CHUGACH STATE PARK MASTER PLAN



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prepared by Alaska Division of Parks Department of Natural Resources

FEBRUARY 1980

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF PARKS

JAY S. HAMMOND, GOVERNOR

619 Warehouse Dr., Suite 210 Anchorage, Alaska 99501

January 30, 1980

Dear Reader:

To have created the 490,000 acre Chugach State Park in direct juxtaposition with our largest city, Anchorage, must stand as one of the most significant actions ever taken by the Alaska State Legislature. Like some great pressure release valve, this accessible wilderness is available for relief from the rush of urban living. With full recognition of the value of Alaska's second largest State park, our former Director, Terry A. McWilliams, instructed her staff to approach the job of determining the future use of this area with the highest care. I fully agree with her concern in the development of this master plan.

A fully two years of labor went into this document: inventorying the park's features, resources, and use patterns; determining options for development and use; conducting eight public meetings; numerous public presentations and copious reviews. I'm thrilled with the results. I believe that the art of planning is to simply imagine possible futures and to grasp the practical ideal. This master plan is that ideal.

It must be remembered that Chugach State Park is not intended to provide all recreational opportunities for a population of infinite size. The park is too fragile. Rather, the intent is to provide a spectrum of recreational opportunities necessary to maintain both human values and the natural values of the park. Included here are the chances to associate with nature without having to travel long distances, the opportunities to be free from mankind's noise and structures, to observe wildlife in its natural state, a chance to share these experiences with friends and family, and a chance to be alone.

This plan properly balances use and development with natural, cultural and scenic values of the park.

Chip Deaperlein

Director

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FOREWORD

The master plan for Chugach State Park is being published at this time with full knowledge that many of the uses proposed for the northern part of the park may never be implemented. Approximately ten percent of the park's 495,000 acres have been selected by Eklutna, Inc., and may pass into private ownership as part of the 1971 Alaska Native Claims Settlement Act. This area includes Eklutna Lake and most of Eagle River between the existing Eagle River Campground near the Glenn Highway, including the land adjacent to and on either side of the river, and a point 8 miles up-river. Other areas subject to selection are along Peters Creek, Thunderbird Creek, Ekultna River, Goat Creek, Hunter Creek, and approximately 700 acres southeast of Upper Fire Lake and along portions of Meadow Creek.

As development of new park facilities proceeds according to the implementation schedule of this master plan, those areas which are still subject to selection will remain undeveloped. As the status of land ownership is resolved, those areas remaining as part of the park will then be developed as planned.

For those areas where proposed recreational developments become impossible because of lands being withdrawn from the park, an evaluation of alternative sites for recreational developments will occur and an addendum to this master plan will be written for the affected areas.



COVER PHOTO: South fork of Campbell Creek in early summer

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SUMMARY

This plan provides necessary information and recommendations for the management, use, development and protection of Chugach State Park.

Located adjacent to Anchorage, Alaska's largest and most metropolitan city, the park's nearly 495,000 acres (200,000 hectares) provides a scenic backdrop and a recreational area intensively used by local residents and out-of-state visitors.

This master plan cites legislation establishing the park, describes features of the natural landscape and presents existing uses and recreational trends. Park lands have been classified into three land use zones which direct the establishment of uses and facilities. The plan also divides the park into five planning units: Eklutna-Peters Creek, Eagle River, Ship Creek, Hillside, and Turnagain Arm for planning and management purposes. Each has a distinctive hydrographic boundary. Recommendations for development and use are made for each of these units, the map on page 82 summarizes these items.

Public Participation

During 1977, eight workshops were held throughout the Municipality of Anchorage focusing on the park and its new master plan. Over two hundred persons with many suggestions and ideas spoke with park rangers and planners. In many instances these comments have been translated directly into proposals for park developments and uses including campgrounds, picnic areas, trails, parking areas and wilderness zones.

Major Recommendations

Visitor centers/ranger stations are recommended at the west end of Eklutna Lake, near mile 12 of the Eagle River Road, and near Bird Creek along the Turnagain Arm. The historic Iditarod Trail is directly linked with the proposed Eagle River Visitor Center. Here visitors may walk or ski along this well known route retracing a fascinating bit of Alaska's history.

Picnic areas are to be established along the Park's western and southern fringe, closest to population centers and throughout the Eklutna and Eagle River drainages. Over thirty trailheads with parking areas and toilet facilities should be constructed creating a web of access points enabling use of established trails and the more remote wilderness areas of the park. Trails will lead from each trailhead up valleys, along ridges to mountain tops and through areas of alpine tundra.

A canoe trail along Eagle River is proposed with five launch and take-out sites located at the river's edge. These simple facilities will enable greatly expanded access to the river and vill enable people to use areas of the park which are inaccessible by other means. Staging areas currently exist for snowmachines at Bird Creek and the Upper Huffman parking area in the Hillside area, and are planned at a newly-proposed access point in the Little Peters Creek Valley. Senior citizens and the handicapped will have use of newly-designed facilities in some development areas and some trails which are gently sloped and hard surfaced.

People seeking short day hikes, ski trips, summer and autumn berries, photographic opportunities, rock climbing areas and other pursuits can pick a starting point at any one of the trailhead sites or picnic areas where parking areas, toilet facilities and park information will be provided.

Hunters will face more restrictive regulations as park visitation increases. It is proposed that there be an immediate cessation of all trapping throughout the park.

Implementation

Implementation will occur in four phases as recommended in the implementation chapter of this plan. Each phase will include a series of developments designated to provide optimum opportunity for park use without compromising park resources and values.

INTRODUCTION

PURPOSE & SCOPE

This master plan establishes guidelines for the current and future use and development of Chugach State Park. It is based upon an analysis of the park's environment, current and anticipated trends in recreational use, and recognized human demands on this public resource. The primary purposes of this plan are to provide:

- A land use plan allowing for optimum recreational use of the area while preserving the natural environment of the park for future generations.
- A consistent set of principles and policies for park management.
- A basis for future funding requests.
- A phased implementation schedule for recommended development projects.

As with all master plans, continuous review will be necessary to insure that the concepts and recommendations of this plan reflect the changing needs of the public and the purposes for which the park was created.

ESTABLISHMENT OF THE PARK

With the power vested in it by the State Constitution, the Legislature established Chugach State Park in 1970. Six state senators co-authored the original bill, SB 388, "An Act creating the Chugach State Park." They were senators Lowell Thomas, Jr., Joe Josephson, Brad Phillips, John Rader, Tom Koslosky and Nick Begich. The legislation establishing the act was signed by Governor Keith Miller on May 8, 1970. The legislation is found in chapter 112 of the Session Laws of Alaska (AS 41.20.200-240).

Five primary purposes were outlined in the law creating the park:

- To protect and supply a satisfactory water supply for the use of the people.
- To provide recreational opportunities for the people by providing areas for specified uses and constructing the necessary facilities in those areas.
- To protect areas of unique and exceptional scenic value.
- To provide areas for the public display of local wildlife.
- To protect the existing wilderness characteristics of the easterly interior area.

The act further states "The eastern areas of the park shall be operated as a wilderness area, the central area as a scenic area



The legislation creating Chugach State Park established management authority for park land and water, road maintenance and fish and game resources:

The state lands and waters described in section 210 of this chapter as Chugach State Park are assigned to the Department of Natural Resources for control, development and maintenance, except that the Department of Highways is responsible for the repair and maintenance of all existing public roads within the park. The control of highway access and roadside structures within the Chugach State Park is the responsibility of the Department of Natural Resources. The Department of Fish and Game shall cooperate with the Department of Natural Resources under sections 210 of this chapter relevant to the duties of the Department of Fish and Game. (AS 41.20.210)

Additionally, the act presents guidelines for park boundary adjustments:

If, in the exercise of management responsibility under this section, conflicts of land ownership, jurisdiction, or authority are unreconcilable or unmanagable other than at an unreasonable cost and expense to the state, the commissioner after public hearing in accordance with AS 44.62 may modify, subject to the approval of the legislature, the boundaries of the Chugach State Park not to exceed 20 per cent of the total acreage described in...this chapter (AS 41.20.220).

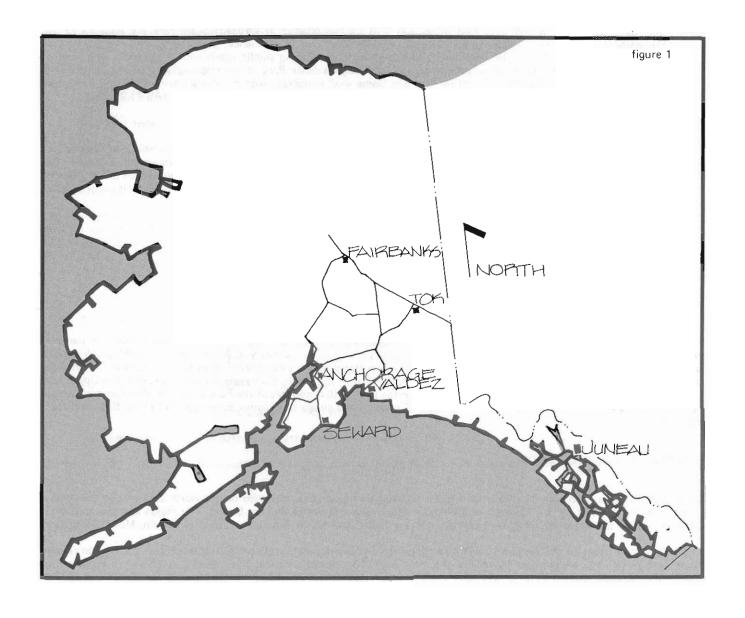
SIZE AND LOCATION

Chugach State Park contains approximately 495,000 acres (200,000 hectares), making it one of the four largest state parks in the United States. It is located in Southcentral Alaska mostly within the Municipality of Anchorage. The Park's westernmost boundary lies in the western foothills of the Chugach Mountain Range and is a mere seven miles to the east of the Anchorage Central Business District. The Park is further defined by Knik Arm on the north, Turnagain Arm on the south, and Upper and Lower Lake George and the Chugach National Forest on the east. Within minutes of the Park are the smaller communities of Palmer, Eagle River, Chugiak, Indian, Bird Creek, and Girdwood, the village of Eklutna, Elmendorf Air Force Base, and Fort Richardson.

REGIONAL CHARACTERISTICS

Southcentral Alaska is an area of diverse land forms and rugged topography, bounded on the north and west by the Alaska Range, and on the east by the Chugach and Wrangell Mountains and Prince William Sound. The region contains extensive ocean shoreline, abundant lakes, massive glaciers and ice fields, and North America's highest mountain, Mount McKinley.

Although vast portions of the Southcentral Alaska region are sparsely populated, almost half of the State's population resides in or near Anchorage. Anchorage represents the most highly developed urban area of Alaska. Anchorage's fast-growing population has been spurred by extensive natural resource development throughout the State during the 1960's and 1970's.



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With the construction of the trans-Alaska oil pipeline, Anchorage entered into its most recent period of economic boom. The city became the State's center for oil, finance, transportation, construction and support activities. As these industries grew, associated service industries developed, effectively broadening the economic base of Anchorage.

GROWTH PROJECTION

Over 200,000 people reside within the greater Anchorage area, and a population growth rate of between 5-8 percent is anticipated during the next five years. Anchorage residents are typically young, mobile and active. Over 63 percent of the population is under 30 years of age. Most people living within Anchorage can be characterized as urban residents who live an urban life style. More distant from the heart of the city, physical structures and lifestyles are more suburban or rural.

POPULATION PROJECTIONS FOR ANCHORAGE: 1978 - 1995

Year	Project Population	Growth in %
1978*	202,000	5.0
1979	207,900	6.0
1980	224,600	8.0
1981	240,000	7.0
1982	255,000	6.0
1983	275,000	8.0
1984	292,000	6.0
1985	300,000	3.0
1990	374,000	4.5
1995	466,000	4.5

figure 3

In 1971 the Division of Parks hired a consulting firm to write a development plan for Chugach State Park. Because of an increase of 75,000 in the Anchorage population and a park visitation increase of over 200 percent, the Division of Parks decided in 1976 to place the revision of that plan high among its priorities. Work began on the new master plan in June of 1976. The following steps were followed in developing this plan.

WRITING AN ENVIRONMENTAL ATLAS

Gathering Information. Evaluation of the plan first completed in 1972 revealed that extensive research was necessary to complete a satisfactory revision of the plan. To accomplish this, the atlas was conceived and designed as an in-depth research document focusing on the park's environmental features, its regional setting and current and anticipated recreational use trends.

The atlas is the foundation of this plan. It contains comprehensive data on land status, history, climate, wildlife, vegetation, hazards, recreation use and demand, and other subjects. The atlas should be continually updated by the Division of Parks and shall become the basis for any future changes in this master plan.

Planning Team. An interdisciplinary planning team was formed to help compile resource information on the park. Members represented the Division of Parks, Department of Fish and Game, Department of Transportation and Public Facilities and the Anchorage Municipal Planning Department. Working actively for over a year, the team provided valuable information which formed the foundation of this plan.

Analysis of Information. An analysis of the information contained in the atlas resulted in writing a series of "implications". Completed for each chapter in the atlas, the lists of implications represent an analysis of important data and translate it into a series of do's and don'ts for park development and use.

PUBLIC WORKSHOPS

In April of 1977, five workshops were conducted by the Division of Parks to gather public input for the plan. These workshops were held in Chugiak, Eagle River, Downtown Anchorage, the "Hillside" area of Anchorage and at Indian. Advertised in local and regional newspapers and on radio and television, the meetings drew approximately 165 people. The informal setting allowed participants to voice their opinions about the park, its management, its facilities, and their desires for its future. Immediate concerns aired at each of the meetings included the lack of good access points, hunting in the park, wildlife viewing areas, the kinds and numbers of park facilities, and the use of off-road vehicles in the park during winter and summer.

3. PRELIMINARY MASTER PLAN

Division of Parks landscape architects and planners then compiled newly gathered data, lists of implications from the environmental atlas of Chugach State Park, public concerns, and recommendations into a preliminary plan.

PRELIMINARY MASTER PLAN REVIEW

The final step in this planning process was the review of the preliminary plan by the Director of Parks, the Commissioner of

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the Department of Natural Resources, the planning team, the public through a second series of public workshops held in Eagle River, Anchorage and Indian, and the mailing of over 150 draft copies to individuals, groups and agencies who are especially affected by or interested in the park. These last comments were inserted along with other minor revisions, approved by the Commissioner and the Director, and publication of this plan is the result.

FINAL MASTER PLAN

This extensive research, careful analysis and public participation has resulted in this Master Plan for Chugach State Park. It is the guiding document for management and development of the park.

FUTURE UPDATING

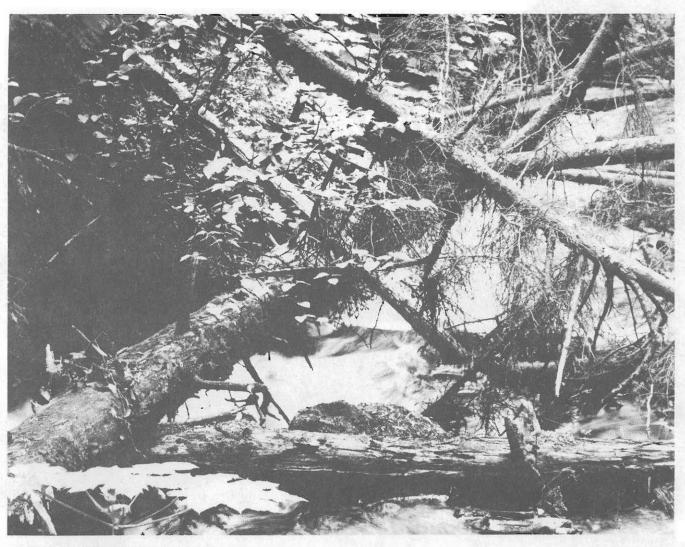
Continuous review and updating of this master plan will be necessary because of continuing rapid population growth of Anchorage and surrounding communities, development of private lands within and adjacent to the park, trends in outdoor recreation and tourism, and the outcome of land selections within the park authorized by the Alaska Native Claims Settlement Act of 1971. The environmental atlas of Chugach State Park and the "Alaska State Park Visitors" publication will serve as the basis for future revisions to this plan. With continuous review and revision of this plan as dictated by changing recreation demands, the response of the parks natural environment to future use, and sound planning principles, this plan will continue to provide the required guidance for the development, use and management of Chugach State Park.

PARKWIDE OBJECTIVES

Twelve parkwide objectives have been developed to guide planning, recreation facility construction, plan implementation and management of Chugach State Park. A result of public and professional input, they are designed to protect park resources while providing for a spectrum of significant outdoor experiences. The objectives are:

- To protect and interpret the park's natural features.
- To provide recreation facilities and opportunities for the general public with due consideration given to appropriate facilities for the handicapped and aged.
- To minimize the impact of human presence, particularly in wilderness, scenic, and fragile areas.
- To avoid the construction of permanent or vulnerable facilities in flood plains and in other areas of known natural hazards.
- To preserve existing wildlife habitat and encourage the opportunities for wildlife viewing throughout the park.
- To identify, preserve, protect and interpret archaeological and historic objects, sites and routes.
- To designate a series of well-defined access points along the park's perimeter and provide appropriate facilities.
- To construct facilities with concern for ease of maintenance and management.
- To construct park facilities with natural materials which blend into the landscape.
- To coordinate and assist in planning the development of privately owned lands within the park through cooperative planning, zoning, or acquisition in order to maintain the park's integrity and natural values.

- To initiate boundary adjustments as necessary to increase the potential for outdoor recreation and for protection of the park.
- To investigate land exchanges and management agreements with public and private agencies in order to consolidate park lands and management functions.



SITKA SPRUCE trees crisscross the cold, clear waters of McHugh Creek above McHugh Creek Picnic Wayside.

NATURAL **ENVIRONMENT**

The park's natural environment is a combination of dynamic and interacting elements. An inventory of these elements provides a clearer understanding of these factors and how they are affected by and influence human use. Following each element of the natural environment is a list of management implications. These are included as a summary of the most important influences each element exerts on planning and managing park use. These implications can be viewed as constraints upon park development.

TOPOGRAPHY

Most of the park is characterized by steep mountains and U-shaped valleys. These U-shaped valleys were formed by the erosive forces of glaciers dating back a million years. About 73 square miles, or roughly ten percent of the park, is still covered with the remains of these glaciers and ice fields. Most active is the Eagle Glacier which is retreating at an average rate of 100 feet (30.5 meters) per year, and Eklutna Glacier, which is retreating at an average rate of 72 feet (22 meters) per year.

Visitors can see geologic features which are the result of glacial activity, including erratics (large boulders) found on hilltops or other unlikely places, braided streams, glacially-carved lakes, mountain ridges, and valleys. Prominent mountain peaks in the park range in elevation to over 8,000 feet (2,400 meters).

This is a partial list of office	cial and local n	ames of the	better known peaks of Chug	ach State Park	(
Baleful Peak Bashful Peak	7,900 8,005	2,370 2,400	Pioneer Peak Pleasant Mountain	6,398 6,425	1,900 1,930
Beezlebub	7,280	2,184	The Ramp	5,240	1,570
Bellicose Peak	7,640	2,290	Rendezvous Peak	4,050	1,215
Bird Peak Bold Peak	5,505 7,522	1,656 2,250	Mt. Rumble Suicide Peak (North)	7,530 5,065	2,260 1,674
Calliope Mountain	6,810	2,040	Suicide Peak (South)	5,005	1,500
Cantata Peak Eagle Peak	6,410 6,955	1,920 2,090	Temptation Peak Thunderbird Peak	5,300 6,575	1,590 1,975
Mt. Eklutna	4,110	1,235	Twin Peak (East)	5,873	1,760
Flattop Mountain	3,600	1,180	Twin Peak (West)	5,401	1,620
Harp Mountain	5,001	1,500	The Wedge	4,660	1,400
Mt. Magnificent Magpie Peak	4,285 5,812	1,285 1,750	Whiteout Peak Mt. Williwaw	7,135 5,445	2,140 1,640
The Mitre	6,650	2,010	Wolverine Peak	4,455	1,335
O'Malley	5,150	1,545			
Organ Mountain Peril Peak	6,980 7,040	2,095 2,110	Mt. Yukla	7,535	2,260
figure 4					

There are 27 distinct drainage basins over one square mile in size, and over 70 lakes within the park boundary. Eklutna Lake, nearly 7 miles (11 kilometers) long and 1 mile (1.6 kilometers) wide, and with a surface area of 3,400 acres (1377 hectares), is the largest lake in the park. This natural lake provides electrical power to the municipalities of Anchorage and Palmer. Ship Creek provides a major portion of Anchorage's municipal water supply with a summer flow of 186,000,000 gallons (706,800,000 liters) per day and a winter flow of 6,600,000 gallons (25,000,000 liters) per day.

Numerous waterfalls occur throughout the park. Many become most spectacular after winter breakup or after the frequent rainshowers that occur in the higher elevations of the park. Thunderbird Falls, the best known and most frequently visited of the park's waterfalls; roars continuously until winter cold freezes it into a magnificent icicle.

Beneath the rock glacier at the headwaters of Peters Creek, the U.S. Geological Survey indicates the possibility of two small glacially-dammed lakes (ice covered lakes) which could be released without warning. Any development or activity within the drainage must take this into account.

At one edge of the park is Turnagain Arm, a body of slightly salty water that provides a study in the dynamics of nature as the cloud forms, sky color, tides, vegetation and the Arm itself are in continuous change, creating an area of high visitor interest and appeal within the park. The Arm has one of the highest tidal variations in the world, and presents a unique interpretive opportunity. Tidal bores occur during very low tides, especially during the months of June, July and August. Lunar pull, wind intensity and direction, and the venturi effect of the Arm combine with the extreme tidal variations to create bore tides. Bores appear as an incoming wall of water up to 10 feet (3 meters) high, spanning the width of the Arm, and travelling up the Arm at a speed of up to 15 miles (24 kilometers) per hour.

The Chugach Mountains provide a spectacular and enticing backdrop for the Anchorage metropolitan area. This view, providing aesthetic enjoyment for many, is an immeasurable but very real value of the park. In turn, visitors in the park can enjoy spectacular views of metropolitan Anchorage, Mount McKinley, Turnagain and Knik arms, and Cook Inlet.

Implications

- The park offers superb examples of glacial geology.
- Steep mountain faces are susceptible to landslides and avalanches. Use areas and facilities should avoid these sites and associated dangers.
- Facilities should not be located in areas subject to high water tables or flooding.

SOILS

A knowledge of soil types is important in locating specific sites for facility construction and areas for concentrated activities. As of this writing, detailed soils information for the park is wholly lacking. As more specific site selection is made for the facilities and activities recommended in this plan, appropriate soils analyses should be made.

Soils within the park include shallow soils over bedrock, shallow soils over gravely or stone base, fibrous peat soils, and clay soils. Some are poorly-drained while others are well-drained.

Steep slopes and poorly drained soils represent a large portion of the park and impose severe limitations on placement of structures and intense activities. Areas of well-drained soils and slopes of less than 12 percent are best suited for structures and can tolerate high use.

Soil compaction resulting from heavy use, such as around campgrounds, picnic sites, trailheads and viewpoints, can become a serious problem resulting in reduced vigor of vegetation, increased surface water runoff, increased erosion and high levels of water turbidity. Knowledge of soil type and susceptibility to compaction will avoid or reduce the problem.

Other soil characteristics affecting recreation planning and use include wetness, permeability, slope, surface texture, depth to bedrock and rockiness. The U.S. Soil Conservation Service provides guidelines for analyzing soil types as to their ability to sustain recreation uses.

IMPLICATIONS

- * The lack of adequate soil data necessitates complete on-site studies prior to the final planning stages of any development in Chugach State Park.
- * Areas subject to high water tables, including flood plain areas, bogs and marshes should be closely scrutinized as saturated soils often necessitate large and costly fills when development occurs.
- * All development plans should consider soil compaction and its effects upon vegetation, erosion, water quality and wildlife.
- * Areas in alpine tundra zones have thin soils. Development should not occur in these areas unless other environmental factors and needs warrant use for specific purposes.
- * Permafrost must be considered in the siting of all park facilities.

CLIMATE

The extreme southeastern portion of the park receives approximately 160 inches (425 centimeters) of precipitation annually while some areas to the north and west may receive as little as 12 inches (30 centimeters). Highest rainfall can be expected in July, August and September, each month averaging just over 5 inches (16 centimeters). The majority of snow falls between November and February. Mean annual snowfall for nearby Anchorage is 70 inches (180 centimeters). Within the park, large variations in snow depth occur due to elevation differences, winds, slope orientation and proximity to the marine influence of Prince William Sound. The greatest chance for clear skies occurs during the months of March, April and May.

Temperatures in the park can vary from summer highs of 85 degrees F (23 C) to lows of -50 degrees F (-45 C) in winter. Subject to the influences of wind, elevation, slope aspect and temperature inversions, much "localized weather" occurs throughout the park.

Persistent winds, particularly in January, occur in the valleys, mountain passes, on ridges and mountain peaks. High elevation winds are predominately from the south while valley winds are channeled, blowing down the valleys from higher to lower elevations. Winds at lower elevations, where most facilities will be located, average between 6 and 8 miles per hour with higher velocities occurring in May and June. Local landforms and vegetation can strongly influence these conditions.

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- * Winds are strongest in mountain passes and at the mouths of valleys. Facilities located in these areas should be designed to withstand strong winds, blowing snow, snow load and other severities of weather.
- * Wind generated waves can occur suddenly at Eklutna Lake, creating a hazard to boaters.
- * Winds associated with cold air drainage create cold pockets in the bottoms of valleys and other confined low-lying areas.
- * Unwary or unprepared climbers or other park visitors are most susceptible to exposure from wind and cold.
- * Heavy summer rains associated with afternoon thunder showers occur frequently in summer.

VEGETATION

Between sea level and 2,000 feet (600 meters), most of the park is heavily forested. In the southern area adjacent to Turnagain Arm, a typical Sitka spruce-mountain hemlock forest dominates. This is thought to be the farthest north occurrence in North America of these forest species. The remainder of the park is a mixture of white spruce, black spruce, Alaska paper birch, balsam poplar, black cottonwood, aspen, mountain ash, alder and dwarf mountain hemlock. Localized areas of poor drainage create areas of black spruce and muskeg while above the treeline dense brush composed of willow and alder dominates. Above 2,000 feet (600 meters), alpine tundra plant species cover the ground over a thin layer of soil. Where more severe environmental conditions exist, rocks, often covered with lichens and ice, dominate the landscape.

Implications

- * Black spruce bogs, muskeg areas, marshes and other poorly drained sites are costly sites to develop, and generally should be avoided.
- * Wildlife often concentrate in or near muskeg and marshes. Human use should be directed away from these sites.
- * Black spruce bogs, muskeg areas, marshes and other poorly drained areas are heavily infested by mosquitoes and other insects during the summer season.
- * Removal of vegetation for park developments should be minimized to reduce windthrow, soil compaction and aesthetic impact.
- * Alpine tundra is fragile and can sustain only very limited use.
- * Wildflowers and berries are a strong attraction to park visitors.

- * Low lying forested areas of white spruce and paper birch are important winter habitat for many wildlife species. High impact recreation should avoid these areas, or should be restricted to designated trails or corridors.
- * Black cottonwood and mountain hemlock are susceptible to snow loading and limb breakage during winter. Park developments must consider this factor.
- * Fires are a potential danger to drier areas and may burn for months or years beneath the surface of dry peat, duff or highly organic soils.

FISH & WILDLIFE

Approximately 80 species of birds have been identified in the park. Of these, approximately 20 have been identified as year-round residents. Easy access to the high country gives park visitors a chance to see birds such as the gray-crowned rosy finch, wheatears, and ptarmigan. Golden eagles and bald eagles are park residents, as well as hawks, owls, woodpeckers, grouse, ducks, and many species of warblers and other songbirds.

Some streams and lakes in the Park contain king, silver, pink, red and chum salmon, dolly varden, grayling, rainbow trout and whitefish. Beluga whales, harbor seals and sea lions are occasional visitors in the early summer to Turnagain Arm waters.

Terestrial animals include moose, Dall sheep, mountain goat, grizzly and black bear, coyote, wolf, red fox, lynx, wolverine, mink, weasel, land otter, marten, porcupine, marmot, parka squirrel, red squirrel, beaver, and others. Recent human pressure has reduced beaver to very limited numbers. The reintroduction of beaver into suitable areas of the park is being considered.

Implications

- * All riverine habitat sites, including areas of balsam poplar, cottonwood, willow and alder, should be protected from substantial disruption to protect habitat for land otter, beaver, lynx and mink.
- * Since its establishment, the park has been open to hunting, trapping and fishing, with restrictions on the use of motorized conveyances. The mode of access will continue to be an important factor in wildlife management.
- * The presence of Dall sheep, moose and grizzly bear within 10 miles of Anchorage will affect facility siting to best protect and interpret these animals.

HAZARDS

Avalanches have claimed five lives in the Park between 1971 and 1978, and present the greatest single hazard to park visitors. During the same period at least 25 others are known to have survived after being caught in avalanches. Avalanches are most likely to occur on steep slopes during and after a heavy and prolonged snowfall. With a knowledge of the conditions under which avalanches are most likely to occur and the locations where they are known to occur, the well informed park visitor can carry on winter activities in relative safety.

Other potential natural hazards within the park include land slides, falling rocks (especially at the snout of Eklutna Glacier), streams which swell during spring, summer and fall afternoons as the sun and warming temperatures increase the melt of ice and snow, bears and other wildlife, glaciers with their hidden crevasses, turbid air currents, and sudden and severe inclement weather year-round.

The exposed mud flats along Turnagain Arm are dangerous due to extreme and rapid tidal variations and the possibility of becoming mired in the mud and drowning with the incoming tide. The rapidly advancing tide can also trap unwary hikers along the Arm who venture too far out on rocks or spits of land and become cut off from the land.

Boating in Turnagain Arm is extremely hazardous, especially in small boats which are easily capsized by rough water. Eklutna Lake can also present a hostile environment for small boats when the winds generate large and sometimes unexpected waves. The last mile of Eagle River before the Glenn Highway is Class III whitewater and presents a hazard to those who are unsuspecting or unprepared.

The steep cliffs along Turnagain Arm can present hazards to hikers and rock climbers, and are subject to landslides, falling rocks and avalanches. These same hazards are present throughout the park where steep slopes and unstable soil and rock are found.

Additional hazards to park visitors are created by careless use of firearms while hunting, target shooting (prohibited throughout the park), setting traps carelessly or in areas subject to heavy use, and by the careless building of fires (prohibited throughout the park except in designated areas).

Implications

- * Locating structures or encouraging the winter gathering of people in known or suspected sites of avalanche occurrence should be rigorously avoided.
- * The most destructive avalanches occur during and after heavy and prolonged snowfall. Extra precautions should be taken during these times by park personnel. Information should be released to appropriate media to inform the public of these hazards.
- * An active public information program, through the use of brochures, signing, media and public displays, should be carried on to inform park users of such hazards as weather, avalanches, bears and other wildlife, falling rocks, slides, fires, water swollen streams, use of firearms, boating and others, particularly when and where such hazards are likely to affect the most people.
- * The site selection for all bridges, trails and other proposed structures, facilities and activity areas should be made with regard for the hazards mentioned above.

PARK USES & TRENDS

(Z)

HISTORIC USE

In 1778, while on an expedition from England to obtain more information about western North America and to search for a northwestern passage to Europe, Captain Cook lay at anchor off the mouth of the "River Turnagain," and wrote the following description:

On the north side of the river the low land again begins, and stretches out from the foot of the mountains, down to the banks of the great river; so that, before the River Turnagain, it forms a large bay, on the south side of which we are now at anchor; and where we had from twelve to five fathoms, from half-flood to highwater.

On the next day, two small boats were sent out to land on the lowland along the southwest side of the Arm and there to bury a bottle with some pieces of English coin dated 1772, and a paper with the date and the name of King George III. As a result of Captain Cook's voyage, Turnagain Arm received its name and became a point of historic interest.

Another event which more dramatically forced attention upon Turnagain Arm, changing its natural character and introducing a new influence, was the discovery of gold. In 1895, prospectors crossed to the north side of Turnagain Arm from mining camps at Hope and Sunrise, and discovered gold along California Creek. Soon, mining activity spread to Glacier, Crow, Bird, Indian and Rainbow creeks. A ferry was established in 1898 to transport people and supplies from the Hope-Sunrise area on the south shore to Bird Point on the north shore, thus reducing the time and trouble to traverse the overland route. By 1915, the Seward Trail had been extended to Eklutna and Knik where it connected with the Valdez and Iditarod Trails. A mail trail, referred to now as the Johnson Trail, was built paralleling the north shore of the Arm and connecting with the Seward Trail. Crow Pass and Indian Pass trails were in heavy use as supply routes to the Iditarod gold fields in interior Alaska. A telegraph trail and line were established along the Arm to facilitate extension of the railroad.

In 1918, the railroad was completed as far north as the present site of Anchorage, with flag stops at Bird Creek, Indian, Rainbow and Potter. In 1950, the highway was constructed along the Arm and paved in 1954. Both the highway and railroad now operate within a transportation corridor through the park.

Reminders of the recent history are the trails that carried gold seekers over Crow Pass and Indian Pass, remnants of the telegraph, the old mail trail (much of which has been replaced by highway construction), rusted mining machinery, and cabins and roadhouses that have diminished to barely distinguishable remnants.

In the 1920's, a diversion dam was constructed at Eklutna River not far below the Eklutna Lake outlet. It served for 30 years as the major source of power for Anchorage. Because of the high silt content of the water, it was necessary to periodically interrupt the river's flow at the lake, drain the dam, and push the accumulated silt through a large hole constructed at the base of the dam for that purpose. Within ten years of the permanent closure of the dam, it became completely silted over and remains so today.

A powerline and pipeline carve their way through the western part of the park, supplying power for Anchorage and fuel for the military. Several miles of road in the Indian and Bird Creek valleys remain as evidence of commercial logging that occurred until 1973. Roads and clearings exist throughout the park where early homesteaders have been and left. Communications antennae, reflectors, dishes and poles dot prominent peaks and points around the park's edges. A few small gold claims, some still being operated under valid claims that were in existence prior to the establishment of the park, remain along some of the park's streams.

Four significant archaeological sites have been identified within the park boundary. As more specimens are gathered from these and future sites, knowledge of the early history of man in the area will increase.

Thirty-five historic and archaeological sites have been discovered within the park. These, and others when identified, will receive considerable attention as the implementation of this plan goes forward.

CURRENT RECREATIONAL USE

In 1973 the Anchorage Municipal Parks and Recreation Department commissioned an independent parks and recreation survey. Over 93 percent of those responding said that "recreation is vital" to them. For many, the availability of recreation opportunities is a strong reason for their residence in Anchorage.

Current recreational uses of the park are predominantly influenced by the location and adequacy of access, and by weather. Heaviest use accompanies the warming weather of summer and is concentrated near the periphery of the park or near developed facilities. Hunting and trapping are permitted activities within areas designated by the Department of Fish and Game, and attract a significant number of people to the park between Labor Day and May 1st of each year.

Winter use of the park is increasing dramatically as cross-country skiing, climbing, hang gliding, and snow machine operation have become very popular.

Major activities occurring within the park are camping, picnicking, berry picking, photography, wildlife viewing, backpacking, hiking, nature study, sightseeing, rock and ice climbing, hang gliding, boating, fishing, hunting, cross country skiing, downhill skiing and snow machine operation.

CURRENT NON-RECREATIONAL USE

Non-recreational uses of the park include rights-of-way for roads, electric transmission lines, and pipelines. Prior to the establishment of the park, numerous special use permits were issued by the federal government and by the Alaska Division of Lands. Many of these permits have expired. Use permits, where justified, are now issued by the Division of Parks.

Of major significance is the existence of the Eklutna and Eagle River Power Reserves. The Eklutna Power Project development is complete, and future changes affecting the park are not anticipated. The Eagle River Power reserve remains untapped, and a variety of projects are possible there, ranging from the drilling of deep water wells to the damming of the river and consequent flooding of the valley. Flooding would effectively disrupt many park uses and resident wildlife, and would constitute a considerable man-made alteration of the natural environment.

Although Ship Creek supplies part of the Anchorage and military water supply, this use has a negligible effect on the park. Future plans to expand the draw of water from this source could alter the fisheries habitat and recreational uses along Ship Creek, and will require careful review by the Division of Parks. A dam on Ship Creek with the resulting impoundment in the park is a possibility.

USE CONFLICTS

A major potential land use conflict needing resolution is the existence of non-public lands within the park boundary. These include private land holdings and land selected by Eklutna Inc. under provisions of the Alaska Native Claims Settlement Act of 1971. Each represents potential constraints on public use, recreational opportunity and daily operation of the park.

The Seward Highway reconstruction project being undertaken by the Alaska Department of Transportation and Public Facilities is in potential conflict with park values. Careful and cooperative planning will be required to improve the existing highway while preserving the scenic and recreational qualities along the Turnagain Arm.

The unauthorized use of off-road motor vehicles in the park has created conflicts with non-motorized users, wildlife. watershed areas, soil suitability, and vegetation, particularly in the summer season.

Within the Ship Creek and Campbell Creek drainages there are potential conflicts between the demand for more intensive recreational development and the need to protect these vital watersheds which are primary sources of Anchorage's water supply.

Conflicts exist between park users who desire open hunting and trapping of mammals and birds and those who desire large and accessible wildlife areas for the viewing and photographing of wildlife near Anchorage. An additional difficulty is the split management authority over these uses between the Alaska Department of Fish and Game and the Alaska Division of Parks.

A use which existed prior to the Park's establishment is the extraction of natural resources, primarily gold and timber. As a result, several associated roads and structures were built, mostly in the Bird Creek area, which created use patterns and activities which are neither in the best interests of most park users, nor the preservation of the natural environment of the park.

Approximately twenty-five mining claims existed within the park boundary when it was created in 1970. Most of these claims have lapsed by becoming inactive. The active claims that remain are on Bird Creek and at Bird Point. The amount and location of additional access points which might be considered subsequent to the implementation of this plan must be carefully considered in order to avoid jeopardizing the park's capacity to withstand additional use.

The careless or inappropriate use of firearms exposes park users to unnecessary danger, unwanted noise, and litter.

Garbage and litter, either carelessly or intentionally discarded, have the effect of reducing the aesthetic values of an area, attracting bears, and results in reducing the enjoyment of the park user.

RECREATIONAL TRENDS

Visitor counts indicate rapidly increasing use of the park, even though there has been very little facility development concomitant with this increase. It is expected that this use trend will continue as nearby population centers continue to grow.

Recent polls indicate a national increase in public interest in physical fitness. It is anticipated that this trend will put additional pressure upon all our recreational resources, particularly ones adjacent to large population centers, such as Chugach State Park, Decreasing supplies of petroleum are also expected to focus recreational activities closer to where people live, and encourage less motorized forms of recreation.

The increased demand on outdoor recreation facilities is reflected by the outdoor recreation equipment industry both locally and nationally. The number of specialty backpacking stores, catalogs for recreation supplies, cross-country ski outlets and motorized recreation vehicle businesses has increased several-fold since 1971.

Light-weight clothing and equipment and advances in design, construction and materials have made the outdoor experience more enjoyable and accessible to more people. These factors point toward an expectation of increasing demand for use of Chugach State Park.

Travelers along the Seward Highway between Anchorage and Girdwood traverse 25 miles (40 kilometers) of the park's southern edge. This tour contains some of the most unique scenery found within the Park. Based upon 1975 Department of Transportation and Public Facilities traffic counts and predictions, this area of the park is expected to receive extremely heavy use in the future. Traffic is expected to increase to 16,100 vehicles per day by 1996. According to actual counts made at Potter Creek (where the highway enters the park) there were 775 daily vehicles in 1959, 1,762 in 1969, and 2,985 in 1975.

Concomitant with population growth and social and economic factors, several assumptions indicate an increasing demand for use of the park over the next several years:

- 1. Many people will have larger disposal incomes in the future, allowing larger expenditures for recreation.
- 2. Personal values, interests, skills and competence will be more oriented toward leisure activities.
- People will continue moving into the State to take advantage of its recreation opportunities, as exemplified by the park.

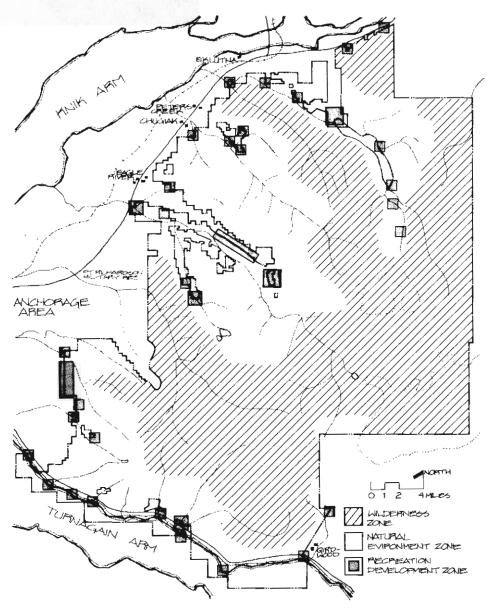


MANAGEMENT & DEVELOPMENT PLAN

4

LAND USE CLASSIFICATION

figure 5



LAND USE CLASSIFICATIONS

Although Chugach State Park is vast in area, large portions of its landscape are quite fragile. Excessive or improper use can leave the landscape scarred and its resources damaged. This plan recognizes and deals with these sensitivities by establishing three land use classification zones for the park, and designates appropriate activities and facilities that may be permitted within each zone. The three zones are "recreation development", "natural environment", and "wilderness". Guidance for the establishment of these zones originates from Alaska Statute 41.20, the enabling legislation that established the park. It states: "The eastern area of the park shall be operated as a wilderness area, the central area as a scenic area, and the periphery areas as recreational areas". Facility development and activities will occur within the appropriate zones according to the activity/facility chart on page 29.

In order to effectively use these broad classifications as planning and management tools, it is necessary to further define the purpose, characteristics, and possible activities and developments of each zone.

Recreation Development Zone

Purpose

Recreation development zones are established to meet intensive recreation needs of people by providing easy and well-defined access points into the park, and by developing appropriate facilities.

Characteristics

The areas are generally on the periphery of the park where access can be gained by vehicle and where soils, slope, drainage and vegetation can support more intense and varied recreational activities.

Activities and Developments

The most intensive activities and developments are meant to occur in this zone, including vehicle and tent camping, developed picnic areas, toilet facilities, visitor and interpretive centers, sledding, tobogganing, high-standard trails for all ages and abilities, and park management facilities.

Hunting and trapping are incompatible uses within this zone.

Natural Environment Zone

Purpose

Natural environment zones are established to provide for low-impact forms of recreation and to act as a buffer between the recreation development zones and the wilderness zones.

Characteristics

Natural environment zones are relatively undeveloped and undisturbed, have high scenic qualities, are accessible by trail or road and provide visitors with the opportunity for a significant natural outdoor experience.



Activities and Developments

Developments are intended to provide a minimum level of convenience and safety for park visitors. Back country shelters, trails and bridges are suitable in this zone. Activities include hang gliding, backpacking, hiking, cross-country skiing, sledding, tobogganing, berry picking and rock climbing. Although no proposed downhill ski areas are identified in this plan, they are not precluded from this zone provided that adequate study reveals the capability and suitability of the site for such use.

Hunting is permitted insofar as it is compatible with other activities. Trapping should not be permitted.

Wilderness Zone

Purpose

Wilderness zones are established to promote, perpetuate and, where necessary, restore the wilderness character of the land and its specific values of solitude, physical and mental challenge, scientific study, inspiration and primitive recreational opportunities.

Characteristics

These zones should be at least 5,000 contiguous acres and, if possible, be defined by hydrographic boundaries. They are characterized by wildlife, vegetation and geologic forms in their natural state. Natural ecological succession will be allowed to operate freely to the extent that human safety and welfare are protected. The area will be available for use so long as that use is consistent with the maintenance of wilderness conditions.

Activities and Developments

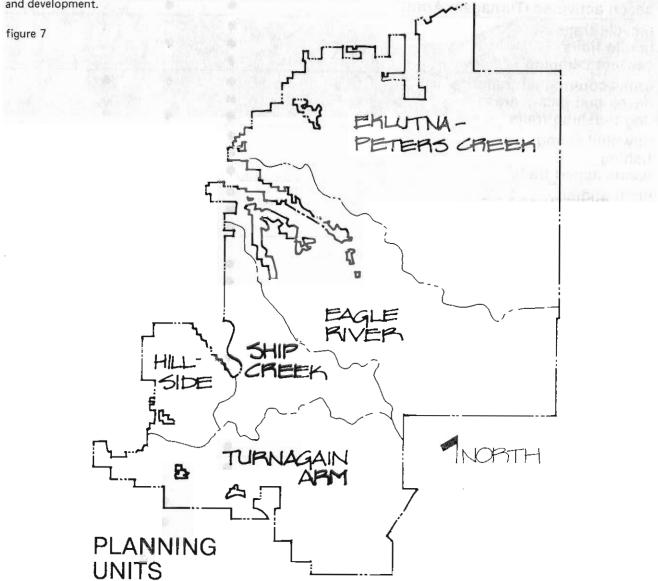
Access to and within this zone will be by foot or other non-motorized means. Motorized vehicles of any type, including the dropping of people or objects from aircraft or the landing of aircraft, will be prohibited except for management purposes or by special permit issued by the Director. The area should have no conveniences within its boundaries except for the most primitive of trails, minimum trail maintenance and signing. Developments or other improvements will be undertaken only for the purpose of public safety or to reduce adverse impact on the natural resources. Activities which threaten the character of the wilderness zone will be restricted. If overuse or misuse occurs, the Director may restrict entry and use of the area. Methods of restriction may include implementation of use permits, time and space allocation or use area rotation schemes.

	ZONES .
figure 6	EATIONENT RALMENT LESS
ACTIVITY/FACILITY	ZONES RECREATION TO THE TOP MENT NATURAL MENT NATURAL MILDERNESS NATURAL MILDERNESS
back country shelters backpacking beach activities (Turnagain Arm)	• • •
bicycle trails braille trails car/tent camping	•
cross-country ski trails developed picnic areas dog mushing trails	• • •
downhill skiing fishing handicapped trails	• • •
hang gliding helicopter skiing horseback riding	• •
hunting interpretive centers nature trails	•
ranger stations recrational vehicles rock climbing	•
scientific study plots sled and toboggan runs snowmachine areas/trails	• • •
snowshoe trails sport fields target range (bow)	• • •
target range (rifle) trapping wildlife viewing areas	•
warm-up huts (x-country skilers)	• •

An "•" indicates the appropriate zone where the corresponding activity/facility may occur.

PLANNING UNITS

Due to Chugach State Park's large size and landscape diversity, the area has been divided into five geographical planning units to facilitate planning and management. They are Eklutna-Peters Creek, Eagle River, Ship Creek, Hillside and Turnagain Arm. The planning units are defined by major drainages and have characteristics which are unique unto themselves. Each will be described individually regarding its setting, special qualities and considerations, and recommendations for management and development.



EKLUTNA - PETERS CREEK PLANNING UNIT

SETTING

This northernmost area of the park contains 190,000 acres (76,950 hectares) and is composed of three major drainages and two smaller ones. On the west side of the park, Eklutna River, Thunderbird Creek, Peters Creek and Little Peters Creek flow from a series of rugged mountain peaks and glaciers. Hunter Creek flows abruptly from the northern part of the park.

All of these drainages are heavily wooded with white spruce-birch forests in the lower elevations or with dense stands of balsam poplar. Intermittent wet areas are dominated by black spruce bogs and muskeg. Between 2,000 and 3,000 feet in (600-900 meters) elevation, forest species become dwarfed and random patches of dense willow and alder grow where underground water is adequate. Above this level, tundra species and bare rock dominate the landscape. Vegetation in Peters Creek is interesting because trees grow predominantly along the north side (southern exposure) but not on the south side of the valley in its upper reaches. Wildflowers flourish through all the drainages during the summer months and are a prime attraction for many park visitors.

Particularly significant for wildlife is the existence of two natural mineral licks, one north of Eklutna Lake and the other north of Peters Creek along an unnamed tributary.

The terrain throughout this area is dominated by these five valleys and the rugged mountains which gain elevation abruptly. Most park users consider the area quite scenic during the winter. The snow-draped mountain peaks are particularly striking. To the east, a portion of the park's icefields dip into the lowlands in the form of Eklutna Glacier. It is a prime park attraction and represents a valuable interpretive feature.

Eklutna Lake is the park's largest water body. It is 7 miles (11 kilometers) in length and 1 mile (1.6 kilometers) in width. Although the surface freezes in winter, fluctuating water levels caused by the Alaska Power Administration's electrical power generation facility on the Old Palmer Highway create variations in ice thickness and cause surface irregularities which can result in unsafe ice conditions. Down-canyon winds can rise in the basin with little notice and often have sufficient force to create white-capped waves on the lake. To the unprepared boater, they can represent a hazardous situation.

Near the headwaters of Peters Creek, a uniquely scenic area, the steep-sided Mt. Rumble dominates as it rises over 5,000 feet (1500 meters) above the surrounding terrain.

The difficulty of access to Thunderbird Creek up stream of Thunderbird Waterfall has kept this area in a primarily untouched state.

Within the drainage of the Eklutna-Peters Creek planning unit, no known areas, sites or objects of historic or prehistoric significance have been identified by the Division of Parks. However, further research and exploration could reveal important findings.

EXISTING USES AND TRENDS

Hunter Creek drainage receives only light use, primarily during the summer and fall. Hunting is the main visitor attraction. It is reached by walking approximately three miles from the Knik River Road where vehicles must be left behind. No park facilities exist in this drainage.

Eklutna River drainage is one of the most heavily used areas of the park. Between July 1, 1977 and June 30, 1978, approximately 35,000 visitors were counted. Visitor statistics also indicate that 42 percent of those visitors stayed overnight at one of the Eklutna Lake campgrounds. One of the main attractions is the opportunity to observe wildlife. It is currently the only officially designated area of the park for wildlife viewing. A 9 mile (14.5 kilometer) road maintained by the Department of Transportation and Public Facilities beginning at mile 26.5 of the Glenn Highway leads to the lake. During the summer, vehicles can continue around the lake for approximately 10 miles (16 kilometers) to within ½ mile (.8 kilometers) of the Eklutna Glacier, one of the park's major valley glaciers. The lake is occasionally used by boaters even though alternating water levels (often exposing extensive mud flats) and frequent strong winds make boating difficult.

A total of 33 campsites exist in campgrounds located at both ends of the lake. Four picnic sites are also interspersed. At the present a small gravel landing strip at the northwest shore, and another near the southeast end of the lake provide access for small aircraft. Twelve trails lead from the basin, totalling 88 miles (141 kilometers) of trail. Many of these trails are considered very rugged and only people in excellent physical condition who are thoroughly equipped and knowledgeable in backcountry travel should attempt them. Glacier hiking is another popular activity which should be entered into cautiously and only by those properly equipped and experienced.

Thunderbird Creek drainage receives very heavy use, most of which occurs at the popular Thunderbird Falls picnic area. Between July 1, 1977 and June 30, 1978, this area received approximately 40,000 visitors. At mile 25.5 on the Glenn Highway are a parking lot and a 1 mile (1.6 kilometer) trail leading to Thunderbird Falls where two picnic tables are situated near the falls. Few people continue beyond this point due to rough terrain. During the fall, hunters enter the upper parts of the drainage area from adjacent valleys by crossing unnamed passes seeking Dall sheep.

Peters Creek drainage is lightly used, primarily by nearby residents of Chugiak and Birchwood. The road leading from the Glenn Highway to the valley passes through a series of private subdivisions. Once at the park's boundary, the road follows the contours of the land for ½ mile (.8 kilometers) where it enters a large block of private land within the park. Two miles (3.2 kilometers) beyond, the road re-enters the park. A sign located near Eight Mile Creek indicates that vehicles must be left at this point. A series of game trails lead the hiker to the more remote parts of the valley. Like Thunderbird Creek, the valley receives light use except during the fall when many hunters may be found in the drainage seeking Dall sheep and black bear. People who have ventured deep into the valley frequently comment on the scenic beauty of the headwaters area.

Little Peters Creek drainage is also known as Ptarmigan Valley. A road leading into the valley's high country begins at the Glenn Highway and continues into the park. Use occurs throughout the year. In the summer, people seeking a short hike find this area a good destination. In the late summer and early fall, the area abounds with berries and local residents turn out in large numbers. Winter brings cross-country skiers and snowmachiners who find the valley suited for such activities.

SPECIAL CONSIDERATIONS

Existing Management Areas

Snow machines are presently allowed in Little Peters Creek, Peters Creek and the lake area of the Eklutna basin. Summer off-road vehicles are not allowed in this unit of the park because of the fragile terrain which would be damaged by such use.

Hunting and trapping are allowed throughout the unit with the exception of most of the Eklutna drainage where a wildlife viewing area has been established. The entire drainage is closed to all hunting, trapping and shooting except for the East Fork of Eklutna River and Thunderbird Creek.

Alaska Native Claims Settlement Act

Within this unit of the Park, over 40,000 acres (16,200 hectares) of land have been selected by the village corporation of Eklutna. These land selections are part of the land entitlement granted to that village as part of the 1971 Alaska Native Claims Settlement Act. When land is transferred under the Act, it becomes privately owned. Consequently, if all the land selections within the park are patented to the Eklutna corporation, numerous recreational opportunities now available to the public will be lost. Since the village over-selected its entitlement, some of the 40,000 acres (16,200 hectares) may not be transferred.

Existing Private Lands (inholdings)

Three large parcels of private land and three smaller ones are located within this unit, totalling approximately 1,330 acres (540 hectares). One is in the Eklutna Basin near the lake's north shore, one in Peters Creek and one above Fire Lake, known as the Swiss Alps Subdivision. Of the three, the inholding in Peters Creek is considered the most important in terms of the park's integrity. Here extensive or intensive development would change the nature of the valley where previously little use has occurred. The Swiss Alps area sits somewhat remotely on a hilltop and even if developed, would affect only the immediate area and the upper reaches of Little Peters Creek. Of the inholdings within this unit, those in the Eklutna basin (one large parcel and three smaller ones) represent the least potential conflict to existing or anticipated park use patterns. However, when some or all of the 40,000 acres (16,200 hectares) selected by Eklutna Village becomes private land, there could be extensive conflicts between recreation and development goals for the Eklutna Basin and much of the rest of this planning unit.

Adjacent Lands Outside of Park Boundaries

Lands to the west of this planning unit are primarily privately owned. East of the park lie scattered parcels of private lands, lands selected by Eklutna, Inc. and other state lands. Along the shores of Lake George and the south bank of the Knik River lies the little-known Lake George National Natural Area. To the north is a 4-mile (6.5 kilometer) by 1-mile (1.6 kilometer) corridor of land administered by the Alaska Power Administration which forms a deep indentation of federal land into the Eklutna basin. Beneath this corridor lies a tunnel which carries water from Eklutna Lake to the power generating turbines of the power house on the Old Palmer Highway below. The resulting electrical power is then distributed to Palmer and Anchorage. Access to Goat Creek on the north is blocked by the presence of private land between the northern park boundary and the Knik River Road.

Concerns Expressed at Public Meetings

As part of the planning process described in Chapter 2, a public workshop was held in April, 1977 in Chugiak. The list that follows capsulizes the concerns voiced by local residents who attended that meeting. Many of the ideas have been incorporated into this plan.

- Difficulty in reaching the park.
- Need for access to Peters Creek.
- Need for access at Goat or Hunter Creeks.
- The park's fringe area should be developed, but not the back country areas.
- Need for more exclusive cross-country ski areas.
- Need for more off-road vehicle areas in the park.
- Need to restrict the use of off-road vehicles in the park.
- Facilities to serve senior citizens.
- Need to close the park to hunting.
- Need to close the fringe areas of the park to hunting and trapping to avoid incompatible uses.

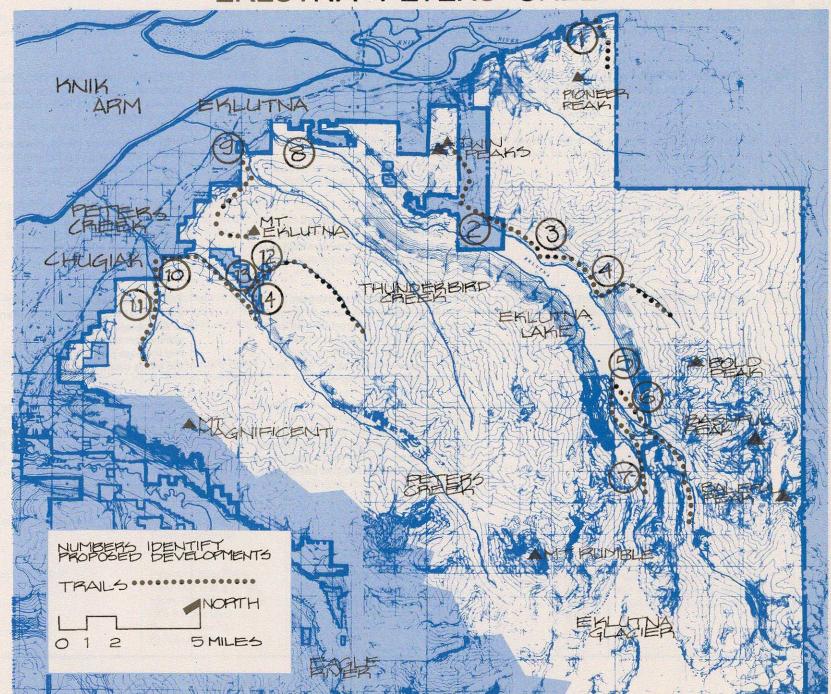
UNIT OBJECTIVES

Based upon the unit's resources, current and anticipated use and public input, unit objectives have been established to guide formulation of the following management and development recommendations:

- Designation of access points and construction of facilities, including a visitor center/ranger station, campgrounds, picnic areas, parking areas, toilet facilities and informational and regulatory signs.
- 2. Designation of trailheads with adequate provisions for parking and the brushing and signing of trails.
- 3. Enhance public appreciation through the interpretation of unique natural features and Indian history.
- 4. Maintain the wildlife viewing area in the Eklutna Basin.
- 5. Provide state contribution toward maintenance of privately maintained roads leading to established park access points as appropriate to the amount of traffic generated.

EKLUTNA-PETERS CREEK PROPOSALS

figure 8



Map No.	Devel. Phase		Location	Scope	Justification
1	C ₆	Pioneer Peak trailhead	¼ mile (400 meters) east of Knik River bridge on Old Palmer Highway	Construct parking area for 5-10 cars, latrine, trailhead signs and bulletin board.	No existing public access to the park in this area. Current use and public request demonstrate need. Inadequate off-road parking.
1	C ₆	Pioneer Peak trail	Between Pioneer Peak Trailhead and timber- line	Mark and maintain approximately one mile of trail from trailhead to a point at timberline where hikers can then find their own route to high valleys and peaks.	Well used route by hikers, climbers and hunters going into Pioneer Peak area. Proposed route heavily overgrown with devils club and alder.
8	D ₅	Old Eklutna dam site turnout	Existing overlook with guard rails. Mile 1.2 Eklutna Road.	Construct parking area for 3-5 cars. Install interpretive signs explaining dam history. Improve and extend guard railing to prevent climbing down steep slopes.	Old dam site is a valuable interpre- tive feature in the park. Cars need a place to stop off the roadway.
2	C ₅	Visitor center/ranger station	West end of Eklutna Lake in existing camp- ground area.	Construct facilities for interpretive displays, indoor and outdoor program area, storage for emergency medical supplies and park supplies, toilets (open 24 hours), telephone, radio, office space and temporary quarters for a ranger.	The Eklutna Basin is 50 miles (80 kilometers) from park headquarters in Anchorage. This facility will provide necessary visitor services and increase capability to manage the entire basin.
2		Eklutna Lake camp- ground and picnic area	West end of Eklutna Lake	Expand existing campground to 50 units. Part or all to be open year-round. Eliminate camp sites subject to flooding. Expand picnic area to 10 sites. Parking for picnic area exists. Add wood storage bin, water, toilets, fire pits and bulletin boards.	Existing and anticipated use demonstrates the need for more facilities, which the area is capable of withstanding. Need to absorb camping units which must be removed from the east end of the lake due to flood danger. Lakeshore provides good quality picnic sites.

Map No.	Devel. Phase	Proposal	Location	Scope	Justification
2	C ₄	Twin Peaks trailhead	West end of Eklutna Lake	Construct parking area for 5-10 cars, bulletin board and trailhead sign.	Current parking is insufficient. Parking will keep vehicles out of campground sites.
2	C ₄	Twin Peaks trail	Between Twin Peaks Trailhead and East Twin Peak	Mark and maintain a loop trail with a spur to East Twin Peak. Loop allows hikers to go up one way and come down another.	Twin Peaks are destination for numerous hikers. With development of increased camping units at Eklutna Lake, this trail will receive heavy use.
3	C ₅	Northshore trail	Between west end camp- ground and Bold Ridge trailhead	Construct approximately 4 miles (6.5 kilometers) of new trail several hundred feet above and parallel to existing road for summer hiking and winter cross-country skiing. Mark and maintain.	This will separate motorized and non- motorized uses year-round. Provides good berry picking and view of lake.
4	C ₅	Bold Ridge trailhead	East lakeshore approx- imately midway be- tween ends of Eklutna Lake	Improve parking area to accomodate 5-10 cars, trailhead sign and bulletin board.	Lack of adequate off-road parking for this currently used trailhead.
4	C ₅	Bold Ridge trail	Between Bold Ridge Trailhead and Bold Ridge	Mark and maintain existing route. Approximately 3 miles (5 kilometers).	Popular route not maintained or marked.
5	А	Eklutna Lake Camp- ground	East end of Eklutna Lake at existing camp- ground	Remove camp sites prone to flooding. Redesign existing sites for walk-in tent camping only. Two picnic shelters, toilets, water, bulletin board, fire pits, wood storage bin. 20-30 campsites. Parking area for 30-40 cars.	Sites should not be in area subject to recurring flood damage such as occurred in 1977. Need for an exclusive tent camping area in the Eklutna Basin.
6	B4	East Fork trailhead	East Fork Eklutna River at existing bridge	Improve parking area to accomodate 5-10 cars, bulletin board and trail- head sign.	Lack of adequate off-road parking for this currently used trailhead.
6	В4	East Fork trail	Between East Fork trailhead and a point approximately 6 miles (9½ kilometers) up the East Fork of Eklutna River.	Mark and maintain approximately 6 miles (9½ kilometers) of trail up East Fork of Eklutna River.	Currently used. Need to improve marking and maintenance to allow access for wildlife viewing and day hiking.

Map No.	Devel. Phase	_	Location	Scope	Justification
14	В1	Peters Creek trailhead (if development occurs on private inholding)	Trailhead at south- east end of private land on Peters Creek	Construct parking area for 20-30 cars, trailhead sign, bulletin board, restroom, dumpster, and 5-10 picnic sites.	Heavy use of Peters Creek Valley will demand a trailhead and related facilities to accommodate visitors and direct the use in a manageable manner.
10	В	Peters Creek Camp- ground trailhead and trail	Between Peters Creek campground and a point within the park.	Upon establishment of a Peters Creek Greenbelt, construct a trailhead within the Peters Creek Campground with bulletin board and trailhead sign. Construct a trail from this point to a point within the park which will provide destination and an easy day hike for campground visitors. Trail should be 1-2 miles (1½-3 kilometers) long.	To increase the variety of experiences available to campers. To provide a trail within sight and sound of a highly scenic creek.
11	A	Little Peters Creek trailhead	Near park boundary on road up Little Peters Creek	Parking for 25-50 cars. Latrine, dumpster, bulletin board, and trailhead sign. Annual contribution by state to help maintain privately maintained roads. Acquisition of private parcel may be required for parking area and trailhead.	Snow machine access in winter. Hiker access in summer. No present access for snow machines in this area of park. Good year-round access to high country. Considerable existing use. Road beyond this point is too steep to maintain for year-round vehicle access.
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EAGLE RIVER PLANNING UNIT

SETTING

Dominated by the broad U-shaped valley of Eagle River, this planning unit spans the park from east to west. Composed of Eagle River and its main tributaries, the South Fork of Eagle River, and Meadow, Raven, and Camp creeks, the area contains landscapes ranging from broad flat valley bottoms to rugged mountains and glaciers. Eagle River meanders back and forth across its broad flood plain leaving numerous old channels and gravel bars. Above the flood plain, generally 500 feet (150 meters) in elevation, the area is heavily forested with white spruce-birch forests. Steep-sided mountains rise abruptly from the valley floor, and a definite brush line of willow and alder grows above the forested areas. Yet, at higher elevations, tundra, bare rock and ice dominate.

At the far end of the valley, about 24 miles (38.5 kilometers) upstream from the community of Eagle River (population approximately 15,000), one of the park's major valley glaciers winds downhill to an elevation of about 900 feet (270 meters). At the glacier's terminus lies a lake formed about 30 years ago, referred to locally as Glacier Lake. The glacier itself is part of the park's larger glacial system to the south and east where higher elevations and dramatically increased levels of precipitation feed snow into the system which sustains the lower-lying portions of the glaciers.

Approximately 4 miles (23.5 kilometers) upstream from Eagle River and the Glenn Highway, the site of an 800 acre (325 hectares) fire which burned in 1976 has created the opportunity for interpretive programs focusing on plant succession and moose browse.

From Anchorage, this unit of the park is reached by traveling approximately 10 miles (16 kilometers) north on the Glenn Highway. Access to the South Fork of Eagle River is gained by turning onto Hiland Drive and proceeding up the valley. The main fork of Eagle River and its tributaries are reached by turning into the community of Eagle River and then continuing along the Eagle River Road into the park.

In the South Fork a controversy exists over the legal status of the road as a public access through private lands. Prior to this controversy the valley was used as a regular hiking and cross country skiing area. Limited numbers of snowmachiners also used the area when there was sufficient snow depth.

Adjacent to Eagle River lie numerous tributaries, many of them coming out of hanging valleys whose waters fall precipitously into the main drainage. During breakup and after periods of heavy rains, several waterfalls burst into short-lived action. Field observations note that many of these high, remote side drainages provide shelter for the Dall sheep found within the area. A small mountain goat population inhabits the more precipitous terrain of the upper drainage.

Eagle River's South Fork valley represents significant opportunities within the unit due to its large size and numerous attractions. At the end of the valley lie Eagle and Symphony Lakes. Eagle Lake is milky colored while Symphony Lake has a clear deep crystal blue color creating a striking contrast. Also within the valley are several rock glaciers which are geologic forms composed of a moving unit of rock and ice.

Within the unit the one item of historic significance is the well-known Iditarod Trail. Used primarily during the gold rush era of Alaska, some 21 miles (34.7 kilometers) of trail winds through the park. In the area of Crow Pass, at the park's southern

edge, many remnants of gold mining activities can be easily seen by hikers and skiers. Winter use of the Crow Pass area is dangerous, as it is susceptible to avalanches.

EXISTING USES AND TRENDS

Recreational use in the main Eagle River valley is considered heavy although exact figures are difficult to establish because of the lack of defined access points along the 12 miles (20 kilometers) of road. Throughout its length, people regularly stop to seek out the nearby woods, the river, and ponds. Many residents of Eagle River merely have to walk across the road to do so.

Paradise Haven, a privately owned and operated establishment, provides parking for hikers, skiers, and snow machiners who use the park. During the summer months, people seek out areas along the river for launching their canoes and kayaks. Field observations by park rangers indicate the possibility of locating several launch and take-out points along the river to facilitate this use.

The only park facility in the unit is the Eagle River Campground located adjacent to the river and the Glenn Highway. There are 42 developed campsites and 12 developed picnic sites. Trails totalling approximately 42.5 miles (67 kilometers) lead out of Eagle River drainage.

The newest use occurring in the area is hang gliding. Several launch points within the area are considered suitable by the "sky sailors." This use is generally acceptable within the park as long as basic safety precautions are followed, conflicts with Dall sheep lambing areas are avoided, and mode of access to the launch area does not conflict with other established recreational forms or park regulations.

Recreational use in the Eagle River valley and its tributaries is increasing. As the population of Eagle River continues to increase so will use. Virtually every form of activity is experiencing increased participation.

Use Conflicts

- * Although hang gliding is a compatible use in many areas of the park the potential for conflict arises in Dall sheep lambing areas.
- * Game poaching is a serious problem throughout the area.
- Unsurveyed park boundaries create recurrent enforcement problems.
- * The desire to hunt in proximity to populated areas along public roads and trails, and near active recreation areas is sometimes at odds with wildlife viewing and other recreational experiences.
- * The unauthorized and unjudicious use of off-road vehicles in the park creates problems for users and managers in areas where such use is damaging to the soil and vegetation and in areas that may be more suited to non-motorized recreation.

SPECIAL CONSIDERATIONS

Existing Management Areas

Snowmachines are allowed in the main drainage of the Eagle River valley up to the terminus of the glacier.

Currently, Eagle River drainage, which includes Meadow Creek and the South Fork of Eagle River, is closed to all trapping and to moose and black bear hunting. Small game may be hunted with shotgun or bow. This area is being considered for an additional wildlife viewing area. The Eagle River drainage above the gorge (beginning approximately five miles beyond Paradise Haven Lodge on the Iditarod Trail) is open to Dall sheep hunting.

Alaska Native Claims Settlement Act

This unit contains approximately 6,000 (2,430 hectares) of land which have been selected by Eklutna, Inc. These lands are almost wholly within the flood plain area of Eagle River, beginning at the Glenn Highway and continuing almost 8 miles (13 kilometers) up the valley. When these land selections are patented to the Native corporation, numerous recreational opportunities now available to the public will be lost.

Private Lands (inholdings)

Approximately 2,900 acres (1,175 hectares) of private land exist within this unit, a majority of which is in the South Fork of Eagle River where residential subdivision is occurring. Primary access to the land is via Hiland Drive which turns south off the Glenn Highway. During winter and spring a four wheel drive vehicle is necessary to gain access to much of the private land.

Adjoining the private lands in the South Fork is another large block of private land on Eagle River. Two jeep roads lead to this area. During all seasons a four-wheel drive vehicle is necessary to reach the area.

Also on the main fork of Eagle River are two smaller parcels located at the end of Eagle River Road. These, like many other parcels in the park are owned by individuals who are developing the land for residential purposes. One exception is the Paradise Haven Lodge, a commercial establishment serving food and beverages. A trailhead for a portion of the Iditarod Trail begins at this commercial establishment.

Federal Lands

Eagle River Power Reserve extends along the river approximately one quarter of a mile wide from Eagle Glacier to the park boundary at the Glenn Highway. This federally administered reserve also includes an application by the Municipality of Anchorage for power site designation. Pending the conclusion of the current "Metropolitan Anchorage Urban Study" being carried out be the Anchorage Municipality and the U. S. Army Corps of Engineers, recommendations will be made by these agencies for this area of the park.

Public Concerns

At the public workshop held in Eagle River in April 1977, citizens of the area put forth their concerns for the park, summarized below:

The need to develop a suitable access point for the Iditarod Trail near the Paradise Haven Lodge.

- The State should maintain access roads to the park.
- Trails should be developed along both sides of Eagle River.
- The Eagle River basin should be closed to hunting to allow the area to become a wildlife viewing area.
- Open the park to mineral prospecting, especially around Organ Mountain and Mt. Magnificent areas.

UNIT OBJECTIVES

Based upon the unit's resources, current and anticipated use and public input, the following unit objectives have been developed to guide formulation of development recommendations for the Eagle River unit:

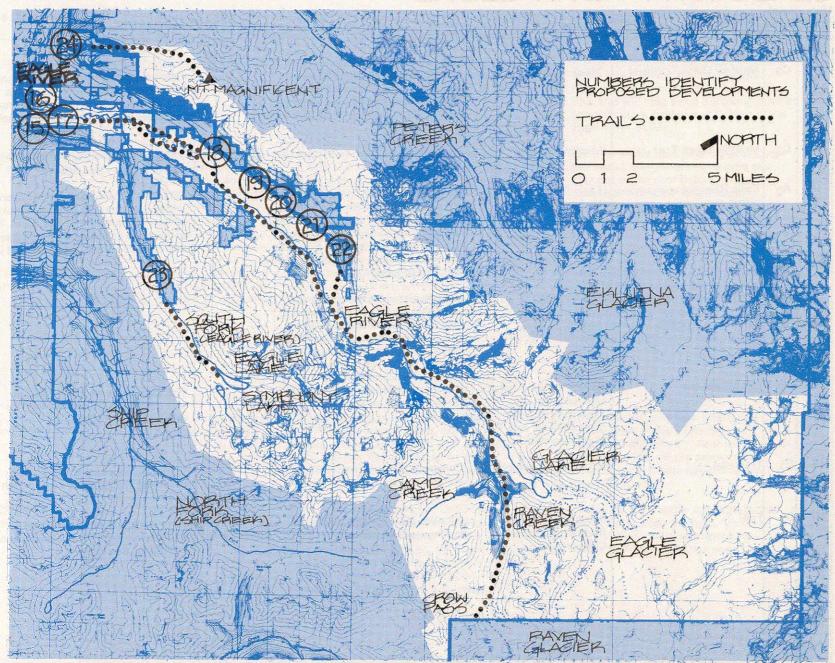
- 1. Establishment of a visitor center/ranger station to provide necessary visitor services in the Eagle River valley.
- 2. Designation of riverside access points with provisions for parking to facilitate use of Eagle River.
- 3. Provide for the interpretation of unique natural features.
- Establishment of trailheads and trails for hiking, cross country skiing and snow machining and other recreational pursuits.
- Establishment of a wildlife viewing area in the Eagle River drainage.
- 6. Provide state contribution toward maintenance of privately maintained roads leading to established park access points as appropriate to the amount of traffic generated.



EAGLE RIVER VALLEY is the largest valley that originates within Chugach State Park..

EAGLE RIVER PROPOSALS

figure 9



Map No.	Devel. Phase		Location	Scope	Justification
24	C3	Meadow Creek Trailhead	Meadow Creek	Construct a 10 car parking area, bulletin board and trailhead sign. Annual contribution by State would be provided for privately maintained roads.	Cars now park in the road and cause congestion problems. Parking area will eliminate the problem and provide an access point to this hard-to-reach valley.
24	C ₃	Meadow Creek Trail	Meadow Creek	Brushing and signing of 6 miles (9½ kilometers) of trail.	This will improve cross-country skiing opportunity in this vicinity.
15	A ₂	Eagle River Campground picnic area	Eagle River and Glenn Highway	Enlarge existing campground up to 50 sites with separate tent and vehicle camping. Remove existing units which are too close to river and highway. Provide wood storage bin, fire pits, tables, dumpsters, water pump and an outdoor program area.	Serve the growing demand for overnight and day use areas in close proximity to the community of Eagle River. This project was approved by the passage of the 1976 Parks and Heritage bond issue.
				Enlarge picnic area up to 50 sites, mostly in vicinity of canoe takeout area. Provide toilets, tables, fire pits, 2 picnic shelters and parking for 50-75 cars and one half mile of road.	
15	A ₂	Canoe take-out	Several hundred meters upstream from the Eagle River Camp- ground/Picnic area at gauging station	Construct boat ramp, 50 feet (15 meters) of trail to parking area, special signs.	This represents the lower limit of safe travel and the terminus of the canoe trail on Eagle River.
15	D ₁	Trailhead	Eagle River Campground	Construct parking area for 10-20 cars, bulletin board, trailhead sign.	Trailhead necessary to mark trail's beginning along Eagle River's south side.
15	D ₁	Trail	South side of Eagle River beginning at Campground	10 miles (16 kilometers) of trail, signing and maintenance.	To provide interpretive and scenic trail for the Eagle River Campground and picnic area visitors.

Λap Io.	Devel. Phase	Proposal	Location	Scope	Justification
16	В	Cross-country ski trails	Adjacent to Lions Club Park	Construct 10 kilometers of cross country ski trails, bulletin boards, special signs, toilets, dumpster. Close 80 acres (32 hectares) to snow machine use.	Recognize an area already used by skiers into a safe, well-marked trail system. Parking already exists at the Lions Park, This area will help avoid a growing conflict between snow machines and skiers in the Eagle River Valley.
17	A2	Canoe trail access and 1 mile of road	Road: between Eagle River landfill on Hiland Drive and the powerline crossing on Eagle River. River Access: west bank of Eagle River at powerline crossing	Road: Grade and gravel approximately 1 mile (1.6 kilometers) of existing road. River Access: Construct parking for 10 cars, trail and boat ramp.	River is heavily used now. By providing this access, inexperienced canoers can take out of the river before getting into class III white-water which starts immediately below this point. There is presently no public vehicular access to this point.
18	С	Canoe trail access and picnic area	Mile 7.4 Eagle River Road near junction of East and West Channels	Construct parking area for 20-30 cars, 10-20 picnic tables, latrines, bulletin board, trailhead signs and trail to and between river channels. 600-900 feet (180-270 meters) of trail required. One trail between parking area and river where river bend is closest to road. Another section of trail connecting channels at narrowest point approximately 600 feet (180 meters) upstream.	Two channels of river merge allowing one site where canoes can be recovered from either channel. Good quality area along river bank for picnic sites and canoe launch. Last point on river for canoe launch/recovery, prior to end of canoe trail.
19	B kg sk	Canoe trail access and picnic area	Mile 8.1 Eagle River Road at Loop Road	Construct parking area for 20-30 cars, 10-20 picnic tables, toilets, bulletin board, trailhead signs, and trail to river. 100-300 feet (30-90 meters) of trail construction required between parking area and river.	An existing heavily used picnic site. Provide easy access to fishing and canoe launch/recovery. Area will need minimal additional site preparation to become most desirable picnic area along the road.
20	A2	Canoe trail access and ice skating	Mile 9.3 Eagle River Road, where river runs next to road and pond exits.	Construct parking area for 15-20 cars as an extension of roadway shoulder between existing turnout and pond. Toilets and trailhead sign. No picnic sites planned at this time. Approximately 50 feet (15 meters) of trail required to river from parking area.	This is the most easily accessible canoe launch areas along the road. There exists a small overused turnout for access to the river and the park.
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Map No.	Devel. Phase	Proposal	Location	Scope	Justification
21	A ₁	Picnic area and trailhead	Mile 11.1 Eagle River Road where main road forks	Construct parking area for 15-20 cars, latrines, trailhead sign and bulletin board. Improve 5 miles (8 kilometers) of trail to and along a small creek known locally as Barclay Creek.	This area presently receiving considerable use for access to Barclay Creek for fishing, camping, hiking, picnicking and cross-country skiing. No facilities presently exist for these activities.
22	A ₁	Visitor center/ranger station	Near Mile 12 Eagle River Road	Construct a visitor center/ranger station or acquire and convert an existing building. Provide for information distribution, program room/outdoor program area, office and temporary quarters, 24 hour toilets, small unmanned food/drink concession, telephone/radio, storage of emergency medical supplies and park supplies. Parking for 50-100 cars, bus turn-around, and water pump. Annual contribution by State to help maintain private roads.	The facility has been requested by local citizens for numerous years to serve the growing demand for visitor services in the Eagle River Valley. The 1976 Parks and Heritage bond issue allocates money for this project.
22	A ₁	Picnic tables	Near Mile 12 Eagle River Road	Install 5-10 picnic tables to be located near visitor center/ranger station.	To provide outdoor picnicking opportunity.
22	A ₁	lditarod Trail and Eagle River trailhead	Near Mile 12 Eagle River Road	Construct a trailhead area with bulletin board and trailhead signs leading toward two trails which begin here.	The site is already a trailhead for the Iditarod Trail. It will also serve as trailhead for a nature trail and canoe portage to Eagle River Canoe Trail.
22	A2	Nature trail and Canoe portage	Near Mile 12 Eagle River Road to River	Construct approximately 1½ miles (2½ kilometers) of boardwalk.	This site represents the beginning of the canoe trail system on Eagle River and crosses primarily wet ground with diverse vegetation and views. This is a loop-trail serving the dual role as interpretive trail for the visitor center and portage to the beginning of the Eagle River Canoe Trail.

Map No.	Devel. Phase	Proposal	Location	Scope	Justification
22	A ₁	Iditarod Trail	Near Mile 12 Eagle River Road (Trail to Crow Pass)	Approximately 25 miles (40 kilometers) of trail, brushing and marking. Foot suspension bridge over Eagle River at a narrow point and possible 5 miles (8 kilometers) of new trail construction.	The historic Iditarod Trail is heavily used by the public and offers a crosspark trail. The bridge is considered a safety necessity because of the changing river bed.
-	A ₂	Eagle River Canoe Trail	Near Mile 12 Eagle River Road to power- crossing above Eagle River Campground	Approximately 30 miles (48 kilometers) of canoe trail. Signs and mile posts to be placed as necessary for safe use of the river and its banks.	Public demand for launch and take-out sites on Eagle River to support existing use and to improve safety.
23	c ₂	South Fork trailhead	South Fork Eagle River	Parking for 10-20 cars, bulletin board, trailhead sign, toilets.	Public request for access to the South Fork of Eagle River.
23	C2	South Fork trailhead	South Fork Eagle River	7 miles (11 kilometers) of maintained trail leading to Eagle and Symphony lakes.	Public request.

SHIP CREEK PLANNING UNIT

SETTING

The Ship Creek planning unit encompasses an area of 46,000 acres (18,630 hectares). The unit has two main valleys surrounded by peaks and ridges of the South Fork of Eagle River and the Hillside and Turnagain Arm areas. The valleys contain numerous small lakes and tributaries. The entire unit has been zoned as "watershed" by the Municipality of Anchorage (Title 21 of the Anchorage Municipal Code). It is one of the primary sources of water for the Anchorage military and civilian population. The main fork of Ship Creek begins at Ship Lake in the extreme southwestern corner of the unit and flows northwest for 13 miles (20 kilometers) where it exits the park and eventually flows into Cook Inlet. The North Fork headwaters are in the extreme eastern corner of the unit and flow northwesterly for 9.5 miles (15 kilometers) where they join the main creek.

There are numerous areas of muskeg and bog along the course of the creek, particularly at elevations below 1,500 feet (450 meters).

Tundra and rock predominate in two-thirds of the drainage. In the remaining third, and in close proximity to the main creek bed, are heavy stands of cottonwood, birch and white and black spruce. Farther from the wet areas, there is an abundance of alder, dwarf birch and dwarf mountain hemlock. Many varieties of edible berries and wild flowers complete the transition from forest to tundra.

Wildlife is plentiful in the Ship Creek drainage, due in part to the limited number of visitors. There are frequent sightings of black and grizzly bear, moose, wolves and Dall sheep. There is evidence of beaver which previously inhabited the unit but may no longer be present. Dolly Varden and rainbow trout are present in small numbers in Ship Creek.

Of historical significance is a branch of the Iditarod Trail which passes through this unit. This was one of the routes that gold seekers used during the early 1900's enroute to the gold fields of interior Alaska. It is one of two segments of the Iditarod Trail which traverse Chugach State Park, entering the southern end of the unit at Indian Pass and following the main fork northward where it leaves the park near Arctic Valley ski area. Hundreds of people walked and mushed over this trail from 1908 to 1918. Traces of the old trail and an old telegraph line are still present along much of the route.

EXISTING USES AND TRENDS

The only existing vehicle access to this unit is the Ski Bowl Road which is owned, controlled and maintained by the U.S. Army. Arctic Valley ski area, located at the end of this road, is the only commercial sports facility in the park. It is operated by the Anchorage Ski Club through a 50-year lease from the State, and includes a ski lodge, lifts and associated downhill skiing facilities, all located on 320 acres (130 hectares). This area also serves as an access point from cross-country skiers. The lease expires in the year 2022.

The unit receives limited use by hikers and backpackers in the summer, hunters in the fall and cross-country and downhill skiers in the winter. Access to and activities within the Ship Creek drainage will continue to be carefully controlled to protect its value as watershed lands.

SPECIAL CONSIDERATIONS

Management

The Ship Creek unit lies totally within the zone designated wilderness (see map on page 26). Activity within the watershed is monitored by both the Anchorage Water Utility and Chugach Park rangers to insure the purity of the Anchorage water supply. All motorized vehicles and horses are prohibited off the road within the drainage. There are no private lands within the unit.

Public Concerns

Comments pertinent to the Ship Creek planning unit gathered from public workshops are summarized below:

- The Army biathlon ski area should be brought into park management so the public can use the area.
- Water quality in the park should be protected.
- Dogs should be controlled along the ski trails.
- The trail along Ship Creek (inside the park) and the proposed Ship Creek greenbelt (outisde the park) should be connected.
- Trails should be brushed and groomed in winter.
- Sanitary facilities should be located at all park access points.
- The trail system should be destination oriented.
- The trail through Ship Creek should not be developed. The area has value as a wilderness area of the park.
- The trail through Ship Creek to Indian should be further developed.
- Backcountry cabins would cause more harm than good.
- The drainage should be kept open to hunting; however, restrictions for additional public safety should be considered.
- The drainage should be closed to hunting so that more people would have an opportunity to view wildlife.
- There should be an agreement for recreational uses of military lands adjacent to the park.

UNIT OBJECTIVES

Based upon the unit's resources, current and anticipated use and public input, the following unit objectives have been developed to guide formulation of development recommendations.

1. Improve vehicular parking along Ski Bowl Road and pedestrian access to and through the area with appropriate

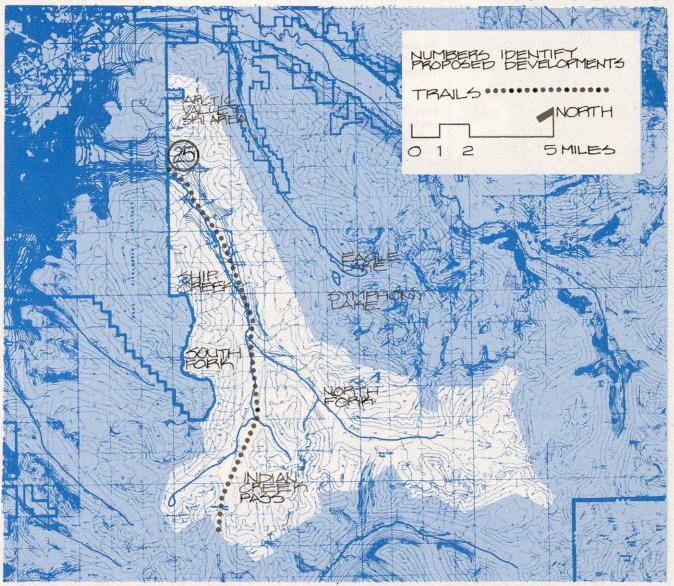
- signing and interpretation, to the extent that watershed protection and wilderness classification allow.
- 2. Preserve and interpret the route of the Iditarod Trail and telegraph line and related remnants which have historic value.
- 3. Encourage the protection of all indigenous wildlife species and reintroduce species which have been or may become lost.



ALONG TURNAGAIN ARM, a thicket of wind-shaped Sitka spruce trees has lost the battle for survival next to their kin.

figure 10

SHIP CREEK PROPOSALS



HILLSIDE PLANNING UNIT

SETTING

The Hillside planning unit consists of approximately 26,000 acres (10,530 hectares) located in the southwest corner of the park. The area has several mountain peaks over 5,000 feet (1,500 meters) high. It contains the drainages of Campbell and Rabbit creeks, Williwaw Lakes, Rabbit Lake, Long Lake and numerous others. The drainages of Campbell Creek are an important watershed area supplying underground aquifers which in turn are a major source of water for Anchorage, via deep wells located outside the park.

The mountains of this unit have high aesthetic value for Anchorage residents and visitors. It is these mountains which cradle the morning sun, display the first snow of winter, provide a kaleidoscope of changing colors, form a backdrop for many photographs of Anchorage and draw moisture from Pacific storms to supply the city with essential water. Real estate ads frequently tout "a view of the mountains." Some of the popular peaks providing destinations for hikers are Near Point, 3,050 feet (900 meters), Flattop, 3,600 feet (1,180 meters), Wolverine Peak, 4,455 feet (1,335 meters), O'Malley Peak, 5,445 feet (1,640 meters), and The Ramp, 5,240 feet (1,730 meters).

This unit is what most people perceive as being "Chugach State Park" because of its proximity, visibility and accessibility with respect to Anchorage. It is therefore an area which must accommodate and withstand heavy use, particularly along the western edge, where numerous vehicle access points exist along adjacent residential streets.

The primary vegetation in this unit is willow, alder and white spruce, with some cottonwood and mountain hemlock stands in scattered areas. Soil is generally well drained but thin, with no significantly large areas of bog. Above treeline is typical alpine tundra, including edible berries and wild flowers.

Wildlife is scarce in this unit due in part to intensive recreation and nearby development pressures. Moose may be found wintering in the lower portions of the North, Middle and South Forks of Campbell Creek and in the Rabbit Creek area. Sheep and bear are occasionally sighted in this area. Small game is found off the beaten path.

There are grayling in the lakes at the headwaters of the North Fork of Campbell Creek and Rabbit Creek. Dolly Varden are in Rabbit Creek and Rabbit Lake.

EXISTING USES AND TRENDS

While this is the smallest of the five planning units, it receives the heaviest year-round use due to its proximity to Anchorage and its easy access. It is used by rock climbers, hikers, berry pickers, photographers, sightseers, skiers, snowmachiners and others. Visitors gain access to the park's western boundary via numerous roads which receive year-round private or public maintenance. There are public access points designated at Rabbit Creek, Glen Alps, Upper Huffman, Upper O'Malley and Prospect Heights.

In spite of the difficulty in driving the steep and narrow road to the Glen Alps access, it receives the heaviest year-round use, frequently exceeding the capacity of parking spaces available. Existing improvements consist of a bulletin board

containing park information, trailhead signs and parking for about 25 cars. Once at this access point, different recreational opportunities are available. These included easy day-hikes, challenging climbs and spectacular vistas. In the winter, it serves as a staging area for cross-country skiers and sledders.

Upper Huffman access, located several hundred feet lower and 1 mile (1.6 kilometers) northwest of Glen Alps, has the best facilities with parking for 50 cars, bulletin board, trailhead signs, picnic tables and trails specially designed to accommodate the handicapped and the aged. A trail leads southeast from the parking lot up the South Fork of Campbell Creek to a snow machine area in the Campbell Creek watershed. When snow cover is sufficient to protect vegetation, the area is opened for snow machine use. Signs clearly mark the snow machine route and use area.

Upper O'Malley access point provides parking for approximately 10 cars. There are no trailhead signs or other improvements. Access to the park from this point requires a climb in all directions since the surrounding terrain is moderately steep. There is little potential for adequate improvement of this area.

Prospect Heights is the northernmost access point in the Hillside unit. Immediate access can be gained from here to the 5,000 acre (2.025 hectares) Far North Bicentennial Park. There are two small parking areas about 200 yards (180 meters) apart which can accommodate a total of about 30 cars. The only improvements are signs marking the trailheads to Near Point and Wolverine Peak, and a bulletin board. This access receives considerable use in both summer and winter and frequently precipitates complaints from nearby residents whose roads are blocked by recreationists seeking parking places.

Rabbit Creek access is via poorly maintained private roads which cross private and park lands. There are presently no park facilities at this access point, and the road is impassable during much of the year. In spite of the poor road, there is considerable traditional use of Rabbit Creek Valley.

Hiking, berry picking, climbing, picnicking and wildflower observation in the summer and snow machining and cross-country skiing in the winter are the main uses of the Hillside unit. It is expected that these uses, together with increased picnicking and sight-seeing, will dominate the recreational activities as access and facility improvements occur in the Hillside unit.

Conflicts in the unit occur between motorized and non-motorized users. Although snow machine use is fairly well confined and controlled to reduce the conflict with non-motorized users and to prevent damage to vegetation, there is a considerable amount of illegal entry and activity by off-road vehicles during the summer. This activity causes damage to the watershed by destroying vegetation, scarring the terrain and promoting erosion.

SPECIAL CONSIDERATIONS

Management

Residential development and public access along the western edge of this unit and the close proximity of metropolitian Anchorage will place extreme pressures upon the watershed, trails, vegetation, animal life and facilities of this unit.

At this time, hunting is legally limited to small game with shotgun and bow only. Trapping is open according to current Fish and Game regulations. As use of the unit increases, there may be increased public pressure to reduce or eliminate hunting and trapping so as to protect visitors and wildlife.

Management of motorized vehicles, especially the illegal use of off-road vehicles in summer, is currently a difficult problem to deal with. It will require better education of the public through media advertising, signing, and strict enforcement of park regulations. Barriers will need to be installed where necessary to prevent unauthorized and damaging use of off-road vehicles.

The combination of steep slopes, heavy snow, high winds and heavy use, makes the Hillside unit a potentially high risk winter use area due to avalanches. Use patterns and activities must be planned to lessen the dangers to visitors from avalanches. Strong educational and forecasting programs need to continue to prepare park users and managers to deal with this danger.

Inholdings

There is one large parcel of private land located in the Rabbit Creek drainage totalling 320 acres (130 hectares). The existence of this private land within the park hampers public access and could severly damage impact recreational use and facility development.

There are two rights-of-way through this unit. One of these belongs to Chugach Electric Association and contains an above-ground electric transmission line. The other belongs to the U.S. Army and contains an 8 inch fuel line. Both of these rights-of-way roughly parallel one another and sometimes overlap as they cross the unit from near the Prospect Heights access point to Powerline Pass. There is a maintenance road along the entire length of the pipeline.

Public Concerns

The major public concerns at the April 1977 Hillside area workshops favor development of better access to the western edge of this unit. This would include adequate parking, toilets, and other facilities which would enhance opportunities to reach and use the park. The following is a summary of these major concerns:

- Access points should be developed and enlarged. Park visitors presently park in private roadways, driveways, etc.
- There is no place to park at Stuckagain Heights (inside Far North Bicentennial Park). The site could be developed into an access point.
- Access points need to be adequately patrolled and maintained.
- Need additional parking at Glen Alps access.
- There is a sense of urgency to solve the access problems in the Hillside unit.
- Better directional signs are necessary in the Hillside unit.
- State monies should be diverted to local road maintenance since the State encourages use of these privately-maintained roads by the location of access points to the park.
- Sanitary facilities should be provided at park access points, along with trash receptacles.
- There should be no commercial facilities or concessions in the park.
- There should be some toboggan trails in the park.
- More trails are needed to accommodate increasing park use.
- Some type of emergency phone should be installed at each park access.
- When trails are constructed, loop trails should be created wherever possible.

- Developments in the Hillside unit should not be located in direct proximity to residential areas or prospective residential areas.
- The front range of the park should be closed to hunting and trapping.
- A small percentage of the park should be open to ORV use.

UNIT OBJECTIVES

Based upon the unit's resources, current and anticipated use and public input, the following unit objectives have been developed:

- 1. Preservation of the Campbell Creek watershed.
- 2. Construction and upgrading of facilities on the west edge of the unit to provide increased parking and recreational opportunity and to permit better management of the unit.
- 3. Improvement and development of trail routes within the unit.
- 4. Reduce the visual impact of the power and pipeline rights-of-way.
- 5. Acquire all private lands held within the unit to preserve park integrity and improve public access.
- 6. Coordination of state park developments with development of the (Municipal) Far North Bicentennial Park.
- 7. Provide State contribution toward maintenance of privately maintained roads leading to established park access points as appropriate to the amount of traffic generated.

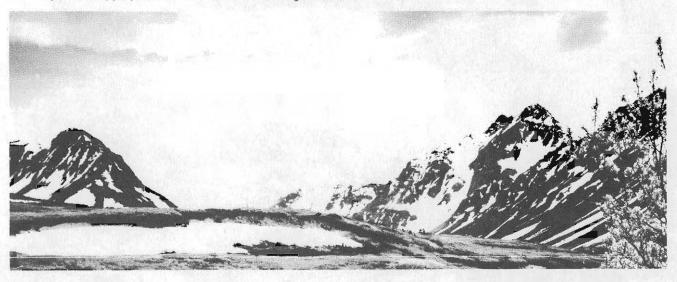


figure 11

HILLSIDE PROPOSALS 5 MILES

NORTH WILLIWAW LAKE in early September as seen from the ridge between the Middle Fork and North Fork of Campbell Creek.

Map No.	Devel. Phase	Proposal	Location	Scope	Justification
30	В	Glen Alps access road	Upper Huffman to Glen Alps	A road approximately ½ mile (1 kilometer) long between Upper Huffman access road and existing road to Glen Alps. May need to acquire right-ofway through private land.	To bypass steepest and most hazardous portions of existing Glen Alps road. Reduces amount of State's contribution to road maintenance by shortening distance to Glen Alps.
31	A1	Glen Alps picnic area and trailhead	Glen Alps access point	Relocate parking 500-800 feet (150-240 meters) inside the park. Construct parking area for 50-75 cars, 10-15 picnic sites in wooded area, bulletin board, trailhead signs, avalanche warning signs, toilets, dumpster, picnic shelter and emergency radio /phone. Annual contribution by State should be made for maintenance of private roads.	Area heavily used year-round. Parking frequently overflows into road. Highly scenic area capable of sustaining high use levels without danger to park resources. Public demand is high.
31	D	Glen Alps viewing and interpretive structure	Glen Alps access point	Wind break and interpretive structure at a high point to provide view of Anchorage, Mt. McKinley and the Alaska Range and to serve as a center for avalanche forecasting, search and rescue and interpretive education.	Excellent views from site. Would provide facility for visitor protection and education.
	A ₁	Hillside trails	All forks of Campbell Creek plus interconnections, spurs and new construction of a trail between Glen Alps access and Flattop.	Mark and maintain 50-60 miles (80-97 kilometers) of existing and new trails as determined by on-site investigation. Foot bridges, drainage accomodations and required cuts and fills will be added where necessary.	This is the most heavily used trail system in the park in both summer and winter. Improvements will allow more diversity of use and improve safety.
32	B2	Rabbit Creek trailhead	Rabbit Creek Road at park boundary	Construct a parking area for 10-15 cars at or near the park boundary. Upgrade existing privately maintained road to site. Construct toilets bulletin board and trailhead sign. Annual contribution by State should be made for maintenance of private roads.	Valley has no practical access from the west without this improvement. Valley offers high quality hiking and skiing opportunity. Constitutes a terminus for vehicular traffic.
32	В2	Rabbit Creek trail	Rabbit Creek between trailhead and Rabbit Lakes with connection to McHugh Creek trail.	Mark and maintain approximately 6 miles (10 kilometers).	Allow easy access to high quality scenery of Rabbit Creek valley.

TURNAGAIN ARM PLANNING UNIT

SETTING

This southernmost unit contains 97,000 acres (39,285 hectares) including approximately 13,000 acres (5,265 hectares) of tidelands and waters of Turnagain Arm. Near the southeastern boundary are the communities of Rainbow, Indian, Bird Creek and Girdwood. Near Girdwood and just outside the park's boundary is the State's largest downhill ski area, Alyeska Resort. Chugach National Forest and Municipal lands form the eastern boundary of the park. The southwestern portion of this unit is crossed by the Seward Highway and the Alaska Railroad.

Annual precipitation is more abundant and winter temperatures are higher along the Turnagain arm than other areas of the park due primarily to the flow of marine air from the Gulf of Alaska and Prince William Sound. Winds are typically strong and persistent as they flow down Turnagain Arm toward Anchorage.

Nearly all creeks flow in a southerly direction beginning and ending within the planning unit. Beginning with the most westerly drainage, they include Potter, McHugh, Rainbow, Falls, Indian, and Bird Creeks. As the waters of these creeks flow into Turnagain Arm they cut several well defined but shallow and constantly shifting channels in the glacial silt. Currently, one main channel approaches the north shore between Bird Point and Glacier Creek and another between McHugh and Falls Creeks.

Mountain hemlock, Sitka spruce, Alaska paper birch, and cottonwood are the dominant tree species along the Arm. This unit's Sitka spruce forests are normally identified with the moderate temperatures and high rainfall of Southeast Alaska. Vegetation patterns and species throughout the rest of the unit are typical of the remainder of the park.

Indian, Bird and Penguin Creeks are all spawning streams for pink salmon, a few king salmon and Dolly Varden, which causes the area to receive very heavy seasonal sport fishing pressure, frequently exceeding the capacity of existing parking during the summer.

Occasional beluga whales, harbor seals and sea lions enter Turnagain Arm during summer in search of eulachon, a small marine fish related to smelt, also called candlefish or hooligan. Eulachon appear in great abundance during late spring and early summer and are an important dip-net sport fishery at Twenty Mile and Placer rivers.

Large mammals in this unit include mountain goat, Dall sheep, brown and black bear, and moose. There are frequent sightings of Dall sheep along the Seward Highway between late spring and fall where south-facing slopes and meadows provide good habitat.

Important archaeological finds have recently been made along the north shore of Turnagain Arm at Bird Creek, Beluga Point and other locations. This area will play an important role in the park interpretive program.

EXISTING USES AND TRENDS

Of historic interest in this unit are the sites of the Iditarod Trail, Johnson Trail and the Alaska Railroad. The Johnson Trail

was believed to have been cut by survey crews for the railroad around 1911 and may have served as a mail and supply route along Turnagain Arm prior to the completion of the railroad in 1918. The Iditarod Trail paralleled the north shoreline from Girdwood to Indian Creek where it turned north over Indian Creek Pass. This trail was used between 1908 and 1918. The exact alignment of the trail from Indian north is difficult to determine in many places because it has not been maintained. The alignment along the shoreline has been overlain by the highway and railroad, obliterating this section completely. After the 1964 earthquake which subsided and destroyed must of the railroad bed, a minor realignment was made and fill was added to raise the tracks to their present level.

The Seward Highway is part of a transportation corridor which extends for 25 miles (40 kilometers) through the southern part of this unit. The Alaska Railroad right-of-way also shares this corridor. There are numerous vehicle turnouts along the highway where motorists gain access to the park.

There are several locations along the highway designated as official access points to the park. These include Potter, McHugh Creek, Falls Creek, Indian Creek, Bird Ridge trail, Bird Creek and Bird Point, among others.

The access at Potter has an inadequate parking area at this time. There is, however, a trailhead sign marking the start of the Johnson Trail. The trail course runs along the north shore of Turnagain Arm and is being reestablished for foot travel as far as Bird Creek. The trail will be 15-20 miles (24-32 kilometers) in length. Some sections are still visible near Indian where highway and railroad construction have not destroyed the trail.

McHugh Creek Picnic Wayside is the most highly developed picnic area in the unit. It is a 20 minute drive from Anchorage and consequently receives heavy use during the summer months. It has 30 picnic units, paved parking, toilets and trailheads to Johnson and McHugh Creek trails.

Falls Creek access is little more than a wide spot in the highway where a few cars can pull off. There is a trail up Falls Creek leading to one of many waterfalls along this creek.

Indian Creek access serves as a terminus point for hikers and cross-country skiers using Powerline Pass between Indian and Glen Alps access or the Iditarod Trail between Indian and Ship Creek near Arctic Valley ski area.

The Bird Creek-Bird Ridge area has limited parking on the north side of the road to accompdate the sport fishery and trails up Bird Creek. Bird Creek Campground is located on the south side of the highway and has 24 overnight camping units, 14 picnic units, toilets, drinking water and a shelter. This is the only camping area in the Turnagain Arm planning unit and it receives heavy use throughout the summer.

Across the Seward Highway to the north of the Bird Creek Campground is a 2,265 acre (917 hectares) wooded area owned by the Municipality of Anchorage and managed under an agreement by the State Division of Parks as part of Chugach State Park. If developed with the proper facilities, this area could satisfy camping, picnicking and recreation needs of many more park visitors. Presently, there is an extensive system of old roads and trails in this area which now serve as off-road vehicle trails in the summer and snow machine trails in the winter.

Increasing use of the above-mentioned facilities indicates a need to increase accessibility and facilities along the highway. New facility needs include additional parking, camping and picnicking areas and additional trail access into the park. Additional facilities for visitor information, public convenience and additional ranger supervision would help accompdate these needs.

Conflicts

There appear to be no significant use conflicts at this time. As additional camping facilities are developed in the Bird Creek

Valley, there may be a use conflict between summer camping activities and use of off-road vehicles, which are currently permitted in the valley. Access roads leading from the Seward Highway into Bird Creek may require some right-of-way acquisition and State maintenance before facilities are constructed in this valley.

SPECIAL CONSIDERATIONS

Seward Highway Reconstruction

Due to the existence of a major road and rail transportation corridor through this unit, many experience the park only visually. It is therefore important that any reconstruction or alterations within this transportation corridor complement and enhance visual experiences along this route.

The corridor should be accessible and safely useable by bicyclists and pedestrians. Bicycle use along the corridor is increasing. This is due to the increased interest in bicycling in general, the bike trail construction programs of the State Department of Transportation and the Municipality of Anchorage, and the scenic attractions along Turnagain Arm.

Private Lands

Private lands and rights-of-way within this unit should be developed in such a way as to enhance and complement recreational opportunity and public enjoyment of the park. An example of compatible development is the subdivision in Rainbow Valley in which the residents have combined low density developments with minimum disturbance of natural features and vegetation. Though not within the park boundary, another good example is the Bird Creek community (USS No. 1069). The 20 acre community of 9 log cabins is almost totally self sufficient, heating with wood, drawing their water from Bird Creek and not using commercial electricity. Tree cutting or terrain alterations require a majority vote of the community. During the summer months the community is almost completely hidden by vegetation.

Management

In order to properly manage the increased use that is expected, the area should be more accessible to park rangers. This can be accomplished by either providing year-round park ranger quarters near heavily used areas or increasing the number and availability of rangers who reside nearby. This will help satisfy an increasing need to protect, aid and inform park users and to interpret and protect park resources in this unit.

Public Concerns

In April 1977, a public workshop was held at Indian to hear the concerns and ideas of local residents on future park developments and existing problems. The following is a summarized list of those concerns:

- Off-road vehicles should be restricted to the Bird Creek area where they are currently allowed to operate on old logging roads.
- Keep all park developments on the fringes of the park.
- Trails should be marked more clearly.
- Adequate signing and parking are necessary at selected points along the Seward Highway.

- Access points should be within eye-sight of the road.
- Do not develop a public access point at Rainbow valley.
- More regulation enforcement is needed in the park.
- Trapping should be limited to a small number of people who hold permits.
- Dall sheep viewing areas should be encouraged.

Hazards

Avalanches and rock slides occur at various times along the Seward Highway and along the drainages near the highway. This creates a hazard to those passing through or recreating in the area. There is a great need for better information and protection from this hazard, including a series of highway hazards signs to help protect the public.

There are numerous places along the highway where motorists use inadequate pull-outs and road shoulders for parking. This is a dangerous practice and should be discouraged by proper redesign and minimal signing of the most dangerous areas.

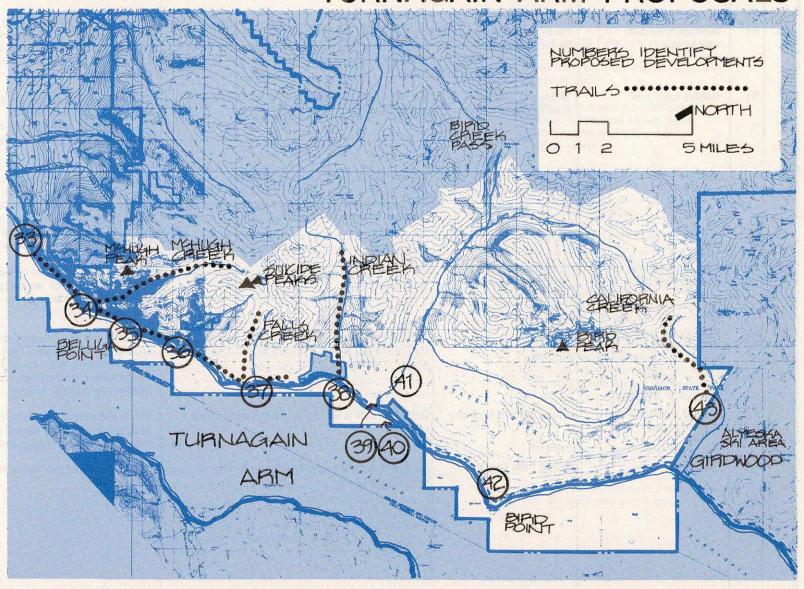
UNIT OBJECTIVES

Based upon the unit's resources, current and anticipated use and public input, the following unit objectives have been developed:

- 1. Establish a permanent visitor center/ranger station along Turnagain Arm.
- Encourage developments along and within the transportation corridor which will provide for optimum enjoyment, access to the park, outdoor recreation opportunities and safety of all visitors along this route.
- Establish more camping and picnicking areas.
- 4. Establish more parking areas, sign existing trailheads and establish new trailheads and trails.
- 5. Preserve, interpret and improve the route of the Iditarod and Johnson Trails.
- 6. Interpret historic, archaeological, natural and scenic values of Turnagain Arm.
- Establish a program to adequately educate and advise park users as to the hazards associated with avalanches along the Seward Highway and the valleys along Turnagain Arm.

figure 12

TURNAGAIN ARM PROPOSALS



Map No.	Devel. 'Phase	Proposal	Location	Scope	Justification
33	В1	Johnson traiihead near Potter	Paradise Valley Road at Johnson Trail	Parking area for 10-15 cars, bulletin boards, trailhead sign, latrine. Annual contribution by State should be made to help maintain private roads.	Establishment of northernmost areas to Johnson trail. Without this area, cars will continue to park in the road and create congestion for local traffic.
34	B ₁	Rabbit Lake trail	McHugh Creek to Rabbit Lake	7-8 miles (11-13 kilometers) of marked and maintained trail.	Connect trails between McHugh Creek and Rabbit Creek access points. This will serve an important and interesting trail loop between Anchorage's Hillside and Turnagain Arm.
35	A	Beluga Point	Beluga Point Inter- pretive Site	Parking for 30 cars, paved surface and physical separation between roadway and parking area and between parking area and railroad. Interpretive signs.	This is a 6000 year old archaeological site. It is the most significant archaeological find to date in the Upper Cook Inlet and should be a prime interpretive feature in the park. Site has been listed in the National Register of Historic Places.
36	B ₁	Johnson trailhead at Rainbow Valley	Immediately east of Rainbow Creek	Parking for 10-15 cars, latrine, bulletin boards, trailhead signs.	Provide off-road parking that will keep vehicles off private property in Rainbow Valley and provide access to the Johnson Trail.
37	В3	Falls Creek trailhead	Falls Creek	Parking area for 10-15 cars, bulletin board, trailhead sign, toilets. Parking to occur on north side of roadway.	This site will serve both the Falls Creek Trail and the Johnson Trail. Both trails already receive use, particularly during the summer months when Dall sheep viewing is a popular activity.
	A	Seward Highway rock climbing areas	Along Seward Highway	Designate safe areas off the Highway for rock climbing.	This is the only known area close to Anchorage with easy access with suitable rock faces for climbing.
37	Вз	Falls Creek trail	Along Falls Creek	Mark and maintain approximately 5 miles (8 kilometers) of trail.	Increasing use of the unmaintained existing trail.

Map No.	Devel. 'Phase	Proposal	Location	Scope	Justification
38	B ₂	Indian Creek trailhead	Near Indian at junction of powerline and Seward Highway	Construct parking area for 15-20 cars, bulletin board, trailhead sign, toilets. Fill material from highway reconstruction may be used to construct parking area.	This area will provide parking where none exists. Cars now park illegally on private property. The trailhead will serve both the Indian Creek and Johnson trails.
38	В2	Indian Creek trail	Indian Creek to Indian Creek Pass	Improve and construct 8-9 miles (14 kilometers) of trail with signing.	The route is well traveled between Arctic Valley and Indian Creek. Marking the trail will enhance visitor safety.
	В1	Johnson Trail	Potter to Bird Creek	Reestablishment of 15-20 miles (24-32 kilometers) of historic trail, signing.	This trail has historical significance to the Anchorage area. Its re-establishment will allow use of a gentle trail along Turnagain Arm.
40	C ₁	Visitor center/ranger station	Bird Creek Vicinity	Construct facilities for interpretive displays, indoor and outdoor program area, storage of emergency medical supplies, park supplies, toilets, telephone, radio, office space, and temporary quarters for a ranger	The establishment of a major facility approximately 30 miles (48 kilometers) from Anchorage will improve management capability for the proposed camping area and the entire Arm. It will reduce the amount of travel required by rangers now based in Anchorage.
40	C ₁	Bird Creek picnic area	Existing Bird Creek Campground on Seward Highway	Convert existing campground to picnic area with 25-40 picnic sites with parking area for 40-50 cars. Conversion to a picnic area will happen in conjunction with the establishment of a visitor center/ranger station at this site.	Proximity to Seward Highway creates a noise problem making the area less than desirable for overnight camping. Site well suited for picnicking with views of mountains and Turnagain Arm.
41	C ₁	Bird Creek campground	Between Bird and Penguin Creeks 1-2 miles (1.5-3 kilometers) north of Seward Highway.	Construct 40-50 unit campground, 1½ miles (2½ kilometers) of road construction, 100-200 foot (30-60 meters) bridge (over Penguin Creek), toilets, water pump, fire pits, wood bin, outdoor program area. Annual contribution by State to help maintain public or private road.	Establish (by relocating) campground in park away from road noise and traffic. This expansion will serve the increasing demand for camping in the southern end of the park.

Map No.	Devel. Phase	Proposal	Location	Scope	Justification
41	C ₁	Campground trailhead	Bird Creek Campground	Construct parking area for 15-20 cars to serve nature trail and backcountry users, bulletin board, trailhead sign, latrine.	To provide off-road parking for nature trail and backcountry users' vehicles.
41	C ₁	Bird Creek nature trail	Bird Creek Campground	Construct 2-5 miles (3-8 kilometers) of gentle grade gravel-based trail with interpretive signing. Trail forms loop to preclude necessity of retracing steps back to trailhead.	To provide interpretive recreation opportunities for campground users
39	В1	Bird Ridge trail	Bird Creek Bridge (northside)	Construct 5-7 miles (8-11 kilometers) of marked and maintained trail leading up Bird Ridge.	Mark and maintain existing route.
39	81	Bird Creek fishing area/trailhead	Adjacent to Bird Creek Bridge (south side)	Construct parking for 30-50 cars, portables latrines (during summer) bulletin board, trailhead sign, dumpster.	This site is heavily used as a fishing access point to Bird Creek. The site is the best fishing access point in the southern area of the park.
39	C ₁	Access trail	Bird Creek Bridge to campground	Construct 2-3 miles (3-5 kilometers) of trail with signs.	The trail will connect the fishing access point with the proposed campground.
42	В	Bird Point turnout	Bird Point south of highway	Construct parking for 10-20 cars, interpretive signs for tides and the historical use of ferries. Toilets and bulletin board.	Scenic turnout provides vistas of Turnagain Arm, Chugach State Park and Kenai Mountains, Site was used during gold rush era.
43	D ₁	California Creek trailhead	California Creek near road	Construct parking for 10-15 cars, bulletin board, trailhead sign, toilets. Annual contribution by State may be desirable for privately maintained roads.	Will make area readily accessible to nearby Girdwood residents. Remnants of gold mining activity and high scenic qualities provide attraction for this area.
43	D ₁	California Creek trail	California Creek trailhead leading up the valley	Construct parking for 10-15 cars, toilets, trailhead sign and bulletin board.	Public request and making many of the historic remnants accessible to hikers and skiers.

The preceding proposals for the various planning units and the following general recommendations should occur simultaneously to insure a balanced master plan for Chugach State Park.

Operations and Maintenance

Due to the complexity and length of this document the Development Section of the Division of Parks should periodically compile a companion document which specifically lists the cost of implementation of this master plan. Costs and priorities for development will be prepared annually for the Division's Capital Improvement Program (CIP) budget.

Park Signing

Appropriate signing of highways, access roads and facilities must be achieved in order to direct visitors to park facilities. All signs should incorporate the use of internationally recognized symbols and metric distances,

Zoning of Private Land

Approximately 5,830 acres of privately-owned land exist within the boundary of the park. These lands are presently zoned "unrestricted" by the Municipality of Anchorage.

Development of private lands within the park is beginning to conflict with the purposes of the park. These lands should be evaluated parcel by parcel to determine the most appropriate level of development.

The Municipality of Anchorage and the Division of Parks have undertaken zoning of these lands in accordance with guidelines established in the public interest to insure that development of lands within the park complements the recreational values that the park was established to provide.

Zoning by the Division of Parks shall not be considered a substitute for such other mechanisms as purchases and trades. Thus the rights of the landowner will be protected to the extent that they do not conflict with public values.

Mirror Lake

The Mirror Lake Picnic Wayside has been dramatically affected by changing land use. Once in a somewhat rural setting, the area is now surrounded by residential housing and a major freeway. It is heavily used on weekends, holidays and other free periods by hundreds of people seeking a place to swim, fish, picnic, ice skate and snowmachine. The "wayside" designation was originally designed for the convenience of highway travelers. It is no longer valid. The city has grown to such a point that the area is now surrounded by urban development. It is recommended that the Parks and Recreation Division of the Municipality of Anchorage take over the facility and operate it as a municipal park. A variety of methods could be used to transfer the facility, including state participation in operating funds for the first year.

Management Agreements

The Division of Parks should immediately establish a long term management agreement with the Alaska Power Administration for lands (not already in the park) which are a part of the Eklutna Power Project. Generally, this includes T15N, R2E, Section 5 & 8 and T16N, R2E, Section 17, 20, 29 and 32, Seward Meridian.

Similar written agreements should be established with other agencies, organizations or individuals, as appropriate, where none now exist.

Wildlife Viewing Areas

At the present time there is only one legally designated "wildlife viewing area" within the park. It is located at Eklutna Lake, some 50 miles (80 kilometers) from the Anchorage metropolitan center. State law mandates that areas of the park be set aside for the "local display of wildlife".

Hunting, Trapping and Firearms

As park use and development increase, it may become necessary to further restrict hunting and the use of firearms in the park. Since most intensive recreation occurs in the development zone, all hunting with firearms should cease in these areas. Use of firearms should also be limited in some areas of the natural environment zone such as within an appropriate distance of a trail or road. Trapping should be prohibited throughout the park. Safety of park visitors, their pets and the desire to encourage increased game populations within the park provide the basic rationale for this recommendation.

Fire Suppression

If a proposed park development increases the potential for fire, appropriate measures shall be taken to reduce the increased risk of fire to levels at or below those existing prior to the development. These safeguards include, but are not limited to coordinating proposed developments with the firefighting section of the State Division of Lands, training of park rangers in initial suppression techniques, acquisition of basic fire suppression and reporting equipment, installation of fire pits, increased surveillance of newly developed areas, and reducing the amount of unnecessary combustible material in the vicinity of the development.

Informational Brochures

New brochures should be developed for the following activities and locations:

- Eagle River Canoe Trail
- 2. Hiking (summer), Skiing and Snowmachining (winter) for (a) Peters Creek and Eklutna areas (b) Eagle River area, and (c) Turnagain Arm area.

District Headquarters

The location of a new District Headquarters should provide easy and quick access to the park, efficient management control, and a high degree of public visibility. These demands would be best met by establishing a headquarters near the junction of Stuckagain Heights and Tudor Roads, although other locations may be considered.

Boundary Adjustments

Boundary adjustments are recommended to ease day-to-day administrative problems and to expand the recreational opportunity offered by the park.

1. <u>Bird Creek.</u> Along the valley floor of Bird Creek and part of Penguin Creek, lie 2,265 acres (917 hectares) of land owned by the Municipality of Anchorage. Although a master plan for this municipal park completed in June of

1973, it was not implemented. Later, a management agreement was developed with the Division of Parks to manage these lands. The Chugach State Park Master Plan outlines developments for the area conforming to the municipal master plan. Before any development occurs, however, bringing the land into State ownership or long-term management is necessary. A small acreage could be retained by the Municipality for municipal park development.

- Fort Richardson Military Reserve. It is anticipated that a portion of the Fort Richardson Military reserve may be 2. surplused. If any such changes in land status become probable, the Division of Parks should seek to include within the boundary of the park those lands in the Fort Richardson Military Reservation between a point approximately 2 miles (3 kilometers) east of the existing Eagle River Campground (in T14N, R2W, Section 24), following the 1,000 foot (300 meters) contour south until it intersects the park boundary at the North Fork of Campbell Creek (T13N, R2W, Section 32). These lands are composed of approximately 21,000 acres (8,500 hectares) of high alpine country vegetated with tundra species which are not ideally suited for development. They are however, suitable for recreational uses similar to the Hillside area of Anchorage.
- Ship Creek Greenway. The Municipality of Anchorage has proposed the establishment of a Ship Creek Recreational 3. Corridor between downton Anchorage and the Chugach State Park boundary. The Division of Parks supports this greenway proposal since it provides for a permanent recreational link between Chugach State Park and the City of Anchorage. It further helps to protect the municipal and military water supplies which come from Ship Creek. Protection of the Anchorage water supply which originates in the park is one of the mandates of the legislation which created Chuqach State Park. Although this master plan does not now recommend the incorporation of the Ship Creek greenway into the park, this would be an acceptable action if this area should become eligible to pass into private ownership in the future or otherwise be threatened by unacceptable development or use.
- Lake George. The drainages of Upper, Inner and Lower Lake Georges should be included in the park. The primary reason for this eastern expansion is to add to the "wilderness zone" of the park for recreational use and for wildlife protection.

This expansion includes 249,600 acres described as T11N, R4E, Sections 1-6; T11N, R5E, Sections 1-6; T12N, R4 and 5E; T13N, R4-6E; T14N, R4-6E; T15N, R 4 and 5E, plus the S 1/2 of Range 6E, Seward Meridian. All these lands are "state selected."

Peters Creek Greenbelt

An area between the Peters Creek Camparound and the park boundary following Peters Creek should be considered for inclusion into the municipal greenbelt system. Three reasons are offered for the proposal:

- 1. The development of a greenbelt will allow both campers and local residents to gain foot access to the park without the addition of new state park facilities.
- 2. Greenbelt status will ensure further protection of the water quality to downstream users.
- 3. The area already receives recreational use by local residents.

Visitor Counts

It is necessary to improve visitation estimation techniques and accuracy. Accurate counts of park visitors, taken on a regular basis at key use areas and access points throughout the park are necessary to determine use levels and to accurately project future demand. These figures will aid in developing future revisions to this master plan, and in substantiating funding requests for facility development, operations and maintenance.

Special Recreation Use Areas

- 1. Snowmachine areas. Exclusive snowmachine use areas should be established so as not to cause damage to terrain or vegetation and to separate then from from conflicting non-motorized uses. These areas should be large and open for many vehicles to operate over varied terrain. They must avoid wildlife viewing areas or other areas of sensitive habit. They should avoid watershed areas if they threaten that resource. They should be out of sight and sound of residential and quiet sports areas. Vehicular access to a suitable staging area must be provided. The continued use of snowmachines should be allowed in the Bird Creek Valley until proposed campground facilities there are completed. At that time, a reevaluation of their continued use should be made.
- 2. Cross-country ski trail systems. Exclusive use areas should be established for cross-country skiers which will separate skiers from conflicting motorized recreational activities. Such areas should provide scenic vistas, be located close to residential areas where feasible, be accessible by vehicle, and be free from the sight and sound of snowmachines, other mechanical noises and hazardous avalance areas.
- 3. Summer off-road vehicle use (other than snowmachines). The only area of the park where four-wheel drive and summer off-road vehicles use is allowed is Bird Creek Valley. No new areas of the park should be opened for this type of recreation because of resulting damage and loss of parkland value due to erosion, vegetation loss and soil compaction. Continued use of the existing area should be allowed to continue until the proposed Bird Creek Campground is completed. At that time, a reevaluation of further use should be made.
- 4. Horse Trails. Growing horse ownership within the Anchorage area, particularly in the Hillside area, indicates an expanding interest in the establishment of horse trails in the park. Unfortunately, much of the park's level valley bottoms are not compatible with long-term horse traffic because of soft wet ground which would be heavily impacted from such use. It is recommended that a trail or series of trails with sturdy gravel bases, such as existing maintenance roads or homestead roads in the Hillside area be designated as horse trails.

Year-round Facility Use

All park facilities should be opened year-round when operational capability and funding allows. It is important to realize that winter "openings" are the most costly due primarily to road maintenance expenses.

Utilities

Because of the growing use of various areas of the park where above-ground utilities are present, public objection has been expressed concerning the obtrusiveness of utility poles, wire and pipe. The Division of Parks should assume the initiative in identifying areas of greatest concern and working with the appropriate utility owner to reduce or eliminate objectionable aspects of the utility. Appropriate measures include burying utilities, revegetating, rerouting, or otherwise screening or disquising a utility line so as to reduce the visual impact of its presence.

These same considerations should be taken into account wherever new utilities are contemplated.

Private Development Proposals

Development proposals for private lands in or near the park should be reviewed to insure compatibility of proposed land uses with the statutory purposes of the park.

Since Federal Land and Water Conservation Funds monies have been spent in Chugach State Park (as a designated project

area), proposals involving prospective land trades, rights-of-way applications or other conversion of land use must be consistent with the purposes of Chugach State Park.

Eklutna, Inc. Selections

It is strongly urged that very high priority be given to the negotiation of a land exchange whereby other state (non-park land) acreage is provided to Eklutna, Inc. in lieu of lands selected in Chugach State Park.



A TRANQUIL SEPTEMBER afternoon on the hillside above McHugh Creek Picnic Area.

IMPLEMENTATION

The scheduling of proposed developments should be based upon present and projected use levels, site suitability and availability, and availability of funding.

As use patterns change and detailed site planning begins, priorities may need to be altered. This plan is a guide based upon present knowledge, and is intended to be flexible. Regular review by Planning, Development, and Operations and Maintenance sections of the Division of Parks is essential throughout the implementation of this plan to continuously analyze public needs and insure that those needs are being met.

PHASING

Implementation of this plan is intended to occur in four phases. All phase "A" developments are intended to be completed prior to phase "B" prior to phase "C" and so on. Availability of funding will determine the time frame within which each phase will be completed.

Individual developments within the same phase may be labeled with a subscript number such as A₁ or A₂ on the charts in Chapter 4. The subscript means that the development is to be implemented simultaneously with all other developments in the same phase containing the same subscript.

NATIVE SELECTIONS

Approximately 50,000 acres (200,000 hectares) or ten percent of the total acreage of Chugach State Park has been selected by Eklutna, Inc. Part of all of this land may be conveyed to private ownership within the near future.

Each proposal which is on land subject to Native selection is identified on the implementation phasing charts at the end of this chapter. At the time a phase is being considered for implementation, proposals which are on Native-selected land should be deleted from the funding request until land ownership is subsequently resolved.

IMPLEMENTATION GUIDELINES

Trails

Division of Parks Policy Guideline No. 5 and subsequent revisions should be used during the locating and construction of all trails proposed in this plan (see Appendix 2).

Campgrounds and picnic areas

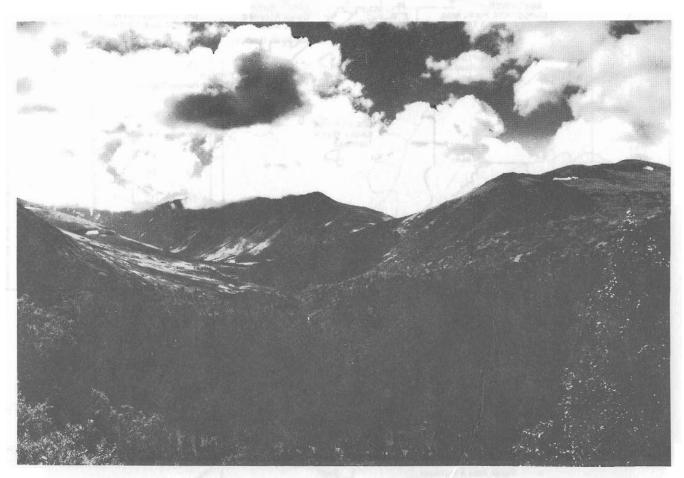
The foremost consideration in designating all campgrounds and picnic areas should be to provide a high quality experience for visitors to these facilities. In addition, design criteria should conform to the character of the area, respond to the natural forces of the topography, slope, aspect and climate, consider a variety of visual experiences, be functional, be in scale with the surroundings and the user, follow basic principles of good design and be realisite in terms of dollar costs for construction, maintenance and operation.

Parking areas

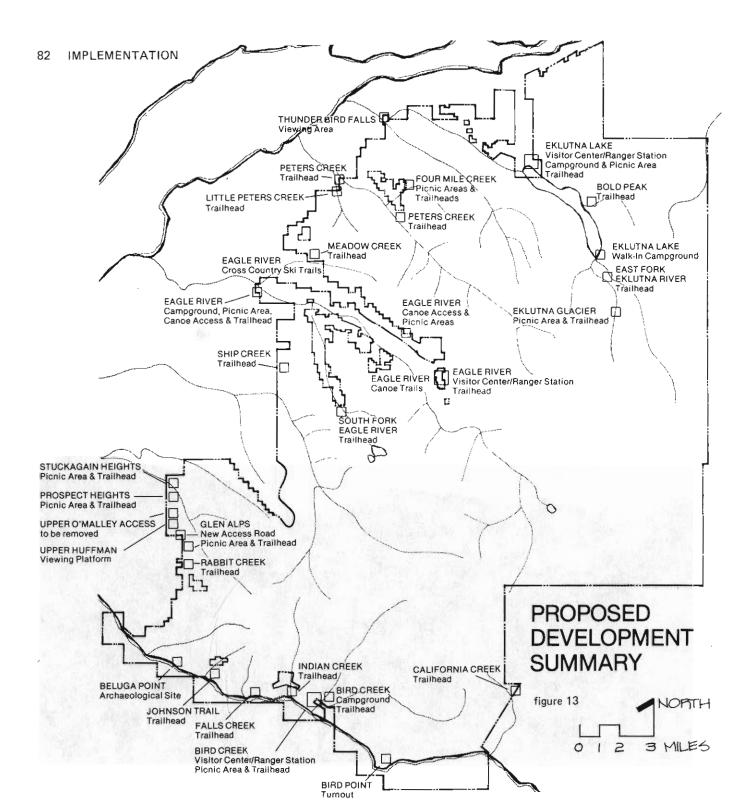
Parking areas are frequently the first site improvement seen by visitors and therefore influence their first impressions. Thus, much care must go into the location and design of parking areas. All parking areas should combine the qualities of simplicity, attractiveness, safety and function. The exact numbers of cars to be accommodated in any one area will be determined by site suitability, need and the qualities of design listed above.

Because of the distance of the Eklutna Lake Wildlife Viewing Area from the Anchorage population center, and the likelihood of large portions of it being conveyed to Eklutna Inc., the need for such an area closer to the people exists. Thus, an additional wildlife viewing area should be established in the Eagle River drainage.

The use of off-road motorized vehicles and snowmachines within wildlife viewing areas should be discouraged to the extent practical.



LOOKING SOUTH to Chugach State Park. An unnamed Ship Creek triburary viewed from the Arctic Valley Road on Fort Richardson.



PHASE A	Native Select	Map No.	Page No.	PHASE A	Native Select	Map No.	Page No.
EKLUTNA-PETERS CREEK				HILLSIDE	2343434	Ala Lu	12.3
Eklutna Glacier Picnic Area/Trailhead	×	7	35	Prospect Heights Trailhead/Picnic Area	Henrille	27	61
Eklutna Glacier Trail	×	7	35	Glen Alps Trailhead/Picnic Area	2 100	31	61
Eklutna Lake Campground (East)	×	5	35	Upper O'Malley Trailhead (removal)	vA pine 1	28	61
Little Peters Creek Trailhead		11.	35	Hillside Trail System (50-60 miles)	beacher)	energy a	Pege
EAGLE RIVER				TURNAGAIN ARM	replaced.	in/O ii	ord
Visitor Center & Ranger Station		22	45	Beluga Point Interpretive Site	H 10	35	69
Iditarod Trail & Eagle River Trailhead		22	45	Seward Highway Rock Climbing Areas	1		roni)
Iditarod Trail		22	45		79.00	er er er	100
Picnic Tables		22	45			T.H	SHA)
Nature Trail & Canoe Portage		22	45		31	anuro s	INE:
Eagle River Canoe Trail		• • • •				ingl.	4.41
Picnic area & Trailhead (Mile 11.1)		21	45		milled on ve	day o	POTON .
Canoe Launch Area (Mile 9.3)		20	45				
Canoe take-out at Powerline	×	17	45			adra	JIH
Canoe take-out at Campground		15	45		(Spring)	disped	Smi
Campground & Picnic area Expansion		15	45		hest	oksa 7 ni	5080
SHID CDEEK				5	soft year fa	K PULL	MIS SIM
SHIP CREEK						Š	
none							
			-			9	
						1 1	
	1.						

PHASE B	Native Select	Map No.	Page No.	PHASE B	Native Select	Map No.	Page No.
EKLUTNA-PETERS CREEK	ı			HILLSIDE	1		
East Fork Trailhead	X	6	35	Rabbit Creek Trailhead	32		61
East Fork Trail	X	6	35	Rabbit Creek Trail	32		61
Peters Creek Picnic Area & Trailhead	X	12	35	TURNACAINARM			
Peters Creek Trailhead	X	10	35	TURNAGAIN ARM Potter Trailhead at Johnson Trail	33		69
Peters Creek Campground/Trailhead/Trail	×	10	35	Johnson Trail (Potter to Bird)			
EAGLE RIVER				Rainbow Creek Trailhead	36		69
Cross Country Ski Trails (Lions Park)	X	16	45	Falls Creek Trailhead	37		69
Canoe Trail Access and Picnic Area	X	19	45	Falls Creek Trail	37		69
(Mile 8.1)				Indian Creek Trailhead	38		69
SHIP CREEK				Indian Creek Trail	38		69
Trailhead		25	51	Bird Creek Fishing Access	39		69
Arctic Valley to Indian Creek Pass Trail		25	51	Bird Ridge Trail	39		69
IIII I CIDE				McHugh Creek to Rabbit Lake Trail	34		69
HILLSIDE Construction Uniches Disease Aven Trailleand		26	0.1	Bird Point Turnout	42		69
Stuckagain Heights Picnic Area Trailhead			61				. [
North Fork Trail		26	61				
Glen Alps Access Road		30	61				
				·			

PHASE C	Native Select	Map No.	Page No.
EKLUTNA-PETERS CREEK			
Pioneer Peak Trailhead	×		35
Pioneer Peak Trail	×	1	35
Twin Peaks Trailhead	×	2	35
Twin Peaks Trail	×	2	35
Eklutna Lake Campground/Picnic Area (West)	×	2	35
Eklutna Lake Visitor Center/Ranger Station	×	2	35
Bold Ridge Trailhead	×	4	35
Bold Ridge Trail	x	4	35
Northshore Trail	x	3	35
EAGLE RIVER			
Meadow Creek Trailhead	×	24	45
Meadow Creek Trail	×	24	45
South Fork Trailhead		23	45
South Fork Trail		23	45
Canoe Trail Access and Picnic Area (Mile 7.4)	x	18	45

P	HASE °	Native Select	Map No.	Page No	
	SHIP CREEK				Ì
	None				
	HILLSIDE				
	Upper Huffman Viewing Platform		29	61	
	Upper Huffman Picnic Shelter		29	61	
	TURNAGAIN ARM				
	Visitor Center/Ranger Station		40	69	
	Bird Creek Picnic Area		40	69	
	Bird Creek Campground & Trailhead		41	69	
	Trail (Bird Creek Fishing Access to Campground)		39	69	
					ĺ
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PHASE D	Native Select		Page No.	PHASE D	Native Select	Map No.	Page No.
EKLUTNA-PETERS CREEK				TURNAGAIN ARM			
Mt. Ekłutna Trail		9	35	California Creek Trailhead		43	69
Thunderbird Falls Viewing Area		9	35	California Creek Trail		43	69
Old Dam Turnout	X	8	35				
Peters Creek Picnic area and Trailhead		13	35				
EAGLE RIVER							
Picnic Area/Trailhead	X	15	45				
Campground Trailhead		15	45				
Trail (South side of Eagle River)	X	15	45				
SHIP CREEK							
None							
HILLSIDE							
Glen Alps Viewing Structure		31	61				
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APPENDIX

APPENDIX ONE: CHUGACH STATE PARK ENVIRONMENTAL ATLAS

EXPLANATION

The atlas is an in-depth resource document containing text, maps, graphs, and charts focusing on Chugach State Park. Limited copies are available for loan from the Division of Parks. For further information call:

Division of Parks 619 Warehouse Ave., No. 210 Anchorage, Alaska 99501 274-4676

or

Chugach District 2601 Commercial Drive Anchorage, Alaska 99501 279-3413

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Vegetation Land Status

Wildlife Existing Facilities

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Marine Environment Regional Population and Economic Analysis

Natual Systems Analysis Regional Use and Demand Analysis

Avalanches Special Considerations

APPENDIX TWO: GUIDELINES FOR TRAIL DESIGN

POLICY GUIDELINE No. 5

In the past, various trails have been constructed to varying configurations and specifications, some with good results and some not so good. The purpose of this guideline is to establish criteria for conformance in trail construction on a statewide basis.

After the need for a trail has been established and the trail is determined to be consistent with planning objectives in the master plan of the park area or the statewide trails program, a field study team should be assembled to locate and mark the desired trail. This field team might consist of the District Superintendent, District Ranger, Chief of Park Development and the supervisor of the trail construction crew.

The following criteria should be adhered to during the location and construction of trails within State Parks:

- Every effort should be made to locate the trail in such a manner that it will blend harmoniously with the natural 1. topography and vegetation of the area.
- The alignment of a trail should not necessarily be designed for expedience, but rather to provide the opportunity for interesting viewing or to reach an interpretive or natural feature along an aesthetically pleasing route.
- 3. The grade of a trail should not be steeper than 15%, except in extreme cases, and should when possible, be held to a maximum of 10%. In short stretches of not over 150 feet and in very exceptional cases a grade up to 20% may be permitted, but only after it has been determined that other alternatives are too costly in terms of price or environmental considerations.
- 4. The attached figure (intentionally omitted) on clearing requirements for trails should be adopted in practice. In some cases, trail width will necessarily vary, due to terrain features or unusal circumstances, but for the most part, the trail should be cleared for a width of four feet.
- The trail should be cleared as high overhead as can be reached. It is desirable, however, to leave a high overhang of 5. branches whenever the type of forest growth will permit. An occasional low branch or other feature that may enhance the beauty of the trail may be left uncut provided that the feature is not a safety hazard. As in the case of trail width, discretion is needed.
- Large trees should be cut only when it is impracticable to build around them. Trees and brush should be cut as close to the ground as possible. This practice will discourage resprouting and minimize tripping hazards.
- Brush and logs from clearing should be disposed of or cut, removed and stock-piled for future usage as firewood, etc. 7. Cut vegetation which cannot be utilized should be disposed of farther into the woods. It is essential that all evidence of construction outside of the trail prism be held to a minimum.
- Precipitation and run-off characteristics in a locality should be observed to properly determine the methods best suited for the disposal of drainage water. A dip in the grade of a trail is one means of disposing of drainage water. Where it is not practical to dip the grade, water breaks or culverts should be provided.

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Alaska State Parks thanks Peter Martin, one of Chugach State Park's closest friends. His photographs are used throughout this plan.