and provides 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 (NPS 1990d, 1991c). 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-\$36 million.

The **Many Glacier Hotel** provides 211 guest rooms and a restaurant, 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 people with disabilities. There are no operable elevators; rooms have undersized bathrooms and no soundproofing or insulation. Employee housing is inadequate. Improvements to address these concerns would cost \$35-\$48 million (NPS 1996, 1990a; GPI 1996).

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 on the National Register of Historic Places. Many of the structures have deteriorated beyond simple rehabilitation. Problems identified include asbestos hazards, inadequate public shower facilities, inadequate access for people with disabilities, and poor pedestrian circulation. 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 \$3-\$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. The facilities are concessioner owned. Problems

include the following: employee housing and visitor lodging are within the 100-year floodplain; there is inadequate access for visitors with disabilities; the public showers are inadequate; there is structural deterioration; and asbestos hazards are a concern.

This camp is one of the best remaining examples of a 1930s-era design automobile cabin camp. Estimates for improvements to the Rising Sun area are \$5-\$10 million, depending on the method of restoration.

Two Medicine Lodge is designated a national historic landmark and currently houses a campstore and a snack bar. The facilities are concessioner owned. 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 threatens the integrity of the motel and presents hazards to guests due to its proximity to walkways and low room entrances. While it is an intrusion on Lake McDonald, its government-regulated rates moderate the rates of privately owned lodging nearby. It is not historically significant and has a modern architectural style.

ALTERNATIVE A — REHABILITATE NATIONAL LANDMARK AND OTHER HISTORIC VISITOR FACILITIES (PREFERRED ALTERNATIVE)

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

Historic visitor lodging experiences would 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 would be determined through development of a commercial services plan. The type and level of these services would be guided by the management philosophy of the General Management Plan, to retain Glacier's classic Western park character. A minimum of approximately 500 rooms would be retained.

Actions to be taken:

- Conduct additional structural analysis where needed.
- Develop a commercial services plan that analyzes visitor needs, expectations, and demands; resource constraints and implications, and determine economic feasibility to establish the number of rooms and services that should be made available in the park.

- Revise and/or develop site-specific design plans for all five locations, including support services such as utility upgrades, concessioner employee housing, and infrastructure.
- Conduct feasibility analysis for funding 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.
- Provide access for visitors with disabilities at all facilities.
- Study the Village Inn as part of an Apgar 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.

ALTERNATIVE B — NO ACTION / STATUS QUO

The current course of action would continue. The concession contract would continue to require a minimum investment of 6 percent of the annual gross receipts in capital improvements to park facilities (roughly \$600,000 annually) and an equal amount in maintenance of the facilities. Repairs and piecemeal improvements would continue, and operations would proceed until visitor health or safety was compromised or the viability of the operations suffered. As the buildings aged and continued to deteriorate, capital improvements and general upkeep would fall farther behind. Guest satisfaction would further decline. The current concession contract with Glacier Park Incorporated will expire in 2005, and the park will be faced with decisions on how to entice a concessioner to take over the upkeep and maintenance of the facilities and possibly even their ownership (possessory interest), with limited possibilities of a return on the investment. At some point the capital and repair needs of the facilities will exceed the ability of a concessioner to make these investments and maintain a profitable operation. The buildings would then deteriorate to a point at which life safety issues would result in their closure. Visitor services in the park could be compromised, and the staff might be pressured to rush to a solution based on crisis management.

Actions that would be continued:

- Maintain historic facilities and make repairs to correct health, safety, and other deficiencies as funding allows.
- Retain visitor facilities and accommodations as long as possible.

The preferred alternative is A because it would provide for the preservation of these important elements of American history and would continue necessary visitor services. For a discussion of other funding methods, see appendix D. Funding methods considered but rejected are discussed in the section "Alternatives, Ideas, and Strategies Considered but Rejected."

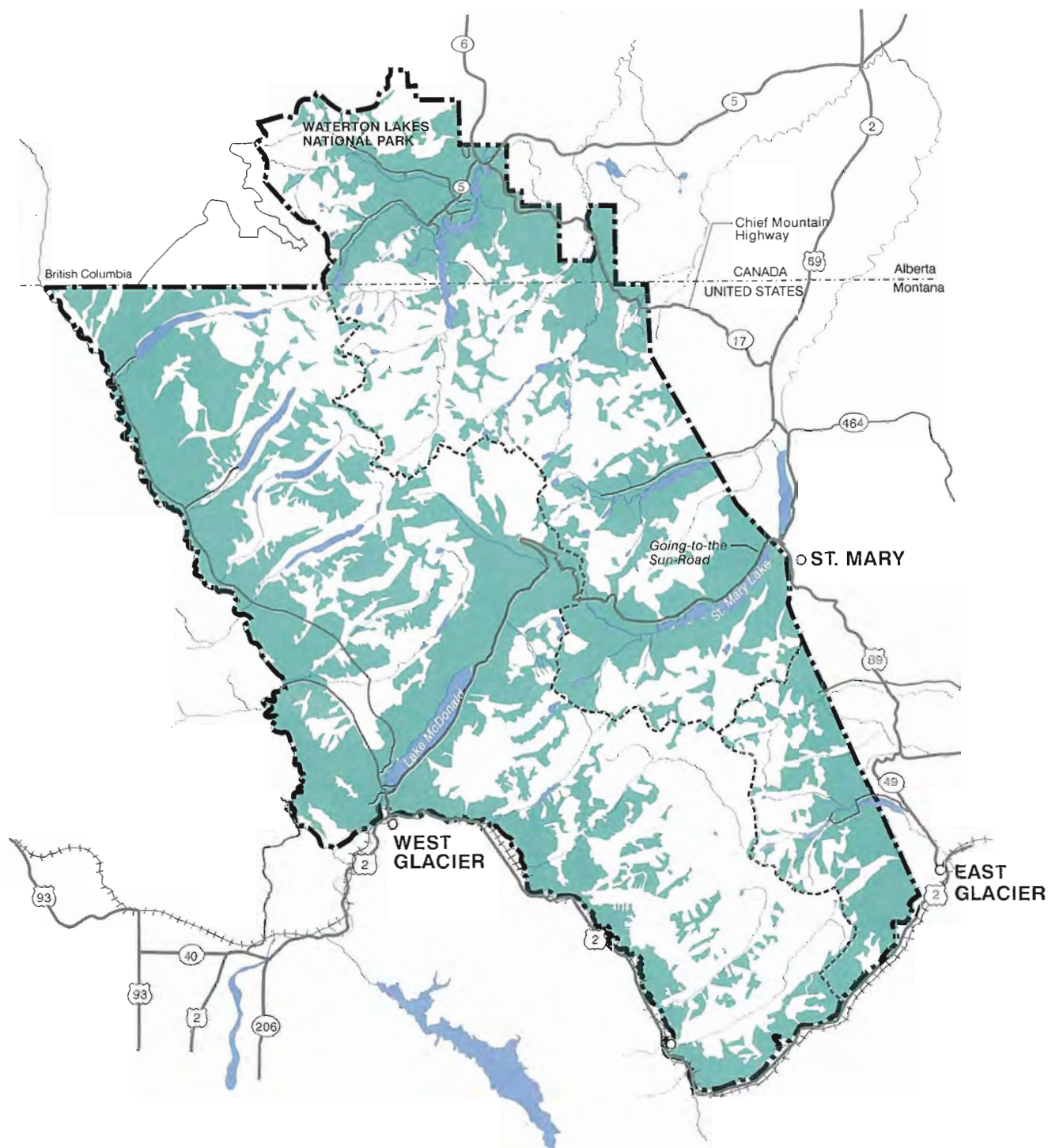
Scenic Air Tours

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 for those unable to hike or ride horseback. Before the road was built, Glacier was available only to people who had the time and physical and financial ability to see the park's interior. The building of the road changed that. It made the interior of Glacier National 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 (see scenic viewshed map). Most importantly, this experience is readily available to everyone, including the elderly or people unable to hike into the backcountry.

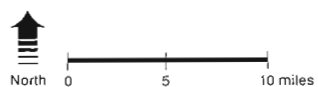
The millions of visitors to Glacier National Park concentrate mostly along the travel corridors or the finger lakes that dominate the valleys on each side of the park. Some 735 miles of trail provide access for those who wish to hike into the interior of the park. Often these visitors seek the peace and tranquillity 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. The Federal Aviation Administration regulates aircraft use. Aircraft that fly over the park fall under the jurisdiction of the Federal Aviation 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.

The Federal Aviation Administration regulates aviation throughout the United States, including the airspace above national parks. However, rulemaking and legislative actions are ongoing that will determine how much influence the National Park Service and the laws and policies governing management of national parks will have on airspace management. That issue, and its integration with NPS management, must be reconciled at a national level before changes are likely to be seen in Glacier. These 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. Such 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.



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



AREAS SEEN FROM MAJOR ROADS

GLACIER NATIONAL PARK

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Other uses of aircraft include commercial flights at high altitudes that only incidentally fly over the park, 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.

Commercially operated scenic air tours began in the early 1980s in Glacier with one vendor. There have been as many as five or six vendors, primarily on the west side, that have advertised scenic air tours or have offered to fly visitors over the park. There are at least two vendors who presently provide such services on the outskirts of the park. The purpose of Glacier is unique among national parks. While Glacier's scenic values are what first attracted the idea of national park designation, the park's natural values were recognized by instructing 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. Often, the scenic air tour issue is 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 tranquillity were cited among the characteristics that lent the designation of "peace" to the area. Glacier's values for solitude and tranquillity are also recognized in its wilderness recommendation to Congress in 1974. 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 (Kendall 1986). 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, over 90 percent stated 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. The following management alternatives can guide federal decisions on this issue and take into consideration that the National Park Service has no authority to take direct action at this time.

ALTERNATIVE A — NO COMMERCIAL SIGHTSEEING TOURS OVER GLACIER NATIONAL PARK (PREFERRED ALTERNATIVE)

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

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*

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 alternative provides actions to be taken to eliminate 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 conflict with the park's responsibilities to preserve park resources or park values "in a state of nature" or to care for them properly.

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

Actions to be taken:

- Request that the Federal Aviation Administration prohibit all new commercial scenic air tour operators who would operate over Glacier National Park.
- Develop a scenic air tour management plan with the Federal Aviation Administration and the public that would include a phaseout of commercial operators (existing as of 1997).

ALTERNATIVE B — ALLOW COMMERCIAL SIGHTSEEING TOURS ONLY IN CERTAIN PARTS OF THE PARK

In order to preserve Glacier "in a state of nature" and also to provide air tours for the public, scenic air tours would be available over some portions of the park. Such use might be more appropriate over the portion of the park that receives heavy visitation in order to preserve "a state of nature" in the wilder portions. The Federal Aviation Administration currently recommends, but does not require, that overflights remain higher than 2,000 feet above ground level. At that altitude noise and visual impacts are still very noticeable to park visitors, but direct impacts on wildlife are believed to be minimized.

Areas selected would protect the desires of visitors who seek solitude in the less visited parts of the park. For example, the Federal Aviation Administration might permit tours over the Going-to-the-Sun Road corridor and east of the Continental Divide over the Many Glacier valley. The National Park Service would request that the Federal Aviation Administration prohibit scenic air tours over the North Fork, Middle Fork, Two Medicine, and Belly River areas because of their wild character so that visitors could experience solitude in these park areas.

Actions to be taken:

- work with the Federal Aviation Administration to manage scenic air tours over parts of the park and prohibit them over others.
- develop a scenic air tour management plan.

ALTERNATIVE C — NO ACTION / STATUS QUO

Scenic air tours would continue to proliferate in Glacier National Park under the authority of the Federal Aviation Administration. Recommendations such as flying 2,000 feet above ground level would continue, as would the FAA emphasis on safety to protect the visitors using the tour services. The number of commercial operators would be determined by the marketplace as a result of supply and demand, not by park values. The National Park Service anticipates that scenic air tours would increase over Glacier, as they have over other NPS areas. The National Park Service would monitor impacts on park values and would request that the Federal Aviation Administration require measures that would mitigate (as opposed to prevent) the negative impact.

Actions that would continue to be taken:

- Continue informal monitoring of air tour activity throughout the park.
- Monitor impacts on park values and visitor experiences and work with the Federal Aviation Administration to mitigate negative effects.

GENERAL AVIATION; MILITARY AND OTHER AVIATION ACTIVITIES

General aviation includes airplanes used by small businesses, private pilots, flight training, and similar uses. Because of Glacier's terrain and related issues, these flights are not common and do not constitute a significant problem. The Federal Aviation Administration requests that these kinds of flights voluntarily maintain altitudes of at least 2,000 feet above the ground. Most training flights do not take place over Glacier, and other general aviation activity is ordinarily from point to point. The occasional instances of private pilots flying in and around the park for pleasure do not seem to be an issue. The park accepts this continued use when it is in compliance with FAA regulations and follows voluntary altitude requests.

In the past there have been high level military training routes for aerial refueling over Glacier. These have not impacted park resources. No low-level training routes exist, but they would negatively impact park resources if they were to take place over the park. The National Park Service and the military have a cooperative relationship. Military aircraft operating at low levels and high speeds over Glacier are not operating within the standard operating procedures of the military agencies. On those occasional instances when military aircraft have operated at low levels in the park, military authorities have investigated and have taken appropriate action.

Administrative flights (except those of an emergency nature) require a documented review and advance approval. Research flights undergo the same review process. The decision for each flight is made by the superintendent.

The preferred alternative is A, to prohibit all commercial sightseeing flights over the park. The visitor experience would be diminished by scenic air tours continuing to operate in backcountry areas where peace and solitude have high value for visitors. Glacier's peacefulness and tranquility were cited in the designation of "peace" in the area in 1932. The park's solitude and tranquility were also recognized in its 1974 wilderness recommendation to Congress. There are indications based on research elsewhere that wildlife populations could be directly or indirectly adversely affected by low level aircraft activity.

Personal Watercraft

BACKGROUND

Personal watercraft are marketed under brand names such as Jet-Ski, Waverunner, and Sea-Doo, and 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 stunt maneuvers. Horsepower (hp) typically ranges from 50-100, and the craft are capable of traveling more than 60 mph.

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



ISSUE

Personal watercraft use 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 review of Congress' purpose 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.

In 1996 Glacier's superintendent implemented a temporary prohibition on personal watercraft use in the park. This ban was intended only as an interim measure pending review of the issue as part of the general management plan process. Waterton Lakes National Park had banned personal watercraft in 1994 because residents, visitors, and park managers felt that 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 (Organic Act of 1916). 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 *Draft General Management Plan and Environmental Impact Statement* 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.

ALTERNATIVE A — BAN PERSONAL WATERCRAFT ON ALL PARK WATERS (PREFERRED ALTERNATIVE)

This alternative would permanently ban personal watercraft from all waters in the park. This regulation would be placed in the Code of Federal Regulations. This alternative would preserve the natural quiet and opportunity for solitude on all park waters.

Actions to be taken:

- Make permanent the temporary ban on personal watercraft.

ALTERNATIVE B — NO ACTION / STATUS QUO

This alternative would lift the temporary ban on personal watercraft and would permit their use on portions of Lake McDonald, St. Mary Lake, and Lake Sherburne. Personal watercraft would be prohibited on the U.S. portion of Waterton Lake. Personal watercraft would be subject to the same regulations regarding safety and noise as boats on these lakes.

Actions to be taken:

- Lift temporary ban on personal watercraft.
- Prepare a regulation to allow use of personal watercraft on portions of Lake McDonald, Lake Sherburne, and St. Mary Lake that are open to other motorboats.

The preferred alternative is A, which would permanently ban personal watercraft from all park waters. The National Park Service considers the use of personal watercraft inconsistent with the purposes for which the park was established. The National Park Service is mandated by the Organic Act and other laws, regulations, and guidelines to ensure “the preservation of the park in a state of nature . . .” and to protect natural and cultural resources. The use of personal watercraft is contrary to preserving a state of nature and protecting resources. There are many locations outside the park, such as Flathead Lake, Hungry Horse Reservoir, and Whitefish Lake, that allow personal watercraft use.

Because of the nature of personal watercraft and the high speeds used in their operation, their use provides little or no appreciation of park settings or heritage themes. There is a conflict between personal watercraft users and park visitors, who enjoy activities such as picnicking, wildlife viewing, hiking, boating, and waterskiing. The impacts on wildlife, water quality, and wetlands are also factors that weigh strongly against allowing personal watercraft activity in the park.

Winter Use

BACKGROUND

Glacier National Park has long provided for visitor use in winter. Nonmotorized quiet recreational activities such as backcountry camping, cross-country skiing, snowshoeing, and hiking have long been part of the enjoyment of the park in winter. Winter overnight accommodations have not been provided, not because of policy, but because there has been no market for them, and current facilities are not winterized.

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 adjacent to Glacier. Increasing development and expanding populations in the area will probably 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 is by local residents (University of Idaho 1991). Increasing summer visitation has resulted in many more visits during fall, winter, and spring because of displacement (University of Montana 1994). 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 would prefer to plan for increased use rather than wait until problems arise. This General Management Plan and Environmental Impact Statement provides that opportunity.

ALTERNATIVE A — PREPARE FOR MORE WINTER DAY USE (PREFERRED ALTERNATIVE)

This alternative identifies actions that would be taken in response to an increase in winter visitor use. Nonmotorized recreational activities such as cross-country skiing, snowshoeing, backcountry camping, and hiking have long been a



part of the winter experience in Glacier. This alternative would perpetuate and provide for the continued enjoyment of those nonmotorized activities, should winter visitation increase. However, snowmobiles would continue to be prohibited from Glacier National Park. Overnight facilities would not be opened and groomed trails would not be provided. Resource impacts associated with winter use would continue to be monitored. If unacceptable impacts resulted from increased winter day use or the implementation of all or part of this alternative, immediate action would be taken to mitigate or eliminate the impacts.

Actions to be taken:

- Plow only to Lake McDonald Lodge and provide parking and restroom facilities.
- Plow the road to the 1913 Ranger Station and provide parking. Plow to the winter gate at the St. Mary Campground.
- Provide adequate parking and restrooms at the beginning of the Camas Road.
- 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.

[Note: The actions to open a campstore at Lake McDonald Lodge and plow the Two Medicine Road to the park boundary have been removed from this alternative.]

ALTERNATIVE B — EXPAND WINTER OPPORTUNITIES TO INCLUDE OVERNIGHT ACCOMMODATIONS

To prepare for increased winter use of the park and provide a winter experience rarely found elsewhere in the region, Glacier National Park would support certain day use activities. The park would also seek to diversify winter use by planning for overnight accommodations in some areas that could be opened when demand increased. Groomed trails would not be provided.

Actions to be taken:

- Evaluate the feasibility of opening Lake McDonald Lodge and/or the Village Inn year-round.
- Plow the road only to Lake McDonald Lodge and Rising Sun Motor Inn, where adequate parking already exists.
- Open campstores to provide snacks and possibly ski and snowshoe rentals.
- Plow parts of the Camas, Two Medicine, and Many Glacier Roads and provide parking and restrooms.

ALTERNATIVE C — NO ACTION / STATUS QUO

Glacier National Park would continue to offer a winter experience to day users and to visitors who wanted to go into the backcountry overnight. As use increased, the park would react as necessary to visitor needs or resource concerns.

Actions that would continue to be taken:

- Plow the road to head of Lake McDonald and to Rising Sun as weather and snow depth allow.
- Provide sanitation facilities and trailhead information.

The preferred alternative is A, which identifies actions that would be taken in response to an increase in winter visitation and use in Glacier National Park. Increased use would be accommodated as described in "Actions to be Taken." Overnight accommodations would not be opened because of the excessive cost of winterization, questionable economic viability, and possible impacts on wildlife. In addition, the National Park Service is concerned about future demands associated with opening these facilities in the winter, including requests for transportation such as snow coaches. Nonmotorized recreational activities would continue in Glacier. No motorized uses (such as snowmobiles) would be permitted. Impacts on wildlife and other resources associated with increased winter visitation and use would continue to be monitored, and action would be taken to mitigate or eliminate unacceptable impacts.

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 risk life and property. There are 36 park employee housing units, one administrative building, and a maintenance facility that includes 24 buildings. Most of the buildings were built before the Floodplain Executive Order of 1977. Since 1991, Divide Creek has flooded three times, placing lives and government facilities at risk. 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. The St. Mary Maintenance Area Historic District is on the National Register of Historic Places.

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.

ALTERNATIVE A — RELOCATE STRUCTURES OUT OF FLOODPLAINS AND FLOOD HAZARD ZONE (PREFERRED ALTERNATIVE)

This alternative would relocate park employee housing and administrative and maintenance facilities. These structures and associated activities would 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, and whether they would be carried out would be decided in the future. The National Park Service did assess one alternate location and the cost of moving the facilities (NPS 1985a, 1992b). This information would be considered. Housing and administrative facilities could be separately located from the maintenance facilities. The entrance road to the park would be managed to minimize hazards during flood periods, consistent with future comprehensive reconstruction and use plans for the Going-to-the-Sun Road. Stream crossing improvements necessary to accommodate streamflows would continue.



Actions to be taken:

- Conduct a value analysis to determine the minimal development necessary for park operations.
- Determine a safe location 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.

ALTERNATIVE B — CHANNELIZE DIVIDE CREEK

An engineering solution to stabilize Divide Creek and reduce the flood hazard would be sought. This would protect development against future floods to the extent possible. This action would be contrary to allowing natural processes to prevail in a national park.

Actions to be taken:

- Obtain necessary permits from the Blackfoot Indian tribe and other agencies.
- Channelize the necessary section of Divide Creek.

ALTERNATIVE C — NO ACTION / STATUS QUO

The National Park Service would continue to maintain a monitoring program to ensure human safety and to protect park facilities at Divide Creek. However, no action would be taken to remove facilities from the flood hazard area.

Actions that would continue to be taken:

- Monitor for floods.
- Maintain the flood wall along Divide Creek.

The preferred alternative is A, which would offer the best protection of resources, visitors, and park staff, and would be in accordance with NPS policy. Furthermore, Divide Creek is extremely unpredictable and would require massive stabilization. Stabilization, particularly of this magnitude, is in direct conflict with NPS policy on resource management. The safety of park employees, their families, and any visitors in this area could not be adequately ensured. Moving these facilities also provides the National Park Service with the opportunity to relocate operations to more convenient areas. Maintenance, housing, and administration facilities do not have to be all in one place.



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. For nearly 20 years the National Park Service has evaluated a variety of locations, inside and outside the park, for a new, larger interpretive center and museum. The needed 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 two buildings and three garages 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. A west side discovery center and museum would "connect people to the park" (an NPS goal for interpretation) and serve the year-round educational needs of visitors and students. It would be a focus for summer

visitors and for classes throughout the school year. Its exhibits would 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) would help visitors better understand Glacier's place in American heritage. A discovery center would also serve people who wanted to learn about the international peace park and world heritage values in order to apply those principles elsewhere in the world.

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 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.

ALTERNATIVE A — CONSTRUCT A WEST SIDE DISCOVERY CENTER AND MUSEUM INSIDE THE PARK (PREFERRED ALTERNATIVE)

Visitor service, education, and exhibition of museum objects would be provided with a discovery center and museum inside the park (see Discovery Center Preferred Location Map). A facility would be built north of the Going-to-the-Sun and Camas Roads T-intersection, in the Apgar area. Many more visitors would be attracted to a facility at this location than any other since it would be conveniently located for visitors entering from either direction along Highway 2 or the Camas Road. This would be especially important in the future if, as many believe, the North Fork Road was paved from Columbia Falls at least as far as the Camas Road junction.

Important resource protection messages would be conveyed to visitors at the center, which would encourage safer visits and better preservation of the park's resources. The facility would 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 would replace the interim contact station at Apgar. The future use of that facility has not been determined. The new center would be a full-service, accessible, year-round facility that would 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 could also be addressed at the facility. Highlighting the International Peace Park, it would offer resources for groups seeking solutions for critical issues and conflicts facing the world.

The NPS recommendation to place the west side discovery center and museum within the park is based on the premise that the best place to “connect visitors to the park” and its resources, prepare visitors for an appropriate experience, and provide the highest level of visitor service would be a center built in the park. The mission of the National Park Service is dual: to protect park resources and to provide for visitor enjoyment. A well-designed educational facility strategically located at the T-intersection near Apgar could accomplish the service’s mandate most effectively for these added reasons:

- 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. The T-intersection 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 that it would be convenient for visitors to pull into a center and receive critical park messages. If the county or the state paved the North Fork Road as far as the Camas Road, more visitors would enter from this direction.
- A center inside the park would 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 would become a place 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 federal facility outside the park would mean either buying the necessary land (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 sewer lines and a treatment plant (both of which are slated for improvements), already exist within the park. A new discovery center and museum could 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 T-intersection area that will be studied further is a lodgepole pine forest. The proposed site is north of the T-intersection and flanked by existing



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 • 111 • 20,036A

development on three sides. Wildlife migration routes exist in the area, but they are primarily between the intersection and park headquarters. The suggested 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 surveys would be conducted before the facility was sited.

- A key use of the new center would 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 two-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 would allow us to serve them better, with improved classroom space, and then they could 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 a having the new center in the park would allow 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. Visitors to the park deserve and desire 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 would 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” and “connect people to the park” and its resources would not prohibit another joint venture outside the park at some future date with other organizations or agencies. The two centers would complement each other and provide complimentary messages and information.

Actions to 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.

ALTERNATIVE B — LOCATE DISCOVERY CENTER AND MUSEUM OUTSIDE THE PARK

A discovery center and museum would be located in a convenient area outside the west entrance. There might be an opportunity to pursue a joint project with other agencies or to use an existing facility. If needed, legislation would be sought to allow for the purchase of property outside the park and for the authority to expend federal funds on the project.

Actions to be taken:

- Evaluate locations outside the park or adaptively use an existing facility.
- Consider partnerships with others.

ALTERNATIVE C — NO ACTION/STATUS QUO

Information center functions would remain at Apgar. The issues associated with this facility would continue. It is too small, the associated parking is inadequate, and it is difficult for visitors to locate. Eventually, the structure will deteriorate and no longer serve its purpose and will have to be replaced.

Actions to be taken:

- Retain information and visitor contact station functions at Apgar.
- Retain curatorial storage in three different locations in the park.

The preferred alternative is A. The exact location north of the T-intersection near Apgar would be selected as funding became available.

A west side discovery center and museum is needed to provide information and education for the visitors who enter the park on the west side. Because it is not along the Going-to-the-Sun Road, the Apgar contact station does not adequately serve the public.

A new discovery center and museum would be most effective if located near the main park road, where a majority of visitors entering through the west or Camas entrances would have easy access to the facility. The area between Apgar Village and the T-intersection is the favored location. It is adjacent to development and utilities. This site would minimize impacts on wildlife corridors compared to other locations along the entrance road. Having innovative exhibits and museum objects on display in the park would heighten visitor understanding and appreciation of the park's resources.

Regional Cooperation

While Glacier cannot achieve its resource goals without cooperation of its neighbors, neither can it forget that it has an impact beyond park boundaries. Glacier National Park's resources are not static or isolated but are linked to regional ecosystems and the ways that those ecosystems are managed. The future of resources such as the park's air quality, its elk and grizzly bear populations, and its quiet depend as much on the activities of external landowners and agencies as they do on park management.

Although agencies such as Parks Canada, the U.S. Forest Service, and the Blackfeet Tribal Business Council have different management responsibilities, it is desirable for park managers and managers of external land to agree on the values to be protected in the ecosystem and then also agree on a strategy for protecting those values. Glacier National Park has practiced aspects of ecosystem management for a number of years. For example, park officials are active participants in such forums as the Flathead Basin Commission, the Interagency Grizzly Bear Committee, and the Montana Bald Eagle Working Group. Each of these interagency committees seeks to resolve specific issues that do not stop at administrative boundaries. Other examples of ecosystem management efforts in which the park is involved are the *Northern Continental Divide Grizzly Bear Ecosystem Management Plan*, the *Montana Smoke Management Plan*, and specific plans by stream drainage to control the spread of noxious weeds. Park management is actively involved in the planning processes of other resource management agencies. Other agencies also assist with planning in the park.

FLATHEAD NATIONAL FOREST

Management prescriptions in the *Flathead National Forest Plan* (1984) and subsequent resource management planning efforts would maintain viewsheds adjacent to the park and meet the habitat needs of wildlife moving between the park and the Flathead National Forest. Also, the Forest Service would build very few new roads for timber sales adjacent to the park. Most national forest land in the Middle and South Fork Flathead River drainages has been leased for oil and gas; however, all these leases are currently suspended pending the resolution of legal challenges. There could be a conflict between the preservation of park values and the need to produce commodities if oil and gas exploration took place on portions of these leases. National forest land in the North Fork Flathead River drainage is also

managed with a strong emphasis on maintaining a healthy ecosystem and protecting the resources of Glacier National Park. The *Flathead National Forest Plan* provides for a special grizzly bear management area between Trail Creek and the Canadian border. The plan also prohibits commercial activities such as snowmobile tours or guided hunts and is consistent with the park's policy of not allowing commercial development in the North Fork.

LEWIS AND CLARK NATIONAL FOREST

The portion of the Lewis and Clark National Forest that lies directly to the south of the park on the east side of the Continental Divide is referred to as the Badger-Two Medicine area. In accordance with the *Lewis and Clark National Forest Plan* (1986), the Badger-Two Medicine area is managed for multiple use, including grazing, recreation, and mineral exploration. Because of the rocky terrain, there has been only limited timber harvesting in this area. Management prescriptions in the *Lewis and Clark National Forest Plan* seek to maintain viewsheds adjacent to the park and meet the specific habitat needs of wildlife species that move through park and U.S. Forest Service land.

Most land in the Badger-Two Medicine area is leased for oil and gas exploration, and in recent years two applications to drill have been processed by the Forest Service. Drilling has not begun on either of these leases. Legal challenges and current management direction indicate that it is unlikely that drilling would begin in the near future.

As with portions of the eastern half of Glacier National Park, the Badger-Two Medicine area is a part of the Blackfeet ceded strip and retains special importance to the Blackfeet people. The National Park Service and the Lewis and Clark National Forest have similar obligations to protect the cultural and ethnographic values of the land.

BLACKFEET INDIAN RESERVATION

Glacier National Park and tribal officials cooperate on a number of challenging issues involving tribal and park land. These include the joint management of cultural landmarks (such as Chief Mountain), livestock trespass, and wildlife management. We have also been invited to participate in environmental analyses for timber harvest and for gas and oil leasing. The tribes' timber harvest plan provides for wildlife movement between the park and tribal land and protects viewsheds, especially from Montana Highway 89. In recent years tribal leaders have indicated a willingness to expand cooperation where values are shared.

Much of the eastern half of Glacier National Park was once part of the Blackfeet Indian Reservation. These lands were ceded to the United States in 1895, and in 1910 they became part of Glacier National Park. The secretary of the interior recently decided to reopen discussion with the Blackfeet regarding the treaty of 1895. These discussions could potentially lead to changes in the management of the eastern half of the park.

WATERTON LAKES NATIONAL PARK

Parks Canada and the National Park Service share common values and similar missions. Both parks are bound together by legislation that recognizes these shared values. Managers at Waterton Lakes National Park emphasize the protection of resources and ecosystem integrity. Commercial development in the park is mostly limited to the Waterton Townsite. Waterton Lakes and Glacier National Parks cooperate on a wide variety of planning efforts, including resource management, law enforcement, and visitor safety. Waterton Lakes is a biosphere reserve and a world heritage site.

BRITISH COLUMBIA

The North Fork of the Flathead River in British Columbia has important ecological links to Glacier National Park and to other federal, state, and private land south of the border. These links were underscored by the International Joint Commission in its 1988 report on the transboundary impacts of an open pit coal mine proposed in the Canadian portion of the drainage.

The recovery effort for two endangered federally listed species in the United States is tied to Canada's portion of the North Fork. Grizzly bear numbers in Glacier and on adjacent land in British Columbia are among the densest ever recorded for an inland population in North America. Wolves from British Columbia recolonized Glacier in the early 1980s. Human habitation in the British Columbia portion of the Flathead drainage is extremely low.

British Columbia recently completed a comprehensive regional land use plan. The *Kootenay-Boundary Regional Land Use Plan* (1995) specifically provides for the three separate management zones in British Columbia's portion of the Flathead drainage near Glacier National Park:

- ***Integrated resource management*** — This zone includes high-elevation areas in the Flathead drainage where a broad range of activities is allowed, including mining, timber harvesting, road construction, and recreation.
- ***Special resource management*** — This zone includes much of the lower valley and emphasizes the protection of riparian areas and wildlife habitat while allowing timber harvesting and other compatible commodity extraction.
- ***Protected*** — Akamina-Kishinena Provincial Park, a 10,900 hectare (about 26,900 acres) area in the extreme southeastern corner of British Columbia was recently upgraded from a provincial recreation area to a provincial park, a designation that includes the prohibition of mineral exploration and timber harvesting.

The upgrade of Akamina-Kishinena to a provincial park provides protection similar to Canada's national parks. It complements both Glacier National Park's and the Flathead National Forest's plans for the North Fork Flathead River drainage. Habitat security for the endangered gray wolf and threatened grizzly bear should improve because much of the Akamina-Kishinena Provincial Park will be managed as wilderness.

COAL CREEK STATE FOREST

Coal Creek State Forest is adjacent to Glacier National Park in the North Fork Flathead River drainage. It is administered by the Montana Department of Natural Resources and Conservation, which has worked closely with Glacier National Park officials to minimize damage to park viewsheds and to meet the needs of wildlife that use both park and state forest land. An example of such cooperation was the joint development of a management plan for the bald eagles that nest at Cyclone Lake on the state forest and feed in portions of the park.

FLATHEAD WILD AND SCENIC RIVER

In 1976, Congress designated the three forks of the Flathead River as part of the national scenic river system. The North Fork of the Flathead River is designated as “scenic” from the international boundary downstream to Camas Creek and “recreational” from Camas Creek to the confluence with the Middle Fork. The Middle Fork is designated as “recreational” for the entire length bordering Glacier National Park. Congress directed that the U.S. Forest Service would be the primary management agency for the Flathead Wild and Scenic River and that the National Park Service would have secondary responsibility. This designation and subsequent USFS management direction for these rivers is consistent with Glacier National Park’s planning efforts. Management of the North and Middle Forks as wild and scenic rivers helps to protect the natural, cultural, scenic, and recreational values of the park in a broader regional setting.

ADJACENT PLANNING EFFORTS

The Canyon and North Fork land use plans complement the park’s internal planning by discouraging development in sensitive areas and by directing where development should occur. This plan does not propose any actions that would affect private land outside the park. The planning authorities for private land are at the state, county, or tribal levels. The park will continue to cooperate with adjacent entities on cooperative planning on request.

BURLINGTON NORTHERN ENVIRONMENTAL STEWARDSHIP AREA

A partnership was established in 1992 to create an operationally and environmentally safe and compatible rail corridor along the southern boundary of the park. Glacier National Park is one of the several land management agencies and private entities involved in the partnership. This management effort complements park planning by helping to protect resources (particularly grizzly bears) in the region. Other partners include the U.S. Forest Service, Burlington Northern–Santa Fe Railroad, and the state of Montana.

FLATHEAD BASIN COMMISSION

The Flathead Basin Commission (FBC) is a regional water protection organization with a broad mandate to study and report on the quality of the Flathead Basin's natural resources. Members include federal, state, local, and tribal managers, a public utility, private citizens, and a representative of British Columbia. The FBC efforts to protect water in a regional context are consistent with water quality protection goals for the park. Glacier National Park plays a key role in maintaining the water quality of Flathead Lake because of its location in the upper reaches of the basin and because most of the park is managed as a wild area. The park's headwater lakes contain some of the last natural aquatic communities in the Columbia River Basin and are critical to the basin's water quality future. The Flathead Basin Commission has adopted a total maximum daily load strategy that should reduce nutrient loading to Flathead Lake from a variety of sources. By statute, the superintendent of Glacier National Park sits on the commission's board of directors.



Alternatives, Ideas, and Strategies Considered but Rejected

A variety of concepts and specific ideas for the future of the park were examined throughout the planning process, but they were dropped from further detailed analysis in this document. These ideas arose from comments received during scoping. *Newsletter 3* was developed using those ideas and was presented to the public in July 1996. It presented three alternatives for managing the park.

ALTERNATIVES

Alternative 1

In response to current and anticipated activities in the region, the necessary protection of natural and cultural resources, ecosystem issues and concerns, and the desire to provide quality visitor experiences, this alternative would have provided a broad range of visitor experiences inside the park in addition to those provided elsewhere in the region. To achieve this concept, the park would have been managed to achieve the following results:

- Provide a broad range of appropriate visitor experiences in the park.
- Provide for an expanded visitor season.
- Encourage/sustain the development of visitor services outside the park on the east and west.

This alternative was dropped because there was no need to duplicate opportunities elsewhere. The National Park Service has no authority outside park boundaries and could not ensure that local businesses could be sustained. The alternative included many ideas that were not consistent with park purpose and significance, were not fiscally sound, and did not respond to issues raised.

Alternative 2

In response to current and anticipated activities in the region, the necessary protection of natural and cultural resources, ecosystem issues and concerns, and

the desire to provide quality visitor experiences, this alternative would have emphasized the park's place as the core of the Crown of the Continent ecosystem. Fewer development-dependent experiences would have been provided inside the park compared to the other two alternatives and existing conditions. To achieve this concept, the park would have been managed to achieve the following results:

- Enhance the continuity of wilderness in the region.
- Preserve large blocks of undeveloped land.
- Accommodate day use visitors along the Going-to-the-Sun Road corridor.
- Relocate access to the park and adjacent land along the periphery.

This alternative was dropped because of the potential adverse affect on the local economy, the high cost of relocating access, and change in traditional uses.

Alternative 3

In response to current and anticipated activities in the region, the necessary protection of natural and cultural resources, ecosystem issues and concerns, and the desire to provide quality visitor experiences, this alternative would have provided easier access to backcountry wilderness than other areas (such as the Bob Marshall Wilderness Area). To achieve the objectives of this concept, the park would have been managed to achieve the following results:

- Limit access along the Going-to-the-Sun Road to transit system only and create a pedestrian-oriented experience along the road corridor.
- Shift visitor services to the periphery.
- Create opportunities for new visitor experiences by cooperating with neighbors and dispersing regional visitor use to adjacent land.

This alternative was dropped because of the concession contract agreement, economic impacts, experiential impacts, and unacceptable natural resource impacts. Also, cooperating agencies did not want use to be dispersed.

IDEAS

Build Another Road in the Park

The idea of building another road in the park was considered but rejected for a number of reasons. It is unlikely that funds would be available to build a new road and maintain it. Furthermore, with a few exceptions, the National Park Service is not building new roads, particularly in parks like Glacier, where the resource impacts would be extensive.

Make the Going-to-the-Sun Road One-way

The concept of making the Going-to-the-Sun Road a one-way road was considered and rejected. One-way use of the road would not have allowed visitors the freedom of traveling to and from a particular destination on the road in the most efficient manner, and it would have precluded backtracking, even for a short distance, if a visitor had missed a particular turnout or trailhead.

Turning the Going-to-the-Sun Road into a Light Rail or Cog Rail System

The idea of turning the Going-to-the-Sun Road into a light rail or cog rail system was considered but rejected. The tracks and cables associated with these systems would have been incompatible with the historic appearance of the road, and it would have precluded private automobile use, which is historic and valued by visitors. The road was built in the 1930s to open up the interior of the park to the general population, not just those with means. Automobiles were becoming (and are now) the most common type of travel in the United States and Canada, even for people with limited incomes. Furthermore, there is no efficient and economical public transportation system to Glacier National Park other than Amtrak; therefore, most visitors would have continued to drive their own vehicles to arrive at the park. Then each motorist would have had to find a place to leave the vehicle in order to travel the Going-to-the-Sun Road by cog rail.

The idea of using light rail or cog rail in areas adjacent to the Going-to-the-Sun Road also was considered, as was the idea of using alternate routes such as the Logan Creek Valley between Logan Creek and Logan Pass. These ideas were also rejected because they would have required the intrusion of substantial development into natural areas of the park that have not been disturbed and are now proposed for wilderness designation.

Convert Sprague Creek Campground to Day Use Only

The National Park Service suggested this idea in *Newsletter 3* as a component of alternative 2, which focused on day use only in the Going-to-the-Sun Road corridor as a way to emphasize remote wilderness experiences throughout the park.

This idea was dropped because Sprague Creek's frontcountry camping (without trailers) offers an unusual experience in the park that should be retained in an effort to provide a variety of visitor services. Because campgrounds are usually full throughout the summer, reducing the number of sites would increase demand.

Remove Picnicking from Sprague Creek

This idea was rejected because there are not many formal picnic areas in the park.

Convert Avalanche Campground to Day Use Only or Overnight Use Only

The National Park Service suggested these ideas in *Newsletter 3* as ways to reduce congestion at this popular destination. It currently provides trailhead parking, restrooms, picnic tables, a boardwalk hiking trail, and overnight camping. Congestion and confusion are common during the height of the summer season. These ideas were dropped from further consideration because it would have resulted in a reduction in the level of visitor services in the park, for which there is already a demand, and because the area provides a traditional use. A future study and EIS will address and analyze the Avalanche developed area.

Remove Lodging at Rising Sun

The National Park Service suggested these ideas in *Newsletter 3* as potential components of alternative 2, which emphasized day use only along the Going-to-the-Sun Road corridor. This alternative was dropped from further study because lodging at Rising Sun is part of Glacier's traditional visitor services and removing this facility would result in few, if any, resource benefits. There would be a loss of historic resources and a failure to complete contract obligations.

Remove Lodging in the Swiftcurrent Area.

The National Park Service suggested this in all alternatives of *Newsletter 3* as a way to reduce visitor impacts on resources (particularly wildlife) in this area. The facility is deteriorating. This idea involved removing the Swiftcurrent Motor Inn (all alternatives) and removing the Many Glacier campground (alternatives 2 and 3). The Many Glacier Hotel would have been retained in all alternatives. This idea was dropped from further study because the Swiftcurrent Motor Inn and Many Glacier Campground are part of Glacier's traditional visitor opportunities. Contractual obligations exist, some of the facilities are historic, and there is a demand for the available lodging. Should unacceptable resource impacts be indicated in the future, an analysis would be conducted and the buildings would be considered for removal. This would require an amendment to the *General Management Plan*.

Remove Tour Boats on Lake Josephine and Swiftcurrent Lake

Alternatives 2 and 3 of *Newsletter 3* suggested removing tour boats from these lakes. This was suggested as a way to offer a range of visitor experiences, because almost all the large lakes in the park do have tour boats operating. This idea was dropped from further consideration because tour boats are a traditional use of the park, and they provide access for people of all ages and physical conditions to see backcountry and wildlife. There are also contractual obligations.

Relocate Administrative and/or Visitor Facilities from Goat Haunt Out of the Park

Alternative 2 in *Newsletter 3* suggested removing facilities from Goat Haunt (except the patrol cabin) and replacing them with facilities at Waterton Townsite. It also suggested retaining the tour boat on Waterton Lake but not dropping visitors at Goat Haunt. This idea was dropped from further consideration because of the desirability of boat service to Goat Haunt. Boat service makes the area accessible to hikers, and this area emphasizes the park's international peace park designation. This idea was also dropped because removing these facilities would result in negligible resource improvement would eliminate a necessary service, and would require funding that should be used elsewhere in the park.

Relocate Administrative and/or Visitor Facilities from the Cut Bank Valley Area Out of the Park.

Alternative 2 of *Newsletter 3* suggested removing the campground in the Cut Bank Valley and its access road to enhance wilderness values by moving visitor facilities outside the park. This idea was dropped from further study because removing this facility and the road would be inconsistent with retaining traditional visitor uses in the park. Also, it was concluded that removing these facilities would result in a negligible resource improvement and would require funding better used elsewhere in the park.

Remove Commercial Services from Two Medicine

Alternatives 1 and 2 of *Newsletter 3* suggested removing commercial services from the Two Medicine area and using the structures to provide additional visitor information. This was suggested as a way to encourage visitor services in areas outside the park and to reduce resource impacts in the Two Medicine area. This idea was dropped from further consideration because this area of the park provides an alternative to the heavily used Going-to-the-Sun Road corridor and because it provides basic visitor services, yet has the feel of a wilderness experience. There are also contractual obligations.

Close the Inside North Fork Road or Convert it to a Hiking or Biking Trail Between Apgar and Logging Creek

Alternatives 1 and 2 of *Newsletter 3* suggested these ideas as ways to provide a broader range of visitor experiences (biking-hiking trail, alternative 1) or to enhance remote wilderness experiences (close road to vehicles and bicycles, alternative 2). This idea is no longer being considered because retaining vehicle use on this road is consistent with the philosophy of retaining traditional visitor uses in the park. The inside North Fork Road is already open to bicycle use, and no more trails are needed.

Remove the Camas Road or Allow Bicycles Only

These ideas arose from alternatives 2 and 3 of *Newsletter 3* as ways to emphasize wilderness values (alternative 2) and to provide easier access to backcountry experiences (alternative 3). This idea was dropped from further consideration because the Camas Road provides direct access between the North Fork and the Apgar area. Removal of this road would reroute traffic as far away as Columbia Falls and would not improve resource conditions enough to warrant the inconvenience to park visitors. Also, removing the asphalt surface of this relatively new road, which was recently improved, would require funds that could be better used elsewhere in the park.

Relocate Administrative and/or Visitor Facilities from Walton to Outside the Park

Alternative 2 of *Newsletter 3* suggested this idea as a way to enhance wilderness values in the area. The idea was dropped from further consideration because removal of these facilities would result in a negligible resource improvement in the area, would require funding needed elsewhere in the park, and would remove historic structures and traditional visitor service facilities.

Expand the Campground at Apgar

Alternative 2 of *Newsletter 3* suggested expanding the Apgar Campground as a way to increase overnight use at either end of the Going-to-the-Sun Road while designating the road corridor as day use only.

After further consideration, it was determined that the public strongly supports retaining current visitor uses along the Going-to-the-Sun Road corridor. Expanding the campground is too site-specific for this plan and will be addressed later if necessary.

Reduce Size and Density of Fish Creek Campground and Provide Tent-Only Camping at Sun Point

Alternative 3 of *Newsletter 3* suggested these ideas as ways to offer a range of camping experiences in the frontcountry.

These ideas were dropped from further consideration because the *General Management Plan and Environmental Impact Statement* will provide an overall management philosophy and strategy, but it will not include such specific proposals as reducing the size and density of a particular campground. These types of specific actions will be considered on a site-by-site basis after the plan is finalized. The National Park Service acknowledges strong interest in maintaining campgrounds in the park and not reducing their size and density.

Build a New Boat Launch at St. Mary Lake

This idea was suggested in alternative 3 of *Newsletter 3* as a way to increase access to the lake. The idea was dropped from further consideration because such site-specific proposals could be addressed on an as-needed basis after the *General Management Plan* is approved. Furthermore, the south side of St. Mary Lake is within proposed wilderness, and no permanent structures are allowed in wilderness areas.

Build a Pedestrian Bridge across the Middle Fork

This idea was rejected from further consideration because the Middle Fork is a wild and scenic river. Building such a bridge would have required agreement with the U.S. Forest Service, and it would have violated the management philosophy for the Middle Fork geographic area.

Reduce NPS Housing in the Park

This was suggested as part of alternative 3 in *Newsletter 3* as a way to shift development outside the park to enhance the backcountry wilderness experience the park provides. The National Park Service recently required all parks to assess government housing. The assessment indicated a housing shortage in Many Glacier and excess housing in the West Glacier headquarters area. In accordance with NPS policy, excess housing must either be removed or converted to other uses. Employees not required to occupy government housing would relocate outside the park.

Construct a Joint Customs Facility for the United States and Canada

This idea was suggested in *Newsletter 3*. It was dropped from further consideration because it is too site-specific to be considered further in this plan. It will be addressed later on an as-needed basis after this plan is approved.

Provide, Expand, or Reopen Campgrounds at Polebridge, North Fork, Quartz Creek, and Logging Creek

Alternatives in *Newsletter 3* suggested constructing campgrounds along the North Fork of the Flathead River for floaters and as reopening campgrounds at Quartz and Logging Creeks. Quartz and Logging Creek Campgrounds reopened in 1997. Opening the other campgrounds is not being considered at this time but has not been eliminated as a possible future action. This *Final General Management Plan and Environmental Impact Statement* provides an overall management philosophy and framework; it does not include such specific proposals as developing new campgrounds in the park. Specific actions will be considered individually after the plan is approved. The Park Service acknowledges strong public support for reopening and expanding campgrounds in the park.

Provide Campgrounds and Picnic Areas in the Middle Fork Area

Alternative 1 in *Newsletter 3* suggested constructing a winter campground and a summer picnic facility in the Middle Fork area. These specific ideas were dropped from further analysis but have not been eliminated as possible future actions. This plan would provide an overall management philosophy and framework; it does not include such specific proposals as developing new campgrounds in the park. These specific actions could be considered individually after this plan is approved.

Prohibit Private Motorboats or Reduce Maximum Allowable Horsepower of Private Motorboats on Lake McDonald and St. Mary Lake

These ideas were suggested in *Newsletter 3* in response to public comments. Currently, private motorboats are allowed on Lake McDonald, St. Mary Lake, Waterton Lake, and Lake Sherburne without a maximum horsepower limit. Motorboats of up to 10 hp are permitted on Bowman and Two Medicine Lakes. No motorboats are permitted on other lakes in the park. A range of comments on private motorboats were received. Some people favor banning all motorboats in the park; some wanted to reduce maximum allowable horsepower on some lakes.

These ideas were dropped from further consideration because the current private motorboat policy already allows for a range of motorboat use in the park. Motorboats may be used with no horsepower restrictions on Lake McDonald, St. Mary, Waterton, and Sherburne Lakes, which are located in or adjacent to the proposed visitor zone, which has more visitor use than other zones. Use of private motorboats with no horsepower restrictions is consistent with this zone.

Bowman and Two Medicine Lakes have a maximum 10 hp restriction, which is consistent with the philosophy for their geographic areas and zones. Low-horsepower boats on Bowman and Middle Two Medicine Lakes provide important visitor access to the backcountry at the head of the lake and do not significantly impact resources or visitor experiences in this area.

Change Policies on Bicycling and Ice Fishing

During the public involvement period, the Park Service received comments proposing various policy changes regarding bicycles in the park and ice fishing in frontcountry and backcountry lakes. Bicycles are allowed on roads that are open to motorized vehicles; only the Going-to-the-Sun Road has restrictions that prohibit bicycles during the middle of the day when traffic is heaviest. Public opinion on bicycle use in the park varied. Some people wanted more mountain bike trails and paths. Others wanted only bicycles (no cars) on the Going-to-the-Sun Road. Some people said that bicycles should not be allowed in the park at all for safety reasons. The current bicycle policy offers a range of visitor experiences while keeping bicycles out of the 95 percent of the park that has been proposed for wilderness, as the Wilderness Act dictates.

Permitting ice fishing is not considered in this *Final General Management Plan and Environmental Impact Statement* because it is too specific for this document.

However, a change in policy to permit ice fishing is consistent with the management philosophy presented in this plan. The current ice fishing policy is being reevaluated.

FUNDING STRATEGIES FOR REHABILITATING HISTORIC HOTELS AND VISITOR SERVICES

A variety of methods were examined for funding the rehabilitation of historic visitor service structures in the park. The following methods were rejected because they either would have required the National Park Service to give up ownership of the facilities or would have necessitated new development to generate revenue. For funding methods that were not rejected, see appendix D. More detailed discussions follow.

Establish a Resort Tax on Purchases in the Park to Fund Such Projects as Restoration of Historic Visitor Service Structures

This strategy was considered because of the financial benefits to Glacier. The state of Montana allows areas of the state frequented by tourists to levy a resort tax of up to 3 percent on luxury items, which includes accommodations. By law, all money collected from the tax would be spent in the resort tax area. A committee of residents in the park, including NPS employees living in government housing, would have voted on how to use the money. They could have voted to spend it on such projects as restoring of historic buildings or upgrading sewage treatment or utilities.

The National Park Service had concerns about the appearance of a group of federal employees living in the park levying taxes. The small number of employees living in the area would not generate enough money to make the area a viable district. Because of these concerns, the resort tax was dropped from further consideration in this document.

Use of Private Investment as a Funding Source

Rehabilitation would be funded from concessioner investments of their own capital, borrowed capital, or revenue resulting from increased rates or services. A variation considered was a real estate investment trust in which capital for improvements would be raised by selling ownership of the facilities and stock shares to the public. Dividends to those shareholders would be generated from operations revenue. This method would require an adequate return on the investment of capital. The return would have to be sufficient to persuade a concessioner or other investors to fund the renovations. To guarantee this return, revenue would have to be generated from charging higher rates, extending the operating season, and/or developing more revenue opportunities in the park.

Higher Rates. Raising room rates to fund an adequate return on an investment of \$80 million dollars would require increases of approximately \$150 per night to individual room rates for 30 years. Many Glacier Hotel and Lake

McDonald Lodge would charge \$270 or more for a room, Swiftcurrent Motor Inn rooms would cost about \$230, and cabins would be about \$180; the Rising Sun Motor Inn rooms might be \$230 and cabins \$220, and Village Inn rooms would be minimum of \$250. These rates would also be adjusted annually for inflation.

Extending the Operating Season of the Hotels. The season for overnight lodging extends from May to October. Extending the season into the early spring, late fall, and winter could generate additional income to concessioners that could be used to fund rehabilitation of structures in the park. Extending the seasons would increase park operating costs for law enforcement, fire protection, snow-plowing, and utility systems operation.

Increasing the Number of Accommodations in the Park would provide additional cash flow to allow for some return on the investment of capital. The concessioner in the park has proposed additional developments that include a 90-room lodge at the Many Glacier Hotel (in the parking lot with underground parking), conversion of dormitories at Many Glacier and Lake McDonald Lodge to visitor accommodations ranging from executive suites to low-cost hostels, a 100-room building at the Lake McDonald Lodge, additional cabin units at Rising Sun and Swiftcurrent, reconstructing the Sun Point development (formerly the Going-to-the Sun Chalet), additional lodging at Apgar, and development of 24 housekeeping units at Two Medicine. Some of the proposals have included additional restaurant and retail space or meeting room space to make the extended or year-round operation of the facilities marketable.

The idea of using private investment as a funding source was dropped for several reasons, primarily because the National Park Service does not develop new facilities to generate revenue. Public law requires that development be limited to what is necessary to allow for public use and enjoyment and appropriate to the park and resources. To increase revenue for concessioners is not a valid reason for additional development, extended seasons, or higher fees even if some of the income could fund rehabilitation of historic structures. Other reasons include:

- Increasing room rates to levels necessary to provide an adequate return on investment would make it difficult for the average family to afford overnight accommodations in the park.
- Extending the season for most of the historic structures is not feasible. The season for Lake McDonald Lodge and the Village Inn could be extended into fall or spring or even year-round if the facilities were modified. However, it would not be possible to extend the visitor season for the Many Glacier Hotel, Swiftcurrent Motor Inn, and the Rising Sun Motor Inn beyond May through October. Financial viability would be unlikely due to harsh winter conditions, the expense of operating and winterizing, access in snow, the type of accommodations, and reduced winter travel to the area. Extending the operating season of lodges could increase the number of encounters between visitors and such wildlife species as bears, bighorn sheep, and elk. The result would be more habituation, displacement into lesser quality habitat, or animal removal.

- There is no demonstrated demand for year-round accommodations in the park. Although rooms fill to capacity during most of July and August, there is no demonstrated demand for additional lodging most of the year. Extending the season where possible could provide a marginal source of additional revenue but would not provide the necessary return on the investment to fund this approach. NPS policy is to locate development outside the park if possible, and other lodging options are available outside the park.
- The current primary concessioner indicated that a 30-year concession contract term would be necessary to make private funding feasible. Current federal law limits contract terms to 20 years or less.

Use Historic Structures for Purposes Other Than Lodging

Use of the historic lodges for purposes other than overnight visitor accommodations was rejected because the current use of the historic lodges generates income, a portion of which is used to finance their maintenance. Without this income, operating and maintenance funds would have had to come out of Park Service operating funds, which are needed for basic park operations. The best means of protecting historic structures is to use them as they were intended. The lodges provide necessary and appropriate visitor services. If they had been converted to a different use, construction would have been required to provide overnight accommodations elsewhere in the park, or visitor experience and historic use patterns would have been impacted.

Purchase and Operation of Historic Lodges by a Nonprofit Organization

This alternative was considered as a way to fund renovation of deteriorating park lodges and other historic structures because nonprofit groups are able to seek donations, grants, bonds, and low-interest loans that are unavailable to the government or a for-profit company. This was dropped from further consideration because many of the funding sources require that the federal government not own the property. Fee title to the park's facilities is vested with the United States; legislation would have been required to transfer ownership to another entity. Also, control over the historic facilities and operations would have been reduced if the National Park Service had no longer owned these structures.

Private Donations and Grants

This strategy would have involved seeking private donations or grants to fund all the rehabilitation of the historic properties. While there are programs for rehabilitation work, most are funded at a level well below the millions of dollars that the park projects would entail. Additionally, ownership by the government or by a for-profit company renders the park facilities ineligible for many of these donations or grants. The park's experience with private fund raising is limited and those projects that have been undertaken (such as the partnership with the Save the Chalets for raising \$1.2 million for the Granite Park Chalet) have had marginal success.

Issues Outside the Scope of this General Management Plan

During the public involvement period, the public raised a number of issues that are outside the scope of the *General Management Plan and Environmental Impact Statement* and will not be addressed in this document. This section explains why each issue is outside the scope of this analysis and states what other laws or direction apply to each issue.

Backcountry Reservation System

Public comment during scoping indicated that the backcountry registration system did not allow the flexibility many visitors need for planning backcountry itineraries. Because of the demand for backcountry use, the most popular campsites are often filled early, resulting in visitors having to choose other backcountry hiking routes at the last minute. The issue is too specific to be included in a broad-based general management plan, but the park has implemented a backcountry reservation system to allow visitors to reserve backcountry sites.

Discourage Livestock Trespass

Livestock trespass from adjacent land causes vegetation damage, soil erosion, and siltation of streams. Trespassing livestock also compete with elk and deer for grazing areas. Livestock trespass in the park is prohibited by law (36 CFR 2.60), and law enforcement is already charged with handling this problem.

Make Facilities Accessible to People with Disabilities

The Park Service is required by law and policy to provide access to programs and facilities to the maximum extent possible considering resource and visitor protection mandates. This includes providing maximum accessibility for Glacier National Park employees in the workplace. The policy is to integrate access for persons of all abilities rather than to provide separate facilities or programs for persons with disabilities.

In a broad fashion, the *General Management Plan and Environmental Impact Statement* addresses the issue of making park facilities accessible to visitors with disabilities. The specific ways in which this broad philosophy are implemented are outside the scope of this plan and will be addressed in future site-specific analyses.

Discourage Invasion of Nonnative Vegetation

Alien (exotic) vegetation, particularly noxious weeds, is becoming more prevalent in certain areas of Glacier. The spread of alien vegetation is reducing native plant populations and adversely impacting wildlife habitat throughout the park. The issue of nonnative plants has already been addressed in *NPS Management Policies*, which encourages parks to develop management strategies where such species threaten park resources or public health and when control is “prudent and feasible”. Methods of control are site-specific operational issues that are being addressed in cooperation and consultation with other agencies and landowners surrounding the park. An “Exotic Vegetation Management Plan” for Glacier National Park was implemented in 1991.

Regular Monitoring of Surface Water Sources Used for Campground Water Supplies

State laws and regulations require that when surface sources such as streams, lakes, and springs are used for drinking water, they must be regularly monitored and filtered for possible contaminants. The Park Service is required to conduct this monitoring to protect public health and safety; it need not be addressed in this plan.

Timber Management on Adjacent Land

Logging on land adjacent to the park boundary is visible as visitors approach the park. Logging can also cause erosion and siltation of streams and rivers and may have adverse effects on water quality and regional wildlife. However, state and federal regulations already address this issue. The *Final General Management Plan and Environmental Impact Statement* will not address this issue beyond expressing a desire to cooperate with park neighbors on resource issues of mutual concern.

Fee Collection

Park entrance fee issues, such as increasing fees, keeping them the same, or eliminating them, are not addressed in this plan. Fees are legislated by Congress and apply to the entire national park system, not just Glacier. Congress is giving the park fee issue a considerable amount of attention because of concern about the nation’s budget deficit and the need to increase operating budgets in national parks. In November 1996 phase I of the congressionally authorized fee demonstration program began. Glacier was included in this program, which authorizes federal land management agencies to increase and retain entrance and user fees. Revenues derived from this test program provide needed funds to begin repairing the badly deteriorated infrastructure of the aging park system and fund visitor education, recreation programs, and resource protection.

Vista Clearing

Some members of the public commented that historic vistas should be maintained and that others should be created along roads in the park. This would involve clearing trees to provide motorists with views. This plan does not address this issue because it is very site-specific, and Glacier already has a vista-clearing plan that guides this type of work. Vista clearing will continue to maintain and preserve the historic character of the Going-to-the-Sun Road and the traits that contributed to its designation as a national historic landmark.

Snowmobile Use in the Park

Some people have said that snowmobile use should be allowed in the park; others say that these machines are inconsistent with park purposes and negatively impact park resources and the experience of other visitors. This plan does not address the issue of allowing snowmobiles because they already have been found to be an incompatible use of the park (NPS 1975). Snowmobile use is prohibited in the park. There are many areas outside the park where snowmobiles are allowed.

Clearing of the International Boundary

As previously stated, the *Final General Management Plan and Environmental Impact Statement* supports cooperation among nations in the spirit of the international peace park and world heritage site designations. The National Park Service would like to discontinue clearing the international boundary because Waterton-Glacier is supposed to be one park, not separated by a cleared swath across the landscape. Implementation of this specific proposal is outside the scope of this plan. Both governments have signed accords to address this issue, and resolution will continue to be pursued by both governments.

Granite Park and Sperry Chalets

Some public comments suggested that the park eliminate the Granite Park and Sperry Chalets, close them down and just preserve the shell, or operate both chalets as hiker shelters without full services (meals and bedding). The park completed an environmental assessment on the rehabilitation of Granite Park and Sperry Chalets in 1993. Different operating options were considered in that environmental assessment. The public overwhelmingly supported reopening both chalets with full services. The full service option was selected as the preferred alternative after the National Park Service also determined that this would be the best way to preserve the chalets and to preserve traditional visitor services. A finding of no significant impact was signed. Public funding was sought and received for work on the chalets with this commitment to the public. Additional commitments have been made to the public that if private donations raise the remaining funding needed, Granite Park Chalet will be reopened with full services. Sperry Chalet will reopen with full services in the summer of 1999. This issue will not be revisited in this *General Management Plan*. The planning effort began with the assumption that the chalets would be reopened with full services.

Implementation Plans

The approval of the *General Management Plan* would represent but the first step in advancing the future of Glacier National Park. Much would remain to be done to implement the various proposals of the plan.

For the six geographic areas established by the plan, more detailed evaluation of the management zones applied to each would be undertaken. The challenge would be 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 would include public involvement.

For each of the eight preferred alternatives described under “Critical Issues and Alternatives,” this plan has identified steps that would be necessary as implementation actions. These actions include a variety of additional studies, as well as more detailed design analyses where appropriate. In some instances, regulations would need to be promulgated before the action could be undertaken.

The following are actions that would 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; also 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 final 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 the construction of the west side discovery center and museum, beginning with the funding of a comprehensive design plan and environmental analysis of the Apgar area.

TABLE I: SUMMARY OF ALTERNATIVES

Alternative A1 – Preferred	Alternative A	Alternative B – Other	No Action – Status Quo
Visitor Use on the Going-to-the-Sun Road			
Visitor opportunities would be expanded along the road to disperse use while maintaining the historic character of the road. This alternative retains the freedom of choice for visitors to drive personal vehicles and stop along the road. An expanded public transportation system would be provided. Develop a comprehensive use plan for the Going-to-the-Sun Road.	Visitor opportunities would be expanded along the road to disperse use while maintaining the historic character of road. This alternative retains the freedom of choice for visitors to drive personal vehicles and stop along the road. An expanded public transportation system would be provided.	A significantly larger parking lot would be constructed at Logan Pass to alleviate the congestion in the area.	Continue to manage the Going-to-the-Sun Road as the principal place where visitors experience Glacier's varied resources. Private vehicle use would continue.
Preservation of the Going-to-the-Sun Road			
Reconstruct the Going-to-the-Sun Road in a comprehensive manner before it fails. Conduct further study to determine how this should be done.	Reconstruction would take 4-6 years. The road would be closed between Avalanche and Logan Pass and then between Rising Sun and Logan Pass. The lower sections of the road would take approximately 2 years to reconstruct. Logan Pass visitor center would remain open, but it would not be possible to travel from one side of the park to the other. The total cost of this alternative would be \$70-\$85 million.	Reconstruction would take 10 or more years with a variety of road closures, such as night closures, daytime delays, one-way traffic, and limited day closures of certain sections and possible full closure after Labor Day. The total cost would be approximately \$90-\$105 million.	Retain the current (\$2 million/year) road reconstruction program. Two-way traffic on the Going-to-the-Sun Road would be retained during construction, which would consist of a series of smaller, site-specific projects. Reconstruction would take about 50 years and cost \$195-\$210 million; repairs would probably not be able to keep pace with deterioration, and the road.
Preservation of Historic Hotels and Visitor Services			
The National Park Service would ensure the preservation and protection of the national landmark and national register properties; \$80-100 million would be required. No significant operating season, room rate, number of rooms, or the range of lodging changes would be necessary.			The NPS and concessioner would continue to make repairs with available funds until such time as the deterioration of the buildings required more money than was available. Then they would close due to visitor safety concerns and lack of viability.
Scenic Air Tours			
The FAA would be asked to prohibit all commercial sightseeing tours over Glacier National Park.		The FAA would be asked to restrict commercial sightseeing tours to certain parts of the park and to impose a 2,000-foot MSL. The recommendation to the Federal Aviation Administration would be to permit scenic air tours over the Going-to-the-Sun Road and east of the divide over Many Glacier and Belly River while prohibiting tours over the North Fork, Middle Fork, and Two Medicine areas.	Scenic air tours would continue to proliferate in Glacier National Park. Recommendations such as flying 2,000 feet above ground level would continue, as would the FAA emphasis on safety for visitors flying over the park.
Personal Watercraft			
Personal watercraft would be permanently banned.			The temporary ban on personal watercraft would be lifted and use permitted where boats with motors of 10 horsepower or more are allowed.

TABLE I: SUMMARY OF ALTERNATIVES

Alternative A1	Alternative A – Preferred	Alternative B – Other	No Action – Status Quo
Winter Use			
	As winter visitation increases, day use would be provided for plowing some roads, providing parking. Effects on wildlife would be monitored.	Park management would seek to diversify winter use and provide a winter experience not found elsewhere in the region by planning for overnight accommodations on the west side as demand increases.	Glacier National Park would continue to offer a winter experience to day users and to those visitors who choose to go into the backcountry overnight.
Divide Creek Flood Hazard			
	Structures would be relocated out of the floodplain and flood hazard zone of Divide Creek to a location in or outside of the park.	Channelizing Divide Creek would armor development against future floods to the extent possible.	A monitoring program would be maintained to ensure human safety and to protect park facilities at Divide Creek.
West Side Discovery Center and Museum			
	Construct a westside discovery center and museum to provide for interpretation and protection of cultural resources inside the park north of the T-intersection of the Going-to-the-Sun and Camas Roads to replace the visitor contact station in Apgar.	A westside discovery center and museum would be built outside the park near the west entrance. Cultural resource protection and storage would be provided in the same location.	Visitor contact functions would remain at Apgar. Cultural resource storage would remain in three different locations on the west side of the park.

TABLE 2: SUMMARY OF IMPACTS

ALTERNATIVE A1 — PREFERRED	ALTERNATIVE A	ALTERNATIVE B — OTHER	NO-ACTION ALTERNATIVE
VISITOR USE ON THE GOING-TO-THE-SUN ROAD			
Enhance Visitor Use along the Going-to-the-Sun Road	Expand Visitor Opportunities along Going-to-the-Sun Road	Expand Logan Pass	Status Quo
<p>Natural Environment: Overall, there would be minimal adverse impacts on water quality, scenic resources, aquatic resources, and soils. Vegetation would be trampled as offroad parking increased.</p> <p>This alternative would not be likely to adversely affect listed wildlife species. Further consultation with USFWS would be done on the comprehensive use plan for the Going-to-the-Sun Road.</p>	<p>Natural Environment: Overall, there would be minimal adverse impacts on water quality, scenic resources, aquatic resources, and soils. Vegetation would be trampled as offroad parking increased.</p> <p>Construction associated with expanding day use would result in temporary disturbance and displacement of many species and a small amount of habitat loss for some species.</p> <p>Many wildlife species, including federally listed and state-rare wildlife species, would be affected to some degree by increasing visitor use in the Going-to-the-Sun Road corridor.</p>	<p>Natural Environment: There would be significant adverse impacts on water resources, wetlands, aquatic resources, and groundwater. Impacts on scenic resources would be significant if parking lot expansion was aboveground.</p> <p>There are no known species at risk; state-rare plant species would be adversely impacted, and other vegetation in the area would be destroyed.</p> <p>Expanding the parking at Logan Pass would remove habitat and further displace wildlife from the area, including the federally listed grizzly bear. Those species that were not displaced would habituate to increased numbers of people. Expansion of the parking lot underground would remove less habitat than expanding the lot aboveground.</p>	<p>Natural Environment: Wetlands, aquatic resources, scenic resources, vegetation, soils, and natural sounds would be adversely affected as a result of increased use and offroad parking.</p> <p>Wildlife, including most federally listed and state-rare wildlife species, would be adversely affected by increasing traffic along the Going-to-the-Sun Road.</p>
<p>Cultural Environment: Effects on cultural resources along the Going-to-the-Sun Road would be mitigated through design. Archeological resources would be avoided.</p>	<p>Cultural Environment: Effects on cultural resources along the Going-to-the-Sun Road would be mitigated through design. Archeological resources would be avoided.</p>	<p>Cultural Environment: Effects on archeological resources in Logan Pass area could be avoided through careful design and review. Cultural resources would not be affected.</p>	<p>Cultural Environment: There would be no effects on cultural resources or archeological resources.</p>
<p>Socioeconomic Environment: There would be continued economic benefits to the local and regional communities, and the visitor experience would be enhanced.</p>	<p>Socioeconomic Environment: There would be continued economic benefits to the local and regional communities, and the visitor experience would be enhanced.</p>	<p>Socioeconomic Environment: The park's beneficial contribution to local and regional economies would continue; visitor spending would remain substantially unchanged, and construction projects would benefit employment and income levels in northwest Montana; expansion would allow more visitors to use the area.</p>	<p>Socioeconomic Environment: The contribution that the park makes to the local and regional economies and to visitor experiences would continue with temporary adverse impacts during construction of an expanded Logan Pass parking lot and reconstruction of the road.</p>
PRESERVATION OF THE GOING-TO-THE-SUN ROAD			
Reconstruction	Fast-track Reconstruction (4 -6 years)	Accelerated Reconstruction (10+ Years)	Status Quo (long-term— 50 years)
<p>Natural Environment: Mitigating measures would reduce any impact of reconstruction on aquatic resources, including federally listed, proposed, and state-rare species, vegetation, and soils.</p> <p>Reconstruction of the Going-to-the-Sun Road could have adverse impacts on vegetation, including species at risk and state-sensitive species.</p> <p>Reconstruction would result in temporary disturbance and displacement of many wildlife species and a small amount of habitat loss for some species. Federally listed wildlife species probably would not be adversely affected. Additional consultation with USFWS would be done as further studies began.</p>	<p>Natural Environment: Mitigating measures would reduce any impact of reconstruction on aquatic resources, including federally listed, proposed, and state-rare species, vegetation, and soils.</p> <p>Reconstruction of the Going-to-the-Sun Road could have adverse impacts on vegetation, including species at risk and state-sensitive species.</p> <p>Fast-track road reconstruction would result in temporary disturbance and displacement of many wildlife species and a small amount of habitat loss for some species. The federally listed grizzly bear could be negatively impacted by fast-track reconstruction along the Going-to-the-Sun Road.</p>	<p>Natural Environment: Mitigating measures would be carried out to reduce any impact on aquatic resources, including federally listed, proposed and state-rare fish species, vegetation, and soils.</p> <p>Reconstruction of the Going-to-the-Sun Road could have adverse impacts on vegetation, including species at risk and state-sensitive species.</p> <p>Accelerated road reconstruction would result in temporary disturbance and displacement of many wildlife species and a small amount of habitat loss for some species. The federally listed grizzly bear could be negatively impacted by accelerated reconstruction.</p>	<p>Natural Environment: There would be long-term effects on air quality, scenic resources, vegetation (including species at risk and state-sensitive species), and natural sounds from reconstruction.</p> <p>Mitigation measures would reduce impacts on aquatic resources, including federally listed, proposed and state-rare fish, vegetation, and soils.</p> <p>Reconstruction of the Going-to-the-Sun Road would temporarily adversely affect wildlife that live or travel adjacent to the road. No long-term effects would be expected. The reconstruction could temporarily displace bears from the area and could create unnatural attractants.</p>
<p>Cultural Environment: The timeframe would facilitate the preservation of most cultural resources.</p>	<p>Cultural Environment: The short timeframe would facilitate the preservation of most cultural resources more than any other alternative.</p>	<p>Cultural Environment: The relatively short timeframe would facilitate the preservation of most of the cultural resources.</p>	<p>Cultural Environment: The long timeframe would result in eventual loss of some cultural resources before they could be reconstructed.</p>
<p>Socioeconomic Environment: There would be positive and negative impacts on the state of Montana. The local economy would be more affected either positively or negatively.</p>	<p>Socioeconomic Environment: The local and regional communities, visitors, and landowners would be negatively affected for the short term, which would reduce visitor numbers and expenditures; however, construction costs would be less than other alternatives. Economic impacts would occur due to reduced visitation and closure of segments of the Going-to-the-Sun Road for 2-4 years (some businesses would fail and others would not). The effects would be less than under alternative B. Mitigation would ensure visitor opportunities and access during closures. Benefits to the local and regional economies would result from construction.</p>	<p>Socioeconomic Environment: The local and regional communities, visitors, and landowners would be negatively affected by the reconstruction, which would reduce visitor numbers and expenditures. Socioeconomic impacts would be greater than in alternative A because reconstruction would occur over a longer period, which would change visitor use patterns and result in more business closures than alternative A. Local and regional economies would benefit.</p>	<p>Socioeconomic Environment: The long-term construction scenario would cause less disruption to local and regional communities, visitors, and landowners at any one time, but construction would last longer than in the other alternatives. Periods of road closures would reduce park visitation and spending. Construction projects would benefit employment and income levels of local and regional economies. Catastrophic closure of the Going-to-the-Sun Road could significantly adversely affect local and regional economies and visitors.</p>

TABLE 2: SUMMARY OF IMPACTS (continued)

ALTERNATIVE A1	ALTERNATIVE A — PREFERRED	ALTERNATIVE B — OTHER	NO-ACTION ALTERNATIVE
PRESERVATION OF HISTORIC HOTELS AND VISITOR SERVICES			
	Rehabilitate National Landmark and National Register Overnight and Visitor Service Facilities and Retain Lodging Mix	Not applicable	Status Quo
	<p>Natural Environment: Overall, there would be negligible adverse effects on water quality, scenic resources, aquatic resources, and soils if mitigation was carried out during construction.</p> <p>No known species at risk or state-sensitive plant species would be adversely affected by rehabilitation of the lodges.</p> <p>Rehabilitation of visitor facilities in the park would have temporary adverse effects on wildlife during construction, temporarily displacing wildlife from these areas or causing increased habituation. Adverse effects on wildlife, including the federally listed grizzly bear, would be more likely during the spring and fall because the animals are accustomed to decreased visitor use during these periods. Construction during the summer would be less likely to adversely affect wildlife. Overall, this alternative would not be likely to adversely affect listed species.</p>		<p>Natural Environment: There would be no adverse impacts on water resources, aquatic resources, vegetation, soils, or natural sounds.</p> <p>No known species at risk or state-sensitive species would be adversely affected by the continued maintenance of the historic lodges. Continuation of early season maintenance activity at the Many Glacier Hotel and other lodges and visitor facilities throughout the park would not have additional impacts on wildlife, including most federally listed and state-rare species. Eventual closure of facilities would result in a positive impact on wildlife species that have been displaced.</p> <p>Ongoing maintenance of historic visitor service facilities has the potential of disturbing eagles that nest and feed in the Lake McDonald area. Mitigation would continue to reduce those impacts.</p>
	<p>Cultural Environment: Preservation of historic hotels and visitor services would have a positive effect, preserving national historic landmarks and national register sites.</p>	Not applicable	<p>Cultural Environment: Eventual closure of historic hotels and visitor services would have a negative impact.</p>
	<p>Socioeconomic Environment: Rehabilitation would have positive economic benefit on the regional economy and would ensure that visitors' traditional overnight experiences would continue.</p>	Not applicable	<p>Socioeconomic Environment: Eventual closure of overnight facilities, depending on the number of units lost, would have a negative effect on local and regional economies and on visitors.</p>
AVIATION ACTIVITIES			
	Ban Scenic Air Tours over the Park	Commercial Sightseeing Tours Allowed only in Certain Parts of the Park	No Action Alternative -Status Quo
	<p>Natural Environment: There would be no adverse effects on water quality, scenic resources, aquatic resources, soils, vegetation or natural sounds.</p> <p>Many species, including federally listed and state-rare species and those that summer at high elevations, would benefit from reduced human disturbance.</p> <p>This alternative would have no effect on federally listed wildlife species.</p>	<p>Natural Environment: There would be no adverse impacts on water resources, aquatic resources, vegetation, or soils; over time, there could be adverse impacts on natural sounds, scenic resources, and air quality.</p> <p>Many species, including federally listed and state-rare species, and especially those that summer at higher elevations, would benefit from reduced human disturbance by banning scenic air tours over selected portions of the park, but wildlife impacts would continue in areas where overflights were still allowed.</p>	<p>Natural Environment: There would be no adverse impacts on water resources, aquatic resources, vegetation, air quality, or soils; over time, adverse impacts on natural sounds and scenic resources.</p> <p>Wildlife could be adversely affected by unrestricted scenic air tour activity.</p>
	<p>Cultural Environment: There would be no effects on cultural resources.</p>	<p>Cultural Environment: There would be no effects on cultural resources, but there could be effects on culturally protected activities from scenic air tour noise.</p>	<p>Cultural Environment: There would be no effects on cultural resources. There would be adverse impacts on culturally protected activities.</p>
	<p>Socioeconomic Environment: There would be benefits for most visitors and landowners; air tour operators operate on the periphery of the park. There would be a positive impact for most visitors and landowners and an improved visitor experience but an adverse impact on scenic air tour operators.</p>	<p>Socioeconomic Environment: There would be no adverse economic impact, but there would be an adverse impact on visitors and landowners where air tours are allowed. Visitors would benefit when scenic air tours are banned.</p>	<p>Socioeconomic Environment: There would be no adverse economic impact, but there would be an adverse impact on most visitors and landowners.</p>

TABLE 2: SUMMARY OF IMPACTS (continued)

ALTERNATIVE A1 — PREFERRED	ALTERNATIVE A — PREFERRED	ALTERNATIVE B — OTHER	NO-ACTION ALTERNATIVE
PERSONAL WATERCRAFT			
	Ban Personal Watercraft on all Park Waters	Not applicable	Status Quo
	<p>Natural Environment: Banning personal watercraft would have positive effects on wetlands, water quality, scenic resources, aquatic resources, soils, and vegetation.</p> <p>Many species, including federally listed and state-rare species and those that use lake or lakeshore areas, would benefit from reduced human disturbance. This alternative would have no effect on federally listed wildlife species.</p>	Not applicable	<p>Natural Environment: Use of personal watercraft would adversely affect wetlands, aquatic resources, scenic resources, air quality, wetland vegetation, natural sounds, and soils in shallower sections of St. Mary Lake and Lake McDonald. Wildlife would be adversely affected by the use of personal watercraft.</p>
	<p>Cultural Environment: There would be no effects on cultural resources.</p>	Not applicable	<p>Cultural Environment: There would be no direct effects on cultural resources.</p>
	<p>Socioeconomic Environment: Negligible effect on visitor expenditures, and action would benefit most visitors and landowners.</p>	Not applicable	<p>Socioeconomic Environment: There would be no effect on the local and regional economy; use of personal watercraft would adversely affect local and national visitors seeking a traditional experience in the park. Effects on landowners would be similar to those on visitors except for those landowners who owned and wanted to use a personal watercraft.</p>
LEVEL OF WINTER USE			
	Prepare for More Winter Day Use	Increase Winter Opportunities to Include Overnight Accommodations	Status Quo
	<p>Natural Environment: There would be no adverse effects on water quality, scenic resources, aquatic resources, soils, or vegetation.</p> <p>Wildlife, including some federally listed and state-rare species, could be adversely affected.</p> <p>However, with mitigation such as monitoring, this alternative would not be likely to have adverse effects on federally listed wildlife species.</p>	<p>Natural Environment: There would be no adverse effects on most natural resources, but some adverse effect on natural sounds would result from increased numbers of people in the area.</p> <p>Wildlife, including some federally listed and state-rare species, could be adversely affected by increased winter use.</p>	<p>Natural Environment: There would be no adverse effects on water quality, scenic resources, aquatic resources, air quality, soils, vegetation, or natural sounds.</p> <p>Wildlife, including federally listed and state-rare species, could be adversely affected by increased winter use.</p>
	<p>Cultural Environment: There would be no effects on cultural resources.</p>	<p>Cultural Environment: There would be no effects on cultural resources. Historic structures could benefit since maintaining constant temperature throughout the year would provide better protection.</p>	<p>Cultural Environment: There could be indirect negative effects on cultural resources from lack of maintenance during winter.</p>
	<p>Socioeconomic Environment: This action would stimulate some increase in visitor expenditures and provide new experiences for visitors, but increased use in the area would increase the chance of vandalism to private properties. Conversely, increased use may discourage vandalism.</p>	<p>Socioeconomic Environment: The park's beneficial contribution to local and regional economies would continue; visitor spending would generate additional visitor spending. Winter facilities outside the park could be adversely affected if visitors preferred to stay inside the park.</p>	<p>Socioeconomic Environment: There would be no effect on local and regional economies or on landowners.</p>

TABLE 2: SUMMARY OF IMPACTS (continued)

ALTERNATIVE A1 — PREFERRED	ALTERNATIVE A — PREFERRED	ALTERNATIVE B — OTHER	NO-ACTION ALTERNATIVE
DIVIDE CREEK FLOOD HAZARD			
	Relocate Structures Out of the Flood Hazard Zone	Channelize Divide Creek	Status Quo
	<p>Natural Environment: Removing development from the Divide Creek floodplain would have a beneficial effect on water quality, scenic resources, aquatic resources, soils, and vegetation.</p> <p>Removing facilities from the Divide Creek flood hazard area and reclamation of the area would provide additional habitat for wildlife, including federally listed and state-rare species, resulting in a positive effect. Beneficial effects would extend beyond the boundaries of the reclaimed area because employee use of the surrounding area would decline. Impacts would depend on the sites chosen for relocation. Further analysis would be completed as part of the site-selection process. This alternative would not be likely to have adverse effects on federally listed wildlife species.</p>	<p>Natural Environment: Significant adverse effects could be expected on floodplains, wetlands, water quality, aquatic resources, scenic resources, and soils.</p> <p>Channelization of Divide Creek would not have any additional effects on wildlife, including federally listed and state-rare species. Animals would continue to avoid this area of concentrated human activity.</p>	<p>Natural Environment: There would be significant adverse effects on water quality from continued development adjacent to Divide Creek, but no effects on scenic resources, air quality, soils, or natural sounds.</p> <p>Continued use of the Divide Creek facilities and Apgar visitor contact station would not result in any additional impacts on wildlife. Animals would continue to be displaced from this area of concentrated human activity.</p>
	<p>Cultural Environment: Removal of the St. Mary maintenance area historic district would result in an adverse effect; further consultation with SHPO and ACHP would be required.</p>	<p>Cultural Environment: There would be no effects on cultural resources.</p>	<p>Cultural Environment: St. Mary maintenance area historic district eventually would be lost.</p>
	<p>Socioeconomic Environment: Relocating facilities in St. Mary or outside the park would benefit the regional economy by increasing total industrial output and would not affect visitors and landowners in the park. Relocating the facilities inside the park would have no effect.</p> <p>Removing facilities from St. Mary would have a small adverse affect on businesses in St. Mary by removing customers from the area, particularly during the winter.</p>	<p>Socioeconomic Environment: The park's beneficial contribution to local and regional economies would continue; visitor spending would remain substantially unchanged.</p>	<p>Socioeconomic Environment: There would be no effect on landowners, visitors, or the regional and local economies unless the area flooded and was relocated</p>
WEST SIDE DISCOVERY CENTER AND MUSEUM			
	Construct a West Side Discovery Center and Museum Inside the Park	Locate Discovery Center and Museum Functions Outside the Park	Status Quo
	<p>Natural Environment: Overall, there would be minimal adverse impacts on scenic resources, vegetation, and soils, provided that mitigation was carried out during construction; there would be no effects on water quality or aquatic resources. State-listed plant species would be avoided or moved as a last resort.</p> <p>Construction associated with visitor center construction would result in temporary disturbance and displacement of many species and a small amount of habitat loss for some species. This alternative would not be likely to adversely affect federally listed species.</p>	<p>Natural Environment: Careful design and construction would mitigate any adverse effects on natural resources.</p> <p>Development of a west side discovery center outside of the park would not affect wildlife, including federally listed and state-rare species, or habitat in the park. Depending on where the facilities were located, wildlife habitat and use outside of the park could be affected. Further analysis would be completed as part of the site-selection process.</p>	<p>Natural Environment: There would be no adverse impacts on water resources, air quality, vegetation, soils, or natural sounds; there would be adverse impacts on scenic resources.</p> <p>The continued use of Apgar contact station would not have any additional effects on wildlife, including federally listed and state-rare species. Animals would continue to be displaced from this area of concentrated human activity.</p>
	<p>Cultural Environment: There would be no adverse effects on cultural resources.</p>	<p>Cultural Environment: There would be no adverse effects on cultural resources.</p>	<p>Cultural Environment: There would be no adverse effects on cultural resources.</p>
	<p>Socioeconomic Environment: The construction project would benefit the economy and create additional jobs; the new visitor center would benefit visitors significantly.</p>	<p>Socioeconomic Environment: The park's beneficial contribution to local and regional economies would continue; visitor spending would remain substantially unchanged. Construction projects would benefit employment and income levels in northwest Montana.</p>	<p>Socioeconomic Environment: There would be no effect on the local and regional economies; all visitors would not benefit from an adequate, easy to find westside visitor center.</p>

