Wood-Tikchik State Park MANAGEMENT PLAN

October 2002

This document can be viewed on the following website: www.dnr.state.ak.us/parks/plans/woodt/woodtpln.htm

PREPARED BY ALASKA DEPARTMENT OF NATURAL RESOURCES DIVISION OF PARKS & OUTDOOR RECREATION





STATE OF ALASKA

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OFFICE OF THE COMMISSIONER

ADOPTION OF THE WOOD-TIKCHIK STATE PARK MANAGEMENT PLAN (revised, October 2002)

The Commissioner of the Department of Natural Resources finds that the Wood-Tikchik State Park Management Plan meets the requirements of AS 41.21.160-167 and 11 AAC 20.360 and hereby adopts this plan as policy for the Department of Natural Resources which prescribes management of state lands within the boundaries of the park and Lake Aleknagik State Recreation Site boundaries including permitting and other department programs and activities. The plan also zones private property and other non-state lands within the park and recreation site consistent with AS 41.21.025. This plan supersedes the February 1987 Wood-Tikchik State Park Management Plan.

4,202 Date

Date

Pat Pourchot Commissioner, Alaska Department of Natural Resources

> ALASKA DEPARTMENT OF FISH & GAME ADOPTION OF ELEMENTS OF THE WOOD-TIKCHIK STATE PARK MANAGEMENT PLAN GOVERNING FISH AND GAME MANAGEMENT (revised, October 2002)

A representative of the Alaska Department of Fish and Game is a member of the Wood-Tikchik State Park Management Council. The plan was developed by the Management Council with the assistance of the Department of Natural Resources in preparing the Wood-Tikchik State Park Management Plan. We appreciate the opportunity to represent fish and wildlife habitat, harvest, and public use values during the development of the plan. The Department of Fish and Game is responsible for the management of fish and game resources in the Wood-Tikchik State Park, consistent with the purposes and provisions of this AS 41.21.160-167.

The Department of Fish and Game will use the plan as guidance when implementing its authorities and when reviewing and commenting on proposed uses of state lands in the planning area. The department also, consistent with 11 AAC 20.360, approves and will implement elements of the plan that govern fish and wildlife management.

Frank Rue Commissioner, Alaska Department Of Fish & Game

0.3.02

Date

Wood-Tikchik State Park Management Council & DNR Staff Who Assisted with the Plan

Park Management Council

The enabling legislation for Wood-Tikchik State Park established the seven-member Wood-Tikchik State Park Management Council and vested it with the responsibility for developing the management plan for the park. Council members who participated in the development of the plan include:

Council Member	Representing	
Wassillie Ilutsik	City Council of Aleknagik	
Bobby Andrew (Chair)	City Council of Dillingham	
Anuska Wysocki	Village Council of Koliganek	
Timothy Wonhola (Vice Chair)	City Council of New Stuyahok	
Jim Woolington (Secretary)	Alaska Department of Fish & Game	
Tom Hoseth	Bristol Bay Native Association, Inc.	
Pete Panarese	DNR Parks & Outdoor Recreation	

DNR Staff

Following are the Alaska Department of Natural Resources (DNR) staff who assisted with the development of the plan:

Dan Hourihan, Area Ranger, Wood-Tikchik State Park

Pete Panarese, Chief of Field Operations

Jim Stratton, Director of State Parks

Bruce Talbot, Project Manager

Ray Burger, Planner

Elaine Thomas, Cartographer

Robin Carlson, Cartographer

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Chapter 1 Plan in Summary

Wood-Tikchik State Park is a 1.6 million-acre wild area composed of mountains, forests, tundra, lakes and rivers. The park is named for the two major watersheds that are partially within the park's boundary-- the Wood River and the Tikchik River (see Map 2-1). The park represents almost half the acreage in the entire Alaska State Park System. The plan also addresses the Lake Aleknagik State Recreation Site (SRS) located at the southeast end of the lake.

Located in the Bristol Bay region of southwest Alaska, the park was established to protect fish and wildlife populations and to support traditional subsistence and recreational activities. Important fish and wildlife species include sockeye salmon (the park's waters are thought to contribute 20 percent of the Bristol Bay sockeye salmon run, the largest in the world), other Pacific salmon, rainbow trout, moose, caribou, black bear, and grizzly bear. For a description of the park's natural environment, see Chapter 3.

Traditional activities in the park include subsistence fishing, hunting, and trapping, as well as recreational fishing and hunting. The number of recreational wilderness-travel activities has grown in the park, including kayaking, river floating, hiking and some mountain climbing. Recreational activities enjoyed in conjunction with other activities include wildlife observation and photography. For a description of uses that occur within the park, see Chapter 4.

Consistent with the Legis lature's purposes for establishing the park, primary management objectives of the Division of Parks and Outdoor Recreation will be to: 1) protect and conserve the area's fish and wildlife populations and breeding systems; 2) provide for the continued use of the area for traditional subsistence and recreational purposes; and 3) protect the area's recreational and scenic resources. Goals and objectives for the park are included in Chapter 6.

Additional management policies include: 1) providing only those facilities which are necessary to serve existing uses or which mitigate against environmental degradation, as opposed to those which attract new visitation; 2) promoting the park only in regard to its natural and wilderness values; 3) authorizing commercial enterprises in the park through the Alaska State Parks' permit and concession procedures; 4) recognizing valid private property rights inside the park while negotiating with owners to protect public access and other park values; 5) avoiding potential conflicts between recreational and subsistence users of the park; and 6) maintaining the park's natural character by minimizing the numbers and types of management facilities inside its boundaries. Parkwide management practices and policies are included in Chapter 7.

The plan designates the upper Tikchik Lakes and Kulik/Grant lakes as "Wilderness;" designates most of the remainder of the park "Natural Area;" and designates the Agulowak River and Lake

Aleknagik State Recreation Site "Recreational Development." Land use designations for the different units are shown on Map 8-1.

Facility recommendations include continuing to manage existing designated campsites at about their same size. New campsites may be developed on the Agulowak River and some other areas depending on future land acquisitions, site impacts, and levels of public use. Cabins used for research and public use will be maintained in their current locations. Additional public use cabins may be authorized in consultation with the Park Management Council, although no additional public use cabins are proposed at this time. Recommendations for new facilities are listed in Table 11-2.

The plan includes many policies and guidelines that have been adopted by reference as regulations. Some of these address levels of commercial and public use. They are designed to avoid crowding and conflicts between park users. The number of "client days" in the park will be limited to 25 percent above 2001 levels. The numbers of parties allowed to camp at any one time on each of the four upper Tikchik Lakes ranges from two to six, depending on the lake and time of year. Float trip starts down the Tikchik River are limited to three parties per week. Maximum party size in units designated Wilderness is set at ten. In the remainder of the park party size is limited to 20. The plan includes a ten-day camping limit. After ten days, parties and all their equipment must be moved at least one mile. Finally, the number of client days on the Agulukpak River is limited to 25 for each of two 12-hour periods per day as defined in the plan. These guidelines are summarized in Table 8-1 and described in more detail in Chapters 7 and 9.

The plan also addresses the use of motorized craft and equipment. Personal watercraft (jetskis) are allowed only on Lake Aleknagik but not in the remainder of the park. Use of helicopters and airboats are prohibited throughout the park. Use of hovercraft are limited to the spring over waterbodies in non-wilderness units. All-terrain vehicles will continue to be prohibited. The plan does not restrict use of powerboats with three exceptions: they are subject to a slow no-wake area in the State Recreation Site; they may not drift or anchor on sections of the Agulowak River, and they are prohibited on Lake Chikuminuk. The plan places no restriction on aircraft landings and takeoffs except in a small area within the Lake Aleknagik State Recreation Site. No additional restrictions are placed on snowmachines. The use of generators is prohibited in units designated Wilderness, and limited to 3,500 KW in the remainder of the park. These guidelines are summarized in Table 8-1 and described in more detail in Chapter 9.

Alaska State Parks has the authority to zone private lands within park boundaries. With over one hundred private parcels within the park's boundary, unrestricted development is a concern. Although many parcels already have negotiated restrictions on them that limit subdividing and commercial development, many do not. The plan includes zoning restrictions that limit the number and scale of commercial developments allowed on parcels. In addition, parcels cannot be subdivided any smaller than ten acres. Zoning does not apply to Native allotments in restricted status. The two affected Native corporations established under ANCSA may also opt out of zoning if they so choose. Zoning is described in detail in Chapter 7.

The plan also addresses additions to the park through land management agreements, acquisitions, conservation easements, and legislative action. The appendices include a list of statutes and regulations that specifically apply to the park as well as a summary of the Bristol Bay and Kuskokwim area plans' management intent for state lands surrounding the park.

Chapter 2

Introduction

Plan Purpose

This management plan provides overall guidance for the management and development of Wood-Tikchik State Park and the Lake Aleknagik State Recreation Site. Most of the plan's recommendations focus on matters of long-range significance, such as the regulation of commercial activities inside the park, rather than short-term operational concerns such as the exact numbers and locations of facilities. With a few notable exceptions, specific short-term actions are determined by park staff, who are most familiar with the park's use patterns and resources.

This plan was adopted by the Commissioner of the Alaska Department of Natural Resources (DNR) on October 4, 2002 and constitutes the primary DNR policy for managing the park and the state recreation site. Under 11 AAC 20.365, portions of the area-wide and unit-specific management policies in Chapters 7, 8 and 9, which were developed in accordance with AS 41.21.164, were also adopted by reference as a regulation. While most of the plan can be implemented administratively, some recommendations will require legislative action. The timing of the implementation of the plan varies by section. Some parts will be implemented immediately, while others will be phased in over time depending on resources, staffing and budget.

The Alaska Department of Fish and Game (ADFG) is responsible for the management of fish and game resources in Wood-Tikchik State Park, consistent with the purposes and provisions of AS 41.21.160-167. The Department of Fish and Game will use the plan as guidance when implementing its authorities and when reviewing and commenting on proposed uses of state lands in the planning area. The department will also, consistent with 11 AAC 20.360, approve and implement elements of the plan that govern fish and wildlife management.¹

Park Purpose

The purpose of Wood-Tikchik State Park is set forth in the legislation establishing the park, AS 41.21.160:

"The primary purposes of creating the Wood-Tikchik State Park are to protect the area's fish and wildlife breeding and support systems and to preserve the continued use of the area for subsistence and recreational activities. The state park is also created to protect the area's recreational and scenic resources."

¹ The elements of the plan that address fish and game management include many of the activities listed in Table 8-1 in Chapter 8.

Overview of the Park

Wood-Tikchik State Park is named for the Wood River-Tikchik Lakes system of long interconnected lakes, located in southwest Alaska just north of Dillingham. The park's approximately 1.6 million acres are quite diverse, and include 12 lakes over 1,000 acres, rivers ranging up to 60 miles in length, mountains exceeding 5,000 feet in elevation, and expansive lowlands. The park is known for its wilderness scenery and its rich fish and wildlife resources.

Primary uses of the park are traditional subsistence activities as practiced by the region's residents and outdoor recreational pursuits popular with visitors from the state, the nation, and the world. Traditional subsistence practices range from hunting and fishing to trapping, egg gathering, firewood collecting, and berry picking. The primary recreational activity in the park is sport fishing for trout, char, arctic grayling, and salmon. Other recreational activities include hunting, river floating, wilderness travel and photography.

Ownership

While most of the park uplands and all of the shorelands and waters are in state ownership, some of the uplands are in other ownerships (see Map 2-1). Land ownership in the park is summarized in the following table:

Ownership	Number of Parcels	Acres (x 1000)
In all ownerships		1,555
All lands owned by the State		1,521
Uplands owned by the State		1,291
Waters and shorelands ² owned by the State		230
Owned by Aleknagik Natives Limited		26
State owned, Native selected		4
BLM owned, Native selected		2
Native allotments	101	6
Other private lands ³	9	0.074

Table 2.1 Acreage of Land Within the Park Boundaries

² "Shorelands" are defined as, "land belonging to the state that is covered by nontidal water that is navigable under the laws of the United States up to the ordinary high water mark as modified by accretion, erosion, or reliction" (from AS 38.05.965).

³ This figure does not include Native corporation land and lands that are pending or certificated Native allotments.

Insert Map 2-1

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Regional Setting

Wood-Tikchik State Park is located in the Bristol Bay region of southwest Alaska, famous for the largest runs of sockeye salmon in the world. The park is bounded by four drainages: the Kuskokwim River drainage to the north, Wood River to the south, Nushagak River to the east, and Togiak River to the west. Within the Bristol Bay Region are located some 30 villages, ranging in size from a dozen residents up to Dillingham's 2,500 permanent residents. Almost all settlements are located on rivers or along the ocean and its major bays. The rivers and the coast serve as the regional transportation network, equivalent to road systems common to more urbanized areas. Some of the major employment sectors are commercial fishing, recreation and tourism, retail, and services.

For both the employed and the unemployed, a subsistence lifestyle plays an important part in the lives of the region's residents. Almost all residents partake in traditional harvests for a portion of their annual needs. Many families also derive part of their annual income from the commercial fishing industry. The land and water in this region are traditional grounds for subsistence fishing, hunting and gathering. These activities are an integral part of the culture in this region and provide not only food, but a cultural tie to the land and between generations.

Planning Process

As required by the legislation establishing the park, this management plan has been developed by the Wood-Tikchik State Park Management Council which is composed of seven members representing the following entities:

Village Council of Koliganek; City Council of New Stuyahok; City Council of Aleknagik; City Council of Dillingham; Bristol Bay Native Association, Inc.; Commissioner of the Department of Natural Resources; and Commissioner of the Department of Fish and Game.

Division of Parks and Outdoor Recreation (DPOR) employees served as staff for the Management Council by assembling resource information, analyzing issues, conducting public meetings, doing field work, and writing and producing portions of the plan.

During the formulation of the 1987 plan and the revised plan, the Council took advantage of several other land planning projects occurring simultaneously in the Bristol Bay region. These included the DNR Bristol Bay and Kuskokwim area plans (summarized in Appendix B), and the Coastal Service District Bristol Bay Coastal Management Plan. Information collected during these other projects has been used in the development of the park plan.

Public participation had a central role in the formulation of the plan. In addition to the meetings of the Park Management Council, public scoping meetings were held in Aleknagik, Koliganek, Dillingham and Anchorage in spring and summer 2001. These meetings, and written comment periods that accompanied them, afforded area residents and others the opportunity to comment on park issues and management practices. The Management Council reviewed the comments

received and developed a draft plan which included alternatives addressing key issues. In May and June 2002, the draft plan was presented at public meetings in these four locations. Many people also sent in written comments. Over 300 comments were received.

The Park Management Council met in August 2002, reviewed and discussed public comments, and decided which alternatives would be included in the final plan. Park staff then developed a proposed final plan and draft regulations. Hearings to take testimony on the proposed regulations and plan were held in Anchorage and Dillingham in mid-September. People also submitted written comments. Additional changes were made to the plan and regulations and the plan was adopted by both the Commissioners of Natural Resources and Fish and Game in early October 2002. The regulations were adopted shortly after.

Historical Background

The high recreational, scenic, natural, and fisheries values of the Wood River-Tikchik Lakes area have long made the area a center of attention. In the early 1960's the National Park Service proposed the area for addition to the National Park System. State selection of the area in 1961-1962 and subsequent proposals to create a state park nullified federal designation efforts, although a joint federal-state complex was considered by the Federal-State Land Use Planning Commission. Documents from the time of the selection indicate that the state purposefully preempted federal plans to commit the lands to federal park status. Also, there was concern that federal action could diminish development of mineral values, hydroelectric potential, commercial fresh-water fisheries, and cabin sites. The Alaska Department of Fish and Game also expressed interest in the selection. A DNR publication at the time characterized the selection as providing for private and public recreational use.⁴

In 1961 the Director of the DNR Division of Land (now the Division of Mining, Land, and Water) suggested to the Director of the National Park Service that the Wood River - Tikchik Lake area was of such "magnificence" as to warrant interagency consideration of a plan for utilization of the area. In 1962, a field analysis of the recreational potential of the area was conducted by personnel of the National Park Service with the assistance of the Bureau of Land Management and the Alaska Division of Land. In 1964, the National Park Service in its publication *Parks for America* stated, "The Wood-Tikchik area, although tabulated as a potential State recreation area, is of possible national significance and might lend itself to joint Federal-State administration."

In 1967-68, a freshwater commercial fishery was conducted on an experimental basis at Tikchik and Nuyakuk lakes. The results of this fishery showed marginal success and it was discontinued in favor of traditional subsistence uses, sport fishing and protection of breeding stock.

In order to assess the area's potential for different uses, in 1970 the Alaska Division of Land awarded a contract to Grumman Aerospace Corporation to conduct a resource inventory of the area. The study resulted in a proposal to establish a state park.

In June 1978, the State Legislature designated Wood-Tikchik State Park as part of the Alaska State Park System (AS 41.21.160). In 1985, southern portions of the park were added by a

⁴ Promised Land, A History of Alaska's Selection of its Congressional Land Grants, Alaska Department of Natural Resources, 1987.

proclamation of the Governor. In 1986, State Parks entered into a land management agreement with the Aleknagik Natives Limited regarding corporate lands within the park. Under the agreement, low-impact public use of corporate lands within the park is allowed in return for park ranger field presence. In 1987, a management plan for the park was completed.

In 1996 a land exchange was completed at the south end of Lake Aleknagik in which the state acquired land to provide public access to the lake. The acquired uplands and adjacent waters totaling 633 acres were administratively designated as a State Recreation Site in 1998. Major improvements were completed within the Recreation Site in 2000 which included an asphalt boat launch, two parking areas, lake viewing area, picnic shelter, vault toilets, kiosks, signs, street lights, ranger station, equipment shed, and fenced storage area.



Lake Kulik Spire

Chapter 3

The Natural Environment

Climate

The climate of the Wood River-Tikchik Lakes area is gradually transitional from the maritime influence of Bristol Bay in the south to the continental influence of the interior to the north. Temperature variations increase somewhat and cloudiness, humidity, and precipitation tend to decrease with distance from the coast. The transition is modified by local terrain irregularities within the area. The weather is generally cool and moist with relatively persistent cloud cover and occasional periods of fog. At Dillingham in July, daily high temperatures average 65°F and daily lows average 46°F. In January, daily highs average 24°F and daily lows 9°F. The interior of the area has about the same summertime temperatures, being enveloped in southwesterly winds; but averages as much as 10-15°F colder in winter.

Precipitation is most prevalent in the summer. Fog and low clouds are common during July and August. Annual precipitation is 20 to 35 inches, including 93 inches of snow. Snowfall is much higher at the northern lakes. According to limited records, there is a 164-inch average snowfall at Lake Nerka. There are fairly large local variations in the park's weather. Winds throughout the area are usually moderate, prevailing from the southwest in summer and from the north and east in winter.

Geology

The Wood River-Tikchik Lake area is split between two physiograpic provinces. The western portion of the area lies in the Wood River Mountains. The eastern portion lies in the Nushagak and Bristol Bay lowlands.

The Wood River Mountains are steep and rugged with elevations of 2000 to 5000 feet; the lakes and lowlands are between 50 and 500 feet above sea level. The lakes are glacial in origin and are long and deep.

The entire area has been extensively glaciated. Surface geology consists predominantly of coarse rubble with bedrock exposures on steep mountain slopes, and moraines and associated drifts at lower elevations.

The area is active tectonically and lies in a belt of Cretaceous Age and older rocks that have undergone much folding and faulting. Although the geology is relatively well known, the extent of faulting and the relationships between the folded and faulted sedimentary rocks and the igneous intrusive granitics is not well known.

Soils

The area contains five general soil types. The most extensive is the shallow, coarse sandy soil of the mountains along the western zone. This includes shallow silty or organic soils with major areas of exposed gravel and bedrock material. In the adjacent lowlands of the eastern half of the lake areas, a deep silty soil overlies large areas of well-graded sandy gravel, much of which has become exposed. The eastern-most portion of the lowlands within the study area consists largely of deep interbedded silt, sand and gravel. Along the flood plains and river, the soils are generally a deep silty soil over interbedded sand and gravel that has been only sparsely exposed. In the uplands north of Upnuk Lake, there is a limited area of very shallow silts over stratified gravel. Permafrost occurs only sporadically within the area, except around Nishlik Lake.

Water

The Tikchik Lakes and the Wood River Lakes systems occupy essentially bedrock basins formed during the Pleistocene glacial epoch. All of the lakes are deep, relatively cold, and low in nutrients. They are fed primarily by rainfall, melting snow, and to a limited extent, glaciers in the Wood River Mountains. The lakes usually thaw in early to mid-June. Thaw dates vary as much as ten days from year-to-year. Southernmost, lower-elevation lakes thaw first. Lake freeze-up begins in October and some of the southern lakes don't freeze until mid-November or later. The outlet of Lake Aleknagik seldom freezes.

The Tikchik Lakes system drains an area of about 1,486 square miles. From north to south, the principal lakes are Nishlik, Upnuk, Chikuminuk, Chauekuktuli, Nuyakuk, and Tikchik. Nishlik and Upnuk lakes drain into Tikchik Lake from the north via the Tikchik River, while Lake Chikuminuk drains into Lake Chauekuktuli from the north via the Allen River and thence into Nuyakuk Lake. The flow rate at the Tikchik Lake outlet averages about 4.4 million acre-feet a year.

The Wood River Lakes drain an area of approximately 1,415 square miles. The lakes are, from north to south, Grant, Kulik, Beverley, Nerka, Little Togiak, and Aleknagik. They are drained by short, rapid rivers. The lowest lake, Aleknagik, empties into the Wood River, which flows into Nushagak Bay. The flow rate at the Lake Aleknagik outlet averages about 3.4 million acre-feet annually.

Another major lake, Lake Nunavaugaluk, lies outside the park and drains separately into Nushagak Bay via the Snake River. Its drainage area is about 247 square miles.

Ground water is readily available almost anywhere that gravels are found in association with the lake systems, as well as from the lakes themselves or from streams or springs. The water has low mineral content and ranges from soft to moderately hard with a neutral or slightly alkaline pH.

Beautiful waterfalls occur on the Grant River, just south of Grant Lake and north of Lake Kulik. Rapids exist on the Allen River near the Chikuminuk Lake outlet, and on the Nuyukuk River near the Tikchik Lake outlet.

Plant Associations

The Wood River-Tikchik Lakes area lies along the border between the Hudsonian and Eskimoan Biotic Provinces. The dominant ecological associations are coniferous forest for the former and tundra for the latter. Within this transition zone, a wide variety of plant communities are found, forming an intricate pattern that is markedly influenced by topography, exposure, soil depth and acidity, sporadic permafrost, wind, and other local environmental variations.

In general, white spruce, mixed spruce-birch forest, muskeg and willow-alder thickets are found up to 900-feet in elevation. Above this are bare rock, heath tundra, and alpine meadow. Wet tundra or marsh are common at the lowest elevations.

Fish

Five species of Pacific salmon [chinook (king), sockeye (red), coho (silver), pink, and chum] spawn in the Wood River and Tikchik Lakes systems. Sockeyes are the most important commercially; escapement into the Wood and Nuyakuk rivers often constitutes 20 percent or more of the total annual Bristol Bay sockeye escapement. They also play a significant role in the sport and subsistence fishery.

Freshwater sport fish are generally prolific throughout the area. Rainbow trout, grayling, lake trout, Arctic char, and Dolly Varden abound. Northern pike of good size offer fishing variety in several of the lakes. Active sport fishing has generally been quite localized, however. Present angling pressure is estimated to be on the order of 2,000 to 3,000 angler days annually in the Tikchik River system and 10,000-12,000 angler days annually in the Wood River system. A 1960s attempt at establishing a commercial freshwater fishery met little success due to high transportation costs.



Salmon provide nutrients back into the system

Wildlife

The fauna of the area are principally of the Hudsonian Biotic Province, but individual species populations are generally rather low.

The Department of Fish and Game has identified several important and critical habitat areas within the park. Important moose habitat is located in the lowland forests east of Lake Kulik, south of Grant Lake, and between the northern and southern arms of Lake Nerka. These areas become critical habitat areas during the winter months. The area around Little Togiak Lake, the Agulowak River corridor, and the Tikchik River corridor are also critical winter moose habitat.

Brown bear denning areas have been identified around Agenuk Mountain, north of Nishlik Lake, and in the upper Youth Creek valley. In summer, bears concentrate along streams that have high concentrations of spawning salmon. Black bears are also found within the park.

In the early 1980s, few caribou reached the park. By 1990, as the Mulchatna and Kilbuk herds expanded, thousands of animals were summering in the upper Tikchik lakes area. Although larger concentrations of caribou in the park are observed in the Tikchik Lakes system in summer, they are also seen in lesser numbers in the Agenuk Mountain and northern Wood River system. In recent years, caribou have even been seen as far south as Dillingham. In the last decade, caribou have even begun to calve in and around the park.

Other mammals common to the park include wolves, coyotes and foxes, with wolverines in lesser numbers. Small game and furbearers found in the park include beaver, muskrat, otter, fox, weasel, marten, hare, and lynx. Ground squirrels and marmots are abundant.

Because of the large number of waterbodies, extensive wetlands, and the variety of upland habitats, the list of birds seen in the park is high compared to other inland areas in Alaska. The diversity of bird species in the park includes two species of mergansers, three species of scoters, eleven species of raptors, six species of owls, five species of gulls, and numerous other species of upland birds, waterfowl, and shorebirds.

Forests

The forest types and densities found in the park vary extensively because the area includes areas that are both above and below treeline. The northern portion of the park is higher elevation and far from the ameliorating effects of the sea. The climate is harsher than near the coast, the winters harsher, the summers a little warmer but shorter, the winds markedly stronger, and the precipitation reduced. Trees are occasional to the north but forests become more widespread and in denser stands in the southern and eastern parts of the park. Forests are generally confined to sheltered and moderately well-drained areas that lie below the1,000- foot elevation. Forest stands growing above 500 to 600 feet do not, as a general rule, develop to saw timber size and are sparse. Because of transportation costs, fuel for heating is expensive and firewood is commonly used instead. The most accessible stands are in the vicinity of Lake Aleknagik in the south and along the Nushagak and Mulchatna rivers to the east. Commercial lodges also harvest significant amounts of firewood. Forests in these areas may be significantly impacted if firewood collecting is not closely monitored and if park rules that address this use are not enforced.

Minerals

With the exception of cinnabar deposits on Marsh Mountain just east of Aleknagik, which has had some modest mercury production, no significant metalliferous deposits have been found in the general region. The widespread glaciation that has occurred diminishes prospects of extensive placer deposits, although some lode deposits may be discovered in igneous intrusions of the folded and faulted sedimentary rocks. Small occurrences of both placer and lode gold have been located, but none in commercial quantities.

Non-metallic deposits in the area include gravel, limestone, building stone, riprap, and clay. Although their location is too remote for profitable production and marketing outside the area, these deposits are available in ample supply for local construction materials.

To date, no coal has been found in the area. Petroleum potential also appears to be insignificant, although suitable reservoir rocks may underlie the Bristol Bay-Nushagak lowland to the east and Bristol Bay itself.

Chapter 4 The Human Environment

Existing Uses

While local residents and residents of Dillingham use the park year-round, the park sees its heaviest use between June 15 and the end of September -- the prime fishing and hunting seasons. Following is a general summary of the uses taking place within the park.

Subsistence. Residents of Aleknagik and Dillingham as well as the surrounding villages use the park for a variety of resources. Many of the residents of these villages are highly dependent on a subsistence lifestyle. The most important fish and game resource in the park is salmon, although moose, caribou, and resident fish are also important. The park is also used for gathering firewood, picking berries, trapping and providing other renewable resources for food, clothing, shelter, transportation and handicrafts. Surrounding villages that use the park include: Koliganek, New Stuyahok, Ekwok, Aleknagik, Choggiung (Dillingham), Twin Hills, Manokotak, Platinum, and Portage Creek.



The tundra is full of berries

Fishing. Local residents, non-residents, and fishermen from the Lower 48 and around the world visit the park during the fishing season. While sportfishing occurs throughout the park, the Wood River system receives the heaviest fishing pressure because of easier access. Sportfishing originates from many sources. Eight lodges operate within the park from early June until early October. Guided trips based from temporary tent camps located on prime fishing waters also occur. Unguided users either camp in the park or they access the park for the day from the Lake Aleknagik State Recreation Site.

Subsistence fishing is an important use of the park. Residents of Aleknagik set gill nets in the summer. Dillingham and village residents also net "redfish" (spawned out sockeyes) late in the summer. Fishing for lake trout is also popular. Koliganek residents net whitefish along the upper Nuyakuk River and ice fish on Tikchik Lake in winter.

Other recreation. Another type of recreational activity in the park is river floating and sightseeing from powerboats. River trips are offered by specialized guiding companies and by lodges. Many independent travelers also take such trips. The most popular river trip in the park is the Tikchik River, which can begin on either Nishlik or Upnuk lakes and ends 60 miles downriver at the river's mouth on Tikchik Lake. Some floaters continue their trips down the Nuyakuk River. The other rivers in the park are generally too short for such trips but are often used in association with a paddling trip between the larger lakes. Participants in these trips are often hunting or fishing, but often are just as interested in camping, seeing the park, viewing wildlife, photographing and exploring a new part of the state. Hiking, and to a lesser extent mountain climbing, also occur in the park.

Hunting. Sport and subsistence hunting also occurs within the park. Residents of Southwest Alaska comprise the majority of hunters using the park, although the number of hunters from the railbelt and other parts of the state and country is growing. Primary game species are moose and caribou, with some bear taken each year. During years when the caribou herd is moving through the northern portions of the park, hunting around the upper Tikchik lakes is popular in mid- to late-September.

Other uses. The recently designated Lake Aleknagik State Recreation Site and its associated facilities provide additional opportunities for park users. Not only is the site the main access point for the Wood River Lakes system, as well as for residents of Aleknagik, it also provides a viewing area for visitors and residents of Dillingham who often drive to the end of the road to sightsee from the Site's viewing areas during the summer months.

Regional Opportunities

There are large blocks of federal and state lands surrounding the park, which also provide similar opportunities for hunting, fishing, recreation and subsistence. Members of the public as well as commercial operators utilize these areas in conjunction with uses of the park. These areas include the 4.2-million acre Togiak National Wildlife Refuge just west of the park where public use is particularly high on the Kanektok, Goodnews, and Togiak rivers as well as adjacent to local villages. The Kisaralik River and Lake, located just to the northwest of the park also attracts recreational use. The upper river is surrounded by state lands while the lower river is within the Yukon Delta National Wildlife Refuge. The upper river is heavily used by residents of Bethel while the lower river is used by villages along the Kuskokwim. The Aniak River

watershed adjoins the park to the north. The river is surrounded by state land. The upper river is popular during hunting season, while the lower river is used for both sport and subsistence hunting and fishing. Finally, the Nushagak River system borders the park to the east and covers a large portion of the Bristol Bay region. This river supports a wide variety of uses similar to those occurring within the park.

In addition to public lands, private lands also support regional recreational and subsistence activities. The various Native village corporations have selected large acreages as part of their entitlement under the Alaska Native Claims Settlement Act of 1971 (ANCSA). Bristol Bay Native Corporation (BBNC), the parent regional Native corporation, has also received a land entitlement from which local residents derive subsistence and recreational enjoyment.

A small but significant recreation and tourism industry has developed in the Bristol Bay region. Many are small seasonal businesses serving visiting sport fishermen and hunters. Others are year-round operations which serve specific needs of visitors. Air taxis, fishing guides, hunting guides, lodges, grocery and liquor stores, outfitters, restaurants, bars, and hotels all receive income from recreationists. A 1983 study found that one-third of the region's service industry can be attributed to recreational activities. At that time, the recreational businesses were growing at a faster rate than other services.

Trends

No figures are available which directly measure recreational trends in Wood-Tikchik State Park. Although it is generally agreed that the park is witnessing annual increases in visitation, this conclusion must be reached indirectly through a number of other measurements.

The Alaska Department of Fish and Game performs an annual census of sport fishing effort and harvest. Figures from 1985 to 1994 for the Wood River Lakes drainage show an increase from 2,460 angler-days in 1985 to 12,144 in 1994 (a 394 percent increase). In the Tikchik Lakes drainage the increase was from 1,693 to 3,306 angler-days in that same period (a 95 percent increase). Sportfishing effort in angler-days in the waters for all of central Southwest Alaska between 1977 and 2000 have increased from 7,184 to 38,675; over a five-fold increase.

There is a noticeable trend among sport anglers toward catch and release fishing by both guided and unguided users. In recognition of this emerging ethic, the Alaska Board of Fish adopted catch-and-release regulations for a stretch of the Agulukpak River in 1984. Other streams and waters within the park and the region have special fishing regulations designed to protect these remote fisheries. Special regulations of this sort are especially favored by lodges and other commercial operators who depend upon these fishing opportunities as a draw for their clients.

The park and region are also drawing increasing numbers of hunters, including non-locals. Moose are relatively new inhabitants in the park, possibly immigrating into the area from middle Kuskokwim River drainages during the last century. Until recently, populations were low and moose primarily inhabited the Nushagak/Mulchatna River system. Local residents harvested moose opportunistically; however, caribou, reindeer, bears, and beaver were historically the main sources of game meat. ADFG began collecting data on the moose population in 1971. At that time, moose were not abundant in the unit and animals close to the villages were subject to heavy hunting pressure.

Hunting seasons have varied over the years, but the bag limit has always been restricted to bulls. In the last decade moose populations throughout the park have increased substantially in number and range. Reasons for this increase include: 1) moderate snowfalls in several successive winters; 2) low predation rates by wolves; and 3) decreased human harvest of female moose. The reduction in the female harvest was caused in part by a positive response by unit residents to department education efforts and an abundance of an alternative big game resource as the Mulchatna caribou herd grew and extended their range. Moose are now common in the park.

In the long-term, harvest by hunters from outside the area is expected to increase due to a number of factors, including the growing human population, more disposable income making flying more affordable to remote areas, abundant game populations, and the desire for a successful hunt.

Recreational and Subsistence Demand

The region's residents practice a subsistence lifestyle supplemented with cash income and products. Many also partake in recreational activities such as sportfishing. Area residents spend a large amount of time harvesting fish, wildlife, vegetation, and other resources.

Most of the park's recreational visitors who come from outside the region come from urban areas where attitudes toward recreation are quite different from those of village residents. The Alaska Public Survey, conducted in 1979 and 1997, assessed public preferences of Alaskans toward outdoor recreation. While the data presented is statewide and is therefore dominated by non-local opinion, the findings illustrate general attitudes of Alaskans. Excerpts from the survey are shown in Tables 4-1, 4-2, and 4-3 on the next page.

From the survey, the following points are applicable to Wood-Tikchik State Park:

Table 4-1: The most important reasons for participating in outdoor recreation activities fall into a category which might be called "getting away from it all." Of secondary importance is the development of personal skills and qualities, and the least important reason is to provide food. This suggests that most Alaskans who partake in outdoor activities prefer the challenge and opportunities inherent in a wild setting, where comforts are minimal and assistance may not be readily available. The relatively low preference given to "providing food" suggests that most out-of-region park visitors may be content with just participating in non-consumptive activities.

Table 4-2: There is widespread support for new and specialized types of recreation opportunities. Remote cabins are supported by an average of 57 percent of the populace. There is also substantial support for the state providing boat- and plane-accessible opportunities.

Table 4-3: Wood-Tikchik State Park offers the same outdoor recreation activities that most Alaskans favor. Five of the top ten favorite activities are provided for in the park, including Alaskan's favorite outdoor activity, sport fishing.

Reason for Participating	Percent
Getting away from usual demands of life	87
Being close to nature	83
Being with friends and family	79
Keeping physically fit	77
Doing something exciting	77
Experiencing new and different things	76
Experiencing more elbow room	75
Testing your abilities	73
Developing skills and abilities	71
Gaining self-confidence	69
Being in control of things	66
Identifying with Alaska heritage	50
Being alone	46
Providing food	31

Table 4-1 Reasons for participation in favorite recreation activities

Table 4-2 Preferences for state provision of new types of recreation opportunities

Recreation Opportunity	Percent
Remote cabins	57
Community parks	51
Areas accessible by boat only	50
Areas accessible by plane only	41

Table 4-3Favorite outdoor recreation activities

Favorite Outdoor Activity	Percent
Fishing	15
Walking for fitness	11
Hunting	8
Snowmachining	6
Day hiking	5
Bicycling	4
Driving for pleasure	4
Downhill skiing	4
Powerboating	3
Field games	3

Chapter 5

Analysis and Evaluation of Park Issues

This chapter discusses and analyzes park management issues. Management options are identified and discussed.

Subsistence and Traditional Activities

As set forth in the park enabling legislation, a primary purpose in creating Wood-Tikchik State Park was to insure that traditional uses of the area were allowed to continue. Specifically, AS 41.21.160 states that:

"The primary purposes of creating the Wood-Tikchik State Park are to protect that area's fish and wildlife breeding and support systems and to preserve the continued use of the area for subsistence and recreational activities."

The law also states that regulations for Wood-Tikchik State Park shall recognize the current practice of traditional subsistence as a compatible use of park lands and waters, including the use of small outboard motorboats and snowmachines.



Floatplanes provide access to many lakes

Finally, the act establishes the Wood-Tikchik State Park Management Council, which is responsible for the formulation of this plan. Its composition is another reflection of the Legislature's concern for traditional subsistence practices, since the majority of its members represent local village councils and the local Native association.

In addition to this legal framework, the history of the park's creation reflects public, administrative and legislative concerns for the region's subsistence resources and users. For example, the primary reason for the state selecting the land from the federal government was to protect its salmon-rich habitat which, at that time, was enjoyed almost entirely by both subsistence users and commercial fishermen. Later, the final impetus for the park's creation was the threat to subsistence values posed by the 1978 Homestead Initiative.

Subsistence uses in the park are concentrated in and around the lakes and rivers. This use is fairly localized and predictable. That is, subsistence users tend to repeat their activities annually, with only small variations in established patterns from year-to-year. Subsistence uses are concentrated on the lakes including the Wood River system, lower Tikchik Lakes system and the Tikchik River.

When subsistence patterns are compared with recreational patterns, the areas where conflicts are emerging include the eastern end of Tikchik Lake and the lower Tikchik River. Other areas include the Nuyakuk River, and to a lesser extent, the Agulukpak and Agulowak rivers. Subsistence and recreational users visit those areas during the same times and often for similar purposes. In some of these areas, subsistence users have been displaced because of the high concentrations of sport anglers.

In order to alleviate these conflicts, several measures are included in the plan. Implementation of these measures should be monitored to determine their effectiveness over the next several years.

Guidelines included in the plan include:

- 1. Placing additional stipulations on commercial operations that are designed to minimize conflicts with other park users.
- 2. Capping the number of client days to 25 percent above 2001 levels. Measures also include limiting the number of parties/clients allowed at any one time on each of four lakes in the Tikchik Lakes system and on the Agulukpak River; and the number of trip starts allowed on the upper Tikchik River.
- 3. Limiting the number and scale of commercial recreation developments that may occur on private lands.
- 4. Making educational materials available to the public and commercial operators that encourage behaviors that will reduce conflicts between users and impacts on the resource.
- 5. Encouraging the acquisition, trade, or management of lands or conservation easements that are not currently in state ownership, particularly lands that have high public values.
- 6. Prohibiting or limiting activities that only a few park users would partake in but have the potential to impact large numbers of park users. Such uses include personal watercraft, helicopters, airboats, and long-term camps.

Fish and Wildlife Habitat Conservation and Enhancement

Since so little of the park has experienced habitat disturbance, management of park resources is a matter of conserving existing habitat values, and ensuring that those values are not lost or degraded. Habitat protection was a central purpose of the Legislature when it established the park. Each species has its particular habitat requirements, which vary in condition throughout the park. No particular habitat problems have been identified within the park, other than a concern expressed by some members of the public that current levels of recreational use damage salmon spawning and rearing habitat. The Lake Aleknagik State Recreation Site includes all the waters at the south end of the lake. This area has much more extensive shoreline development than the park and there has undoubtedly been some habitat damage to the shoreline as a result of the development that has occurred there since the 1930s.

ADFG estimates that the park's waters contribute a significant share of the Bristol Bay commercial sockeye salmon fishery. Various techniques for artificially increasing the area's productivity have been explored. These include removing barriers to migrating salmon to open new spawning /rearing waters and aerial fertilization of the lakes to increase their rearing capacity.

Some habitat protection measures available to the Division of Parks and Outdoor Recreation include the following:

- 1. Avoiding the construction of facilities that might attract visitation to sensitive habitat areas;
- 2. Hardening campsites and other facilities in the vicinity of sensitive habitat areas, enabling the area to absorb visitation without undue degradation;
- 3. Monitoring waters and uplands for unsanitary conditions or potential sources of pollution;
- 4. Attaching stipulations to guiding /outfitting permits and concession contracts that ensure that habitat values are protected;
- 5. Imposing equipment restrictions in areas that are vulnerable to damage from certain gear types and practices; and
- 6. Along with ADFG, reviewing proposed plans for development to ensure that they do not significantly impact habitat values.

Fish and Wildlife Species Introduction

The introduction of non-native or exotic species of wildlife, particularly Dall sheep, has been considered as a means of enhancing the area's hunting and wildlife viewing opportunities. Dall sheep do not exist in the Wood River Mountains, although it is possible that conditions are favorable for establishing a small population. Possible advantages of establishing a sheep population in the park include the creation of a new hunting and subsistence resource, and new wildlife viewing and photography opportunities. The introduction of sheep would also bring all the animals of the "Alaskan Grand Slam" together in the park, making the area more attractive for trophy hunters. Possible disadvantages include creating more conflicts and competition

between subsistence and sport hunters and increased demand on existing game species due to incidental harvest by hunters in the area primarily for sheep.

Each species considered for introduction has its own habitat requirements, which must be met before the transplant can succeed. Another criterion should be that the introduction does not displace existing wildlife populations. Prior to an environmental assessment to determine if a transplant is feasible and that existing populations would not be displaced, a more basic analysis of need for a new species should be performed. The assessment should identify potential benefits and associated costs, both direct and indirect. Only positive assessments should be recommended for further feasibility consideration.

Although feasibility studies will be allowed to proceed, the Division should adopt a conservative position regarding species introductions. Introductions should not be allowed, unless proven to be environmentally benign, and necessary to meet specific management objectives.

Recreational Facility Development

Facilities attract visitation to an area. Improperly employed, facility development could create new recreational demand rather than simply responding to existing demand. If not planned carefully, this type of development could result in increased competition for limited campsites, fishing holes, and fish and game resources. New visitors could also disturb the natural experience favored by many park users. Facilities can also bring a certain amount of environmental degradation, particularly if poorly sited. These concerns are addressed by the park enabling legislation which states that campsites on or adjacent to spawning grounds can only occur when a "preponderance of evidence" indicates that habitat values will not be significantly affected.

Facility development can also be a positive park management tool. Because facilities attract visitation, they can be used to draw visitors away from sensitive areas that might otherwise be impacted. Durable facilities allow heavily used areas to resist environmental degradation. Potential locations for such facilities include areas adjacent to, but not necessarily on, popular fishing streams, which account for a large proportion of park visitation. These streams will be visited regardless of the facilities offered, but the streambeds and surrounding areas would suffer less degradation if facilities were available. Streamside trails will attract anglers out of the stream channel when moving between fishing positions. Campsites will concentrate overnight visitors in specified areas.

One facility that has proven particularly beneficial to both the park and users of the park is the Lake Aleknagik State Recreation Site. The facility provides for much needed parking, boat launch, vault toilets, and lighting that significantly contribute to the visitors' experience. In addition, the acquisition of the land upon which the facility is located resolved a long-standing trespass issue. This site also provides a ranger residence and equipment storage that provides for increased staff presence near the main access point to the park. Finally, the site has a number of kiosks that provide information to visitors about the park.

Private Land Development in the Park

Private lands are scattered throughout the park. There are one hundred and one Native allotment applications in the park, representing the claims of 71 individuals. If allottees follow through on all that is required to complete the certificate process, most of the allotment applications will eventually be certificated. After allotments are certificated, they can be leased, subdivided, or sold. To date, 54 allotments have already been certificated. Of these, several have been sold to other parties. Of the parcels that have been sold, one has been acquired for conservation purposes by a land trust and title conveyed back to the state to be managed consistent with park purposes.

There are nine other patented parcels in the park comprising 74 acres. Most of these sites were originally acquired from the Bureau of Land Management as Trade and Manufacturing Sites or Headquarters Sites prior to, or shortly after, the state acquired the lands within the park.

Most of these private lands are located in the south half of the Tikchik Lakes and Wood River systems on the largest rivers and lakes. These parcels often require docks, stairs, trails and other developments on the adjacent state lands to make them accessible. As these parcels are developed, it is expected that the state will receive additional applications for these types of development.

If private holdings were developed to their full potential for private or commercial purposes, the area's natural and wilderness qualities would be affected. Fish and wildlife habitat values could also be impacted.

Impacts from the private and family use of inholdings are likely to be minimal in comparison to commercial use of the same parcels. Individual and family use is less likely to conflict with park values or management programs. Impacts from commercial development, on the other hand, has the potential to be far greater because of the larger number of additional users such developments are likely to attract to the park.

The primary authority the Division has over the development of private inholdings within the park is through the zoning power granted to the Division under AS 41.21.025. Under the plan and associated regulations, the Division will use this authority to limit the size of subdivision lots and types of development activities on private lands within the park to ensure that park purposes (such as habitat protection) are safeguarded. The Division's zoning authority does not apply to Native corporation land, without the corporation's consent, or allotments in restricted status. If allotments lose this status (by sale, inheritance or other means) or ANSCA lands are conveyed, they are subject to zoning.

Another management tool that is currently being employed in the park is a cooperative management agreement with Aleknagik Natives Limited that applies to lands along Lake Aleknagik, Lower Lake Nerka and the Agulowak River.

The Division will also continue to work closely with national and local land trusts that are beginning to acquire private lands and conservation easements in the park for conservation purposes. The type of agreements contained in conservation easements varies widely. The ones

applied in the park to date allow for use and development of private land for non-commercial uses while protecting park values. Under these agreements, the easements can be retained by the land trusts, or all or a portion of the management authority over a parcel can be transferred to the State. Benefits to the landowners include avoidance or reduction of future property taxes, fire protection, law enforcement protection, and relief from general maintenance responsibilities. Benefits to the State include assurance of public access; protection of habitat and recreation values; and uniform management between park lands and inholdings. Consistent with the plan, acquisition or acceptance of donations of conservation easements or parcels will be on a willing-seller, willing-buyer basis.

Commercial Activities

Guidelines that apply to commercial activity in the park and state recreation site are addressed in Chapter 7. State Park regulations require anyone engaged in commercial activities on park lands and waters to obtain a permit. The Division can also issue concessions for certain activities, but has not chosen to do so at this time. The plan and accompanying regulations include additional guidelines for commercial activities.

Fees for commercial permits are currently \$300 per year. In addition, permittees pay \$8.00 per client day.⁵ These fees make up approximately 40 percent of the park's budget. The remainder is allocated by the Legislature. The current program is a "Partnership in Quality" system -- commercial operators and the public benefit directly from their fees in the form of upkeep of the state recreation site and other facilities, ranger patrols, and enforcement.

Guidelines in the plan limit the number of client days allowed in the park and other measures designed to prevent overcrowding in the park. The plan also includes guidelines that are designed to avoid or reduce conflicts between park users and damage to park resources.

Trails and Access

There are two 17(b) trail and one-acre site easements that access the south end of the park. These provide public access across Aleknagik Natives Limited land to River Bay and the southeast end of Lower Lake Nerka. Other 17(b) easements that are located near, but not to the south park boundary, also provide public access to the park. Uses allowed on these easements are very limited.⁶ Because of the cost of construction and maintenance, there are few developed trails within the park. Management intent for some of the management units suggests development and maintenance of trails, but for the most part, these have yet to be built and would require more resources to develop than are currently available.

A two-lane bridge over the Wood River and a 0.6-mile road connecting to the Lake Road is proposed by the Alaska Department of Transportation & Public Facilities (DOTPF). The bridge would connect the village of Aleknagik with the Dillingham road system. If the bridge were

⁵ In addition, a \$10 per boat launch fee (\$75 for the season) is charged for the use of the state boat launch on Lake Aleknagik.

⁶ The location and description of allowed uses on these easements are included in the *Bristol Bay Easement Atlas*, DNR 1990.

built, a road to Levelock, located 55 miles east of Dillingham, would also be considered over the long term.

Hydropower Development

When Wood-Tikchik State Park was established, all state-owned lands and waters within the park were withdrawn from the public domain and designated for special purpose management. The enabling legislation gives the Division of Parks and Outdoor Recreation a clearly defined management purpose, which it cannot exceed without specific legislative action.

The Legislature made a special finding that two potential hydro projects, at Lake Elva and Grant Lake, were compatible with park purposes. Both projects have since been determined unfeasible and dismissed from further consideration.

Chikuminuk Lake has also been considered in the past for hydroelectric development, although it has not received the legislative recognition of Lake Elva and Grant Lake. Hydroelectric development at sites other than Lake Elva and Grant Lake is incompatible with the special park purpose management mandated by the Legislature and therefore already prohibited by law. The park enabling legislation must be amended to specifically allow hydroelectric development at Chikuminuk Lake.

Additions to the Park

The park enabling legislation included a provision that the governor could add lands south of the park by proclamation, once land ownership patterns had solidified. In 1985, Governor Bill Sheffield signed into law a proclamation adding land and waters around the southern arm of Lake Nerka, the Agulowak River, and the northwestern end of Lake Aleknagik. This 82,000-acre area was under selection by the village of Aleknagik as part of its entitlement under the Alaska Native Claims Settlement Act (ANCSA), but portions have since been relinquished. This boundary adjustment was supported by the Park Management Council, Aleknagik Natives Limited, the Koliganek Village Council, the New Stuyahok Village Council, the City of Dillingham and the Bristol Bay Area Plan.

The Aleknagik Natives Limited owns approximately 26,000 acres in the area that was recently added to the park. They have also selected an additional 6,000 acres from the State and BLM. These corporate lands are located along lower Lake Nerka. In 1986, DPOR entered into a land management agreement with the Aleknagik Natives Limited. This agreement allows low-impact public use of corporate lands on Lake Aleknagik, Lake Nerka and the Agulowak River in return for State Park Ranger field presence. Negotiations are ongoing for the state to acquire conservation easements on these same lands.

The plan proposes several areas for addition to the park totaling approximately 290,000 acres (see Map 11-1). First, the plan proposes legislation to add approximately 11,000 acres of state land located at the northwestern end of Lake Aleknagik. This area includes the Youth Creek drainage. Although mostly state land, a small percentage of the area is in Aleknagik Natives Limited and other private ownership.

Another 46,000-acre area proposed for addition is located along the park's western boundary and is bordered by both the park and the Togiak National Wildlife Refuge. These state-owned lands drain into Lake Chauekuktuli and Nuyakuk Lake, except at the extreme southwest corner, where it drains into the refuge. To manage the drainage uniformly, and to protect the upper reaches of the park's watershed, this area is recommended to the legislature for addition to the park. Alternately, a Cooperative Management Agreement or a Special Use Land Designation should be developed with the DNR Division Mining, Land and Water that ensures that these lands are managed in a manner that does not adversely impact parklands.

Portions of the park's watersheds are located on federal lands within the Togiak National Wildlife Refuge. A cooperative agreement is recommended as a means of ensuring that management practices of both agencies are consistent and compatible.

The state-owned upper Milk Creek drainage lies outside the park but flows into Lake Chikuminuk inside the park. The upper reaches of the drainage immediately north of Milk Creek are also general state lands which drain into the park. Both these areas, approximately 35,000 acres, should be recommended for the addition to the park through legislative action. If the Legislature does not act, the area should become a part of the cooperative management agreement or Special Land Use Designation discussed above.

There are also approximately 150,000 acres of general state land between the northwestern park boundary and the Yukon Delta National Wildlife Refuge. These lands include Kisaralik, North Fork and Aniak lakes, which run into the Kuskokwim. Proposed additions to the park also include areas that drain into Nishlik, Upnuk, and Slate lakes. If these lands are added to the park, the end result would be six alpine lakes at the crest of the Wood River Mountains that are all under park protection. As an alternative to legislative action, the plan also recommends a Cooperative Management Agreement or a Special Use Land Designation that allows the DPOR to manage these general state lands that are now managed by the DNR Division Mining, Land and Water. The agreement or designation would be written so as to ensure that activities on the general state land would not adversely affect the park. The plan also recommends that DNR first take into account the special circumstances of adding the northern areas in the Kuskowim River drainage to the park. Those areas are also utilized by residents outside the Bristol Bay region.

The existing Lake Aleknagik State Recreation Site was created by administrative designation. To ensure the long-term retention and management of the Recreation Site, this area should be designated by the Legislature.

Selections and Reconveyances

Two parcels along the north shore of lower Lake Nerka are selected by Aleknagik Natives Limited (ANL). These lands are currently tentatively approved to the State and may in the future be reconveyed back to BLM for purposes of an ANSCA conveyance to ANL. Another parcel at the east end of lower Lake Nerka is ANL selected and is currently in BLM ownership. Finally, several pending Native allotments will require reconveyance of the lands involved back to BLM before they can be certificated.
Research Activities

Other than the research activities of the Alaska Department of Fish and Game and the Fisheries Research Institute of the University of Washington, both of which are specific and narrowly defined efforts, no comprehensive research program has taken place in the park.

To assess the condition of representative wildlife habitat types within the park and their sensitivity to recreational and subsistence pressures, a baseline ecological research program should be undertaken. The research should be designed as an ongoing program capable of measuring changes in the health and productivity of key habitats over time. Such a continuing research effort is especially important given the Legislature's instructions that waterfront or stream front campgrounds may be developed only after a "preponderance of evidence" indicates that habitat values will not be significantly affected.

In order to document the subsistence use that takes place within the park, data should be collected following the format used for such studies by the ADFG Division of Subsistence. The park should also be monitored for the impacts of all uses, including fishing and hunting. This would include monitoring impacts such as campsites, trash, fire rings, and human waste. In addition, the users of the park should periodically be surveyed to determine if their experiences are being seriously degraded as a result of issues such as competition for campsites and fishing holes, and crowding. The survey information may also be used to develop standards and propose management actions when standards are exceeded or not being met. In particular, the monitoring program should examine the following rivers: Grant, Agulukpak, Agulowak, Wind, Peace, Tikchik and Nuyakuk. The program should also examine Mikchalk and Chikuminuk lakes and selected large lakes in the Wood and Tikchik river drainages. These areas are either heavily used or are representative of the park's waterbodies. Upland habitat areas identified for future research should focus on those used by furbearers and large game animals. Fish species to be addressed include not only the salmon, most important for commercial fisheries and subsistence purposes, but also rainbow trout and Arctic grayling which are important to recreational anglers.

Wilderness Management

Large portions of Wood-Tikchik State Park are de facto wilderness, experiencing very little visitation and offering few, if any, man-made comforts. Managing the more remote parts of the park for Wilderness is consistent with both legislative direction and local interests, with one major exception: use of motorized vehicles. Conventional wilderness management restricts or prohibits motorized activities, yet the park enabling bill states that park regulations:

"Shall recognize the current practice of traditional subsistence and recreational activities including the use of small outboard motors and snowmachines. Reasonable access by aircraft for recreational purposes shall be permitted."

The Legislature's intent in declaring that outboard motors are compatible with park purposes was to ensure that traditional activities be allowed to continue. However, there is concern that new and potentially disruptive uses of outboard motors may arise. Personal watercraft, airboats, and hovercraft are examples. In addition, use of powerboats on Lake Chikuminuk, where this use is not traditional, is restricted to provide park visitors with a unique wilderness experience on a large lake in the park.

The <u>Statewide Framework Plan</u> (1982) provides internal guidance to the Division of Parks and Outdoor Recreation concerning acceptable activities and developments in various management designations, including areas designated Wilderness. The Framework provides the general management intent for areas designated Wilderness and states that access will be by foot or other non-motorized means except for: 1) use of designated aircraft-landing access sites or waterbodies where alternative means of access do not exist, 2) authorized research and management projects, 3) for purposes of search and rescue, or 4) situations specifically allowed by law.

In those northern and middle portions of the park, which receive little subsistence and recreational use, Wilderness designations have been applied which is appropriate and consistent with legislative intent. These areas are experiencing increased use which may detract from wilderness values. The plan includes prohibitions or restrictions on helicopters, jetskis, hovercraft, airboats, and powerboats which will protect these wilderness values. In addition the plan places limits on party size, numbers of parties, trip starts and other measures designed to reduce crowding in the more remote parts of the park.

Chapter 6

Goals and Objectives

The enabling legislation for Wood-Tikchik State Park and the management philosophy of the Division of Parks and Outdoor Recreation are summarized by the following goal statements:

- 1. Protect the fish and wildlife resources of the park, including management of natural habitats and support systems;
- 2. Protect and manage park resources to ensure continued traditional subsistence use activities;
- 3. Provide for the outdoor recreation needs of visitors to the park, appropriate to the park's values and regional setting;
- 4. Protect, document, interpret and manage areas of significant scientific or educational value, visual quality, cultural or historic value, and areas of special significance; and
- 5. Establish management practices which respond to regional and statewide recreation and tourism demands.

These goals serve as a general statement that defines the management to be achieved. For each of the goals, a set of objectives has been developed. These objectives will be further defined and policies developed for each of the management units in the park.



Kayaking provides a quiet moment on Lake Kulik

Goal 1: Protect the fish and wildlife resources of the park, including management of natural habitats and support systems.

Objectives

- 1-1. Establish criteria for, or otherwise address, the degree of acceptable disturbance to, or impact on, natural systems by habitat modifications, resource consumption, development and recreation activities;
- 1-2. Inventory and define park fish and wildlife values and establish an on-going monitoring system;
- 1-3. Establish park management units based on their resource character, land ownership, and public values and determine appropriate types and intensities of use, experiences, and compatible use activities, resource protection measures, separation or distribution of use activities, types of appropriate development, and vulnerability to disturbance; and
- 1-4. Establish habitat management practices through consultation and cooperative agreements with the Department of Fish and Game to protect salmon spawning grounds, resident fish populations, critical habitats and distributions of wildlife populations.

Goal 2: Protect and manage park resources to ensure continued traditional subsistence use activities.

Objectives

- 2-1. Establish priorities for resource allocations; inventory subsistence use activities (in cooperation with the ADFG Subsistence Division), preferences, and regional distribution;
- 2-2. Recommend acceptable harvest levels and practices (in cooperation with the ADFG Sportfish Division), based on the capacity and renewable character of the resource;
- 2-3. Recognizing that many Native allotments inside the park will be a base for subsistence activities, develop guidelines for protecting park resources and public use values amidst changes in land ownership and land use practices; and
- 2-4. Relate subsistence use to recreation use to define compatible and incompatible activities, determine the potential for conflict among user groups, and assess the need for special management practices.

Goal 3: Provide for the outdoor recreation needs of visitors to the park, appropriate to the park's values and regional setting.

Objectives

- 3-1. Define appropriate recreation activities in the park based on its natural character, resource values and the spectrum of recreation opportunities available elsewhere in the region and state;
- 3-2. Apply management practices which provide for the separation of recreation uses in time and space to avoid conflicts, provide resource protection, maintain the quality of the recreation experience and provide for site-appropriate activities;
- 3-3. Establish developments and facilities in a scale and manner appropriate to the park's natural setting, scenic character, and resource values;
- 3-4. Develop facilities as a means of meeting public needs for safety, visitor services, visitor information, resource protection, behavior control, and minimizing impacts;
- 3-5. Develop means of protecting private property rights from impacts of park users; and
- 3-6. Ensure a balance between consumptive and non-consumptive park uses.

Goal 4: Protect, document, interpret and manage areas of significant scientific or educational value, visual quality, cultural or historic value and areas of special significance.

Objectives

- 4-1. Inventory park values and define areas of significant scientific or educational value;
- 4-2. Establish criteria for research activities and priorities to meet management needs;
- 4-3. Incorporate scientific and educational values into visitor information programs to develop an appreciation and understanding of the park's values and management direction;
- 4-4. Investigate, document, evaluate, interpret and protect the archaeological and historical elements of the park;
- 4-5. Establish management practices which employ off-site visitor interpretation of the area's significance without drawing attention to and attracting use in sensitive areas; and
- 4-6 Define the park's landscape character and apply visual quality criteria to the park's management programs, developments and land use practices.

Goal 5: Establish management practices which respond to regional and statewide recreation and tourism demands.

Objectives

- 5-1. Define the relation of the park to regional and statewide tourism goals; and
- 5-2. Define an acceptable level of tourism development and marketing, promotion of the park's tourism potential, commercial operations, concession activities, and visitor accommodations and services within the park.

Chapter 7

Parkwide Management Practices and Policies

The following management practices and policies apply to all park lands and waters. Implementation of these practices and policies is dependent on adequate funding and staffing. Under 11 AAC 20.365, portions of the area-wide and unit-specific management policies in this chapter are also adopted by reference as a regulation. Policies are grouped into the following general categories:

> Facility development Visitor use Wildlife and fisheries management Commercial activities Levels of commercial use Limiting use on individual lakes and rivers Private land development Zoning

Facility Development

- 1. All park developments shall be sited, designed, and constructed to minimize impacts upon the natural environment and the area's scenic quality.
- 2. Facilities will be developed in the vicinity of salmon streams and other areas of ecological importance only to mitigate a problem stemming from over-use or other visitor activities, not to accommodate additional users or create an attraction. Developments in such areas will only be considered if there is evidence that the environment will not suffer significant adverse effects.
- 3. Trail construction shall be of a primitive nature, whether to provide hikers with access to the alpine tundra areas or to serve sport anglers with streamside routes. When appropriate, trail shelters or public cabins may be developed in association with trails to accommodate overnight visitors.

- 4. Campsites which will receive high levels of use shall be hardened. Facilities associated with a hardened campsite may include a pit latrine or outhouse, fire ring or fireplace, tent pads or open shelters, and bear wires or bear-resistant containers
- 5. No developments shall take place on state-owned park lands which infringe on Native allotments or primary subsistence resource areas.
- 6. All park developments such as trails, trailheads, or campsites shall be of a primitive nature when located in areas designated Wilderness.

Visitor Use

- 1. Public information brochures, kiosks, and materials posted on the web will be made available to visitors which provide information regarding facilities, campsites, land ownership, trip planning, permitting, safety, sensitive environments, and restrictions.
- 2. Visitor use will continue to be monitored.
- 3. Implement measures that will ensure that the levels of use in the park, particularly in units designated wilderness protect the values for which the park was designated.
- 4. Limit the numbers of parties camping at one time on the upper Tikchik Lakes, floating the Tikchik River, and fishing the Agulukpak River. As warranted by increased visitation, designated float landing areas will be identified and visitors will be encouraged to gain access to the park at these designated areas.
- 5. Park policy shall be to encourage a "pack-it-in, pack-it-out" practice regarding waste associated with visitation. Trash cans and other receptacles will not be provided for the convenience of park users.
- 6. Any promotion program of Wood-Tikchik State Park shall be designed in a manner that protects the wilderness character of the more remote parts of the park, protects existing recreational and subsistence uses, and will not unduly impact the park's resources or threaten visitor safety.

Wildlife and Fisheries Management

- 1. Fisheries and wildlife research shall be encouraged when in accord with established fisheries and wildlife research principles and the purposes of the park. Such associated facilities and developments as research camps, special structures, habitat modification and stream enhancement practices shall be reviewed by the Division of Parks and Outdoor Recreation for approval and issuance of park land use permits.
- 2. Encourage water quality and ecological monitoring and baseline studies.

- 3. In consultation with the ADFG Division of Subsistence to ensure that data collection measures are consistent with those used by the Division, State Parks shall monitor subsistence use within Wood-Tikchik State Park.
- 4. The Park Management Council and Division shall submit recommendations to the Nushagak Fish and Game Advisory Committee and the Boards of Fisheries and Game regarding subsistence use within the park.
- 5. Hunting shall be allowed within Wood-Tikchik State Park. Reasonable access to hunting areas by motorized boats, aircraft and vehicles shall be allowed.
- 6. The introduction of exotic species of plants or animals or those not indigenous to the area is discouraged, unless to meet specific and well-defined management objectives.
- 7. Areas of particular importance to wildlife, such as bear denning areas, shall be inventoried and monitored. Park users shall be directed away from such sensitive areas. Facility development near such areas shall be prohibited.

Commercial Activities

- 1. All commercial activities and services within Wood-Tikchik State Park shall be subject to the permitting requirements of the Division of Parks and Outdoor Recreation.
- 2. Commercial operators shall be encouraged to conduct their air traffic to minimize disturbance to park visitors and prevent congestion, in the air or on the ground.
- 3. Caches for food, fuel, or other materials on parklands may be permitted with special stipulations.
- 4. Primitive tent camps used for commercial purposes may be permitted with special stipulations.
- 5. Permanent and semi-permanent camps used for commercial purposes shall not be permitted.
- 6. Implement identified levels of commercial use that protect the park's resources while providing for visitor services.

Levels of Commercial Use

Special Use Permits under 11 AAC 18.010 are required of all commercial activities in the park as defined by 11AAC 12.300 and 11 AAC 12 3.40.⁷ DPOR will, in the Director's discretion, establish limits on the number of client days, including the number of passengers flown into the

⁷ Applicants should complete and file applications at either the State Parks office in Dillingham or Anchorage.

park by permitted air taxi operators. The number of client days allowed in the park will be set at 25 percent higher than 2001 levels. Full implementation of the allocation process is not anticipated prior to the 2004 season. These client days can be allocated to the entire park or specific areas in the park. The decision on the number of permits that are available (competitively or non-competitively) and the number of client days allocated to each commercial operator will be made administratively.

Limiting Use on Individual Lakes and Rivers

Upper Tikchik Lake and River. The number of parties allowed to camp at one time on the four upper Tikchik Lakes ranges from two to six and varies by season (see Management Unit 2). The number of parties that may start floats down the upper Tikchik River is limited to three starts per week (see Management Unit 1). These limits on the number of parties allowed at one time and trip starts per week apply to all parties, not just parties accompanied by a guide or who are assisted by a commercial operator.

Agulukpak River. The plan also establishes the number of client days that may be allowed on the Agulukpak River during two twelve-hour periods of the day. This limit does not apply to unguided users (see Management Unit 6).

Agulowak River. Restrictions on anchoring, drifting, and standing have been established on sections of the Agulowak River. The intent of these restrictions is to protect visitor safety rather than to reduce crowding (see Management Unit 8).

Private Land Development

- 1. State Parks will implement zoning guidelines that protect the park's resources while allowing for continued use of private land.
- 2. State Parks shall work with private landowners within the park to provide guidance on how to minimize impacts on park resources and avoid conflicts with recreation and subsistence users. Landowners are encouraged to place covenants and conservation easements⁸ on their land prior to subdivision or sale.
- 3. The Division of Parks and Outdoor Recreation shall encourage landowners to enter into cooperative agreements, land exchanges, sales, or conservation easements with the State or land trusts to protect the integrity of the park's resources while still allowing for continued use of private lands.

⁸ A conservation easement is a legal agreement between the landowner and a land trust or the State. It permanently protects open space by limiting the amount and type of development that can occur, but continues to keep the land in private ownership.

- 4. When funds are available, such as through federal share and matching state funds, acquire parcels with high habitat, recreation, or public access values on a willing-seller, willing-buyer basis.
- 5. Personal use of timber located on parklands for house logs is prohibited. Personal use of timber located on parklands for firewood shall be allowed only when dead or down timber is collected. Personal use of small timber located on parklands for subsistence purposes shall be by permit only (with the exception of units designated Recreation Development), with special stipulations attached to protect shoreline scenic quality and other park values.

Zoning

Background

Although the park contains 1.6 million acres, most of the current use is concentrated along the lakeshores and rivers. These narrow corridors are the same areas where private lands are located (see Map 7-1). Although some of these parcels will have restrictions on development as a result of negotiations between the state and allottees, most parcels will have minimal restrictions. If those with minimal restrictions are sold, they may be subdivided into small lots and be developed for commercial use. One type of commercial use of particular concern is the development of lodges and guide campsites. These developments would contribute to the growing number of park users who would compete for the same fishing and hunting locations that are already heavily used. To a lesser degree, but one that could impact the park as well, is the potential that these parcels will be subdivided and sold as small recreational lots to be used for cabins, which would contribute even more users to the park.

One way of addressing this concern is by enacting zoning regulations. Under Alaska Statute 41.21.025 (text in Appendix A), the Division of Parks and Outdoor Recreation may adopt zoning regulations governing private property within the boundaries of state parks. Zoning may also address land patented or interim conveyed to regional or village Native corporations under the Alaska Native Claims Settlement Act (ANSCA). However, these corporate lands can only be zoned if the affected corporation consents to, or fails to reject, the zoning regulations.

What is zoning?

Zoning is a method by which government may regulate land uses on private lands in areas where it applies. Guidelines are designed to address how development may occur. Zoning can apply to a variety of land uses, and its employment ranges from very simple, addressing just a few issues, to very complex. In Alaska, zoning until recently, has only been applied by incorporated cities and boroughs. Although most of the time zoning has been applied to the more populated areas of municipalities, it has also been applied in remote areas, such as the Denali Land Use District in the Matanuska–Susitna Borough. There it was employed by the borough, in cooperation with State Parks, in order to protect rural lifestyles and the character of the land.

What is the concern?

A primary concern expressed at public meetings in 2001 is that the park will experience unacceptable levels of development and visitation in the coming years. One of the primary causes of these impacts is likely to be from krge-scale commercial development on private lands within the park. Most of these private lands are located in the south half of each lake system. If private holdings were developed to their full potential for private or commercial purposes, the area's natural and wilderness qualities would be affected. A significant number of additional users would be brought to the park, further adding to the crowding that is already occurring in places like the Agulowak and Agulukpak Rivers. Subsistence users would be heavily impacted, as well as the fish and wildlife habitat.

Impacts from residential and recreational non-commercial use of these inholdings is likely to be less significant in comparison to the development of a number of lodges and commercial sites. Nonetheless, these too could create problems if all the parcels in the park were allowed to be subdivided into small parcels.

What are the benefits of zoning?

Zoning can help promote orderly growth and ensure that the number and scale of developments, such as lodges, is compatible with the uses of the surrounding public lands. Zoning can benefit both landowners and park users alike by protecting the values that make the park so special to so many people. Land values can appreciate, reflecting the preservation of the unique character of the park.

The extent of development of private parcels can also be controlled by purchasing key parcels outright or acquiring a conservation easement. A conservation easement allows the parcel to remain in private ownership, with the owner agreeing to limit the development and use of the parcel. Although acquisition of key parcels or conservation easements is one way of protecting park resources, funding is limited and negotiations sometimes take years. In any case, it is not the intent of the state or land trusts to acquire all lands in the park. Private lands can provide vital services to park visitors, residences for people to live, and places for landowners to recreate. Zoning can work in concert with an acquisition program and is an economical way to protect large areas of land and ensure that impacts of development on private lands are minimized. Compared with the purchase of conservation easements and outright purchase of lands, zoning can be implemented relatively quickly. Zoning can also be flexible. If economic conditions change, the zoning can be modified as necessary.

What are the drawbacks?

Zoning is not permanent. Zoning regulations could be changed to allow unlimited subdividing of parcels or large-scale commercial developments. Zoning may also reduce land values in the short term, decreasing the owners' equity in land. Zoning in remote areas may also be difficult to monitor and enforce on a day-to-day basis. Even with the level of zoning proposed in this draft plan, the potential for significant commercial development still exists.

What types of non-state lands are located in the park?

There are generally three types of privately owned lands within the park (see Map 7-1): those lands that are owned by Native corporations; those that are certificated or about to be certificated under the Native Allotment Act, and those that have been patented by the U.S. government.

Native corporation lands

The Aleknagik Natives Limited own or have selected approximately 32,000 acres in the park which are located along lower Lake Nerka, Lake Aleknagik and the Agulowak River. There is currently a cooperative agreement to allow low impact recreational use of these lands in exchange for the Division of Parks and Outdoor Recreation's accepting responsibility to manage that use and protect the land.

Certificated and pending Native allotments

Seventy-one individuals have Native allotment applications in the park. These represent 101 parcels of land, up to 160 acres each. Most of the allotment applications will eventually be certificated. After allotments are certificated, they can be leased, subdivided, or sold. *Other private lands*

There are 9 other patented parcels in the park comprising 74 acres. Most of these sites were acquired under the BLM Trade & Manufacturing (T&M) site or Headquarters site programs. It is on these lands that seven of the eight lodges within the park are located.

What would zoning entail and who would it apply to?

Portions of the plan, including the zoning restrictions it contains, are adopted by reference as a regulation under 11 AAC 20.365. Under Alaska Statute 41.21.025 (see Appendix A), the Division of Parks and Outdoor Recreation may adopt zoning regulations governing private property within the boundaries of state parks. This zoning regulation also applies to land patented or interim conveyed to regional or village Native corporations under the Alaska Native Claims Settlement Act (ANCSA). However, this regulation only applies to ANCSA lands if the affected corporation consents to, or fails to reject, the zoning regulations within 60 days from the date they are submitted to the affected corporation.

Under the 1887, 1906, and 1910 Native Allotment Acts, allottees enjoy a special trust relationship with the Federal government and they cannot sell their lands without approval by the government or its designees (in this case, the Bristol Nay Native Association). The restricted status is extinguished upon transfer of the land to a non-Native. Thus, the zoning regulations would not apply to parcels under restricted status until they are transferred to a non-Native, either by sale, inheritance or lease or otherwise lose restricted status.

State Parks will develop policies and procedures for considering requests for variances for existing developments and subdivisions that do not conform with the zoning restrictions. For example, under AS 41.21.025(c), uses existing on June 25, 1976 are not affected by zoning regulations adopted after June 25, 1976.

In order to implement zoning, authorizations will be required for the following uses and developments on parcels zoning applies to within the park and SRS boundaries. Unless authorized by the Director under 11 AAC 18.010, a person may not: subdivide or dedicate lots or tracts; construct or make additions to structures; use, develop or convert land or structures for the purposes of operating a business or multifamily dwelling; use a development site for accommodation of over 30 overnight guests; or paint or side exterior walls of a structure.

What are the specifics of the proposed zoning?

Specifics of zoning guidelines, that are adopted by reference as regulations, follow.⁹

- (1) Subdivision of the land shall be limited to lots of not less than ten acres each.
- (2) Except as provided in (7) of this paragraph, structures built on the land shall be:
 - (a) limited to single-family dwellings only;
 - (b) limited to two stories in height;
 - (c) set back a minimum of fifty feet upland of the ordinary high water mark of any waterbody; and
 - (d) in the painting or siding of exterior walls, limited to neutral colors, subject to approval by the Division of Parks & Outdoor Recreation.
- (3) Any use or development of the land for the purpose of operating a business shall be limited to an area of not more than five contiguous acres, which shall be designated as a commercial development site.
- (4) For each parcel as originally conveyed from the United States Government, only one commercial development site may be designated on the parcel, regardless of whether the land is subdivided into lots as allowed under (1) of this paragraph.
- (5) Only one business may be located on a commercial development site.
- (6) A maximum of 30 overnight guests shall be allowed at any business providing overnight accommodations.
- (7) Structures constructed on a commercial development site shall be:
 - (a) limited to two stories in height;
 - (b) set back a minimum of one hundred feet upland of the ordinary high water mark of any waterbody; and
 - (c) in the painting or siding of exterior walls, limited to neutral colors, subject to approval by the Division of Parks & Outdoor Recreation.

⁹ The guidelines applied to private lands are similar to the "Tier II" conditions agreed to by many of the allottees in the park as part of reconveyance agreements.

How would zoning affect restrictions that already apply to allotments?

As of 2002 there are approximately 100 Native allotments in the park. The exact number will not be known until all applications have been adjudicated. Negotiations between the State and Native allottees resulted in conservation easements (tier agreements) on about two thirds of these parcels. About half of these have no development restrictions (referred to as "Tier I" parcels). Agreements have been reached on most of the other parcels (referred to as "Tier II" parcels) where development and subdivision guidelines, similar to the zoning restrictions in this plan, apply. Agreements have been reached on a couple of parcels (referred to as "Tier III") in which the Tier II guidelines apply as well as an additional condition that allows no use or development of the parcel for commercial purposes. These three tiers of conservation easements will apply even when allotments are sold or otherwise lose restricted status. The remaining one third of Native allotments that have no tier agreement, have no development restrictions.

Since the guidelines on the Tier II and III allotments are as strict, or stricter, than the proposed zoning guidelines, the zoning regulations as a result of this plan will have little effect on what is allowed on these parcels. Zoning will not apply to the Tier I Native allotments and the Native allotments without agreements until they come out of restricted status. The only parcels that are immediately affected by zoning are the nine preexisting private parcels, which mostly originated as T&M sites, as well as any Native allotments that have already come out of restricted status.

Consistent with AS 41.21.025(b), zoning also would not apply to lands patented or interim conveyed to Aleknagik Natives Limited unless the corporation consents to it or fails to reject the zoning regulations within a certain period of time.

Insert Map7-1

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Chapter 8 Land Use Designations

To further clarify how the land and resources in each of the park's nine units will be managed, three types of designations were developed and assigned to each unit. Map 8-1 shows the boundaries of these units and their land-use designations. The general intent for these designations derives from the *Statewide Framework* (DPOR, 1982), which established a land-use classification system for management and development of land and resources within park units. Three designations from the original Framework are assigned by this plan to Wood-Tikchik State Park and the Lake Aleknagik State Recreation Site. The characteristics and development activities from the original designations used in the plan are: Recreational Development, Natural Area, and Wilderness.

Described below are the purposes, characteristics, and developments/activities allowed under each designation. The guidelines that apply to each designation are listed in Table 8-1. Specific management intents and guidelines for each unit are described in Chapter 9.

Recreational Development

Purpose

Areas designated Recreational Development established within the State Park System are intended to be managed to meet the need for developed recreation facilities such as parking, boat launches, campgrounds, picnic areas, and information services. These are locations where there is intensive public use and facilities are needed to protect public health and safety, accommodate public access needs, and minimize visitor impacts.

Characteristics

Units designated Recreational Development are areas that can be developed to provide for a high level of outdoor recreation activity through carefully planned and controlled site modification. The areas can be modified to support education and recreation activities while minimizing impacts on wildlife habitat and scenic qualities. These management areas are established where soils, slope, drainage and vegetation can support more intensive recreation activities. Controlled burns, and insect and disease control can be used within these management areas to maintain or enhance recreation use or protect visitor safety. These areas may have already been influenced by prior developments and are intended to provide a transition into areas of the park that are less heavily used and developed.

Developments and Activities

The highest level of developments and activities are meant to occur in units designated Recreational Development which may include, but are not limited to: roads, parking areas, boat launches, campgrounds, picnic areas, kiosks, signs, visitor and interpretive centers, high-standard trails for all ages and abilities, park management facilities and commercial lodges or resorts as provided for within the unit master or site development plan. High intensity activities related to the use of these developed facilities are generally accommodated and encouraged. Off-road vehicles, snowmachines, powerboats, aircraft and other motorized vehicles are generally allowed in these management units although there may be some restrictions designed to protect public safety and reduce resource damage.

Natural Area

Purpose

Units designated as Natural Areas are established to provide for moderate to low impact, clustered or dispersed forms of recreation and are managed as relatively undeveloped and undisturbed areas.

Characteristics

State-owned and -managed lands in units designated as Natural Areas are relatively undeveloped and undisturbed, managed to maintain high scenic qualities, and provide visitors with the opportunity for a significant natural outdoor experience. The area's natural landscape character is the dominant feature. Landscape modification may be allowed to enhance, maintain, or protect the natural setting. Guidance for applying controlled burns, insect or disease control, or wildlife enhancement as management techniques in these areas, is provided in Table 8-1.

Developments and Activities

Developments in units with this designation are intended to provide for the safety of park visitors, and to provide for a moderate level of convenience in a natural setting. Allowable developments include, but are not limited to, backcountry shelters, public use cabins, caretaker facilities, improved campsites, high-standard trails, and bridges. These developments should be undertaken only to mitigate public safety, management, or resource degradation problems and after consultation with the Park Management Council. There are some developments that are associated with private lands in these units, such as docks, that may also be authorized in these units in order to provide access to private lands from park shorelands and waters. Units with this designation will be managed for a medium level of use. Activities include, but are not limited to, hunting, fishing, trapping, berry picking, dog-sledding, boating, skiing, camping, hiking, mountain climbing, picnicking, and sightseeing. Motorized activities may be allowed in these areas depending on resource sensitivities and potential conflicts with other park users. Limits on numbers, types, season of use and designated areas may be considered, particularly in areas with high public use or sensitive environments.

Insert Map 8-1

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Wilderness

Purpose

Units designated Wilderness are established to promote, perpetuate, and where necessary, to 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

Units designated Wilderness are designed to encompass areas large enough to offer visitors an experience where the sights and sounds of other users are minimized. They are managed to maintain the area's wilderness character including its landscape, vegetation and habitat. Resource modification can occur in these units only to restore the area to a natural state. Natural processes will continue with a minimal amount of human intervention to the extent that human safety and natural resources are protected. The use of fire suppression, and insect and disease control may be employed when approved by the Director. Wildlife habitat enhancement activities, such as vegetation manipulation, is discouraged in these areas.

Developments and Activities

Units designated Wilderness should have no man-made conveniences within their boundaries, except for the most primitive of trails, minimum trail maintenance, and signing. Developments or other improvements will be undertaken only where it has been determined that significant threats to public safety exist or to reduce adverse impacts on the area's resources and values and after consultation with the Park Management Council. Activities which threaten the character of the wilderness area will be restricted. If overuse or misuse occurs, the Director may restrict entry and use of the area. Methods of restriction may include separation and control of use activities through limiting the number of parties allowed in a unit at any one time and restrictions on some types of uses that are not consistent with the management intent for the unit.

Guidelines That Apply to Land Use Designations

Following are guidelines that apply to units with different land use designations in both the park and state recreation site. Under 11 AAC 20.365, some of the area-wide and unit-specific management policies in this chapter are adopted by reference as a regulation.

Table 8-1 Guidelines for Activities within Land Use Designations

ACTIVITIES	RECREATIONAL DEVELOPMENT DESIGNATION	NATURAL AREA DESIGNATION	WILDERNESS DESIGNATION
FISH AND WILDLIFE HABITAT/POPULATION MANAGEMENT ACTIVITIES			
Research and Management Studies			
Collection of data necessary for park management decisions or to further science. Priority will be given to studies that contribute to the use and management of native fish and wildlife populations and their habitats. Studies may be conducted by the Division or by other researchers under Division permit.	Will be encouraged when in accord with established research principles and when consistent with the purposes of the park.	Same.	Same.
Ecological Monitoring			
Activities or studies that address how fish and wildlife and their habitats are changing due to either natural or human causes.	Will be practiced as part of normal park operations.	Same.	Same.
Fich and Wildlife Inventoria			
Fish and Wildlife Inventories Using acceptable management techniques to obtain information on species distributions, harvest, abundance, habitats, and population dynamics to meet park objectives.	Will be practiced as part of normal park operations in conjunction with ADFG.	Same.	Same.
Fishering Fahrmannet			
Fisheries Enhancement Action taken to increase fishery stocks above historical levels, such as building hatcheries and fish passages, artificially incubating fish in streams and fertilizing lakes.	Not permitted.	Not permitted.	Not permitted.

ACTIVITIES	RECREATIONAL DEVELOPMENT DESIGNATION	NATURAL AREA DESIGNATION	WILDERNESS DESIGNATION	
Fisheries Restoration Action taken to restore fish access to spawning and rearing habitat, or actions taken to restore populations to historical	Permitted only in certain circumstances, such as fuel spills, over-harvest or hydro- electric	Same.	Same.	
levels. Includes fish ladders, fish passages, and lake fertilization. Hatcheries and spawning/incubation channels are not included in this category.	development, and in conjunction with ADFG.			
Wildlife Liebitet Manipulation				
Wildlife Habitat Manipulation Modification of habitats to increase target wildlife populations. Includes both enhancement and restoration activities, such as prescribed burning and mechanical manipulation.	In general, habitat manipulation is discouraged but may be considered on a case- by-case basis.	Same.	Same.	
Exotic Wildlife Species				
Introduction Introduction of non-native species, such as Dall sheep and goats, into the park.	In general, introduction of exotic species is discouraged but may be considered on a case- by-case basis.	Same.	Same.	
Wildlife Stocking				
Used to re-establish native species within their original breeding range, to augment depleted native populations reduced by natural causes, and to maintain desired species.	Permitted only in certain circumstances such as over-harvest in conjunction with ADFG.	Same.	Same.	
Dredeter Centrel				
Predator Control Relocation or removal of predators to favor other wildlife populations, protect re- introduced species, and protect human life and property.	May be allowed consistent with ADFG policies and regulations.	Same.	Same.	
Pest Control				
Relocation or removal of organisms that threaten human health and property or survival of native fish and wildlife species.	May be permitted, with appropriate stipulations, if other management options have been exhausted.	Same.	Same.	
Disease Prevention and Control				
Management practices directed at controlling pathogens that threaten fish, wildlife and people. Includes rabies control and parasite control.	Will be practiced as part of normal park operations.	Same.	Same but by approval of the Director.	

ACTIVITIES	RECREATIONAL DEVELOPMENT DESIGNATION	NATURAL AREA DESIGNATION	WILDERNESS DESIGNATION Same.	
Commercial Fish Harvest	Recommendation to the Board of Fisheries to keep the park closed to this use.	Same.		
PUBLIC USES				
Hunting				
A traditional, legitimate form of outdoor recreation.	Permitted, subject to harvest regulations.	Same.	Same.	
Fishing A traditional, legitimate form of	Permitted, subject to	Same.	Same.	
outdoor recreation.	harvest regulations.			
Trapping				
Trapping of furbearers for private or commercial use.	Permitted, subject to harvest regulations.	Same.	Same.	
Camping				
Camping in an undeveloped area of the park for 10 days or less. DNR does not maintain or improve these sites. See details	Permitted, if more than one mile from designated campgrounds and	Same.	Same.	
at the end of this table.	maintained campsites.			
Party size				
The number of persons allowed in a party or assembly unless authorized by a permit.	Same as statewide regulations (20 persons).	Same as statewide regulations (20 persons).	Ten persons.	
Campfires				
Building of campfires outside of established campgrounds.	Permitted only on gravel bars, beaches, and in structures provided by DPOR for fires.	Same.	Same.	
Wildlife Observation				
Wildlife, wildlife habitat, and landscape features viewed and enjoyed in their natural setting. Includes photography and bird watching.	Permitted.	Permitted.	Permitted.	
Dog Sledding				
Use of dog teams as a means of winter access and recreation.	Permitted.	Permitted.	Permitted.	

ACTIVITIES	RECREATIONAL DEVELOPMENT DESIGNATION	NATURAL AREA DESIGNATION	WILDERNESS DESIGNATION			
SUBSISTENCE ACTIVITIES						
SOBSISTENCE ACTIVITES						
Fishing, Hunting, Trapping, Berry Picking and Vegetation Gathering						
The taking of fish and wildlife and other natural resources for personal consumption or as provided by law.	Permitted. Existing trapping cabins and other permanent structures associated with subsistence activities will generally be permitted, if compatible with surrounding areas and resource or use conflicts are not created. New construction of cabins or other permanent structures not permitted.	Same.	Same.			
Personal-Use Timber Harvesting Removal of timber from the park for personal use or subsistence purposes.	Not permitted.	Allowed through s pecial permit from the Division, with stipulations to protect park values.	Same.			
PUBLIC ACCESS						
Walking, Skiing, Snowshoeing Access may be provided by pedestrian trails or be unrestricted in the absence of a trail system.	Permitted.	Permitted.	Permitted.			
Non-motorized boats						
Includes canoes, rafts, kayaks and other non-motorized boats.	Permitted except for portions of the Agulowak River (see Management Unit 8).	Permitted.	Permitted except trip starts are limited on the upper Tikchik River (see Management Unit 1).			
Motorized Boats						
Includes inboard and outboard power boats, jet boats.	May be limited in some areas or at specified times. Subject to the slow no-wake zone in the SRS and Agulowak River restrictions. (see Management Units 8 and 9).	Permitted.	Permitted except on Lake Chikuminuk (see Management Unit 2).			
<u>Airboats</u>	Prohibited.	Same.	Same.			
Hovercraft on Land	Prohibited.	Same.	Same.			

ACTIVITIES	RECREATIONAL DEVELOPMENT DESIGNATION	NATURAL AREA DESIGNATION	WILDERNESS DESIGNATION Prohibited.			
Hovercraft on Waterbodies (and snow and ice covering waterbodies)	Allowed only between January 1 and May 31.	Allowed only between January 1 and May 31.				
Personal Watercraft (jetskis)	Prohibited except on Lake Aleknagik. Subject to the slow no-wake zone in the SRS. (see Management Unit 9).	Prohibited.	Prohibited.			
Boat Caching ¹⁰	May be authorized under permit.	Same.	Same.			
Floating Facilities						
Includes floating lodges and floathomes (facilities used primarily as a domicile and defined by park regulations).	Prohibited.	Same.	Same.			
Airplanes						
Includes both floatplanes and fixed-wing planes that provide access to the park.	Permitted. Special regulations may be imposed in high-use areas. Landing and taxiing regulations apply within the State Recreation Site (see Management Unit 9).	Permitted. Special regulations may be imposed in high-use areas although none are proposed at this time.	Landings may be limited to specified sites or areas, although use levels do not warrant such limitations at this time.			
Helioentere						
Helicopters Rotary-winged aircraft that provide access to State Park lands.	Prohibited except for specific agency purposes. See list of exceptions that follows this table.	Same.	Same.			
Snowmobiles						
Includes all snowmobiles as defined in state regulations.	Permitted.	Permitted.	May be limited to specified sites or areas, although use levels do not warrant limitations at this time.			
Other Motorized Vehicles (land based)						
Includes all motorized vehicles other than snowmobiles, (e.g. cars, 4x4s, tracked snow vehicles, off-road vehicles).	Not permitted except for registered highway vehicles at the Lake Aleknagik State Recreation Site.	Not permitted.	Not permitted.			

¹⁰"Boat caching" is defined as keeping a boat in one place for an extended period of time on state-owned uplands and shorelands (except on shorelands where the uplands are in private ownership, adjacent to the village of Aleknagik, or at the state boat launch). Permit stipulations will be designed to mitigate the impact of boat caches on other park users.

ACTIVITIES	RECREATIONAL DEVELOPMENT DESIGNATION	NATURAL AREA DESIGNATION	WILDERNESS DESIGNATION	
FACILITIES				
Improved Campsites ¹¹ Permanent site clearings that may include tent platforms, fire rings, shelters, picnic tables, and sanitary facilities.	Compatible, if consistent with site conditions, use patterns, etc., and after Management Council consultation.Same.		Not compatible.	
Public Use Cabins				
Small, permanent structures available for overnight use by the general public.	Generally not compatible with the intensive level of private development anticipated in units with this designation.	Compatible in consultation with the Management Council.	Conditionally compatible, if wilderness values are not compromised, in consultation with the Management Council.	
Visitor Contact Facilities				
A variety of staffed and unstaffed structures, including caretaker facilities, where the public can learn about and obtain inform ation on the park and its resources.	Compatible.	Compatible.	Not compatible.	
Boat Launch Sites				
Designated access sites where boats can be put into lakes and rivers. Sites may vary from simple clearings to permanent ramps and docks.	Generally compatible, although present use patterns and volumes do not warrant construction of launches within the park boundary.	Same.	Not compatible.	
Foot Trails				
Designated, maintained routes that are restricted to walking. Includes interpretive trails, long- distance trails, and campsite trails. May include signs, bridges, wayside facilities and sanitary facilities.	Compatible, after consultation with the Management Council consultation.	Same.	Primitive routes.	
Deada				
Roads Designated, maintained corridors that provide access for motorized vehicles. Includes cleared strips, gravel roads, asphalt roads. May include signs, bridges, wayside facilities, pull-outs.	Generally compatible if necessary to access recreational developments. Present and anticipated use patterns and volumes do not warrant construction of roads in the park.	Same; not compatible under present management objectives.	Not compatible.	

¹¹ Development and operation of campsites will not be allowed adjacent to major spawning and breeding areas unless a preponderance of evidence shows these will not be adversely affected to a significant degree (AS 41.21.167(d)).

ACTIVITIES	RECREATIONAL DEVELOPMENT DESIGNATION	NATURAL AREA DESIGNATION	WILDERNESS DESIGNATION	
<u>Airstrips</u> Designated, maintained sites that provide access for aircraft. Includes cleared strips, asphalt and concrete strips.	Not Permitted.	Not permitted.	Not permitted.	
MOTORIZED EQUIPMENT				
Chainsaws and ice augers	Chainsaws are compatible only for traditional, personal- use, dead and down firewood gathering. Ice augers are compatible.	Same.	Same.	
<u>Generators</u>				
Up to 3,500 watts	Compatible.	Compatible.	Not permitted.	
ECONOMIC ACTIVITIES				
Sand and Gravel Extraction Extraction of materials for commercial purposes.	Not permitted.	Not permitted.	Not permitted.	
Hydroelectric Power Development				
This activity assumes full commercial development of a site, including a dam, impoundment area, penstock, powerhouse, tailrace, and other forms of associated facilities.	Not permitted, except as specifically allowed by state law (AS 41.21.167). In cases allowed by law, reasonable stipulations shall be applied to protect park values and resources.	Same.	Same.	
Guiding and Outfitting				
Permitted big game guides, outfitters, sport fishing guides and all other commercial operators that provide services to recreationists in the park. Includes all activities of the operator on state park lands.	Generally compatible, subject to the permitting requirements and the limits on the number of client days.	Same.	Same.	
Grazing				
Grazing of domestic or wild animals for personal or commercial purposes.	Not permitted.	Not permitted.	Not permitted.	

ACTIVITIES	RECREATIONAL DEVELOPMENT DESIGNATION	NATURAL AREA DESIGNATION	WILDERNESS DESIGNATION	
Transmission Lines/Pipelines	Not permitted, except	Same.		
Includes telephone and electrical power lines, oil and gas pipelines, and other necessary related facilities.	as specifically allowed by state law (AS 41.21.167). In cases allowed by law, reasonable stipulations shall be applied to protect park values and resources.		Same.	
Commercial Timber Harvesting				
Removal of timber from the park for commercial purposes.	Not permitted	Permitted if necessary to protect human life and property.	Same.	
Other Types of Development				
Other types of development on	See alternatives that	Same.	Same.	
state land and water.	follow this table.	Same.		
OTHER ACTIVITIES				
Fire Suppression				
Suppressing wild fires.	Suppression will be employed consistent with the Alaska Interagency Wildfire Management Plan and other interagency agreements.	Same.	Same.	
Garbage Disposal				
Sanitary landfills, dumps.	Not permitted.	Same.	Same.	
,,,,				
Controlled Burns				
Purposefully setting fire to manipulate vegetation.	To maintain or enhance recreation or visitor safety.	To maintain or enhance recreation or visitor safety.	Same except with Director approval.	

Specific Guidelines for Activities in Table 8-1

Following are specific guidelines for some of the activities identified in Table 8-1 above.

Alaska Department of Fish and Game

The Department of Fish and Game is responsible for the management of fish and game resources in the Wood-Tikchik State Park, consistent with the purposes and provisions of AS 41.21.160-167. The Department of Fish and Game will use the plan as guidance when implementing its authorities and when reviewing and commenting on proposed uses of state lands in the park. The department also, consistent with 11 AAC 20.360, approved and will implement elements of the plan that govern fish and wildlife management. These elements are listed under the following subsections of Table 8-1: *Fish and Wildlife Habitat / Population Management Activities; Subsistence Activities* (except personal-use timber harvesting); and *Public Uses* (except camping, party size, campfires, and dog sledding).

Helicopters (Rotary Wing Aircraft)

A person may not land a rotary wing aircraft in Wood-Tikchik State Park unless authorized by the director under 11 AAC 18.010. Helicopter landings within the park are prohibited except that they may be authorized under permit for bona fide purposes for search and rescue, emergency situations, park and resource management, research, BLM and state surveys, enforcement and initial-attack fire suppression. These restrictions do not affect landing helicopters on private land or flying over the park.

Hovercraft

The use of hovercraft on waterbodies (and snow and ice covering waterbodies) in the Park and State Recreation Site is allowed only between January 1 and May 31 annually, but is prohibited on Upnuk, Chikuminuk, Grant, Kulik, Nishlik, and Slate lakes and the upper Tikchik and Wind rivers, unless permitted by the director under 11 AAC 18.010. The use of hovercraft over land in the park is prohibited.

Camping

In the past, long-term occupancy of sites has reduced the opportunities for others to use popular sites, resulted in excessive gear accumulating, and resulted in an inordinate amount of site impacts. To address these concerns, a person may not camp at the same location in an undeveloped area of the park for more than 10 consecutive days in a calendar year, except as authorized by the director under 11 AAC 18.010. After a person has camped for up to 10 consecutive days at the same location in an undeveloped area of a state park, all camping equipment must be removed from that location and may not be set up or used again within one mile of that location during the next 10 days (11 AAC 12.230). In addition, the number of parties camping at any one time on the four upper Tikchik Lakes is limited (See Management Unit 2).

Permitting Matrix

General and Specific Conditions and Procedures

Overview

The Permit Matrix on the next page is intended to implement the statutory responsibilities of the permitting agencies within the Wood-Tikchik State Park while bringing consistency and predictability to the permitting process. DPOR, ADFG, and other state agencies are to use the accompanying matrix when adjudicating applications for the use of state land and water within the park. Federal regulatory agencies should also refer to the matrix. The public and permit applicants can also use this matrix to identify the requirements that must be met to have applications approved. The General and Specific Conditions referred to in the matrix are based on Alaska Statutes, the Alaska Administrative Code and agency permitting policies.

Permitting agencies may authorize deviations from the matrix if the deviation is consistent with the management intent for the specific management unit within which the project is proposed or is consistent with General Condition "k".

When applying the matrix to permitting decisions, agencies will act in a fair and equitable manner in approving permits of a similar type. Decisions will be based on the best available information and professional judgment. Agencies will attempt to follow the requirements of the matrix when applying their regulatory authorities in a reasonable, consistent and predictable manner. When agencies exercise discretionary judgment, they may do so as long as they are consistent with General Condition "k".

Use of Permitting Matrix

The matrix provides adjudicators project-specific guidance based on the designation of the management unit within which the project is located. The matrix indicates whether or not a use or structure is conditionally compatible or incompatible. If the use or structure is conditionally compatible, the conditions and stipulations required are listed under the *Special Conditions* section. The *General Conditions* section applies to all uses and structures that occur on state land and water in the park and State Recreation Site.

Table 8-2Permit Matrix

Land Use Designation		Recreational Development	٦	Natural Area	V	Vilderness
Uses and Structures	Not Compatible	Conditionally Compatible (Conditions)	Not Compatible	Conditionally Compatible (Conditions)	Not Compatible	Conditionally Compatible (Conditions)
Floating Dock		5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 24, 25, 29, 30, 31, 32		Same	x	
Floating Lodge / Floathome	x		Х		x	
Pile-supported Dock		5, 6, 9, 13, 14, 15, 24, 25, 29, 31		Same	x	
Cantilevered Dock		5, 6, 9, 13, 14, 15, 24, 25, 29, 30, 31		Same	x	
Ladders / Stairs / Boardwalk		5, 6, 9, 12, 13, 24, 29		Same	x	
Ramp		2, 3, 4, 5, 24, 27, 28, 29, 30, 31, 32, 35		Same	x	
Gravel Removal	x		Х	Gano	X	
Riprap, Bulkheads, other Bank Protection / Restoration		2, 3, 4, 5, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36		Same	x	
Trail		2, 3, 4, 5, 16,		Same		Same
Commercial / Industrial Facilities	x		Х		x	
Septic System		1, 2, 3, 4, 5, 28, 29		Same	x	
Dredge and Fill	X		Х		x	
Intake Structure		17, 18, 19, 20, 21, 22, 23, 29		Same	x	
Discharge Structure	x		Х		x	
Landfill / Dump	x		Х		x	

Structure and Use Permit Conditions

General Conditions

General conditions apply to all allowable uses and structures identified in the Permit Matrix - Table 8-2.

a. This permit does not obviate the need for applicable permits from other state, federal, or local agencies that have jurisdiction.

b. All structures and uses shall conform to all applicable federal, state, and local permits.

c. Structures and uses shall be located, designed and maintained so that natural water circulation patterns are not interrupted unless the changes are an integral part of the project purpose.

d. Structures and uses shall be evaluated in consideration of the public need, overall number, density and proximity of similar structures.

e. Other than those activities that are traditionally allowed within the park and SRS (State Recreation Site), all other commercial and industrial activities shall be conducted on private uplands, not within the park or SRS.

f. Structures or uses shall not be allowed if they are contrary to the laws governing the park and SRS or if inconsistent with the management guidelines of the Management Plan.

g. All uses and structures are to be sited so as to avoid or preclude adverse impacts to the wildlife (including critical and sensitive habitats), resources, and lawful uses within the Park.

h. All material placed on or in park/SRS land or water shall be free of contaminants or pollutants.

i. If a structure is no longer used by a permittee or falls into a state of disrepair, the structure shall be removed in its entirety by the permittee, their successor, or the successive owner of the affected property. The site shall be returned as nearly as possible to prior grade and contour. This may include re-grading and revegetation of the shoreline or stream bank.

j. All temporary fills must be removed in their entirety and the site revegetated if appropriate.

k. Permitting agencies may vary from the stated requirements in the park management plan if habitat, public safety, and river water quality are protected, and if the management intent of the management unit within which the permit is to be issued is maintained. The revisions must be in the best interest of the park or SRS management objectives, meet the underlying requirements of the permit guidelines, and not impact sensitive or critical habitats. Also, the effect of this action must be consistent with the management intent for the management unit within which the proposed structure is to be permitted. In no instance shall the permitted

project vary from a stipulated plan requirement unless a plan amendment is authorized. All proposed changes to permitted uses or structures shall be reviewed by the ADFG and ADNR before the proposed changes occur.

l. Commercial mining and mineral extraction shall not be authorized within the park or SRS.

m. Projects proposed to protect riparian uplands, either private or public property, adjacent to park and SRS waterbodies, must conform to the requirement in statute that the natural salmon spawning and rearing habitats be protected and sustained in perpetuity. Riparian vegetation is essential for maintaining and sustaining critical rearing and spawning salmon habitat, and all projects will be required to protect and/or sustain existing vegetation through protection, replication, or substitution of like materials and substrates. Failure to obey these stipulations in permit, or to cause damage to salmon rearing or spawning habitat, is a misdemeanor crime under AS $16.05.870^{12}$ and AS 41(11 AAC 21.025).

Special Conditions

The following conditions shall be employed as indicated in the Permit Matrix - Table 8-2.

1. Uses and structures related to public projects or other public recreation projects shall conform to the Alaska Department of Environmental Conservation's waste disposal site regulations.

2. Appropriate erosion control measures shall be implemented between all excavation or fill areas and any water body.

3. Surface disturbance including disturbance to wetland areas shall be minimized.

4. All disturbed slopes shall be stabilized to prevent soil erosion and sedimentation of any waterbody.

5. Construction equipment shall be limited to the construction site or permitted area only.

6. All vegetation above the ordinary high water line shall not be disturbed or altered except for that necessary for the construction of the dock and walkway structures.

7. All floating docks shall be seasonal removed.

8. Floating docks shall not be installed before April 15, and shall be removed by October 15.

9. Docks and other structures shall not infringe on important recreational areas of the river, critical or sensitive habitats, or conflict with the lawful uses of other private properties. A structure will not be permitted if it causes significant impacts to the resource or it increases water velocities to greater than 5 feet-per-second.

¹² ADFG authority under AS 16.05.870 only applies below the ordinary high water line.
10. Styrofoam or other floatable, non-toxic material may be used for floating docks. The floatation materials must be contained in a durable liner that encapsulates the floatation and prevents the material from degrading and entering the park waters.

11. Barrels used in the construction of floating docks shall be cleaned and sealed to prevent the escape of hazardous material into the waters of the park or SRS.

12. No pilings or walkway supports shall be placed below the ordinary high water line or in the bed of a river or stream in the park or SRS.

13. Floating docks, landings, gangways, steps and ladders, and similar structures, with at least 75 percent light penetration, must be constructed so that no part other than the supporting posts, are within 8 inches of the ground. Structures with less than 75 percent but a minimum of 25 percent light penetration must be constructed so that no parts, other that the supporting posts, are less than 18 inches off the ground.

14. Structures shall be designed to effectively secure moored vessels and avoid creating hazards to river or air navigation.

15. Non-treated or pressure treated building materials are required. If treated with wood preservatives, the dimensional lumber shall not be treated with products that are toxic to fish (such as pentachlorophenol and creosote).

16. Ditches shall not connect to any natural body of water.

17. Use of water below a significant amount, as defined by 11 AAC 93.970 (14), for use is allowed without a permit from DNR. All significant water uses are subject to permit review and authorization by both the Division of Parks and Outdoor Recreation and the Division of Mining, Land and Water. These divisions will coordinate adjudication of applications for this use.

18. Water withdrawal shall not reduce the stream flow or lake level below the level necessary to support anadromous and resident fish, and the watercourse must not be blocked to impede fish passage.

19. Any water intake structure in fish bearing waters, including a screened enclosure, well point, sump, or infiltration gallery, must be designed, operated, and maintained to prevent fish entrainment, or injury at the maximum diversion rate and permitted by ADFG.

20. Waterbodies shall not be altered to facilitate water diversion or distributed in any way unless specifically authorized by ADFG and ADNR for placement of well points, sumps, or infiltration galleries. ADFG and ADNR will be notified at least three working days prior to any disturbance. Additional correctible measures may be stipulated under agency statutory and regulatory authorities.

21. In-water activity will be limited to placement and removal of the intake structure only.

22. The suction hose at the water extraction site must be clean and free from contamination at all times to prevent introducing contaminants to the waterbody, and should be in water of sufficient depth so that the stream sediments are not disturbed during the extraction process.

23. Water shall not be discharged at a rate resulting in erosion, sedimentation, or other distributions to the bed of the Park waters. Discharge to Park waters is not authorized.

24. All disturbed areas above the OHWL shall be revegetated within the next growing season. Natural revegetation of the site is acceptable if the site is suitable and will revegetate itself within the next growing season; this will be determined by the ADNR and ADFG.

25. Fuel, oil and other petrochemical products shall not be stored within 100 feet of the river.

26. All fill material for private permitted structures shall be obtained from an upland source or other approved site.

27. Only those materials authorized as part of a permitted structure may be used in the construction of the structure. Those materials adjacent to the permitted structure may not be used unless otherwise authorized by DPOR.

28. All excess material from the permitted structure shall be placed on an upland site and stabilized to prevent erosion and sedimentation of Park waters.

29. The Alaska Historic Preservation Act (AS 41.35.200) prohibits the appropriation, excavation, removal, injury, or destruction of any state-owned historic, prehistoric or archeological resources of the state. Should any sites be discovered during the course of field operations, activities that may damage the site will cease and the Office of History and Archeology in the Division of Parks and Outdoor Recreation [(907) 269-8721] and the appropriate coastal district shall be notified immediately.

30. The use or structure shall not be located in an important spawning or rearing area.

31. Bank disturbance (of soil and vegetation) shall be minimized to the greatest extent possible.

32. A structure will not be permitted if it causes significant impacts to the resource or it increases water velocities to greater than 5 feet-per-second.

33. Bank protection/restoration measures may be used in areas where active bank erosion is occurring or where potential erosion may occur and jeopardize land or structures. Such stabilization methods may be authorized by DPOR and are subject to the permit conditions as outlined in the permit matrix. Applicant is directed to contact the ADFG office for guidance on selecting the appropriate stabilization/restoration methods.

34. The bank protection/restoration measures shall not be designed so as to reclaim land from the waters of the park.

35. No material shall be removed from the waters of the park or SRS, except for that which is necessary to provide a flat base for the toe of the structure.

36. The structure shall not impede bank access under a bridge.

Definitions of Terms Used Within the Permit Matrix

Also see the Glossary at the end of this plan.

Bulkhead. A vertical wall structure that is usually constructed parallel to the waterfront.

Cantilever dock. Is a type of dock that extends from an abutment on the shore over the waterbody at a height above the water body that will allow access to the waterbody or vessel. No portion of this type of dock is in contact with the water.

Discharge structure. A structure that is designed to discharge materials including but not limited to water, waste products, and effluent into a waterbody.

Dredge and fill. Activities that include removal of sediment, soil, or other material and the subsequent deposition of the same.

Dock. A structure that is placed on or over a body of water for the purpose of gaining access to a waterbody or a vessel that is in the waterbody.

Floating dock. A dock that floats on the water. A floating dock is connected to the shore and does not have supporting structures that extend to or in the bed of the water body.

Intake structure. A structure that is designed for the intake of water from a water body for many purposes including but not limited to: personal use; irrigation; public and private facilities; and businesses.

Pile dock. A dock that is constructed of vertical columns of material (piles) that extend from the dock to the bed of the water body for the purpose of supporting the dock. It is a dock that has supporting structures that are placed into, or rest on, the bed of the water body.

Ramp. A sloped area that aids in the launching of boats from a vehicle or trailer.

Riprap. Large rock material that is typically placed at the toe or on the slope of an eroding bank or slope in order to stop current erosion and to prevent future erosion.

Structure. Something that is constructed (built).

Chapter 9

PARK MANAGEMENT UNITS

This chapter presents the specific land management policies and guidelines for each of the nine management units (see Map 9-1). Unit boundaries generally follow hydrographic boundaries but may vary where patterns of public use and land ownership dictate. Management intent presented in this unit, with the exception of land management agreements, proposed acquisitions, and zoning, do not apply to private lands. Under 11 AAC 20.365, the unit-specific management policies set out in this chapter are adopted by reference as a regulation.



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Insert Map 9-1

MANAGEMENT UNIT 1: Tikchik River

Characteristics

The Tikchik River Management Unit is located in the northern portion of the park. Similar to the Agulukpak Management Unit, this unit encompasses only the waterbody and corridor that extends one-quarter mile landward from the river's banks. The unit encompasses the Tikchik River from the outlets of Upnuk and Nishlik lakes to the river's confluence with Tikchik Lake. From Nishlik or Upnuk lakes to Tikchik Lake is approximately 60 river-miles and can easily be floated in four to five days. Most floaters take out at Pick-up Island on Tikchik Lake, the remainder continue on down the Nuyakuk River or continue westward to explore Tikchik, Nuyakuk, and Chauekuktuli lakes. The terrain surrounding the river is relatively flat lowlands. This management unit contains the northern limit of the deciduous-coniferous forests commonly found further south in the park. The vegetation along the upper reaches of the river is primarily low-growing tundra species. The open hills and caribou trails on the upper river provide opportunities for day hikes, hunting and exploring. Along the southern reaches of the river are forests of spruce and birch mixed with willows and alders.



Tikchik River at the outlet of Nishlik Lake

The river is used for floating, fishing, hunting, and wildlife viewing. Salmon, primarily sockeye, start migrating into this unit in early July. There are extensive spawning grounds along the lower river. Relatively few salmon continue on to the upper lakes. Without the salmon's significant contribution to the upper river's food chain (in the form of eggs, young rearing fish, and carcasses), resident fish are not plentiful in the upper reaches of the river. Nonetheless, the upper river is fished for rainbow trout, Arctic char, and grayling.

Moose are distributed throughout the unit particularly near the river's confluence with Tikchik Lake. The Tikchik River corridor is also known to be a wintering area for moose. Brown bear also concentrate along the river during the salmon season. The Mulchatna caribou herd migrates through this management unit.

Tikchik Village, which is now abandoned, was located two miles up the Tikchik River. This was the site of Koliganek's first recorded location. After a devastating flu epidemic, the residents moved to a site located at the confluence of the Nuyakuk and Nushagak rivers, known as "Old Koliganek." The village was again moved in 1938 and in 1964 to its present site. A few private parcels are still located along the lower five miles of the Tikchik River.

Use Patterns

Most recreational activities on the upper river involve floating the river by raft, kayak, and canoe. Trips down the river are taken numerous times each summer. This float is one of the most popular trips in the park. Trips start on either Upnuk or Nishlik lakes. The river and its two branches are swift, but not difficult. On the lower river, floaters mix with powerboaters. In fact, most of the use of the river is by powerboat, primarily originating from lodges located on the lower Tikchik Lakes. Only the lower 20 miles of river is accessible by powerboat. Upper and lower river use is primarily focused on hunting and fishing, although many floating the river are also interested in wildlife viewing, photography, hiking, camping, and river running.

Subsistence use occurs on the lower river, although it is thought to be quite limited. There are no Native residences, either permanent or seasonal, on the lower river or on Tikchik Lake. Most village residents who use the Tikchik River are from Koliganek, New Stuyahok and Ekwok. To get to the river, they must first ascend the Nuyakuk River. This river requires portaging or, under certain low-water conditions, skirting around Nuyakuk Falls. Upriver of the falls, boaters must also navigate Outlet Rapids, which can be quite treacherous. The primary reason for villagers to travel up river is to harvest whitefish, which are not readily available by their villages downriver. They also harvest moose, caribou, trout, black bear, brown bear, and furbearers, although these species are much more readily accessible along the Nushagak River and lower Nuyakuk River. Villagers also travel to the lower Tikchik River by snowmachine in winter to harvest whitefish by nets and by hook and line.

Opportunities, Constraints

The upper river is somewhat isolated from other areas of the park, due to the fact that powerboats can only navigate the lower 20 miles of the river. This separation makes it possible to manage the upper river to provide river users with a wilderness experience without unduly affecting uses

that are associated with private lands or subsistence, although there is a limited amount of use occurring there. Crowding is a concern on the upper river particularly when two or more parties start their float trips on the same day. The lower river has more use, although no special restrictions are proposed for it that address overcrowding since it is designated Natural and management intent allows for a higher level of use than the upper river.

- 1. The upper half of this river is designated Wilderness. The lower portion of the river where powerboats are common is designated Natural.
- 2. Wilderness management normally implies that aircraft and other motorized access to the area are to be prohibited in favor of non-motorized forms of access. However, since there are no reasonable alternative forms of non-motorized access to this area and the extent of motorized activities in the area is not affecting wilderness values, no restrictions will be placed on motorized access to this unit except for those listed in Table 8-1.
- 3. Campsite sharing and seeing other parties along the upper reaches of the river is a significant concern since the upper river has been designated Wilderness and will be managed for this purpose. In order to provide visitors with a wilderness experience, only three trip-starts per week will be allowed from either Nishlik or Upnuk lakes. This limit applies to all parties, not just parties accompanied by guides or to those who are assisted in some way by commercial operators. In order to implement this limit, a person or at least one person in a party shall apply for and secure a permit issued under 11 AAC 18.010 prior to floating the Tikchik River from either lake.¹³ In addition, the number of persons in a party is limited to 10.
- 4. Campsites along the river may be developed in the future based on field investigations and need. These campsites will be in locations intended to reduce impacts on park resources. These facilities will be constructed only to correct an environmental or habitat degradation problem. Development will be limited to only that amount necessary to correct the problem. Development and operation of campsites on or adjacent to major spawning and breeding areas are incompatible unless it can be shown by a preponderance of evidence that the fishery and wildlife habitat and breeding areas will not be adversely affected to a significant degree by the development and operation.
- 5. The use of a hovercraft on waterbodies (and snow and ice covering waterbodies) is prohibited on the upper river and is allowed only between January 1 and May 31 annually on the lower river unless permitted by the director under 11 AAC 18.010.
- 6. Use of generators on the upper river is prohibited.

¹³ Applicants should complete and file applications at State Parks' offices in either Dillingham or Anchorage. At some time in the future, applying for permits may also be available on the web.

MANAGEMENT UNIT 2:

Upper Tikchik Lakes: Nishlik, Slate, Upnuk & Chikuminuk Lakes

Characteristics

This management unit is located in the northern portion of the park, encompassing four large waterbodies in the Tikchik River drainage: Nishlik, Slate, Upnuk and Chikuminuk lakes. The unit also includes the lowlands east and west of the Tikchik River, but not the river or the river corridor itself, which is in Management Unit 1. Terrain features are quite diverse, ranging from the steep Wood River Mountains at the west end of the lakes to the relatively flat lowlands along the eastern side of the unit. Vegetation is primarily of the low-growing tundra species. In protected valleys, taller species are encountered, including willows, alders and cottonwoods.



Lake Chikuminuk and Milk Creek

There are concentrations of brown bear in this unit, probably because of the area's remoteness, its freedom from disruptions, adequate food sources, and good habitat. The Mulchatna caribou herd migrates through this management unit. Salmon do not migrate into Chikuminuk and Slate lakes and only low numbers migrate into Nishlik and Upnuk lakes. Without the salmon's significant contribution to the lakes' and rivers' food chains (in the form of eggs, young rearing fish, and carcasses), resident fish are not plentiful. Nonetheless, the area is fished for rainbow trout, Arctic char, grayling, and lake trout.

The management unit also includes the upper Allen River, which drains Chikuminuk Lake south into Chauekuktuli Lake. The glacial waters of Milk Creek, entering Chikuminuk Lake from the mountains to the west, impart a silty appearance to the lake's water. Vegetation is mostly open, being composed of low-growing tundra species. Valleys and other protected areas support taller growth, such as willow, alder and cottonwood.

Use Patterns

The main use of this unit is by hunters in the fall who are primarily targeting moose and caribou. Nishlik and Upnuk lakes see relatively low use in the summer because of limited salmon fishing opportunities. All four lakes and the streams in the unit support grayling, char, and lake trout. Nishlik and Upnuk lakes are also used as starting points for float trips down the Tikchik River (located in Management Unit 1). Because of dangerous rapids on the Allen River, Lake Chikuminuk is very rarely used as a staging point for longer trips.

Subsistence use also occurs, although it is thought to be quite limited. Most villagers using the lakes and rivers in the unit are from Koliganek, New Stuyahok and Ekwok. They harvest moose, caribou, trout, black bear, brown bear, and furbearers, although these species are much more readily accessible along the Nushagak River and on the lower Nuyakuk River. Villagers also travel to the lower Tikchik River and Tikchik Lake by snowmachine in winter to harvest whitefish with nets and by hook and line.

The unit offers opportunities for hiking around the lakes because of the higher elevations and minimal brush. The upper Allen River can be explored on foot from Lake Chikuminuk. Nonetheless, little recreation occurs in this unit because of its remote location and the expense of air charter.

There are three private parcels in this unit. Two are located along the eastern border of the park and one at the outlet of Chikuminuk Lake.

Opportunities, **Constraints**

This management unit is somewhat isolated from other areas of the park, due to difficult access and long flight distances from population centers. This isolation allows State parks to manage the area for its wilderness qualities without unduly affecting local residents or uses that are associated with private lands or subsistence. Management intent for the area is for minimal facilities and dispersed public use. The numbers of parties on each of the four lakes will be limited in order to maintain the area's wilderness qualities and to avoid crowding.

Nishlik Lake is the most remote large lake in the park. Caribou travel through the Aniak-Nishlik lakes area each fall in great numbers. In fall, Nishlik Lake is heavily used for hunting particularly between the third week in August and mid-October. At times, every sheltered bay used by floatplanes supports a hunting camp. The plan includes restrictions limiting the numbers of camps on each of the four lakes, with larger numbers allowed on Nishlik and Upnuk lakes after August 15 designed to accommodate more hunters while ensuring that there are not too many camps on the lake at one time. Limits on the length of stays have also been instituted to ensure that there are ample opportunities for a number of parties to use the limited number of campsites available.

Another issue on these four lakes is the excessive trash accumulation over the years from hunting. The trash is composed of low-value items that are left in order to make room for game meat when fully loaded planes pick up hunting parties. State Parks has attempted to remove this trash with the assistance of volunteers and air taxi operators, but much remains.

Chikuminuk Lake has been studied for its suitability as a hydroelectric generating site, with distribution lines running north to Bethel. The studies concluded that the project is not economically feasible. This lake is one of the most scenic and remote in the park, with a minimal amount of public use in summer. Most use is concentrated in fall and is associated with hunting.

- 1. This unit is designated Wilderness. Several features of this unit make it suitable for management as Wilderness including the fact that it receives only limited recreational use; there is very little privately owned land; wildlife values are high for brown bear and caribou; sport fishing potential is moderate relative to other areas of the park; subsistence practices are thought to be minimal; and the area has a remote wilderness setting.
- 2. Wilderness management normally implies that aircraft are to be prohibited in favor of non-motorized forms of access. However, since there are no reasonable alternative ways of traveling to this unit, no restrictions are proposed on aircraft access at this time. Landings may, however, be limited to specified sites or areas in the future if conditions warrant.
- 3. The use of a motorized boat is prohibited on Chikuminuk Lake. This is the only lake in the park that is non-motorized. The restriction is intended to provide park visitors with a unique wilderness experience on a large lake in the park. This regulation will not affect the use of aircraft to take off and land on Chikuminuk Lake. The impacts of this restriction on visitor use patterns will be monitored after implementation. Other types of motorized uses such as hovercraft and large generators are also prohibited in this unit. See Table 8-1 for a list of these uses. Further restrictions may be necessary if motorized activities begin to impact the area's wilderness character.

- 4. In order to protect wilderness values on the lakes in the upper Tikchik Lakes system, the number of parties that are allowed to camp at each of the four northern-most lakes in the park are as follows. Limits apply to all parties, not just parties accompanied by guides or to those who are assisted in some way by commercial operators. The limits are as follows:
 - On Nishlik and Upnuk lakes, a maximum of <u>four</u> parties may camp on or around the lakes at any one time from January 1 to August 15. Between <u>August 16</u> and December 31, a maximum of <u>six</u> parties may camp. The limits on Nishlik and Upnuk lakes do not apply to parties camping at the outlet of either lake, that have a permit to float the Tikchik River and are on the first night of their river trip.
 - Since Slate Lake is the smallest of the four lakes, a maximum of <u>two</u> parties may camp on or around the lake at any one time year-round.
 - Since Chikuminuk Lake is the largest of the four lakes, a maximum of <u>six</u> parties may camp on or around on the lake at any one time year-round.
 - In order to implement these limits, a person or at least one person in a party shall apply for and secure a permit issued under 11 AAC 18.010 prior to camping on or around Chikuminuk, Nishlik, Slate or Upnuk lakes.
- 5. In order to protect wilderness values, the number of persons in a party camping in this management unit is limited to 10.
- 6. Use of generators is prohibited.
- 7. The use of a hovercraft anywhere in this unit is prohibited, unless permitted by the Director under 11 AAC 18.010.
- 8. State Parks should undertake a concerted effort to remove trash and cite offenders at Nishlik Lake and other locations in this unit.
- 9. Hydropower development is incompatible with park purposes. The Division of Parks and Outdoor Recreation therefore does not have the authority to approve hydroelectric development at Chikuminuk Lake. Before Chikuminuk Lake can be considered for hydropower development, the enabling legislation must be amended.
- 10. Public use facilities will be constructed only to correct a serious environmental or habitat degradation problem. The scale of development will also be limited to the size necessary to correct the problems.
- 11. The western portions of the watersheds that drain into the lakes in this unit are located outside the park. Most of these areas are already in state ownership and are recommended for park addition or management agreement within DNR. If these lands are added to the park, they too will be managed similar to the intent for this unit with some possible exceptions. Addition of either Kisaralik or Aniak lakes will require special consideration since they are in a different drainage, and are used more heavily by Kuskokwim River villagers.

- 12. Areas to the west of this unit are within the Togiak National Wildlife Refuge and are designated Wilderness. A cooperative agreement with the U.S Fish and Wildlife Service is recommended which encourages consistent management practices to watershed boundaries including aircraft operations, guiding practices, research, law enforcement and distribution of information to the public.
- 13. One private parcel is located on Chikuminuk Lake near its outlet. Acquisition is a priority.

MANAGEMENT UNIT 3: Lower Tikchik Lakes-Nuyakuk, Tikchik, & Chauekuktuli Lakes

Characteristics

The Lower Tikchik Lakes management unit includes the Nuyakuk, Tikchik, and Chauekuktuli lakes as well as the upper Nuyakuk River. The unit also includes the lower reaches of the Allen River. Terrain is typical of the region, with steep mountains to the west and gentle rolling hills in the east. This unit includes an unnamed 5,250-foot peak located on the west boundary of the park that is the highest point in western Alaska. Konarut Mountain, the second highest peak in western Alaska, is located at the west end of Chauekuktuli Lake, just outside the park. On the south side of Tikchik Lake are located a series of granitic domes including Sad Face Rock, pictured below. This management unit contains the northern limit of the deciduous and coniferous forests, which are much denser further south in the park. These mixed forests are found throughout the central and eastern portion of the unit.



Sad Face Rock, Tikchik Lake

Salmon migrate into this management unit. Extensive spawning grounds are located along the shores of Lake Chauekuktuli, the western half of Nuyakuk Lake and the Nuyakuk River outlet. Moose are distributed throughout the area, particularly along the north shore of Lake Chauekuktuli and the north and south shores of Nuyakuk and Tikchik lakes. Brown bear are also common in this management unit. The Agenuk Mountain area, located on the south boundary of this unit, is a brown bear denning area.

Many private parcels are located in this management unit. Areas of concentration are the north shore of Lake Chauekuktuli, all around Tikchik Lake and along the Nuyakuk River. Tikchik Narrows Lodge is located on the peninsula of land separating Nuyakuk and Tikchik lakes. The Royal Coachman Lodge is located on the upper Nuyakuk River. The state owns a primitive cabin at the west end of Chauekuktuli Lake and one on Nuyakuk Lake. Archaeological sites occur within this management unit, particularly at locations where rivers enter the lakes such as at the mouth of the Allen River.

Use Patterns

Subsistence use occurs on the large lakes in this unit, although it is thought to be quite limited. At one time this unit had a large year-round population consisting of Natives living a short ways up the Tikchik River. Today there are no Native residences, either permanent or seasonal, in this unit. Most local residents using the Tikchik River are from Koliganek, New Stuyahok and Ekwok. To travel to the lakes, they must first ascend the Nuyakuk River. This river requires portaging or, under certain low-water conditions, skirting around Nuyakuk Falls. Upriver of the falls, boaters must also navigate Outlet Rapids, which can be quite treacherous. The primary reason for villagers to travel up river is to harvest whitefish, which are not readily available near these villages. They also harvest moose, caribou, trout, black bear, brown bear, and furbearers, although these species are much more readily accessible on the Nushagak River and lower Nuyakuk River. Secondary subsistence species include salmon, black bear, brown bear, various types of vegetation, and furbearers. Villagers also travel to the lower Tikchik River by snowmachine in winter to harvest whitefish by nets and by hook and line.

Most recreational activities revolve around sport fishing. The two commercial fishing lodges located in this unit generate a substantial amount of aircraft and boat travel. Air taxis and outfitters also transport visitors to the unit. Extensive guided hunting also occurs in this area.

In recent years, kayak trips on Nuyakuk and Tikchik lakes have become more popular and often attract adventurers on extended trips. Because of the difficulty of portaging between Nuyakuk and Kulik lakes, few paddlers attempt to traverse both the Wood and Tikchik river systems in one trip. The Nuyakuk River is often used by floaters to exit the park. State Parks has established two hardened campsites on Eagle Island on the south side of Tikchik Lake. In the past, park staff have maintained a seasonal camp there.

The lakes and lower Allen River are used by power boaters. The upper Nuyakuk is seldom used by power boaters because of the swift rapids just below the outlet of Tikchik Lake. The Allen River has severe rapids and is seldom run by floaters.

There are excellent hiking opportunities on the western ends of the lakes because of minimal brush. The north side of Tikchik Mountain has a tarn in a cirque with very high cliffs which are a full-day's hike from Tikchik Lake to the mountain and back. There are also hikes from the south shore to the Tikchik Domes including Sad Face Rock and Albert Rock. Hikes are also possible along the lower Allen River using game trails.

Opportunities, **Constraints**

Subsistence uses are documented to be important in the eastern portion of this management unit. State Park policies should ensure that commercial activities and other recreational practices do not unreasonably interfere with established subsistence practices. Archaeological sites occur within this management unit at the outlet of the Nuyakuk River.

In 1967-8 a freshwater commercial fishery was conducted on an experimental basis at Nuyakuk and Tikchik lakes. The results of this fishery showed marginal success. The fishery was discontinued in favor of traditional subsistence uses, sportfishing and protection of the breeding stock.

- 1. This unit is designated as a Natural Area.
- 2. Campsites along the Nuyakuk River may be developed in the future based on field investigations and need. These campsites will be located in popular destination areas and reduce impacts on park resources. These facilities will be constructed only to correct an environmental or habitat degradation problem. Development will be limited to only that amount necessary to correct the problem. Development and operation of campsites on or adjacent to major spawning and breeding areas are incompatible unless it can be shown by a preponderance of evidence that the fishery and wildlife habitat and breeding areas will not be adversely affected to a significant degree by the development and operation.
- 3. In the 1960's commercial fishing with nets was allowed on Tikchik Lake on an experimental basis. The plan recommends that the Board of Fisheries not reopen the lakes to commercial harvest.
- 4. The upper Chauekuktuli and Nuyakuk lakes drainage (which includes Konarut Mountain) are recommended for park addition or management agreement within DNR. If added, the addition will be managed consistent with the intent for this unit.

MANAGEMENT UNIT 4: Lake Kulik & Grant Lake

Characteristics

This unit is the northernmost within the Wood River system. This river flows south into the Nushagak River before emptying into Nushagak Bay. This unit consists of Lake Kulik and Grant Lake. A portion of the upper Wind River is also within this unit (the lower Wind River, Mikchalk Lake, and the Peace River are in Unit 5). The unit also includes a few smaller drainages entering the lake from the west. The river and lakes are surrounded by mountainous terrain. This management unit is noted for its remote lakes with little existing or potential development, since there is only one private parcel in the unit and the unit is designated wilderness. This parcel is located at the outlet of Grant Lake.

Brown bears congregate along the major rivers and streams, although in small numbers. Moose are also present. Salmon migrate into Lake Kulik. The Grant River has a highly scenic 100-foot waterfall that blocks salmon migration into the lake. Rainbow, Arctic char and grayling are also present in the unit.



Lake Kulik Spire

Use Patterns

Local area residents primarily use Lake Kulik for hunting. Moose is the most sought after species, with both resident fish and salmon also being harvested. Grant Lake is regularly visited by bear, moose, and caribou hunters. The unit is open to both resident and non-resident moose hunters. Anglers also use Lake Kulik for fishing, where they establish camps of short duration. The lower Grant River can sometimes offer excellent rainbow fishing. Kayakers and river floaters often tour the area and camp along the shores of Lake Kulik. Hiking opportunities around Lake Kulik are limited because of the alders, but hiking from Grant Lake offers excellent tundra walking.

The Golden Horn Lodge is located just south of this unit on Mikchalk Lake. Guides and guests take daily flights from the lodge to various points in this unit to fish. The lodge also uses powerboats to travel to nearby angling spots. Several lodges have cached boats on Butch's Creek.

Opportunities, **Constraints**

Grant Lake has been considered for hydroelectric development to power the communities of Dillingham and Aleknagik. The park enabling legislation states that such development is not incompatible with the park. However, assessments of the project have concluded that it is not feasible and that it should be removed from further consideration.

Lake Kulik is accessible by skiff from Aleknagik. This ease of access suggests that the area will become more popular for unguided recreationists in the future. The first turn of the upper Wind River has seen boating accidents in the past because of swift water.

- 1. This unit is designated Wilderness. Several features of this unit make it suitable for management as Wilderness including the fact that it receives only limited recreational use; there is only one private parcel; wildlife values are high; subsistence practices are thought to be minimal and the area is remote. Wilderness management normally implies that aircraft and other motorized access to the area are to be prohibited in favor of non-motorized forms of access. However, since there are no reasonable alternative forms of non-motorized access to this area and the extent of motorized activities in the area is not affecting wilderness values, no restrictions will be placed on motorized access to this unit except those listed in Table 8-1. Restrictions may be necessary if motorized activities begin to impact the area's wilderness character.
- 2. In order to protect wilderness values, the number of persons in a party camping in this management unit is limited to 10.
- 3. Use of generators is prohibited.

- 4. The use of a hovercraft anywhere in this unit is prohibited, unless permitted by the director under 11 AAC 18.010.
- 5. Because of dense brush along riverbanks, anglers fishing the Grant River walk the middle of the river to access its upper reaches and fishing holes. If fishing pressure and the use of the river as a pathway increase to the degree that spawning beds and fishing opportunities are seriously compromised, a trail may be constructed that parallels the river.
- 6. Campsites may be developed on Lake Kulik and near the Grant River at locations to be determined based on field investigations and need. These will be located near popular destinations in order to minimize impacts on park resources. These facilities will be constructed only to correct environmental or habitat degradation problems. Development will be limited to only that amount necessary to correct the problem. Development and operation of campsites on or adjacent to major spawning and breeding areas are incompatible unless it can be shown by a preponderance of evidence that the fishery and wildlife habitat and breeding areas will not be adversely affected to a significant degree by the development and operation.
- 7. State lands to the west of this unit are recommended for park addition or for a management agreement within DNR. These include the watersheds that flow into upper Lake Kulik. If these lands are added to the park, they too will be managed consistent with the intent for this unit.
- 8. The acquisition of the one private parcel at the outlet of Grant Lake is a priority.

MANAGEMENT UNIT 5:

Lake Beverley, Mikchalk Lake & Wind and Peace Rivers

Characteristics

This unit contains Lake Beverley, Mikchalk Lake, and the Wind and Peace rivers which are part of the Wood River Lakes system. The Wood River drains the system and flows south into the Nushagak River before emptying into Nushagak Bay. The north boundary of the management unit is the canyon on the Wind River. Salmon spawning grounds are located in streams throughout the unit. Spawning grounds are densely located along the Wind and Peace rivers and along the shores of Mikchalk Lake. Brown bears congregate along streams during salmon spawning. Moose forage in the forests.



Silver Horn Mountain, Lake Beverley

This unit is characterized by lowlands of muskeg to the east, interspersed with mixed forests of birch and spruce. Golden Horn and Silver Horn bays bisect steep mountains in the western portions of the unit. These bays are highly scenic with 3,000-foot granitic walls rising from the lakeshores.

More than a dozen private parcels line the shores of Lake Beverley. There are also private parcels on Mikchalk Lake and the Peace River.

Use Patterns

This unit is accessible by skiff from Aleknagik. This ease of access suggests that the area will become more popular for unguided hunters, fishers and recreationists. Power boaters travel to the area primarily for fishing and hunting. They establish camps, usually of short duration during the fishing season and congregate where the highest concentrations of salmon and rainbow trout can be found. During the hunting season, camps are more dispersed. Significant numbers of hunters from outside the region also use the unit since this is the closest Game Management Unit to Dillingham that allows for non-residents to harvest moose.

Due primarily to their scenic qualities, the Golden and Silver horn areas of Lake Beverley are frequently visited by kayakers and canoers who camp along the lakeshores. Paddlers also descend the Wind and Peace rivers. The Wind River can be swift in high water while the Peace River is an easy float at all water levels.

Subsistence users from the villages of Aleknagik and Dillingham travel to this area to harvest moose, salmon and resident fish, furbearers, and occasionally bear. Most of this use is concentrated on the south and east ends of Lake Beverley as well as along the Wind and Peace rivers.

The Golden Horn Lodge is located on the eastern shore of Mikchalk Lake. Daily flights of sport anglers commute from the lodge to various points in the surrounding region. The lodge also uses motorboats to travel to nearby angling spots on the Wind and Peace rivers. The other commercial accommodation in the unit is the Tikchik Fishing Bear Lodge, located at the outlet of the Peace River. The lodge caters to both anglers and hunters.

Opportunities, Constraints

The Division has authorized a cabin just below Lake Kulik on the Wind River. This cabin was built by the University of Washington Fisheries Research Institute and is used annually for their fisheries research program. When the cabin is not being used by the university, it's left unlocked and used on a first-come-first served basis or for emergency shelter. The cabin has not been designated as a public use cabin because of its location.

There are two state-hardened campsites just west of the mouth of the Peace River on the shores Lake Beverley.

- 1. The unit has been designated as a Natural Area.
- 2. State Parks should consider improvements to the campsites west of the mouth of the Peace River on Lake Beverley that could provide a destination in the middle of the park. This action will mitigate the ongoing recreational trespass occurring in a privately owned cabin. This site would be small with two campsites, fire-pits and an outhouse. DPOR should also consider developing campsites at other locations on Lake Beverley based on field investigations and need. These campsites will be located in popular destination areas and reduce impacts on park resources. These facilities will be constructed only to correct an environmental or habitat degradation problem. Development will be limited to only that amount necessary to correct the problem. Development and operation of campsites on or adjacent to major spawning and breeding areas are incompatible unless it can be shown by a preponderance of evidence that the fishery and wildlife habitat and breeding areas will not be adversely affected to a significant degree by the development and operation.

MANAGEMENT UNIT 6: Agulukpak River

Characteristics

This management unit is comprised of the Agulukpak River corridor. The river is two-miles long and flows from Lake Beverley to Lake Nerka. Similar to the Tikchik River Management Unit, this unit encompasses only the river and a corridor that extends one-quarter mile landward from the river's banks. The river and its corridor are treated as a separate management unit because of the intensive use the river receives during the fishing season. Both banks of the river are wooded. Wet tundra lies beyond the woods.

An old cabin is located on the eastern shore of the river's head on Lake Beverley. The cabin is located on state land and was built in trespass and donated to the State. Since that time, the cabin has been used off and on by park volunteers and ADFG employees involved in park management and creel censuses. The cabin will be refurbished in the near future. A trail travels along the east bank and State Parks has established a small campground that accommodates up to three parties. There is one private parcel in this unit on the lower river. The Conservation Fund purchased another 160-acre private parcel at the head of the river and donated it to the park.



Cabin at the Agulukpak River

Fisheries values of the Agulukpak River are extremely high, both for rainbow trout and for five species of salmon. Much of the riverbed is used by spawning salmon. It's estimated that on the average, 1.3 million sockeye travel into the Wood River system each summer (ADFG, 2001). In addition, it's estimated that there are 3-4,000 rainbow trout over ten-inches long in the upper river. There are also 250-600,000 sockeye salmon that spawn in the river annually. Brown bears congregate along the river when salmon are spawning.

Use Patterns

The Agulukpak River is one of the most popular sport fishing rivers in the park. The river supports large numbers of spawning red salmon as well as rainbow trout, grayling, and Arctic char. All commercial lodges located in the park and other lodges from the surrounding area bring clients to this river to fish. Some lodges have cached boats and supplies at the head and bottom of the river, where they are available for guides and clients. Anglers are thus able to range over most of the river's length in a day's time.

Residents harvest a number of animal and plant species in the unit including moose, bear, waterfowl, resident fish, salmon, various types of vegetation, and furbearers.

Opportunities, **Constraints**

Sport fishing pressures are relatively heavy on this river. There is the possibility that fishing pressure may begin to impact the fish population, although this is not thought to have occurred yet. To protect fish stocks from over-harvest, the river is limited to single hook, artificial fly only during the summer months. Angling for rainbow trout is limited to catch and release only. In 1985, State Park staff spent the summer on the river and estimated that on the average, 13 visitors used the river per day. In 1997, the average total visitors per day was 28. On many days the use on the river was much higher. These numbers represent the core 100 days of the season when visitation is highest. Users of the river at that time thought that the optimum number of people that should be allowed on the river at any one time should be 15.

The Agulukpak cabin was originally built without authorization on public land. The cabin is used by State Park and ADFG staff for management and research purposes. In recent years, the cabin has since been converted to public use. When agency staff are not using the cabin, it's available on a first-come, first-served basis. Stays are limited to three nights. The cabin is currently in need of significant repairs.

A primitive trail that was developed by State Parks parallels the east side of the river. The trail has not been maintained in recent years. They have also developed three campsites including tent pads, fire-pits and a pit latrine outhouse. The campsites are available on a first-come, first-served basis. Currently, stays at the campground are limited to three nights. Commercial use of the campground is currently not allowed.

There is a prehistoric village site on the west shore of the river's head on Lake Beverley.

- 1. The unit has been designated as a Natural Area.
- 2. To address concerns about overcrowding on the river during the fishing season, the following limits will be implemented. These limits address "client day" levels, which will be implemented as part of the current commercial use permitting system. Between 6 AM and 6 PM daily, 25 client days are allowed. Between 6 PM and 6 AM daily, an additional 25 client days are allowed. This limit does not apply to unguided users or the guides themselves.
- 3. Allocation of client days will be established administratively and may either be by competitive or non-competitive bid.
- 4. A campground and trail will continue to be maintained as park resources allow. Stays in the campground are limited to three nights. Commercial use of the campground is prohibited. If demand exceeds supply, State Parks may at some time in the future implement a shorter time limit or implement a reservation system to ensure that parties have a fair opportunity use the campground. Primitive camping will still be allowed along the river as long as camps are at least one-mile away from the cabin and campsites.
- 5. The plan recommends upgrading the Agulukpak River cabin from its currently poor condition. Improvements will allow for the cabin to be used as a caretaker cabin and a warm-up shelter for the public during the day. When the cabin is not used by agency staff, the cabin may also be used as a public use cabin. Initially, when the cabin is used as a public use cabin, it will be available on a first-come, first-served basis. However, if demand exceeds availability, a reservation system or a reduction of the three-night stay limit may be implemented.
- 6. Uses of the unit will be monitored and facilities managed through the services of a paid or volunteer river-keeper, to be stationed at the cabin.

MANAGEMENT UNIT 7: Upper & Lower Lake Nerka

Characteristics

The main body of upper and lower Lake Nerka is located in the expansive Nushagak lowlands, which is characterized by tundra, muskegs, and scattered pockets of mixed coniferous-deciduous forest. Anvil and Ott bays are located on the upper lakes. In the mountainous area to the west, the upper lake is divided into Amakuk Arm and Little Togiak Lake, before turning southeast into lower Lake Nerka. Lynx Lake is a small lake draining into lower Lake Nerka from the north. Several substantial waterways drain into the lower lake including Lynx, Teal, Stovall, Bear, and Pike creeks. Portions of Sunshine and Youth creeks are also in this unit but drain into Lake Aleknagik. Scenic values are very high in this unit, especially in the western end of the unit.

The area around Lower Lake Nerka includes lands which were added to the park in 1985 by Gubernatorial Proclamation after the selections filed by the Aleknagik Natives Limited (ANL) were settled (AS 41.21.161). In 1986, a cooperative management agreement was negotiated with ANL that assures that low-impact public use of corporate lands are allowed in return for State Parks' field presence.



Mist on Lake Nerka

This unit is not noted for large concentrations of wildlife although the unit supports large numbers of brown bear and moose. Habitat values in this unit are quite high for moose, particularly in the lowlands northeast of Lake Nerka and the northern end of Lake Aleknagik.

Private land is scattered around upper and lower Lake Nerka also has several private parcels. Reel Wilderness Adventures is a lodge located on upper Lake Nerka, a few miles west of the Agulukpak River.

There are two 17(b) trail and one-acre site easements that access the south end of the park. These provide public access across Aleknagik Natives Limited land to River Bay and the southeast end of Lower Lake Nerka. Other 17(b) easements that are located near, but not to the south park boundary, also provide public access to the park.

Use Patterns

This management unit receives a relatively large amount of visitation, due primarily to its accessibility from Aleknagik and Dillingham. Residents harvest a number of animal and plant species, including moose, bear, waterfowl, resident fish, salmon, various types of vegetation, and furbearers. The unit receives heavy bear and moose hunting pressure. Hunting regulations allow for Alaska resident harvest so there are few big game guides using the unit for this purpose. The area is open to brown bear hunting by both resident and non-resident.

Sport fishing is common in the unit. Subsistence fishing for both salmon and resident fishes is also common in this area, as evidenced by the number of drying racks and temporary fish camps.

Recreational activities are perhaps more diverse in this unit than in some other areas of the park. Besides sport fishing, kayaking and boating are popular, particularly in the mountainous western areas of the unit. The unit includes hiking opportunities around Little Togiak Lake, Amakuk Arm, Elbow Point, and the Ott Bay area. Scenic values are very high in this unit, especially in the western portions of the unit.

Opportunities, Constraints

Because of the unit's accessibility from population centers, it's vulnerable to impacts stemming from park visitation and from development of the many private parcels located within it. There is a certain amount of conflict inherent in the mixed-public and -private ownership found in this unit. Property owners, often located in the most attractive areas of this unit, wish to protect their property interests from the impacts of public visitation. Visitors are inevitably drawn to the same attractive areas, which are often not posted and can be indistinguishable from public lands nearby.

Two parcels in this unit which are currently in state ownership, are selected by Aleknagik Natives Limited (ANL). These parcels have been identified for reconveyance back to BLM for purposes of a conveyance to ANL under ANCSA. Another parcel in this unit is still owned by BLM and is also selected by ANL.

Lake Elva has been proposed for hydroelectric development, to provide the villages of Dillingham and Aleknagik with power. The park's enabling legislation states that such development is not incompatible in the park. Studies indicate that the project is not feasible at the present time.

- 1. This unit is designated as a Natural Area.
- 2. Visitors to the area should be informed of private property around the lake through brochures, kiosks and other means.
- 3. On upper Nerka Lake, foot trails may be constructed out of the Ott Bay area, Amakuk Arm, and to Akuluktok Peak. A foot trail to Lynx Lake may also be constructed.
- 4. Continue to implement, monitor and, if needed, renegotiate the Cooperative Land Management Agreement with Aleknagik Natives Limited that addresses corporate lands on lower Lake Nerka, Lake Aleknagik and the Agulowak River.
- 5. Support the acquisition of parcels or conservation easements along the shores of Lake Nerka by the state, land trusts and others so that they can be managed consistent with the surrounding State Park lands and waters.
- 6. Develop campsites on upper and lower Lake Nerka at locations to be determined based on field investigations and need. These will provide campsites near popular destinations and minimize impacts on park resources. These facilities will be constructed only to correct environmental or habitat degradation problems. Development will be limited to only that amount necessary to correct the problem and will be done so in consultation with the Park Management Council. For campsites developed on State Park lands, development and operation on or adjacent to major spawning and breeding must first show that fish and wildlife habitat and breeding areas will not be adversely affected to a significant degree.
- 7. Portions of the Togiak National Wildlife Refuge drain east into Wood-Tikchik State Park, raising the potential for incompatible management practices within watersheds. A cooperative agreement is recommended with the U.S. Fish and Wildlife Service which encourages consistent management practices along watershed boundaries including aircraft operations, guiding practices, research, law enforcement and distribution of information to the public.

MANAGEMENT UNIT 8: Agulowak River & Northern Lake Aleknagik

Characteristics

This unit includes the Agulowak River and upper Lake Aleknagik. The river is four miles of fairly fast water with some high, standing waves. Its banks are wooded. Most of the uplands in the unit are owned by the Aleknagik Natives Limited. State land in this unit was added to the park in 1985 through Gubernatorial Proclamation as provided in the park enabling legislation. The addition was supported by the Aleknagik Village Council and other village councils, as well as the Park Management Council and the Bristol Bay Area Plan which governs lands outside the old park boundary (see Appendix B).

There are numerous private parcels in this unit including five on the Agulowak River. Bristol Bay Lodge is located on a bay on the north shore of Lake Aleknagik. The Wood River Lodge is situated at the head of the river. Cabins have been built on many of the other parcels.



Agulowak River with Lake Aleknagik in foreground

Use Patterns

With the exception of the Lake Aleknagik State Recreation Site, this management unit receives more visitation than any other unit in the park. Users are diverse, including sport anglers, subsistence fishermen, hunters, kayakers and canoers, cabin owners, and lodge operators. They employ various modes of transportation, with varying degrees of compatibility.

The Agulowak River is one of the most popular sport fishing rivers in the region. It also supports subsistence fishing. Due to its location at the downstream end of the Wood River Lakes system, boaters destined for more remote areas in the park must also traverse this unit.

The river offers excellent fishing for salmon, rainbow, grayling and char. As many as 4,000 trout per mile have been counted. At any given time during the peak of the season, there are as many as 15 john boats on the river and dozens of wading fishermen in the shallows. All lodges within and adjacent to the park either boat or fly into the Agulowak to fish on a daily basis. Lodges have a number of john boats cached along the river for this purpose. There are also hiking opportunities in the unit off the north arm of the lake to Bumyok Ridge.

Opportunities, **Constraints**

Visitation in this unit might ordinarily indicate the need for park facilities to accommodate basic visitor needs and to prevent environmental degradation. Currently, State Parks does not have the ability to develop facilities along the river. These lands are owned by the Aleknagik Natives Limited, four allottees and a lodge. Although the Aleknagik Natives do not profit from the visitation this unit receives, they must absorb some of the inevitable negative impacts. Other private owners must also contend with trespass recreation, although to a lesser extent since some of the improved parcels are clearly not public land. In order to address this situation, in 1986, DPOR entered into a land management agreement with the Aleknagik Natives Limited. This agreement allows low-impact public use of corporate lands on Lake Aleknagik and the Agulowak River in return for State Parks' field presence.

The State is considering acquiring conservation easements on both corporate and private lands in this unit. If parcels are acquired, State Parks may have the opportunity to harden some of the existing campsites, minimize the damage to surrounding areas, eliminate trespass camping, and reduce the potential for wildfire.

Because the river receives such high levels of use during the salmon season, there are regular conflicts between users of the main river channel. The main channel is quite narrow, rocky and, at times, very shallow. Powerboats traveling between the two large lakes must stay on step to avoid grounding. However, in this same channel are wading anglers, boats drift fishing, floaters and oncoming boats under power. This has led to several near misses and a few collisions.

Management Intent, Guidelines

- 1. The unit is designated as Recreation Development.
- 2. The Division will continue to comply with, and if necessary, renegotiate the Cooperative Management Agreement with the Aleknagik Natives Limited, which allows for low-impact public recreation on corporate lands in return for State Parks' field presence.
- 3. The plan supports the acquisition of parcels or conservation easements along the Agulowak River and Lake Aleknagik by the state, land trusts and others so that they can be managed consistent with the surrounding State Park lands and waters.
- 4. To address the unsafe situation in the Agulowak River during the fishing season, the following restrictions apply to the Agulowak River: A person may not anchor, drift or stand in the water from the south bank to mid-river in Zone A, as signed, or anchor or stand in the water from the north bank to mid-river in Zone B, as signed (11 AAC 20.383). Zones A and B are shown on Map 9-2. In addition, State Parks will undertake a concerted effort to educate users by providing information to the guides to encourage safer fishing and boating practices by both guides and their clients. This may include a pre-season mandatory meeting by commercial guides on the Agulowak with Park and ADFG staff.

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Insert Map 9-2

- 5. Visitors to the area should be informed of private property around the lake through brochures, kiosks and other means.
- 6. Facility development serving visitors, particularly hardened campsites and sanitary facilities, may be needed at both current and future use levels. Since there is no public land along the river in this unit (except the river itself), the decision to develop facilities is dependent on State Parks acquiring conservation easements or parcels from the local village corporation and private landowners. Such facilities should be carefully located using input from the Park Management Council prior to design and development. If campsites are developed on State Park lands adjacent to major spawning and breeding areas, the development and operation of the facility should not impact, to a significant degree, fish and wildlife habitat and breeding areas.
- 7. With the high level of public use and camping currently occurring along the river, and the significant risk of forest fire, campfires may be prohibited along sections of the Agulowak River especially if hardened campsites are built with fire pits. Park regulations currently allow campfires on gravel bars, beaches, and structures provided by DPOR.
- 8. Portions of the Togiak National Wildlife Refuge drain east into Wood-Tikchik State Park, raising the potential for incompatible management practices within watersheds. A cooperative agreement is recommended with the U.S. Fish and Wildlife Service to ensure consistent policies of the two managing agencies regarding issues such as aircraft operations, guiding practices, research, law enforcement and distribution of information to the public.
- 9. Lands to the southwest of this unit are recommended for park addition. The mouth and the headwaters of Youth Creek are already within the park. Adding this half township would bring the remainder of the state lands in the Youth Creek watershed and the remainder of the north end of Lake Aleknagik into the park. There are some private parcels and some Aleknagik Natives Limited land in this proposed addition. If this area is added to the park, conservation easements or acquisition of these lands will be considered. Zoning should also apply to this area.

MANAGEMENT UNIT 9: Lake Aleknagik State Recreation Site

Characteristics

The site is located at the northern terminus of the Lake Aleknagik Road. The land and the building in which the ranger station is now located were originally acquired through a 1996 land exchange which involved the state, Aleknagik Natives Limited and private landowners. The land trade secured legal public access to the waters of the lake and adjacent uplands where people have traditionally launched boats and parked. Prior to the acquisition, most users would cross private lands to get to the lake even though there was no legal access.

The portion of the site located at the end of the road received significant renovations in 2000 and now includes a concrete boat launch, two parking areas, lake viewing area, picnic shelter, vault toilets, kiosks, signs, street lights, ranger station, equipment shed, and fenced storage area.

The State Recreation Site also includes Boundary Island located at the north end of Lake Aleknagik.

The State Recreation Site was administratively designated in 1998 under an Interagency Land Management Agreement between the DNR Division of Land (now the Division of Mining, Land and Water) and the Division of Parks and Outdoor Recreation. The site encompasses 633 acres, of which only eight acres are uplands. The remainder includes state-owned waters.

Use Patterns

The State Recreation Site includes the waters that border the north and south shore of the lake that includes the Village of Aleknagik and its 220 full-time residents. Many residents of Aleknagik participate in commercial and subsistence activities on the Bristol Bay coast during the summer. Trapping is also an important means of income. Most families depend to some extent on subsistence activities to supplement their livelihoods. Salmon, resident fish, moose, caribou, and berries are harvested. Poor fish returns and low prices in recent years have significantly affected the community. Aleknagik is the only regional village with a road link to Dillingham, a 25-mile road which ends on the south shore. Although the north shore where most village residents live is not road accessible, villagers use skiffs to travel the short distance across

the lake to the State Park boat launch and parking areas. In winter, snowmachines and vehicles are driven over lake ice to the south shore.

Opportunities, **Constraints**

This area is within the boundary of the City of Aleknagik, an incorporated Second Class City. Ordinances passed by the City apply to these waters. There are several developments in the waters of the State Recreation Site. Moody's, on the north shore, sells fuel and accommodates boats and floatplanes. The State owns and operates a 100-foot dock on the north shore of the lake. A breakwater, barge landing, boat launch ramp and boat lift are also on the north shore. There are also numerous smaller developments below ordinary high water on the south shore including floating docks, bank stabilization structures, stairs, pilings, and anchoring devices.

Boundary Island is an isolated parcel that is also part of the State Recreation Site. The island is used as a seasonal field camp by park staff and is also used for camping by the public.

There are also other state lands on the south end of the lake that are not managed by State Parks. These include the "New Aleknagik" airport which is a 2,070' gravel airstrip and the 100-foot dock on the north shore which are both managed by DOTPF. In addition, there is a one-acre parcel on the south shore just east of Mosquito Point used by ADFG in summer to count fish.

A bridge that would cross the Wood River just east of the State Recreation Site is currently being considered. If the bridge is built, the use of the Site by village residents would be minimal while use by residents of Dillingham, lodge operators, and others would continue at current levels or higher.

- 1. This State Recreation Site is designated Recreational Development. This area was developed and will be managed to provide for a high level of outdoor recreation activity through carefully managed site control. The facilities as they are currently developed are designed to absorb heavy human impacts. The land and shoreline within the area can be modified to support access to the lake as well as education and recreation activities, and to enhance wildlife habitat and scenic qualities. Development and management of existing and future facilities will continue in order to protect and enhance the facilities in the area. This area will be managed as a transition area between the end of the Lake Road and the lake.
- 2. In order to protect public safety, powerboats (including personal watercraft) are restricted near shorelines in the most heavily used portion of the State Recreation Area. Within the State Recreation Site, a person may not operate a motorized boat in excess of "Slow No-wake" speed, five miles per hour maximum, within two-hundred feet of a state-managed dock, swimming beach or boat launch or within an area designated and marked as a "Slow No-wake" zone. The designated "Slow No-Wake" area is shown on Map 9-3 and applies only between May 15 and September 30, annually.

3. Within the State Recreation Site, a person may not operate an aircraft in excess of "Slow No-wake" speed, five miles per hour maximum, within two-hundred feet of a state-managed dock, swimming beach or boat launch or within an area designated and marked as a "Slow No-wake" zone. In addition, an aircraft may not take off or land (only taxiing is allowed) within 400-feet of the shore in an area commencing 400-feet east of Mosquito and Moody Points and running west along both shores of the State Recreation Site. See Map 9-3.

These regulations will be submitted to the Federal Aviation Administration for addition to the United States Government Flight Publication, Supplement Alaska and shown under the Aleknagik section of the Airport/Facility Directory and on the Kodiak Sectional Chart.

Insert Map 9-3
- 4. In order to protect public safety and to prevent blowing debris from damaging cars, hovercraft will not be allowed to operate on the boat launch, in the parking area, or on the roads within the Lake Aleknagik State Recreation Site. Use of hovercraft in this area is already prohibited by park regulations.
- 5. The existing Lake Aleknagik State Recreation Site was created by administrative designation. To ensure the long-term retention and management of the State Recreation Site, this area should be designated by the Legislature.
- 6. To reduce the amount of dust and maintenance of the parking lots, as well as to provide for lining that will result in increasing the parking lots' capacities, paving is recommended.
- 7. Boundary Island, which is in the State Recreation Site, is used by DPOR as a seasonal camp and may be considered for development of a public campground. Such facilities should be carefully located using input from the Park Management Council prior to design and development. If the campsite is developed on State Park lands adjacent to major spawning and breeding areas, the development and operation of the facility should not impact, to a significant degree, fish and wildlife habitat and breeding areas.
- 8. One of the kiosk signs at the State Recreation Site should include a map showing land ownership and another sign should explain subsistence uses park visitors may observe in the park.

Chapter 10 Plan Review, Modification, and Special Exceptions

The management unit designations, management intent and guidelines in the plan may be changed if conditions warrant. The plan may also be updated periodically. The following policies and procedures will guide plan periodic review, modification and special exceptions:

Periodic Review

The management plan may undergo periodic review when the Director considers it necessary and so directs. The decision to review the plan may be triggered by:

- written public or agency requests for review;
- policy changes within the Division;
- availability of new data;
- availability of new technology; or
- changing social or economic conditions that place different demands on the park or affect the division's capabilities.

In addition, under 11 AAC 20.360, the Management Council may recommend changes to the management plan and implementation procedures at any time after its approval and implementation.

The plan review will include meetings, as appropriate, with the Park Management Council, interested groups, the general public, affected agencies, the Area Superintendent and other Division of Parks and Outdoor Recreation personnel. The periodic review will lead to one of the following actions:

- a. no modification of the plan;
- b. modification of the plan;
- c. granting of a special exception; or
- d. amending the plan.

Items "b" and "c" are explained in detail below.

Modification of the Plan

a. *Minor changes*: These are changes which, if accomplished, would not cause a deviation from the original intent of the management plan. Minor changes may be necessary for clarification, consistency, or to facilitate plan implementation. Minor changes do not require public review but must be coordinated with the Area Superintendent and appropriate staff.

b. *Major changes*: These are changes which, if accomplished, would cause a deviation from the original intent of the plan. Major changes require public notice and review prior to adoption.

Portions of the park-wide and area-specific management policies outlined in Chapters 7, 8 and 9 are adopted by reference under 11 AAC 20.365. For this reason, following procedures for promulgating regulations under the Alaska Administrative Code may also be required if significant changes are proposed to those management policies that are adopted by reference.

Consistent with AS 41.21.165, if regulations are promulgated, the department shall consult with Department of Fish and Game and the Management Council before adoption of regulations governing the public use of the park.

Granting of a Special Exception

Exceptions to the provisions of the management plan may be made without modification of the plan. Special exceptions shall occur only when compliance with the plan is excessively difficult or impractical, and an alternative procedure can be implemented which adheres to the purposes and spirit of the plan.

The Division of Parks and Outdoor Recreation may make a special exception in the implementation of the plan through the following procedures:

a. The person or agency requesting the special exception shall prepare a written finding which specifies:

- 1. the nature of the special exception requested;
- 2. the extenuating conditions which require a special exception;
- 3. the alternative course of action to be followed; and
- 4. how the intent of the plan will be met by the alternative.

b. The Director will review the findings and issue a determination. If warranted by the degree of controversy or the potential impact, the Director will hold a public hearing before reaching a decision.

c. The decision of the Director may be appealed to the Commissioner of the Department of Natural Resources whose decision will be final.

Chapter 11

Recommendations and Implementation

This chapter includes information and recommendations necessary to implement plan goals and objectives. Included is information about:

Management agreements Acquisition of parcels and conservation easements Additions to the park Facility improvements Staffing and volunteers Regulations Monitoring Recommendations to other agencies Implementation of commercial use limits Research Public information

Some of the recommendations listed below are for State Parks to implement unilaterally; other actions are for State Parks to implement in conjunction with other agencies or organizations; and others are directed solely at other entities.

Implementation Actions	Mgt. Unit	Management Objectives	Justification
Establish a park ranger/pilot position.	All units	To provide improved park management.	Provide improved park management and enforcement, particularly in remote parts of the park such as the upper Tikchik Lakes.
Continue to pursue negotiations with private landowners and Aleknagik Natives Limited to acquire parcels fee simple or conservation easements.	7, 8, other units	Protect key parcels that are currently in private or corporate ownership that possess values that contribute to the park (habitat, recreation, access) or would seriously threaten park values if developed. Achieve in partnership with other entities such as the Nature Conservancy, Conservation Fund, other land trusts and ADFG.	The shorelines of Lower Lake Nerka, Lake Aleknagik, and the Agulowak River are some of the most heavily used for recreation and subsistence purposes in the Wood River System. Acquisition of parcels in these areas as well as other areas will provide long-term protection of subsistence, recreation and habitat values and may provide a potential site(s) for small-scale public facilities such as a campground.

Table 11-1 Implementation actions that <u>do not</u> include facilities

Implementation	Mgt.	Management Objectives	Justification
Actions	Unit		
Continue to implement, monitor and, if needed, renegotiate Cooperative Land Management Agreement with Aleknagik Natives Limited that addresses corporate lands on Lower Lake Nerka, Lake Aleknagik and the Agulowak River.	7, 8	Brings consistent management policies to the park, regardless of ownership.	Lands in the south end of the park, including most of the Agulowak River corridor, and portions of the shore of Lake Aleknagik and Lake Nerka are owned by the Aleknagik Natives Limited. A Cooperative Agreement assures that low- impact public use of these lands are allowed in return for State Parks' field presence.
Extend western boundaries through legislative designation or management agreement. See Map 11-1.	2, 3, 4, 7, 8	Protect park values by including upper reaches of park's watershed.	The affected state-owned lands drain into the park and therefore influence its water quality. These areas also include lands with outstanding public values similar to those currently within the park. Legislative or administrative designation will ensure uniform management for public recreation, subsistence, and wildlife habitat.
Develop a Cooperative Land Management Agreement between Alaska State Parks and the Togiak National Wildlife Refuge.	3,4,5,7,8	Bring consistent management practices to watershed boundaries, regardless of ownership.	Portions of the Togiak National Wildlife Refuge drain east into Wood-Tikchik State Park, raising the potential for incompatible management practices within watersheds. A cooperative agreement with the U.S. Fish and Wildlife Service could ensure consistent policies between the two agencies on issues such as aircraft operations, guiding practices, research, law enforcement and distribution of information to the public.
Legislatively designate the Lake Aleknagik State Recreation Site as part of the State Park System.	9	To ensure the long-term retention and management of the Recreation Site.	The existing Lake Aleknagik State Recreation Site was created by administrative designation through a Management Agreement within DNR.
Work closely with commercial operators when implementing limits on commercial use and monitor the effects of these limits.	All units	To ensure that limits are implemented in an orderly manner with a minimal disruption to commercial operations and park visitors.	Effective and orderly implementation of this program is in everyone's interest to ensure that there is little disruption to commercial operations, the clients they serve and other park users.
Establish a volunteer program.	All units	Monitor and assist in managing key public use areas. Identify management problems and assist in developing solutions. Provide public with information.	Because of the size of the park and limited funding and staffing, the Division staff cannot accomplish these management objectives without volunteers' assistance.
Concerted trash cleanup effort and enforcement on Nishlik Lake.	2	To manage the area for wilderness values, to remove the trash that has accumulated over the years, and to ensure littering does not occur in the future.	An extensive amount of trash has accumulated on this lake over the years which is highly offensive to park users.

Insert Map 11-1

Implementation Actions	Mgt. Unit	Management Objectives	Justification
Continued monitoring of visitor use of the park (including hunting and fishing).	All units	To ensure that current use levels are accurately estimated and future demands can better be projected.	These figures aid in future revisions of the management plan and substantiate funding requests for operations and maintenance. This information will also help park managers better manage the park for its intended purposes.
Subsistence use study.	All units	To ensure that trends in subsistence use are documented.	See monitoring visitor use above.
Baseline ecological research and water quality monitoring program.	All units	To ensure that the ecological systems and water quality within the park are maintained.	This should be an ongoing program capable of measuring changes in the health and productivity of key habitats and water quality over time.
Information materials.	All units	To protect public safety and park resources, to ensure that accurate information is available to the public, to reduce conflicts, and to convey information about park regulations.	To protect public safety and park resources, to ensure that accurate information is available to the public, to reduce conflicts, to convey information about park regulations.
Promulgate future regulations as necessary (in addition to those promulgated in conjunction with this plan).	All units	To implement plan goals, objectives, and guidelines.	To ensure that plan policies are implemented.

Table 11-2 Implementation actions that include facilities

Proposed Facility	Mgt. Unit	Management Objectives	Facilities	Justification
Public use cabins (sites to be determined).	All non- wilderness units	Provide opportunities for low- cost sheltered overnight visits to the park. Provide emergency shelters at scattered locations.	Cabins.	Remote public use cabins provide shelter in emergency situations. Cabins are also favored by the public as an intermediate level of accommodation between tent camping and lodges.
Continue upkeep and management of the Agulukpak River campsites and trail.	6	Protect streamside areas from over-use. Concentrate overnight visitation in durable areas set back from the waterfront. Separate overnight camping areas from day-use areas.	Three dispersed tent sites, including tent pads, fire-pits and an outhouse.	The upper reaches of the Agulukpak experience heavy use by both day users and overnight campers, which necessitates a managed campground and trail that confines impacts to a limited area and reduces impact on wider areas.

Proposed Facility	Mgt. Unit	Management Objectives	Facilities	Justification
Agulukpak River caretaker cabin/warm- up/public use cabin/information center.	6	Provide housing for a caretaker to monitor and manage this area. During the day, cabin may serve as a warm-up shelter for visitors. May also serve as a public use cabin.	Cabin.	The upper reaches of the Agulukpak experience heavy use by both day users and overnight campers, which necessitates more intensive management.
Additional cabin by the current cabin.	6	After renovation, an additional cabin may be built so there is a cabin for both a caretaker and the public.	Cabin.	To better meet visitor demand to provide improved management presence in a high-use area.
Develop additional campsites (sites to be determined based on field investigations and need). Tikchik, Nuyakuk and Grant rivers; and Lake Kulik, Beverley, and Nerka. Agulowak River campsites dependent on land acquisition or conservation easements.	1, 3,4, 5, 7, 8	Provide campsites near popular destination areas. In general, no-trace camping will be promoted. These facilities will be constructed only to correct an environmental or habitat degradation problem. Development will be limited to only that amount necessary to correct the problem.	Primitive campsites.	To minimize impacts on park resources.
Lake Beverley campsite near the mouth of Peace River.	5	Provide destination campsite in middle portion of park. Mitigates ongoing recreational trespass problem in privately owned cabin.	Two campsites with fire-pits, and an outhouse.	Developed to meet the need for developed campsites in the central portion of the park.
On upper Lake Nerka, foot trails may be constructed out of the Ott Bay area, Amakuk Arm, and to Akuluktok Peak.	7	To provide additional hiking opportunities in the park.	Trails.	To provide additional hiking opportunities in the park.
Pave and line parking areas at Lake Aleknagik State Recreation Site.	9	To make it clearer to the public where to park.	Paving and lining.	Will result in lower maintenance costs, less dust and more parking spaces available at both the upper and lower parking areas.

Appendix A

Statutes and Regulations for Wood-Tikchik State Park & Lake Aleknagik State Recreation Site

1) Park Enabling Legislation

Effective Date: June 29, 1978

Sec. 41.21.160. Purpose of AS 41.21.160 - 41.21.167.

The purpose of AS 41.21.160 - 41.21.167 is to establish the state-owned land and water areas described in AS 41.21.161 as the Wood-Tikchik State Park. The primary purposes of creating the Wood-Tikchik State Park are to protect the area's fish and wildlife breeding and support systems and to preserve the continued use of the area for subsistence and recreational activities. The state park is also created to protect the area's recreational and scenic resources. AS 41.21.160 - 41.21.167 are intended to close the described land and water to multiple-purpose use in conformity with AS 38.05.300 and to dedicate it as a special purpose site in accordance with art. VIII, Sec. 7 of the Constitution of the State of Alaska.

Sec. 41.21.161. Wood-Tikchik State Park established.

(a) The state-owned or acquired land and water lying within the following parcel, containing approximately 1,428,320 acres, is designated as the Wood-Tikchik State Park: beginning at the SE corner of T7S, R54W, S.M., which is the true point of beginning; thence westerly to the NE corner of T8S, R58W, S.M.; thence southerly to the SE corner of T8S, R58W, S.M.; thence westerly to the SW corner of T8S, R58W, S.M.; thence northerly to the NW corner of T5S, R58W, S.M.; thence westerly to the SW corner of Section 34, T4S, R58W, S.M.; thence northerly to the NE corner of Section 4, T1S, R58W, S.M.; thence westerly to the SW corner of T2N, R57W, S.M.; thence easterly to the NW corner of T4N, R56W, S.M.; thence easterly to the NW corner of T4N, R56W, S.M.; thence easterly to the SW corner of T5N, R55W, S.M.; thence northerly to the NW corner of T5N, R55W, S.M.; thence easterly to the NE corner of T5N, R55W, S.M.; thence easterly to the NE corner of T5N, R55W, S.M.; thence easterly to the NE corner of T5N, R55W, S.M.; thence easterly to the NE corner of T5N, R55W, S.M.; thence easterly to the NE corner of T5N, R55W, S.M.; thence easterly to the NE corner of T5N, R55W, S.M.; thence easterly to the NE corner of T4N, R54W, S.M.; thence southerly to the SE corner of T4N, R54W, S.M.; thence easterly to the NE corner of T3N,

R53W, S.M.; thence southerly to the SE corner of T3N, R53W, S.M.; thence easterly to the NE corner of T2N, R52W, S.M.; thence southerly to the SW corner of T1N, R51W, S.M.; thence easterly to the NE corner of T1S, R52W, S.M.; thence southerly to the SE corner of T2S, R52W, S.M.; thence easterly to the NE corner of T3S, R51W, S.M.; thence southerly to the SE corner of T3S, R51W, S.M.; thence southerly to the SE corner of T4S, R53W, S.M.; thence southerly to the SE corner of T4S, R53W, S.M.; thence southerly to the SE corner of T4S, R53W, S.M.; thence southerly to the SE corner of T4S, R53W, S.M.; thence southerly to the SE corner of T5S, R54W, S.M.; thence southerly to the SE corner of T7

(b) All or part of the state-owned or acquired land and water within the following adjacent parcel, containing approximately 126,720 acres may be added to the Wood-Tikchik State Park by proclamation of the governor: beginning at the SE corner of T7S, R54W, S.M., which point is the true point of beginning; thence southerly to the SE corner of T8S, R54W, S.M.; thence westerly to the NE corner of T9S, R55W, S.M.; the nce southerly to the SE corner of the NE quarter of T9S, R55W, S.M.; thence westerly to the SW corner of the NW quarter of T9S, R57W, S.M.; thence northerly to the NW corner of T8S, R58W, S.M.; thence westerly to the SE corner of T8S, R58W, S.M.; thence acterly to the SE corner of T8S, R58W, S.M.; thence northerly to the NE corner of T8S, R58W, S.M.; thence northerly to the NE corner of T8S, R58W, S.M.; thence northerly to the NE corner of T8S, R58W, S.M.; thence northerly to the NE corner of T8S, R58W, S.M.; thence northerly to the NE corner of T8S, R58W, S.M.; thence northerly to the NE corner of T8S, R58W, S.M.; thence northerly to the NE corner of T8S, R58W, S.M.; thence northerly to the NE corner of T8S, R58W, S.M.; thence northerly to the NE corner of T8S, R58W, S.M.; thence northerly to the NE corner of T8S, R58W, S.M.; thence easterly to the SE corner of T7S, R54W, S.M., which point is the true point of beginning.

(c) Land lying within the parcels described in (a) or (b) of this section upon which there are valid entries or that is withdrawn for or selected by Native village or regional corporations under 43 U.S.C. 1610, 1611 and 1613 (P.L. 92-203, Sec. 11, 12 and 14 of the Alaska Native Claims Settlement Act), is excepted from (a) and (b) of this section. However, if any land excepted under this subsection is subsequently relinquished to the state, it shall be included as part of the Wood-Tikchik State Park.

Sec. 41.21.162. Designation of management responsibility.

The land and water described in AS 41.21.161 is assigned to the department for control, maintenance, and development consistent with the purposes and provisions of this chapter. The Department of Fish and Game is responsible for the management of fish and game resources in the Wood-Tikchik State Park, consistent with the purposes and provisions of this chapter.

Sec. 41.21.163. Management Council created.

A seven-member Wood-Tikchik State Park Management Council is created and shall be appointed by the governor. Management council members may, subject to appropriations, receive the same per diem and travel expenses authorized for members of state boards. The governor shall appoint one member of the council from three nominations submitted to the governor by each of the following:

- (1) the village council of Koliganek;
- (2) the village council of New Stuyahok;
- (3) the village council of Aleknagik;
- (4) the city council of Dillingham;
- (5) the Bristol Bay Native Association, Inc.;
- (6) the commissioner of natural resources;
- (7) the commissioner of fish and game.

Sec. 41.21.164. Management plan.

The Wood-Tikchik State Park Management Council shall develop a management plan for the park with the advice and assistance of the department. The management plan shall be presented at a public meeting before approval and implementation.

Sec. 41.21.165. Regulations.

The department shall consult with Department of Fish and Game and the management council before adoption of regulations governing the public use of the park. The Department of Fish and Game shall consult with the department and the management council before adoption of regulations governing fish and wildlife management in the park. Regulations may not be adopted by either department without prior review at public hearings.

Sec. 41.21.166. Fish and wildlife breeding areas.

The fish and wildlife habitat breeding areas in the Wood-Tikchik State Park shall be managed to sustain the fish and wildlife resources of the park in perpetuity.

Sec. 41.21.167. Incompatible uses.

(a) The land and water areas described in AS 41.21.161 are not open to mineral entry under AS 38.05.135 - 38.05.275.

(b) The regulations adopted under AS 41.21.165 shall recognize that the current practice of traditional subsistence and recreational activities includes the use of small outboard motors and snow machines. Reasonable access by aircraft for recreational purposes shall be permitted.

(c) Development and operation of a hydroelectric site at Lake Elva or Grant Lake is not considered an incompatible use.

(d) Development and operation of campsites on or adjacent to major spawning and breeding areas are incompatible uses unless it can be shown by a preponderance of evidence that the fishery and wildlife habitat and breeding areas will not be adversely affected to a significant degree by the development and operation.

2) Other Statutes that Apply Specifically to the Park

Sec. 35.40.025. Dillingham to Aleknagik Road.

The road from Dillingham to Aleknagik is designated the Gateway to the Wood-Tikchik State Park.

Sec. 41.21.022. Discharge of firearms.

The discharge of firearms during lawful hunting, trapping, and fishing is permitted within the boundaries of:(9) Wood-Tikchik State Park, except that all or part of a state park, marine park, wildlife preserve, or recreation area may be closed to the discharge of firearms by regulations adopted by the department for purposes of public safety....

3) Zoning Statutes

Sec. 41.21.025. Zoning of private land within state parks.

(a) The department may adopt, under AS 44.62 (Administrative Procedure Act), zoning regulations governing private property within the boundaries of state parks established under this chapter.

(b) Land patented to or under interim conveyance to a regional or village native corporation under 43 U.S.C. 1601-1628 (P.L. 92-203, Alaska Native Claims Settlement Act) that falls within a state park boundary is subject to the zoning regulations provided for under (a) of this section only if the affected regional or village native corporation consents to or fails to reject the zoning regulations within 60 days from the date they are submitted to the affected corporation.

(c) Uses existing on June 25, 1976 are not affected by zoning regulations adopted after June 25, 1976.

<u>4) Regulations that Apply Specifically to the Park</u> <u>and Recreation Site</u>

11 AAC 20.300 Wood-Tikchik State Park Management Council.

(a) The term of membership on the Wood-Tikchik State Park management council is three years.

(b) The initial terms for the members appointed from the following nominations are as follows:

- (1) the village council of Koliganek one year;
- (2) the village council of New Stuyahok two years;
- (3) the village council of Aleknagik three years;
- (4) the city council of Dillingham one year;
- (5) the Bristol Bay Native Association, Inc. two years.

(c) The initial terms for the members appointed from the following nominations are as follows:

- (1) the commissioner of natural resources three years; and
- (2) the commissioner of fish and game one year.

11 AAC 20.310 Qualification of Members.

Each nominee submitted to the governor for selection under sec. 300(b) of this chapter must be a resident of the area represented by the nominating body.

11 AAC 20.320 Designated Alternates.

Each member of the management council may designate an alternate to serve on the council in the member's absence. Designated alternates must possess the same qualifications as members selected by the governor.

11 AAC 20.330 Officers.

The council shall elect a chairman and a vice-chairman by majority vote. The term of the officers will be one calendar year. The chairman is the presiding officer and shall call meetings of the council. The vice-chairman shall assist the chairman and shall assume his duties when the chairman is absent. The commissioner of natural resources, or his designee, is ex officio secretary for the council.

11 AAC 20.340 Quorum.

A majority of the members serving on the council constitutes a quorum for the transaction of business. Every act done or decision made by a majority of the members present at a meeting of the council at which a quorum is present is the act of the council.

11 AAC 20.350 Meetings.

(a) The council shall meet at least once each year and may meet at other times it considers necessary. The council shall select the time and place for the transaction of business.

(b) The council may meet at any time upon the call of the chairman, upon the request of a majority of the council members, or upon the request of the commissioner of natural resources, or the commissioner of fish and game, or the designee of either.

11 AAC 20.360 Management Plan.

The council, with the advice and assistance of the department of natural resources, shall draft a management plan to be presented at public meetings within two years from the initial appointments. After receiving public testimony on the draft management plan, a final draft must be submitted to the commissioner of natural resources for approval and implementation, and to the commissioner of fish and game for approval and implementation of elements governing fish and wildlife management. The management council may recommend changes to the management plan and implementation procedures at any time after its approval and implementation.

11 AAC 20.365 Adoption of Management Plan by Reference.

The department will administer 11 AAC 20.370 - 11 AAC 20.397 in accordance with the portions of the management plan adopted by reference in this section. The following portions of the *Wood-Tikchik State Park Management Plan*, dated October 2002 and developed in accordance with AS 41.21.164, are adopted by reference:

(1) the parkwide management policy addressing levels of commercial use, as set out in Chapter 7, pages 7-3 and 7-4;

(2) the parkwide management policy listing specifics of zoning guidelines, as set out in Chapter 7, page 7-8;

(3) the guidelines on party size in lands designated wilderness, as set out in Chapter 8, Table 8-1, page 8-8;

(4) the guidelines on motorized equipment, as set out in Chapter 8, Table 8-1, page 8-12;

(5) the unit-specific management guidelines set out in Chapter 9.

11 AAC 20.370 Use of Weapons.

The use and discharge of a weapon for the purpose of lawful hunting or trapping is allowed in the Wood-Tikchik State Park.

11 AAC 20.375 Aircraft.

(a) The use of fixed wing aircraft is allowed in Wood-Tikchik State Park.

(b) A person may not land a helicopter in Wood-Tikchik State Park, except as authorized by the director under 11 AAC 18.010.

11 AAC 20.380 Power boats.

(a) Except as provided in (b)-(e) of this section, the use of motorized boats is allowed in Wood-Tikchik State Park.

- (b) The use of an airboat is prohibited.
- (c) The use of a personal watercraft is allowed only on Lake Aleknagik.
- (d) The use of a hovercraft

(1) is allowed between January 1 and May 31 only on water bodies or on snow and ice covering water bodies; and

(2) except as authorized by the director under 11 AAC 18.010, is prohibited on Upnuk, Chikuminuk, Grant, Kulik, Nishlik, and Slate lakes and the upper Tikchik and Wind rivers.

(e) The use of a motorized boat is prohibited on Lake Chikuminuk.

11 AAC 20.383 Agulowak River safety.

A person may not anchor, drift, or stand in the water of the Agulowak River from the south bank to mid-river in Restricted Area A, or anchor or stand in the water from north bank to mid-river in Restricted Area B, as those restricted areas are depicted in Map 9-2 in Chapter 9 of the *Wood-Tikchik State Park Management Plan*, adopted by reference in 11 AAC 20.365, and as marked by the placement of signs on the bank.

11 AAC 20.385 Campfires.

Open fires are allowed on gravel bars.

11 AAC 20.390 Snow Vehicles.

The use of snow vehicles is allowed in Wood-Tikchik State Park.

11 AAC 20.395 Commercial use limitations.

The director may establish limits on the number of client days, including the number of passengers flown into the park by permitted air taxi operators, for the entire park or specific areas in the park based upon the parkwide management policy addressing levels of commercial use, as set out in Chapter 7, pages 7-3 and 7-4 of the *Wood-Tikchik State Park Management Plan*, adopted by reference in 11 AAC 20.365.

11 AAC 20.397 Public Use Limitations.

(a) A person, or at least one person in a party must apply for and obtain a permit issued under 11 AAC 18.010 before engaging in one or more of the following activities:

- (1) floating the Tikchik River from either Nishlik or Upnuk lakes;
- (2) camping on or around Chikuminuk, Nishlik, Slate, or Upnuk lakes.

(b) The number of persons in a party is limited to 10 in areas designated as wilderness in Chapter 8 of the *Wood-Tikchik State Park Management Plan*, adopted by reference in 11 AAC 20.365.

11 AAC 20.935 Snow Vehicles.

If the director finds that the snow depth is adequate to protect underlying vegetation, the director shall post the following state recreation areas and sites as open to the use of snow vehicles:

....(11) Lake Aleknagik State Recreation Site;

11 AAC 20.983 Use of aircraft.

(a) The use of fixed wing aircraft is allowed in the following state recreation areas, except for the purpose of practice landings:

....(3) Lake Aleknagik State Recreation Site;

(b) In the Lake Aleknagik State Recreation Site, a person may not operate an aircraft in excess of "Slow No-wake" speed, five mile per hour maximum, within 200 feet of a state managed dock, swimming beach, or boat launch, or within an area designated and marked as a "Slow No-wake" zone.

(c) An aircraft may taxi, but may not take off or land, within 400 feet of the shore in an area commencing 400 feet east of Mosquito and Moody Points and running west along both shores of Lake Aleknagik State Recreation Site.

11 AAC 20.985 Use of Motorized Boats.

(a) The use of motorized boats is allowed in the following state recreation sites and areas: (5) Lake Aleknagik State Recreation Site;

(b) A person may not operate a motorized boat in excess of "Slow No-wake" speed, five miles per hour maximum, within two hundred feet of a state managed dock, swimming beach or boat launch or within an area designated and marked as a "Slow No-wake zone".

11 AAC 20.988 Use of Hovercraft.

Between January 1 and May 31, a person may operate a hovercraft on the waters of, or on snow and ice covering the waters of, Lake Aleknagik State Recreation Site.

Appendix B Summary of Bristol Bay & Kuskokwim Area Plans

The **Bristol Bay Area Plan** was adopted in 1984 and provides management intent for state land in the Bristol Bay region. Since Wood-Tikchik State Park had already been legislatively designated when the Bristol Bay Area Plan was adopted, the plan does not apply to state lands within the park. The plan does, however, apply to state land surrounding the park. Management of these lands can have direct and indirect impacts on the park. Area plan policies, management intent, and guidelines that could affect the park include:

1. Designates most of the state lands surrounding the park Fish and Wildlife Habitat, Harvest and Recreation. In one instance, the plan also co-designates state lands in the upper Kisaralik River drainage Minerals (in addition to Fish and Wildlife Habitat, Harvest and Recreation).

2. Designates state lands within the park Fish and Wildlife Habitat, Harvest, and Public Recreation. The plan also prohibits grazing and remote settlement, and recognizes that the park is closed to new mineral entry and oil and gas leasing. These restrictions and management intent were also put in place through the park's enabling legislation.

3. Left the state lands surrounding the park open to new mineral entry and oil and gas leasing. With the exception of the Snake Lake area, sale of state land surrounding the park is prohibited.

4. Recommends that the US Fish and Wildlife Service and DPOR explore cooperative management agreements to facilitate the management of lands between Wood-Tikchik State Park and Togiak National Wildlife refuge along hydrographic or watershed boundaries.

5. Recommends adding lands adjacent to Nerka Lake to the park. The plan also recommends that DPOR and the Aleknagik Natives Limited enter into a management agreement, "for common land management in those parts of the park addition used by recreationists."

6. Recommends adding state lands to the west of the park, which adjoin the Togiak National Wildlife Refuge, to the park.

The **Kuskokwim Area Plan** was adopted in 1988 and, similar to the Bristol Bay Area Plan, provides management intent for large areas of state land adjacent to the park. Area plan policies, management intent, and guidelines that could affect the park in the Aniak Lake area (which adjoins the northwest boundary of the park) include:

1. Designates lands Public Recreation and Wildlife Habitat.

2. Prohibits leasing for commercial recreation leases including lodges, but does allow temporary facilities to support guiding and other commercial activities.

3. Prohibits trapping cabins within one-half mile of the lake.

4. Prohibits land sales and remote cabin permits.

5. Leaves the area open to staking new mineral locations and oil and gas leasing.

Appendix C

Glossary

Also see definitions under Table 8-2 on page 8-21.

AAC. Alaska Administrative Code that includes state regulations.

ADFG. Alaska Department of Fish and Game.

AS. Alaska Statutes.

Airboat. A shallow draft boat driven by an airplane propeller and steered by a rudder (11 AAC 20.990).

Aircraft. A motorized device that is used or intended for flight or movement of people or goods in the air (11 AAC 12.340).

Boat or Vessel. A device that is used or designed to be used for the movement of people or goods in or on the water, whether manually or mechanically propelled, but does not include personal flotation devices or other floats such as inner tubes, air mattresses, or surf boards (11 AAC 20.990).

Camp and Camping. To use a vehicle, tent, or shelter, or to arrange bedding, or both, with the intent to stay overnight in a park (11 AAC 12.340).

Client Day. Any portion of a day in which a person is receiving commercial services permitted under 11 AAC 18.010 on state park land or water (11 AAC 20.990).

Commercial Activity. The sale of, delivery of, or soliciting to provide, goods, wares, edibles, or services in exchange for valuable consideration through barter, trade, or other commercial means; a service offered in conjunction with another sale of goods, wares, edibles, or services, which service involves the use of state park land or water, is a commercial activity whether or not it is incidental to, advertised with, or specifically offered in the original sale; all guide, outfitter, and transportation services are commercial activities if any payment or valuable consideration through barter, trade, cash, or other commercial means is required, expected, or received beyond the normal and customary equally shared costs for food and fuel for any portion of the stay in the park (11 AAC 12.340).

Conservation Easement. A legal agreement between the landowner and a land trust or the State. It permanently protects open space by limiting the amount and type of development that can occur, but continues to keep the land in private ownership. As defined in statute, a conservation easement is: A nonpossessory interest of a holder in real property imposing limitations or affirmative obligations to retain or protect natural, scenic, or open space values of real property, ensure its availability for agricultural, forest, recreational, or open space use, protect natural resources, maintain or enhance air or water quality, or preserve the historical, architectural, archaeological, or cultural aspects of real property (AS 34.17.060).

DNR. Alaska Department of Natural Resources.

DPOR. Division of Parks and Outdoor Recreation, a division of DNR.

Department. The Department of Natural Resources.

Director. The Director of the Division of Parks and Outdoor Recreation, Department of Natural Resources, or the director's authorized agent.

Division. The Division of Parks and Outdoor Recreation, Department of Natural Resources.

Firearm. Includes a pistol, rifle, shotgun, revolver, or mechanical gas or air-operated gun (11 AAC 20.990).

Guideline. A specific course of action that must be followed when a DPOR resource manager permits, leases, or otherwise authorizes use of state lands. Guidelines range from giving general guidance for decision-making or identifying factors that need to be considered, to setting detailed standards for on-the-ground decisions.

Hovercraft. A vehicle supported above the surface of land or water by a cushion of air produced by downward-directed fans (11 AAC 20.990).

May. Same as "should." See *should*.

Motorized vehicle. A motorized device for carrying persons or objects over land, water, or through the air, and includes automobiles, snowmachines, bicycles, off-road vehicles, boats, and aircraft (11 AAC 21.290).

Off-Road Vehicle. A motorized vehicle designed or adapted for cross-country operation over irregular terrain, consisting of more than one drive wheel or track, having a gross vehicle weight less than 1,500 pounds or exerting less than 8 pounds per square inch ground pressure, and which is less than 88 inches wide (11 AAC 20.990).

Ordinary High Water Line. That line on the shore of a non-tidal river or stream that reflects the highest level of water during an ordinary year and is established by fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding area (11 AAC 20.990).

Permit. A written authorization to engage in uses or activities that are otherwise prohibited or restricted (11 AAC 18.200).

Personal Watercraft. A vessel that is (A) less than 16 feet in length; (B) propelled by a waterjet pump or other machinery as its primary source of motor propulsion; and (C) designed to be operated by a person sitting, standing, or kneeling on the vessel, rather than by a person sitting or standing inside it (11 AAC 21.290).

Shall. Same as "will." See will.

Should. States intent for a course of action or a set of conditions to be achieved. Guidelines modified by the word "should" state the plan's intent and allow the manager to use discretion in deciding the specific means for best achieving the intent or whether particular circumstances justify deviations from the intended action or set of conditions.

Snowmobile. A self-propelled vehicle (A) intended for off-road travel on snow; (B) having a maximum width of 46 inches and a curb weight of not more than 1000 pounds; (C) driven by one or more tracks in contact with the snow; and (D) steered by one or more skis in contact with the snow (11 AAC 20.990).

Snow Vehicle. A motor vehicle of 850 pounds or less gross vehicle weight, primarily designed to travel over ice or snow, and supported, in part, by skis, belts, cleats, or low-pressure tires (11 AAC 20.990).

Structure. Something constructed or built in, or transported to, a state park unit, including a dock, cabin, floatcamp, building, shanty, or facility used for residential or commercial purposes; it does not include a vessel with overnight berthing whose primary use is not as a domicile, but for commercial or sport fishing, general recreational boating, or transportation (11 AAC 12.340).

Subsistence. The customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of non-edible byproducts of fish and wildlife resources taken for personal or family consumption; for barter or sharing of personal or family consumption; and for customary trade. [From the Alaska National Interest Land Conservation Act (ANILCA) PL 96-486, Sec. 803].

Vehicle. Means a mechanical device for carrying persons or objects over land, water, or through the air, including automobiles, motorcycles, snowmachines, bicycles, off-road vehicles, motorized boats, and aircraft (11 AAC 20.990).

Weapon. Includes a bow and arrow, slingshot, crossbow, and firearm (11 AAC 20.990).

Will. Requires a course of action or a set of conditions to be achieved. A guideline modified by the word "will" must be followed by land managers and users. If such a guideline is not complied with, a written decision justifying the noncompliance is required.

Zoning. See explanation on page 7-5.

Appendix D

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