final master plan

may 1977

GLACIER

NATIONAL PARK / MONTANA

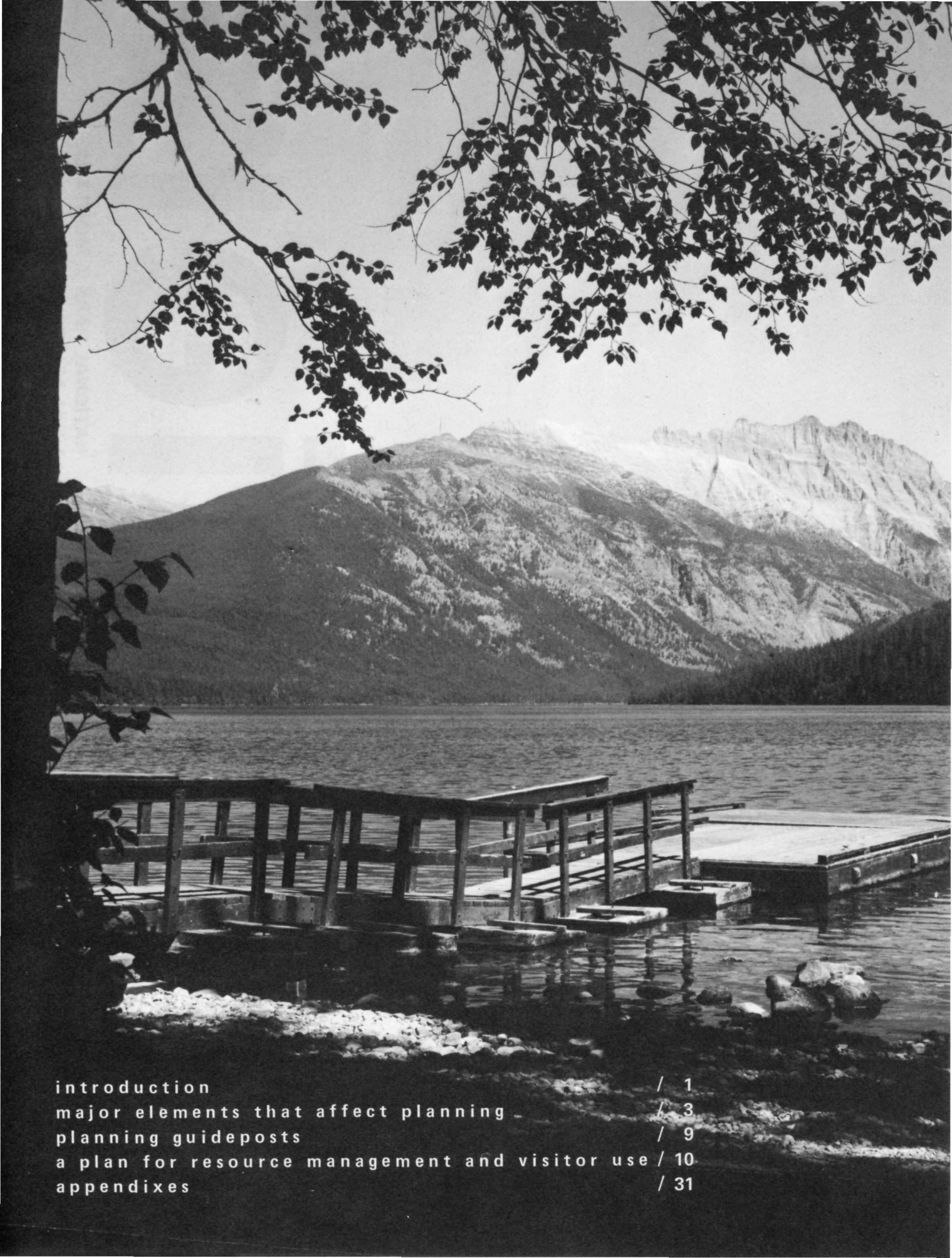
APPROVED:

Glen T. Bean February 24, 1977
Acting Regional Director, Rocky Mountain Region

United States Department of the Interior / National Park Service

glacier

NATIONAL PARK / MONTANA
FINAL MASTER PLAN



introduction

Standing in mute testimony to a complex geologic history, Glacier National Park is a spectacular combination of precipitous peaks, glacier-carved valleys, and mountain glaciers. This stark, ever-changing physiography, complemented by a diverse biotic community, represents a major scientific resource, as well as an esthetic recreational attraction of national significance. Nestled among the mountain peaks are myriad lakes and the remnants of many glaciers. Alpine meadows with their colorful wildflowers provide a delightful contrast to the vast forest girdling the peaks and the knife-edged ridges. The remarkable aggregation of birds and mammals suggests a resource abundance of another era.

The great national parks of the West encompass outstanding examples of mountain formations, usually within the context of a more extensive mountain range. Glacier is typical of these parks in this regard. It is, however, atypical in three important aspects. Its many lakes afford an exceptional opportunity for waterborne transportation. This can be both a means of access and a significant part of the park experience. Secondly, as an international peace park straddling the United States/Canada boundary, it not only serves as an attraction for many Canadian citizens but offers an excellent opportunity for international cooperation in the management and interpretation of our environment. Thirdly, on September 17, 1974, Christian A. Herter, Jr., Special Assistant to the Secretary of State for environmental affairs, designated Glacier National Park to the United Nations Educational, Scientific, Cultural Organization (UNESCO) as a unit of the world biosphere reserve. This international recognition gave the park world stature and significance as a reserve for the preservation of terrestrial environment, international research, and coordination.

This master plan seeks to provide the direction that will underlie future management programs for Glacier National Park. Furthermore, the plan will suggest how these programs can best serve the preservation and use of the resources and how they can benefit the park, the surrounding region, and the two nations that have pooled their natural resources.

A prime consideration will be to maintain the serene wild-land character of the park, while still providing an outstanding experience for both general vacationers and wilderness enthusiasts.

major elements that affect planning

Many factors, both natural and man-induced, affect the resource, influence its use, and modify any endeavor to manage or plan for the future.

MOUNTAINS

With its highest peaks delineating the Continental Divide, the Rocky Mountain range constitutes a formidable barrier in this region; Glacier, as part of that barrier, is split into two quite different environments. Most precipitation falls west of the divide, where the landscape exhibits dense forest, numerous lakes and streams, and an associated complex of glacier-carved valleys. Moisture-laden air from the west is forced upward by the mountains and loses 25 to 30 inches of annual precipitation to the lower elevations, while the upper elevations receive 80 to 100 inches, mostly as snow. Continental air masses influence the climate east of the divide, finding their expression in colder temperatures and less precipitation. The eastern slopes are almost constantly buffeted by winds, frequently of high velocity, while the western valleys enjoy a comparatively gentle climate. Temperatures fluctuate in extremes between -50° and 100° Fahrenheit. Mean annual temperature for the west side is 42°, for the east side 40°.

VEGETATION

Park vegetation is represented by a mosaic of alpine, coniferous forest, and grassland communities. Alpine tundra of the high country is encompassed by extensive conifer forests at lower elevations. Grasslands, meadows, bogs, and other types occur less extensively, in response to local soil and moisture conditions. Frequent snowslides reflect the rugged nature of park terrain and create shrubfields in many areas. Fire must be viewed as one of the most significant natural factors with potential for affecting park vegetation.

WILDLIFE

In his diary, Meriwether Lewis wrote, "the wonderful power of life which these animals possess renders them dreadful. . . we had rather encounter two Indians than meet a single bear." The bear to which Lewis refers is of course the grizzly bear – a creature that perhaps symbolizes the marvelous array of wildlife in Glacier National Park. Over 200 species of birds and 57 species of mammals have been recorded. The park remains a sanctuary for the endangered wolf *(Canis lupus irremotus)* and relatively rare grizzly bear (*Ursus arctos*).

Because wildlife occurs throughout the park, it affects all programs – interpretation, management, development, and use. While it is important for visitors to view the wildlife, the notability of this resource amplifies the importance of maintaining as much of the park as wilderness or near-wilderness as possible.

LAKES AND RIVERS

Water from lakes, streams, and glaciers has carved the land into its present form. These water resources are destination points for visitors, offering views, transportation, fishing, and boating. This aquatic resource totaling some 31,000 acres is an integral part of the park. Many of the high-country lakes were originally devoid of fish; however, exotic and native fishes have been so liberally distributed by man that many of the park's aquatic ecosystems bear little resemblance to those originally present. Additionally, pollution from a variety of sources looms as a threat to the integrity of these water resources.

HISTORIC RESOURCES

In compliance with Executive Order 11593, *Protection and Enhancement of the Cultural Environment,* and the National Historic Preservation Act of 1966, an inventory and evaluation of cultural resources has been accomplished. Among the historic properties to be nominated to the National Register of Historic Places in 1975 are: the Many Glacier and Lake McDonald Hotels operated by Glacier Park, Inc.; the St. Mary Ranger Station, and Granite Park and Sperry Chalets. All other historic resources, including inholder property, acquired by the National Park Service will be evaluated to assure compliance with historic preservation legislation before any action is taken.

MAN-INDUCED ELEMENTS

Man's use of this region has brought about changes in the environment, and those changes, such as the division of land into various management units, created patterns that will remain important factors in park use and management.

Hungry Horse Dam and Reservoir, Libby Dam, and Lake Koocanusa, and Bob Marshall Wilderness provide major recreation resources for the region. Other high-use areas are Big Mountain ski area, and Whitefish and Flathead Lakes.

The international boundary, although not following a natural landform, does affect land use and development. Finally, the large national forest holdings and the Blackfeet Indian Reservation abutting park land are a major influence in management and development programs.

Recreational development by the private sector, by other land management agencies, and by the National Park Service are interdependent. Locations and extent of service require continued cooperative planning to ensure protection of resources and provision of appropriate facilities.

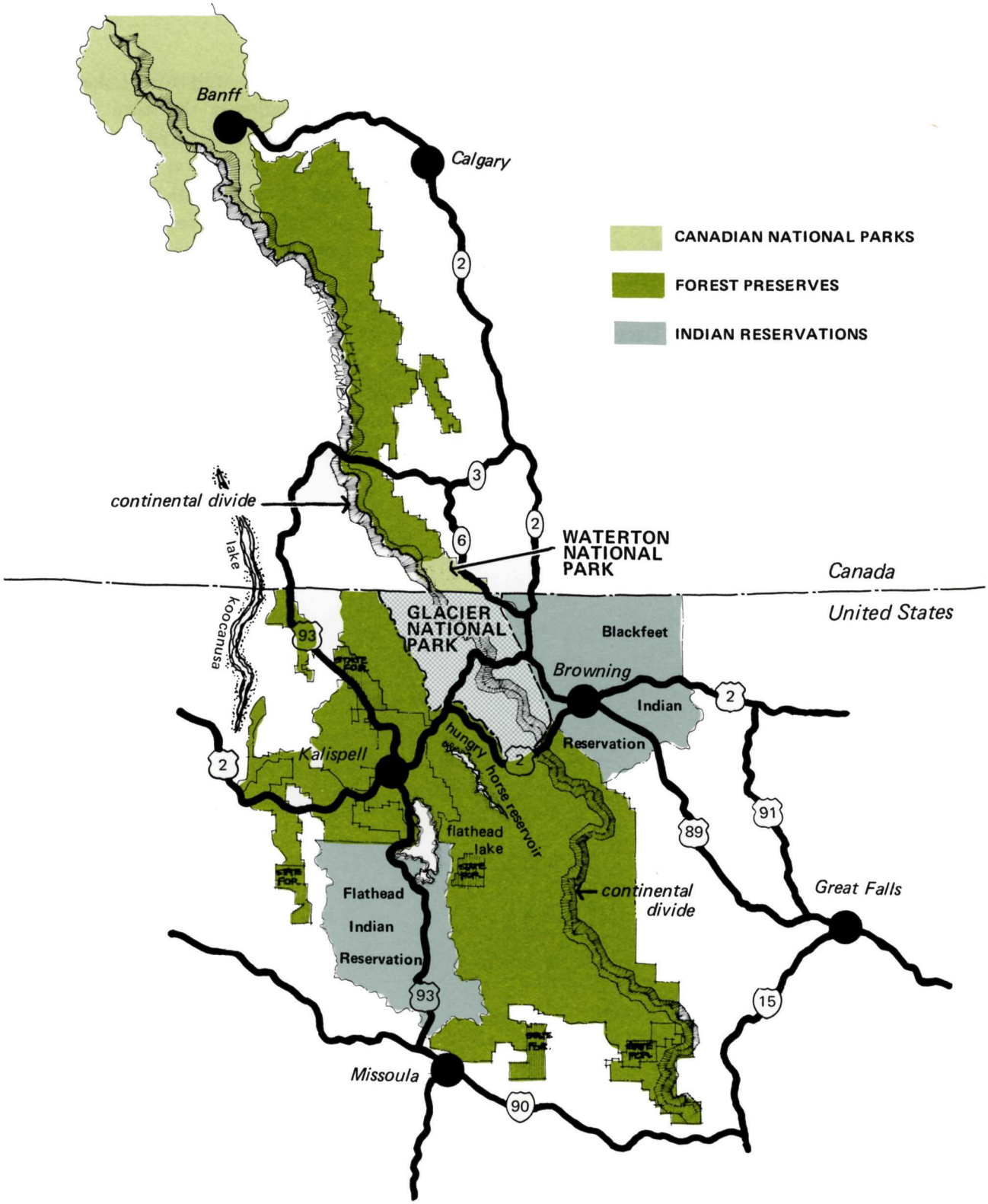
VISITATION

Travel to Glacier continues to increase. Visitation exceeded 1.4 million during 1974, representing a mean annual growth of over 6% since 1960 (724,538 visitors). The park is not adjacent to any metropolitan area, and visitation is, in large measure, tied to transcontinental vacation travel. Throughout the week approximately 25% of these visitors stay in the park overnight at various lodges and campgrounds. Day use is best described as a wilderness threshold experience, with penetration of the wilderness dependent upon the desire and capability of the visitor. Augmenting use of the park road system are excellent opportunities for nature walks and long hikes, as well as horseback riding and boat trips into the heart of the prime resources. Visitor concentrations during the day are most apparent at Many Glacier, which is the hub of the wilderness trails; along Going-to-the-Sun Road, especially at Logan Pass; and at Lake McDonald and Two Medicine Lake.

Glacier's vast wilderness is also receiving heavier use, and resource deterioration is already apparent in some areas. Nearly 28,257 camper days were recorded in the wilderness in 1974, and a continued increase is expected. Two high-country chalets, Granite Park and Sperry, offer food and lodging.

SURROUNDING LANDS

Glacier is the larger portion of Glacier-Waterton Lakes International Peace Park, which constitutes the core of a vast mountain complex that forms the Continental Divide in this area of the Rocky Mountain range and includes superb resources in both Canada and the United States. Much of the complex within Montana is national forest and has been included within the framework of recreation planning. The Blackfeet Indian Reservation, bordering the park on the east, completed a comprehensive plan for the reservation in December 1972 that includes provisions for recreational facilities. The park, however, is the central attraction in the region. As visitation increases, new overnight and day-use facilities will be needed. Adequate space exists for these future developments in locations convenient to all resources outside the park boundaries.



glacier national park

regional map

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planning guideposts

In order to provide for and encourage varied types of resource use in accordance with the objectives stated in the appendix of this report, certain concepts have been accepted as controls for planning.

Park boundaries are considered essentially adequate, except for minor revisions to accommodate such changes as road and railroad realignment. The west and south boundaries follow the Flathead River, a major natural feature. The north boundary is common to the international boundary, and the east boundary borders the Blackfeet Indian Reservation, where no change is anticipated.

The Burlington Northern Railroad, part of the nationwide system of Amtrak, stops daily during the summer near the park boundary at East Glacier Park and West Glacier. It is anticipated that visitors will continue to come to the park by means of rail transportation, either singly or in tour groups. For those visitors arriving or departing by air, commercial transportation is available on a regularly scheduled basis at Glacier International Airport, situated in the Flathead Valley west of the park, and at Great Falls, Montana, to the southeast. The 892 acres acquired by the Service outside the park near East Glacier Park for the purpose of developing an airport is dependent upon relevant environmental considerations.

The general route of the Going-to-the-Sun Road will be a primary location for park interpretation, particularly for visitors who see the park by mechanical transportation or short walks. Flanking this interpretive corridor and occupying much of the park's acreage will be one small and two very large wilderness areas that will be managed to maintain their wilderness character.

Both overnight and day use have been traditional at Glacier; this pattern is considered a desirable part of the park experience and is expected to continue.

Portions of the Flathead River, if considered sufficiently significant by Congress to be included in the National Wild and Scenic Rivers System, will influence park use and development. A compatible use plan involving lands on both sides of the river should be developed by the Forest Service and the National Park Service at the local level.

a plan for resource management and visitor use

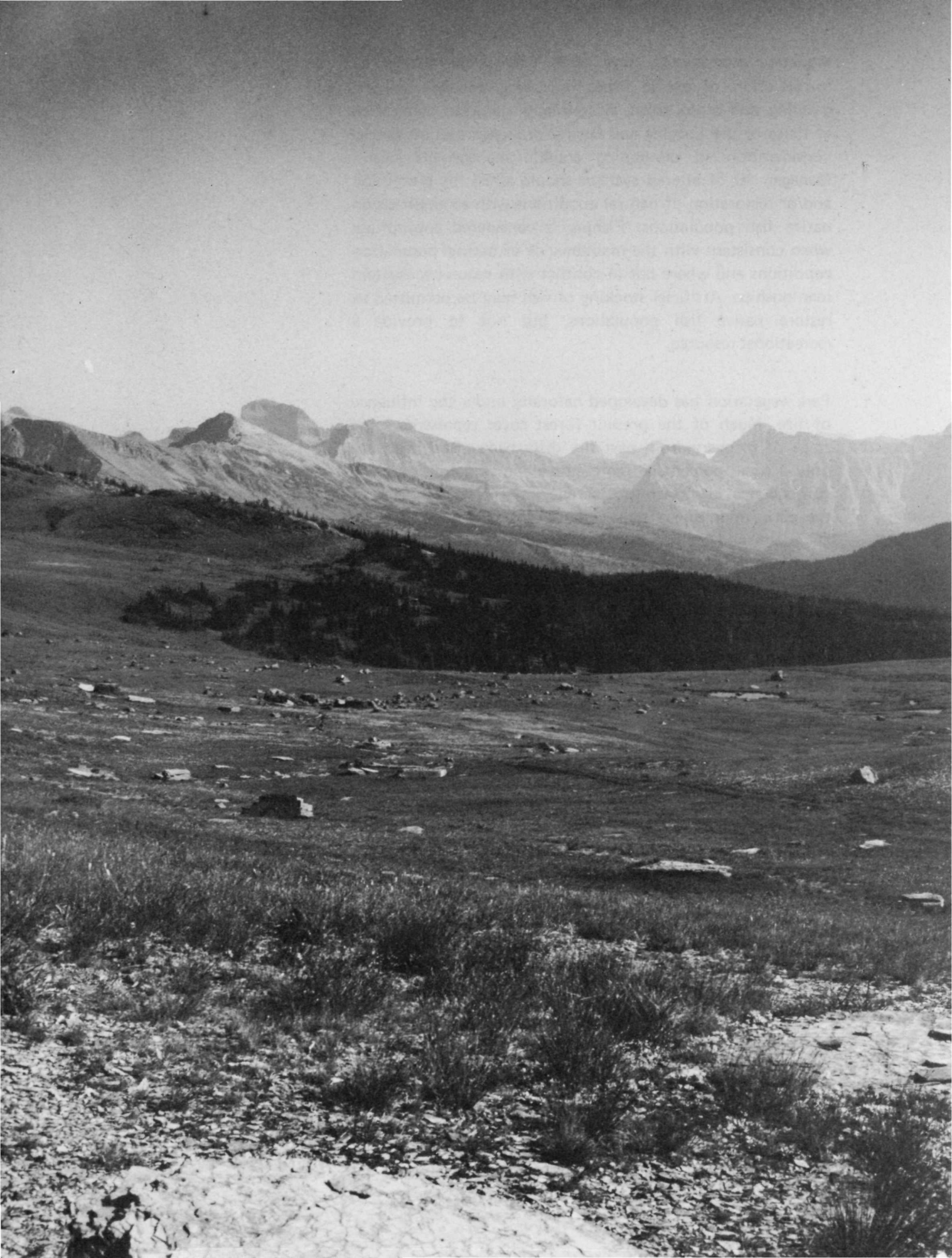
While Glacier National Park has abundant and varied flora and fauna, it is remarkable chiefly for its picturesque peaks, its glaciers, its bold, massive mountain ranges, its gigantic, glacier-scarred precipices, and its charming lakes cradled in deep, glacier-formed valleys. It offers grandeur and solitude where the visitor may find temporary escape from the tempo of modern life.

The primary objective of the master plan is to maintain this esthetic, pristine experience and to preserve the resource that makes it possible. At present the park is regarded fundamentally as a wilderness resource – one that can be enjoyed at many levels. Depending upon his desire, his capabilities, and the time available, the visitor may stay two or more days within the wilderness area, may experience outstanding examples of this area through short hikes, or if his time is short, may view much of this scenic, pristine world from his car or a boat. Thus, this entire park is utilized by people of varied interests. The master plan proposes to continue this basic use pattern.

RESOURCE MANAGEMENT

To guarantee the continuation of the park environment in an unspoiled condition becomes the predominant purpose of the resource management plan.

Because of its isolation and harsh climate, the park largely escaped the initial thrust of the consumptive era that so significantly changed the character of our landscape. Furthermore, interest in establishing Glacier as a national park gained momentum during the first decades of this century, shielding the area from spoliation. Consequently, the resources in Glacier are still largely controlled by environmentally imposed factors. Even with this fortuitous set of circumstances, important elements of the primeval ecosystem are now endangered or completely gone. Most conspicuous of these species are the missing bison and the endangered wolf.



Aquatic ecosystems have been extensively altered by introduction of exotic fishes, including kokanee salmon, grayling, and brook trout. Accordingly, natural systems such as those of the Logging and Quartz drainages require special consideration in developing aquatic management plans. Management of altered systems should stress the protection and/or restoration of natural conditions with an emphasis on native fish populations. Fishing is considered appropriate when consistent with the maintenance of natural population conditions and where not in conflict with natural ecosystem relationships. Artificial stocking of fish may be permitted to restore native fish populations, but not to provide a recreational resource.

Park vegetation has developed naturally under the influence of fire. Much of the present forest cover represents some stage of recovery from past fire disturbance, and probably only a small percentage represents a climax condition. As a consequence of fire-control activity, after establishment of the park, middle-aged seral communities have become more abundant, and the natural dynamics of park ecosystems have been distorted. There is a need for continued study and research in local fire ecology. Development of some biotic communities is known to depend largely upon periodic fires; accordingly, there is a need to develop a management plan that will reestablish the role of natural fire in the environment without hazard to life or property and without destruction of those unique ecosystems that could be destroyed by fire.

With the increase in visitation and the resulting concentration of use, the impact of water collection and sewage disposal systems becomes a concern. This is particularly true in alpine regions such as Logan Pass and Granite Park and Sperry Chalets, where soil depth is shallow and plant cover fragile. Particular care will be taken to ensure that any future utility services do not alter or mar the landscape. The overhead power and telephone lines in the St. Mary, Many Glacier, Cut Bank, and Two Medicine areas should be placed underground to avoid visual intrusion.

The park's lakeshores and streambanks are fragile resources in that they are the focus of visitor use and thus tend to be overdeveloped. A review of existing facilities bordering lakeshores and streams will be undertaken, and a plan developed that will identify intrusions that are not compatible with the primary purpose and use of the area. Moreover, a buffer zone will be provided between the high-water line and any future development.

There is increased concern over resource damage originating outside the park. Most obvious is the fluoride pollution from nearby Columbia Falls and possible degradation of the North Fork of the Flathead River from the Cabin Creek coal fields in British Columbia, Canada. Industrial expansion in the surrounding areas may be expected to alter ecological relationships in the future. Future planning must do more than merely identify the problem; quantitative evaluation will be necessary.

The international boundary between Glacier and Waterton Lakes National Parks has historically been marked by a narrow strip cut through the forest cover. This delineation has recently been accomplished by the use of herbicides. In addition to being a serious threat to fragile resources on both sides of the boundary – particularly to birdlife – it is an unnatural feature intruding into a magnificent resource of international value. Furthermore, it is inconsistent with the tenor of an international peace park, especially where cooperation between the United States and Canada concerning environmental problems is of primary importance. If it is necessary to maintain a boundary swath, other methods should be practiced that are environmentally acceptable. The result will be an international peace park that will, in fact, be a single contiguous ecological unit.

As a natural area, efforts have been made to identify the especially valuable and fragile aspects of the resource. Several areas have been identified as exemplary for their potential contribution to scientific research and for their importance to public understanding as well. They therefore qualify as research natural areas. In Glacier these include sites valued for their geologic, aquatic, or biologic uniqueness. Whatever restraints are deemed necessary by management to preserve these areas will be implemented.

UNESCO's International Coordinating Council for the program on man and the biosphere recently designated Glacier National Park as a biosphere reserve. The objectives of this designation are to provide, "coordinated international research activities," that "specific locations be identified for performing studies. . . conducted of living, changing plant and animal systems, how they relate to each other, and how man's activities offset and are affected by them. . . ." Furthermore, "to assure that genetic material they represent will not be lost . . . to use them as locations for monitoring trends and conditions in the terrestrial environment."

Since the major part of the park is roadless, a study of the potential wilderness has been completed in accordance with legislative requirements and with the basic concepts discussed

in this master plan. The wilderness proposal was submitted to Congress by the President on June 13, 1974. The proposal recommended 927,550 acres for wilderness with an additional 3,360 acres identified as potential wilderness, which would become wilderness when their nonconforming uses were eliminated. Park management policies carried out by the Canadian government are similar to those of the United States, including a classification of land very similar to our wilderness classification.

VISITOR USE

Persons visiting a major natural park such as the Waterton-Glacier complex can generally be divided into three groups. The first, and by far the largest, spends one or more days in the park following the main, well-traveled routes to attractions such as Logan Pass, Many Glacier, and Lake McDonald. This group of people may also hike short distances on the nature trails and take advantage of a boat tour, but their overall goal lies in seeing the park's resources from convenient, formally developed areas and viewpoints. The second group leaves the main routes to reach the more secluded wilderness threshold areas, where the scale of development is more intimate and where they can experience closer contact with nature. They may hike short distances as well. The third, and smallest, group is characterized by the wilderness user who will spend two or more days hiking, horseback riding, and camping in the wilderness.

The concept of use and development for Glacier seeks to provide opportunities for recreation for each of these groups in a manner appropriate to the resource and to the basic philosophy of maintaining a pleasant wilderness atmosphere. Particular care must be taken, however, to minimize intrusions into the park's sensitive resource areas, such as prime grizzly bear habitat.

Basic to these park experiences is interpretation. Here the goals are to arouse the visitor's interest and intensify his enjoyment of the many resource elements. In order to attain these goals, the program must be flexible and capable of responding to new interpretive opportunities and changing needs. The park is its own museum and interpretation must be accomplished throughout, with the purpose of developing an appreciation and sensitivity for park resources even though this interpretation may occur in a formal structure.

At the major entrances, the visitor will be welcomed and given the opportunity to quickly find what is available to him, the various levels of involvement he may attain, and in what activities he may participate to further enhance his experience. The entrances, however, are not considered the appropriate places for large central museums that detail the many facets of the park's story. Instead, the elements of the Glacier interpretive program will be presented in small sections on site, wherever possible. The extent of facilities will be kept to the minimum to enable the visitor to better see and understand the resource values. They will be located so as to provide introductions to the park's varied levels of activity, including the brief roadside experience, the short walk, the boat ride up a glacial lake, or the overnight hike. Also, information relating to visitor and resource protection will be readily available. Most important, interpretation should encourage the visitor to leave his car and take advantage of the other opportunities available for enjoying

the park. The interpretive aids – whether trails, waysides, or shelters – will utilize different presentation techniques to avoid repetition. Explanations must be brief and understandable; the major emphasis will be encouraging the visitor to have his own encounter with nature.

The success of this interpretive program will depend upon a wide variety of publications, personal services, and a relevance to the needs of management, visitors, and resources.

All facilities will be in keeping with the basic concept of the park's purpose and uses. As a result, the general development concept for the park and its immediate environs falls within a framework consisting of three zones or areas. These generally correspond to the land classification plan included in this report.

Two components, Class IV, Outstanding Natural Areas, and Class V, Primitive Areas, comprise the central core of the park. The park resources combine here in lakes, glaciers, and alpine grandeur, and, collectively, this magnificent array is considered the highpoint for the park visitor. All facilities must conform to one predominant function: to assist the visitor in his comprehension and enjoyment of this great natural spectacle.

A division takes place within this core area, stemming from the manner in which the resource is enjoyed. The wilderness will be used directly by both the day-use visitor and the smaller group that remains one or more nights. The park concessioner provides 654 rooms and units in the park. The park provides approximately 1,200 camping sites at auto campgrounds and 263 wilderness overnight campsites. Three privately owned facilities in the park provide 68 units and cabins for Glacier's visitors. Adjacent to the wilderness are semi-wilderness zones that are accessible by road or other mechanized transit. Activities will vary from a brief encounter with the resource, perhaps two hours or less, to a fuller exploration of the park, lasting several days.

As noted on the accompanying map, visitor use will be concentrated in specific areas: Many Glacier, Lake McDonald, Rising Sun, parts of the North Fork country, Goathaunt (at the south end of Waterton Lake), and Two Medicine. Here the required development necessarily places these lands in either a Class III category, Natural Environment Areas; or, in limited cases, a Class II category, General Outdoor Recreation Areas.

glacier national park

general development concept

wilderness

major access route

visitor support facilities

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Surrounding the park's core is the third component, a band of access roads, parking areas, and visitor support facilities including restaurants, campgrounds, hotels, and other services necessary for the visitor, but not directly associated with the park experience. In some instances, as at Many Glacier, these support facilities lie within the park and directly abut the core areas. These lands are categorized mainly as Class II, General Outdoor Recreation Areas.

Appropriate lodging and facilities are now and will continue to be provided outside the park in locations convenient to destination points within the boundary. As visitation increases, these exterior developments will probably be expanded. Continued liaison between the National Park Service and the surrounding communities, as well as cooperative planning, can ensure appropriately located visitor facilities.

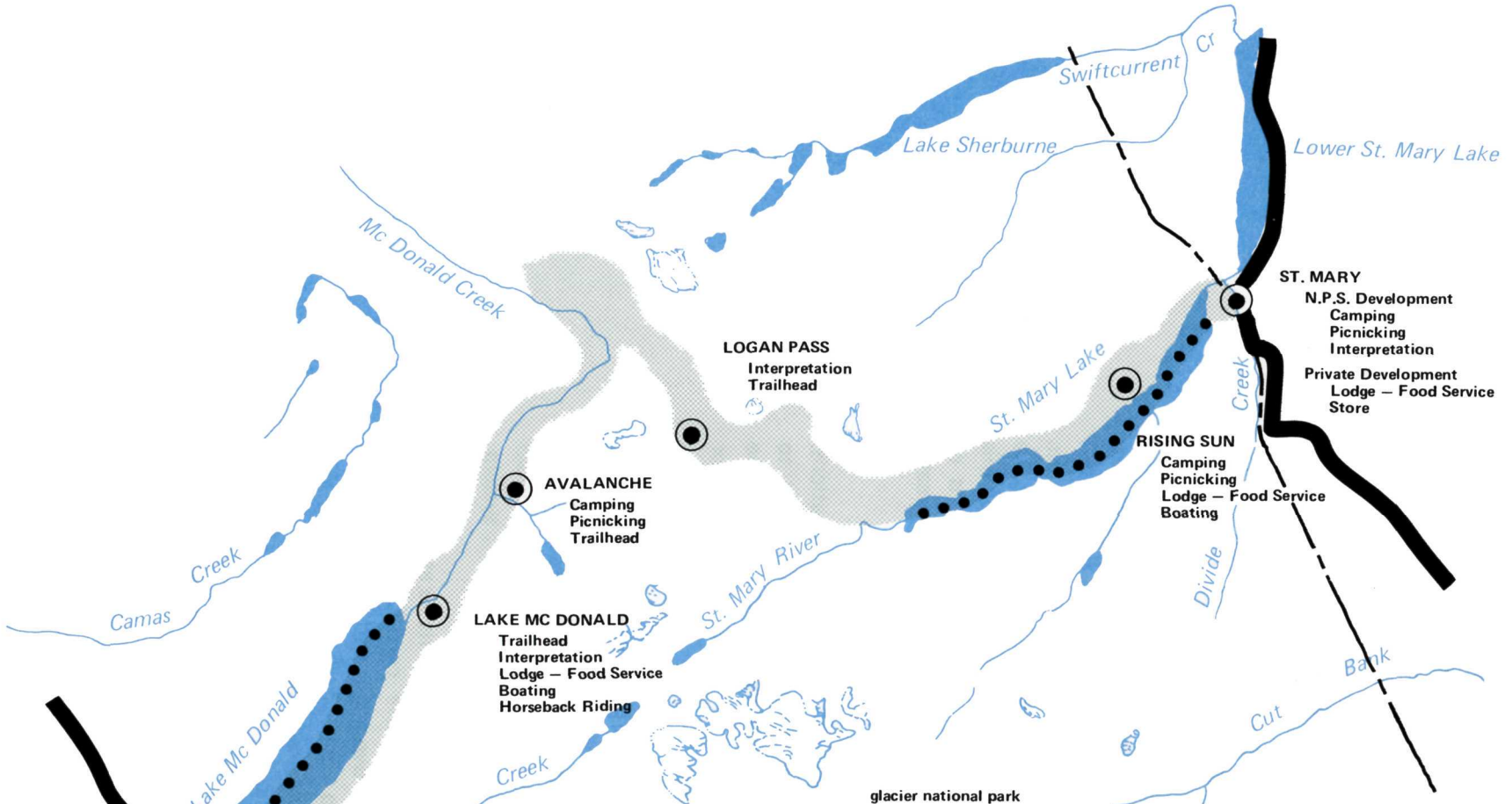
With the general concept of park use as a basis, the resource's capacity to accommodate visitors must be carefully analyzed. The eventual result will determine the total capacity for the entire park – the optimum number of visitors who can enjoy the park without damage to the resources and without diminishing the quality of their experience. This analysis and the resulting capacity figure must be part of a continuing program. As additional data on the resources are obtained, the entire park complex will be monitored to determine the effect of use and whether or not a change in capacity (either up or down) is necessary.

Within the context of this general concept of use and carrying capacity, each major development or region within the park serves a specific function unique unto itself, but part of the total master plan entity.

Going-to-the-Sun Interpretive Corridor

This is the general route of the existing Going-to-the-Sun Road, which will continue to be the main attraction for most visitors. Its purpose is twofold: to offer a cross section of the park features for the enjoyment of day-use visitors and to provide a threshold for wilderness use, both for short walks and extended trips. To comply with the stated requirements of the general development concept, facilities must be confined to those necessary for appreciation of the resources.

Development space is limited and the environment fragile, especially in the higher elevations. Furthermore, the outstanding quality of the resource itself, as well as the



glacier national park

going·to·the·sun

interpretive corridor

interpretive corridor

major access route

boat tour route

park boundary

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potential experience it will provide for the visitor, suggests a departure from the present road access. The goal is to provide for an optimum number of visitors and also to effect an improvement in the quality of the experience now available in this area. The existing road has a limited capacity; is difficult and expensive to maintain; and for the driver of a car, as well as some of the passengers, travel over some portions of the road can at best be described as unsettling.

Thus, it is proposed that a public transit system ultimately serve the Going-to-the-Sun interpretive corridor. The specific vehicle to be used for this transit system will be determined by a special study that will analyze the requirements and recommend a feasible solution. This study will also take into consideration the problems of noise and air pollution, as well as the interpretive potential and the overall esthetic atmosphere. Tourboats on St. Mary Lake and Lake McDonald will become a particularly important part of this system because they will provide an additional means of access to many points around the lakes, and will add greater variety to the activities the visitor may enjoy.

Parking facilities will be provided at suitable locations. Particular consideration must be given in the transit study to concession facilities and campgrounds within the corridor – that is, what method of access (private car or special transit) shall be provided.

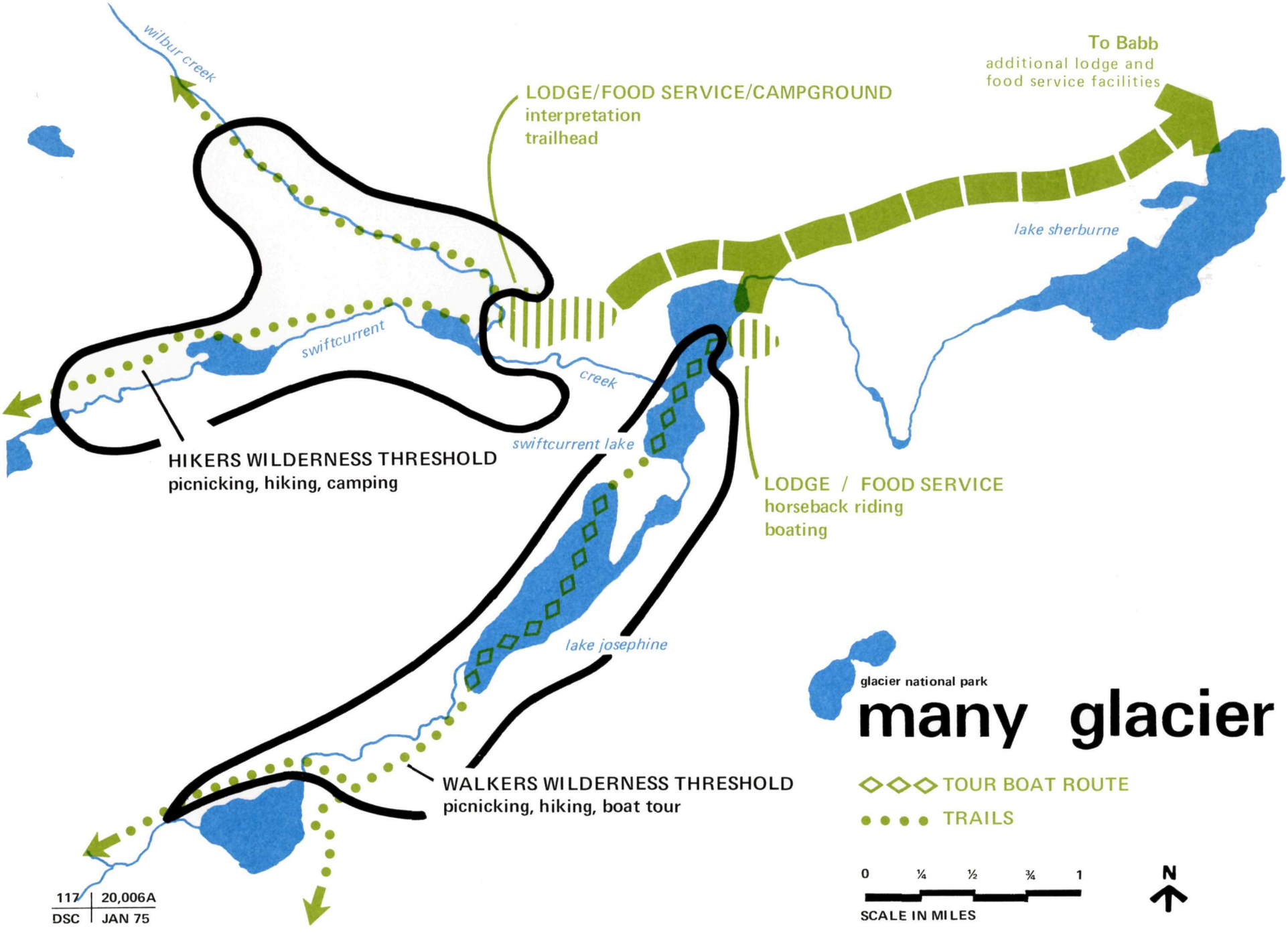
Overnight facilities can be provided at lower elevations, but must remain on a scale intimately associated with the surrounding landscape. Ultimately, these facilities might be served by the transit system. A system of bicycle trails should be constructed to complement the proposed transit system.

The St. Mary and West Glacier developments lie at either end of the Going-to-the-Sun interpretive corridor. They each serve several purposes. As the two major park gateways, they introduce the visitor to the park. A variety of services – camping, picnicking, overnight lodge, stores, and food – will be available at both locations. Although it is anticipated that camping will continue on park lands, most other facilities could be provided either within the park or on adjacent lands.

Logan Pass, approximately in the center of the corridor, will continue to be a destination for visitors. Here many elements of the resource are in view, and the alpine atmosphere may be experienced at close range. The dual problem of resource preservation and visitor use is particularly acute in this fragile

environment. Moreover, interpretive concepts will encourage the visitor to leave his car and enjoy the rocks, plants, and animals at close range — an especially significant opportunity for the urban-oriented visitor. A wooden walkway has been constructed on a portion of the Hidden Lake Trail at Logan Pass on an experimental basis to protect the fragile alpine meadow.

The Rising Sun area on the east side and Lake McDonald on the west side will continue to provide overnight lodge facilities, campgrounds, picnic grounds, camp stores, and food service. Private enterprise outside the park and adjacent to these areas will supplement these visitor service facilities, as appropriate.



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Many Glacier

In this splendid setting there is an extraordinary opportunity for a combination of uses. The area offers some of the most spectacular views in the park, and within a short walk or boat ride the visitor can find himself in the midst of wilderness lakes, forests, waterfalls, and timberline ridges – some of the finest scenery Glacier has to offer. Moreover, Many Glacier is the hub of the park's wilderness trails, and most extended hiking or riding trips begin or end here.

Even with this excellent potential, some problems exist: space is limited, there is considerable wind on many days, and the plant cover is fragile because of short summer seasons. Many Glacier Valley is the principal lambing area for bighorn sheep; therefore, use in this area must be properly controlled.

Following the existing use pattern, the Many Glacier development, composed of lodges, food service, campgrounds, and interpretive facilities is a core area from which the visitor may enjoy the park. With the exception of interpretive/visitor contact facilities, the development provides an adequate service. Thus, while facilities may be upgraded or replaced, their type, amount, and general location will remain the same. And hopefully, any demand for increased visitor services can be provided outside the park. This will be particularly appropriate if the Blackfeet Indians construct new facilities on the lands in the Babb/Lower St. Mary Lake area. Cooperation between the tribe and the Service on this venture will result in distinct advantages for both.

The basin formed by Swiftcurrent Lake, Lake Josephine, and Grinnell Lake is an outstanding wilderness threshold. Walks, in combination with boat tours, lead the visitor immediately into the wilderness. This pattern is proposed to continue.

Swiftcurrent Creek basin offers the hiker more of a wilderness challenge. Although it is available to those who wish a short walk, it is mainly an introduction to the great wilderness region to the north and west. No boats will assist the visitor, and his contact here will be more in terms of the resource itself.

Surrounding the entire complex is the wilderness, to be enjoyed on many levels – from the visitor relaxing on the hotel terrace to the hiker standing on a high pass or mountaintop.

The North Fork

This large portion of the park has received only light use, mainly because of low-standard access roads.

It is proposed that management and development of the North Fork country be geared to that group of visitors who leave the main-traveled routes for the wilderness areas. The emphasis will be placed upon preserving an intimate relationship with the resource – perhaps epitomizing here this master plan's most pervading concept – the serene wilderness experience.

The destination for most visitors will continue to be the Bowman and Kintla Lakes vicinity, more specifically, the outlet areas of each lake. The existing campground at Kintla Lake will be relocated some distance away from its present location on the lakeshore. The main access to Bowman Lake and Kintla Lake will continue to follow the existing narrow, winding, dirt road.

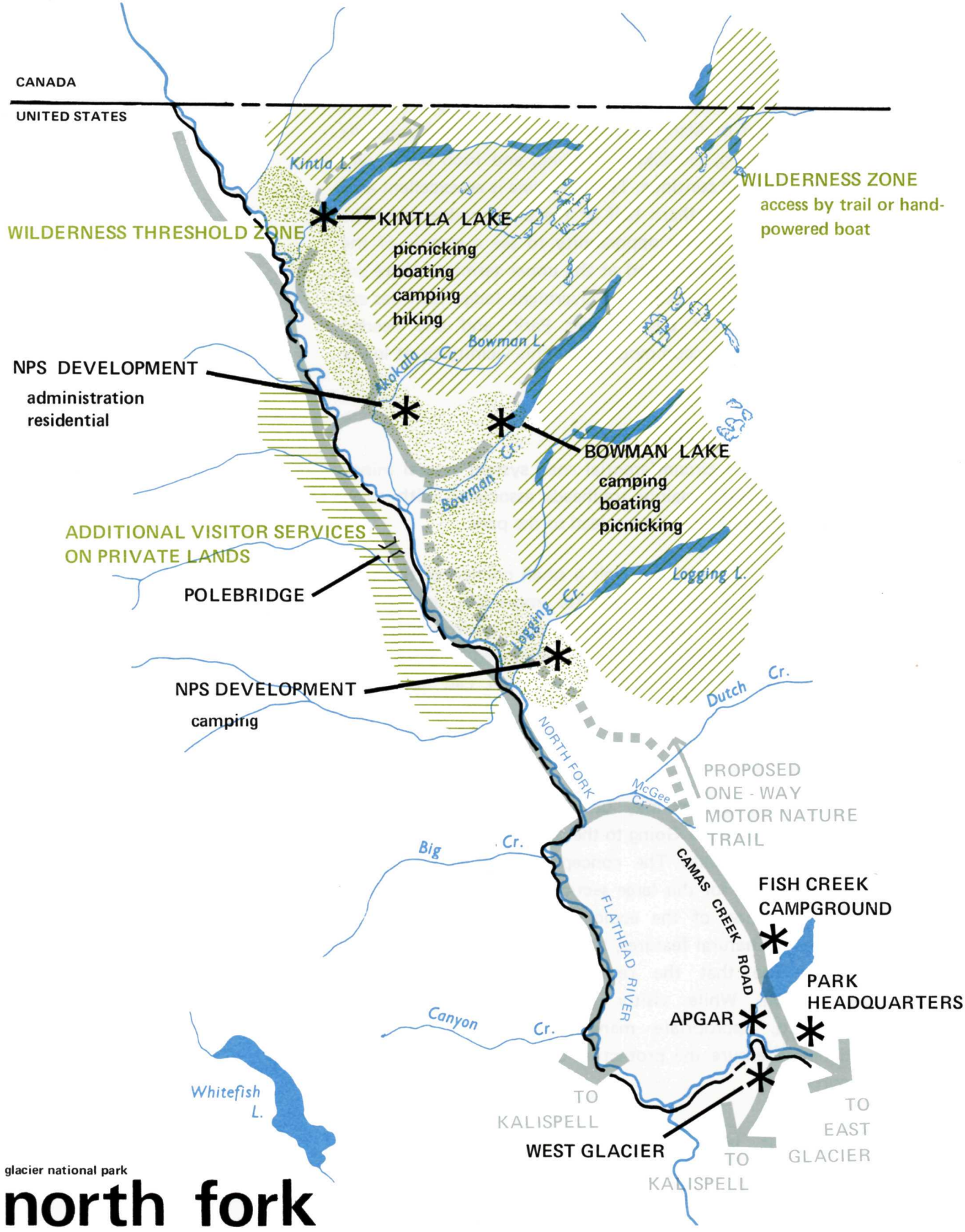
The campgrounds, ranger stations, and related facilities will remain at approximately the same level of development. The main bodies of both lakes have been proposed for wilderness classification.

The Polebridge Ranger Station should continue to be utilized as the principal administrative headquarters for the North Fork area.

The present North Fork road will remain open for visitor use. From Fish Creek to the vicinity of McGee Creek, however, the existing road may be abandoned. From here, an existing spur road would be improved to form a connection with the Camas Creek road. The section of the North Fork road from McGee Creek to the vicinity of Bowman Creek would then be retained as a one-way motor nature trail.

Waterton Lake

The major portion of this lake lies in Canada within Waterton Lakes National Park. The community of Waterton offers a wide range of visitor services, from hotels and restaurants to gift shops, boat rentals, and gas stations. That part of Waterton Lake that lies within Glacier National Park is an excellent wilderness threshold for visitors arriving on tourboats or privately owned craft from Waterton Townsite. Goathaunt, at the southern terminus of the lake, is an excellent springboard to wilderness travel.



glacier national park

north fork

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Two Medicine

Oriented to the lake, the purpose of this development is similar to that of Many Glacier, but on a smaller scale. At present, camping, picnicking, boating, and food service are available and will continue. Two Medicine is an excellent area for viewing the southern half of the park's wilderness. The boat tours provide the opportunity to see a sample of the park's prime resources, and at the upper terminus there are opportunities for short walks. Overnight lodge facilities are available nearby at East Glacier Park, and any needed expansion can be accommodated in this vicinity or at lower Two Medicine.

Peripheral Development

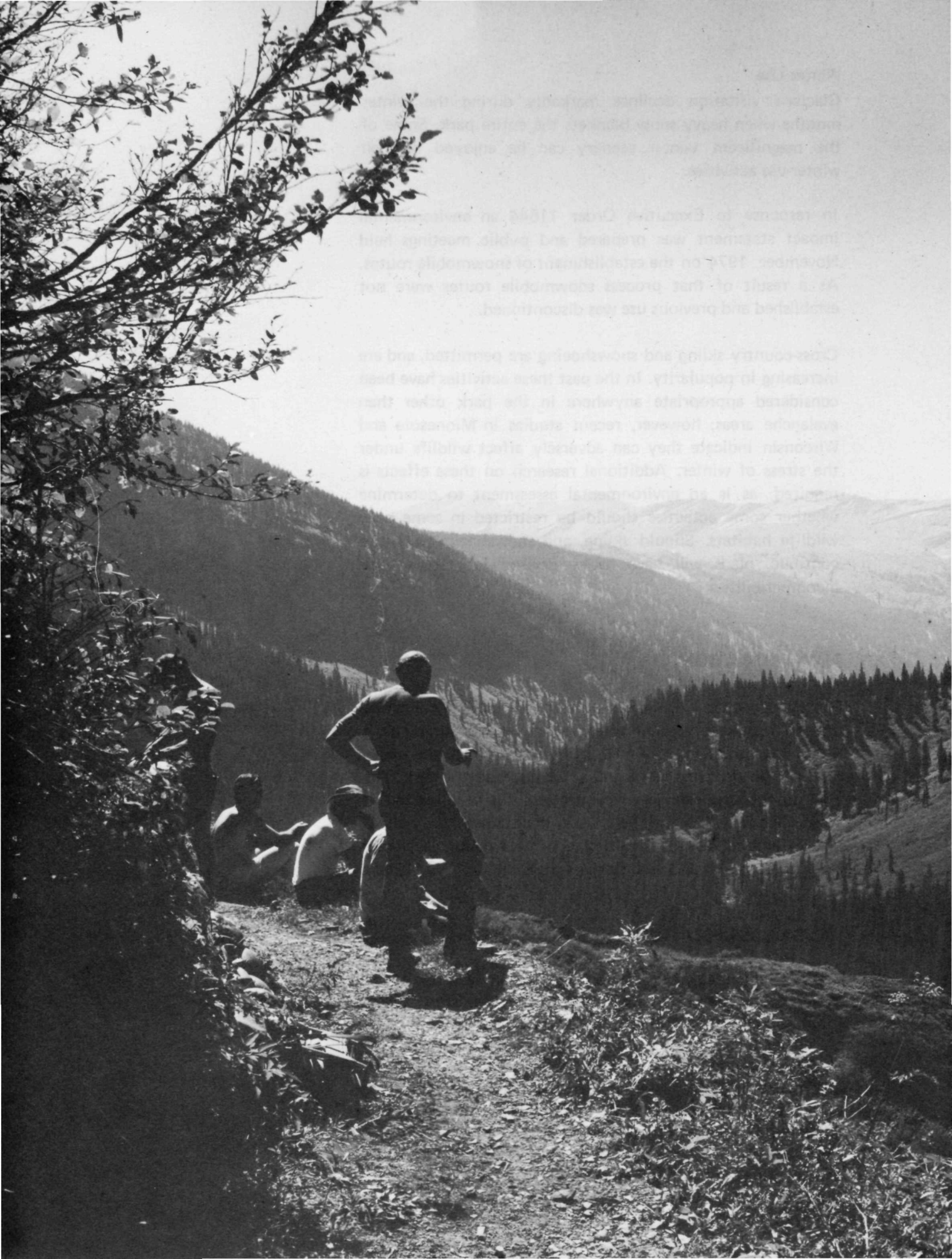
From the park's circumferential road system several minor vehicular accesses, mainly trailheads associated with small campgrounds and picnic areas, lead to the park.

U.S. Highway 2 passes through a small portion of the park that contains a mineral lick for mountain goats. This important part of the mountain goat environment will require special attention if U.S. 2 is relocated, to ensure that the area is accessible to the animals. It can also be a significant interpretive feature.

The Wilderness

The park's wilderness may be enjoyed from appropriate viewpoints along the Going-to-the-Sun Road and peripheral roads or from trails. The concept underlying the master plan's proposals for this large section of the park emphasizes the continuation of the ecological processes that created these unique natural features, and allows only that level and type of use that the resource can tolerate without deterioration. While visitor use will continue to be encouraged, appropriate management restraints will be initiated to ensure the protection of the wilderness' natural resources.

Although it is desirable to retain large park areas uninterrupted by developments, certain parts of the wilderness can be designated and managed for a specific level of use. Granite Park and Sperry Chalets allow the wilderness traveler to experience Glacier's wild lands without the usual specialized knowledge or encumbering equipment. It is proposed that this type of use be continued.



Winter Use

Glacier's visitation declines markedly during the winter months when heavy snow blankets the entire park. Some of the magnificent winter scenery can be enjoyed through winter-use activities.

In response to Executive Order 11644 an environmental impact statement was prepared and public meetings held November, 1974 on the establishment of snowmobile routes. As a result of that process snowmobile routes were not established and previous use was discontinued.

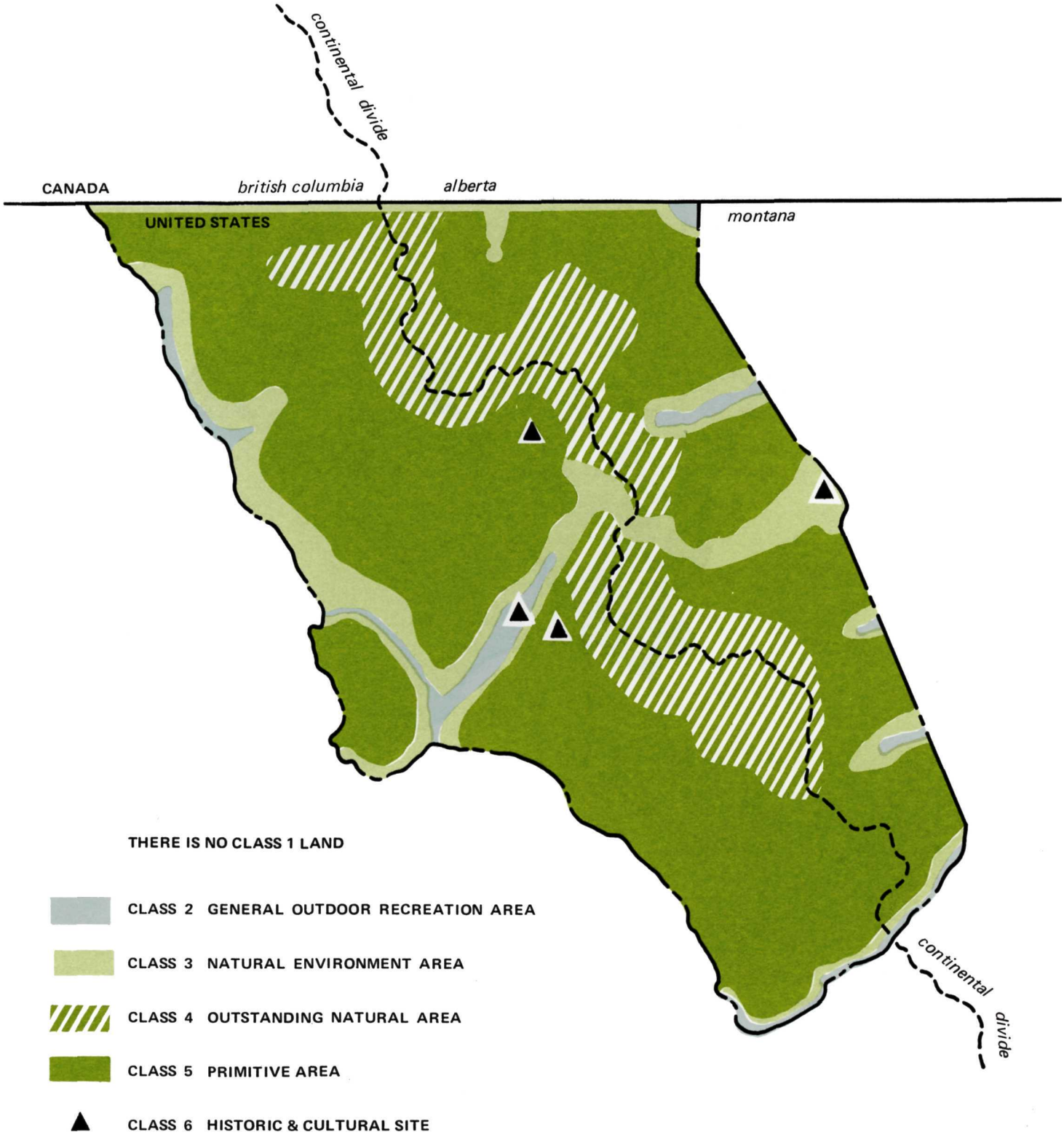
Cross-country skiing and snowshoeing are permitted, and are increasing in popularity. In the past these activities have been considered appropriate anywhere in the park other than avalanche areas; however, recent studies in Minnesota and Wisconsin indicate they can adversely affect wildlife under the stress of winter. Additional research on these effects is required, as is an environmental assessment to determine whether some activities should be restricted in some park wildlife habitats. Should skiing, and snowshoeing activities continue, plans will have to be devised to resolve their incompatibilities.

ADMINISTRATION

Facilities needed for administration of the park include offices, residences, maintenance areas, and accompanying utility systems. These are now located away from the major resources in peripheral sites and at sites outside the park. The plan proposes no change in this pattern. The headquarters at West Glacier will continue to be maintained, as well as district and subdistrict facilities in or near major developed areas on both east and west sides of the park.

LAND CLASSIFICATION

The recommended programs for management and use of the irreplaceable natural values of Glacier-Waterton Lakes International Peace Park are coordinated with the park lands use concept described by the Outdoor Recreation Resources Review Commission in its land classification system. The accompanying map classifies all park lands in accordance with this system and with the master plan proposals in this document. If implemented, these will set a pattern for future management, and ensure the park's continuance as an unspoiled example of the great natural heritage of both the United States and Canada.



glacier national park

land classification

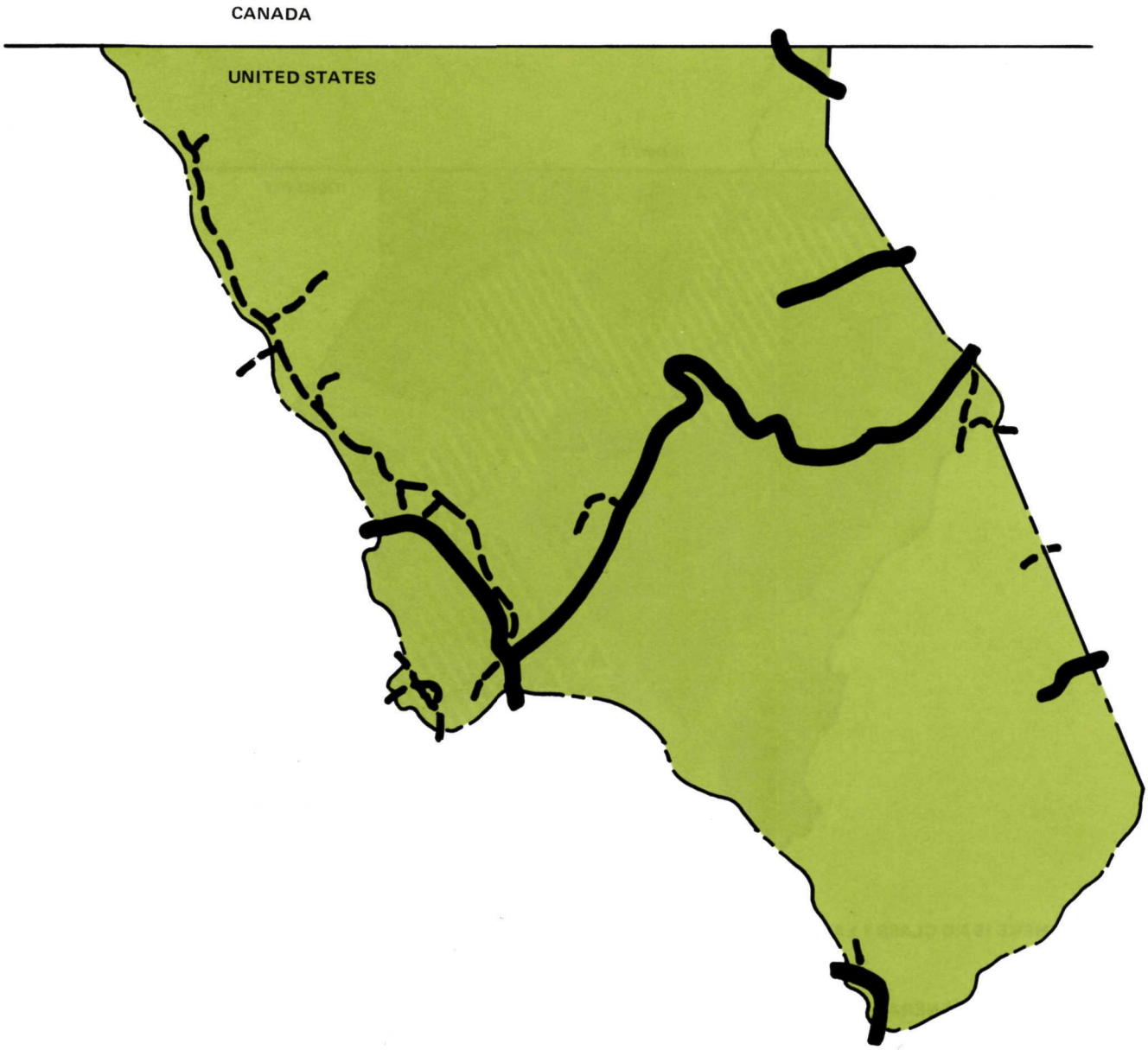
0 5 10 15

SCALE IN MILES

N

117	20,008A
DSC	JAN 75

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE



glacier national park

existing circulation

MAJOR ROADS

UNPAVED ROADS

0 5 10 15

SCALE IN MILES

N

117	20,009A
DSC	JAN 75

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appendixes

A: MANAGEMENT STATEMENT

B: LEGISLATIVE DATA

C: BIBLIOGRAPHY

D: STUDY PARTICIPANTS

APPENDIX A: MANAGEMENT STATEMENT

The following objectives presented by the superintendent of Glacier National Park reflect park management's needs and goals relative to this master plan.

Purpose

Glacier National Park, the larger portion of Glacier-Waterton Lakes International Peace Park, will be managed in accordance with the management policies for a natural area:

> To preserve an outstanding mountain area, characterized by spectacular northern Rocky Mountain topography, active glaciers, and unique plant and animal communities.
>
> To enable all visitors to derive benefit and enjoyment from their visit.

Objectives

General Management:

Glacier will be managed on a year-round-use basis.

Management of the park will be geared to maximum enjoyment of the resources by visitors from May 30 through October 15. From December 15 through March 15, winter use of the park will be encouraged where appropriate and in keeping with Service policies and objectives.

Management of the park will continue to be centralized at West Glacier park headquarters. This complex will support the east and west side districts.

Cooperative activities with Waterton Lakes National Park, Canada, will be promoted to revitalize and make the world's first international peace park more meaningful. This will be exemplified by exchange interpretive programs, joint brochure and other publications when feasible, interrelated exhibits and signs, and joint efforts to promote the universal values of parks to citizens of the world.

Park management and development, to the greatest degree possible, must be keyed to and coordinated with the plans and activities of adjacent land management agencies for recreation, camping, and other outdoor activities outside the park.

Acquisition of all the privately owned lands within the park is a definite goal. Acquisition of private lands will be geared to:

Opportunity buying.

Halting nonconforming uses.

Preservation of natural area objectives.

Within the policy framework noted above, private lands within the Lake McDonald portion of the park should be acquired as first priority and structures should be removed as soon after purchase as is practicable.

Resource Management:
Park ecosystems will be managed to protect, preserve, or restore, where necessary, natural biotic relationships for the scenic, educational, and scientific benefit of the visiting public.

Management of the wildlife and fishery resources will emphasize natural population control and minimize the human-use factor, which creates undue population stress or contributes to undue visitor risk.

Management of the soil and vegetation resource will be guided by application of a visitor-carrying-capacity concept to control ecosystem impact at an acceptable level.

Further alteration of scenic lakeshores or streambanks by physical development will not be undertaken.

Examination will be made of possible sources of air and water pollution, and recommendations made on management programs to reduce ecosystem impact to an acceptable level.

Historical Resources:
Revitalize Glacier National Park's historical resource program, which includes archives, historical structures, and sites.

Visitor Use:
Going-to-the-Sun Road over Logan Pass will be kept open for visitor use between mid-June and mid-October of each year. East-side roads will be open to visitors between mid-May and mid-October of each year.

To maintain and perpetuate a winter experience, most park roads will remain unplowed in winter. Use of over-the-snow vehicles may be allowed under permit, but would be restricted to selected unplowed roadways.

Sprague Creek Campground on the shores of Lake McDonald will continue to be designated for tent camping only.

A wilderness management plan will be prepared that will provide appropriate technical direction and will accomplish objectives of wilderness preservation and use within the framework of existing policy.

To fully experience the park's semi-wilderness areas, opportunities to take short hikes should be expanded. This does not necessarily mean new trails, but improved trails and trailheads around centers of visitor activity and along the interpretive corridor. New trail construction will be held to a minimum.

Trails identified as leading into prime grizzly bear habitat will be studied to determine the effect of visitor use on that habitat.

Logan Pass will continue to operate as a day-use area.

The Red Eagle Creek area near the St. Mary development offers good potential as an interpretive demonstration area. Low, rolling, forested moraines with interspersed meadows and beaver ponds offer possibilities of a motor nature trail, bicycle routes, short nature trails, and an expanded environmental interpretation and national environmental study area opportunities.

Operation of concessioner boat tours on Lake McDonald, St. Mary Lake, Two Medicine Lake, Swiftcurrent Lake, Josephine Lake, and Waterton Lake will be continued.

Concession saddle-horse operations will be based in the vicinity of Apgar, Lake McDonald Lodge, and Many Glacier.

Concessioner-provided overnight accommodations are considered adequate. Modernization and upgrading of existing facilities is a key objective.

Except for the campground, Two Medicine will continue to operate as a day-use area.

Interpretation:
The interpretive program for Glacier National Park is to present to the park visitor through quality interpretation the human history of Glacier, as well as the story of the flora, fauna, and the glaciation exemplified in this park.

An environmental awareness philosophy will be integrated into all phases of park management and communicated to the public through the interpretive program. To accomplish this, means should be explored that will encourage the visitor to leave his car and experience the park resources at a closer range.

10. Glacier National Park

Act of May 11, 1910, establishing Glacier National Park in the Rocky Mountains south of the International Boundary Line in Montana.....

Act of Legislature of Montana, approved February 17, 1911, ceding to the United States exclusive jurisdiction over Glacier National Park.....

Act of August 22, 1914, accepting cession by Montana of exclusive jurisdiction over lands embraced within the Glacier National Park.....

Act of Legislature of Montana, approved March 6, 1919, amending State general fish and game laws to provide that licenses issued thereunder shall not entitle holder to hunt in any national park within the State of Montana.....

Act of Legislature of Montana, approved February 27, 1929, granting to the United States concurrent police jurisdiction over rights of way of Blackfeet Highway and over rights of way of its connections with Glacier National Park Road System on the Blackfeet Indian Reservation in the State of Montana.....

Act of May 2, 1932, accepting grant by Montana of concurrent police jurisdiction over rights of way of Blackfeet Highway and over rights of way of its connections with Glacier National Park Road System on the Blackfeet Indian Reservation in the State of Montana.....

Excerpt from Sundry Civil Act of March 4, 1911, authorizing expenditure of proceeds of leases, etc., in the administration of roads, etc., in the Glacier National Park.....

Act of February 10, 1912, authorizing the withdrawal from entry or sale not to exceed five acres of land within the town site of Midvale, Mont., for use in administrative purposes of Glacier National Park.....

Act of February 27, 1915, authorizing the Great Northern Railway Company to revise the location of its right of way, all lands north of the north line of the revised right of way being excluded from the Lewis and Clark National Forest and made a part of the Glacier National Park.....

Excerpt from Sundry Civil Act o July 1, 1916, authorizing acceptance of patented lands or rights of way over patented lands in Glacier National Park that may be donated for park purposes.....

Act of July 3, 1916, providing for relief of certain homestead entrymen for land within the Glacier National Park.....

Act of March 2, 1917, authorizing the sale of certain lands at or near Belton, Mont., for hotel purposes.....

Act of March 3, 1917, authorizing the exchange of lands with owners of private lands within Glacier National Park.....

Act of February 28, 1923, authorizing an exchange of lands with owners of private holdings within the Glacier National Park.....

Excerpt from Sundry Civil Act of June 12, 1917, authorizing acceptance of buildings, moneys, or other property which may be useful in betterment of administration of the Glacier National Park.....

Act of March 23, 1928, for the relief of Fannie M. Hollingsworth.....

Excerpts from act of January 26, 1931, to provide for uniform administration of the national parks, prohibiting permits for summer homes and acquisition of rights of way for steam or electric railways within the Glacier National Park.....

Act of May 2, 1932, establishing the Waterton-Glacier International Peace Park.....

Resume of Legislation Since 1932

May 2, 1932	Blackfeet Highway and connections, concurrent police jurisdiction, administrative control and jurisdiction of Secretary of the Interior.
July 31, 1939	Establishment of fish hatchery.
December 13, 1944	Elimination of fish hatchery.
August 8,1946	Authorization to exchange Federal lands or property for non-Federal lands or property with the park.
March 16, 1948	Authorization to acquire lands, buildings, or other real and personal property from the State of Montana.

December 16, 1930)	
June 25, 1948)	
June 25, 1948)	Various sections of earlier acts repealed.
June 25, 1948)	
May 24, 1949)	

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APPENDIX D: STUDY PARTICIPANTS

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