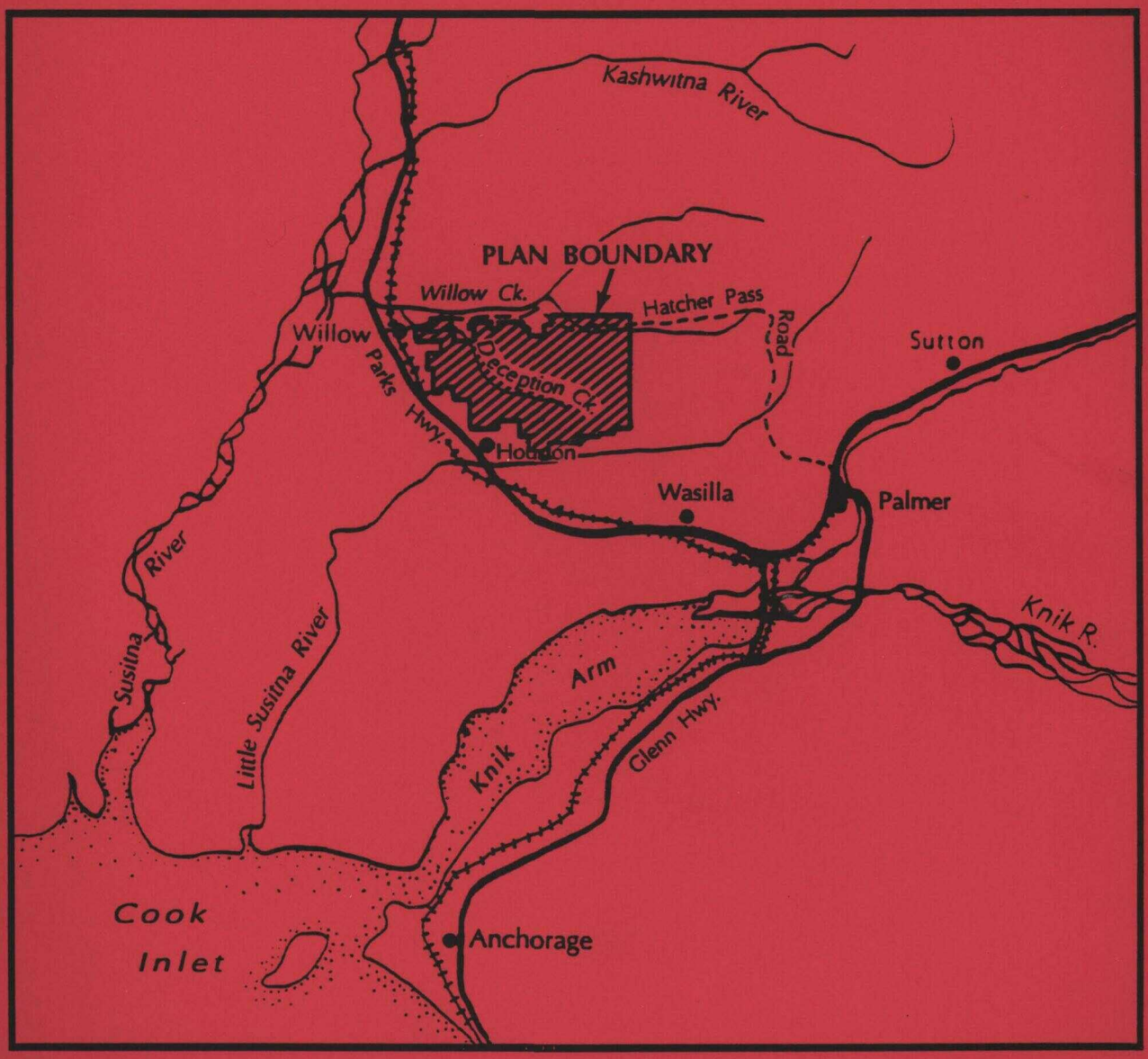
DECEPTION CREEK LAND USE PLAN



OCTOBER 1989

Alaska Department of NATURAL RESOURCES

STATE OF ALASKA

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OFFICE OF THE COMMISSIONER

The Commissioner of the Department of Natural Resources finds that the Deception Creek Land Use Plan meets the requirements of AS 38.04.065 and 11 AAC 55.010-.030 for land use plans and does hereby adopt it as an amendment to the Willow Sub-basin Area Plan. The Department of Natural Resources will manage state lands within the planning area consistent with this plan.

Lennie Gorsuch — November 3, 1989

Lennie Gorsuch, Commissioner — Date
DEPARTMENT OF NATURAL RESOURCES

The Alaska Department of Fish and Game assisted the Department of Natural Resources in preparing the Deception Creek Land Use Plan. We appreciate the opportunity to represent fish and wildlife habitat and harvest values during the development of the plan. The Department of Fish and Game will use this plan as guidance when implementing its authorities and when reviewing and commenting on proposed uses of state lands in the planning area.

Don W. Collinsworth — 11·16·89

Don W. Collinsworth, Commissioner — Date
ALASKA DEPARTMENT OF FISH AND GAME

DECEPTION CREEK LAND USE PLAN

OCTOBER 1989

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Acknowledgements: Thanks to the following individuals who also participated: Marty Welbourn, Division of Land and Water Management, Land and Resources Section; Jim Page, Division of Forestry; Bill Long, Division of Geological & Geophysical Survey; Calvin Steele, Soil Conservation Service; Austin Helmers, Matanuska-Susitna Borough trails volunteer; Elaine Thomas, Division of Land and Water Management, Land and Resources Section, maps; Rose Freer, Southcentral Region, Division of Land & Water Management, typing.

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CHAPTER I

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CHAPTER I

INTRODUCTION

This document is an interim land use plan for state lands within the Deception Creek management unit, the area formerly known as the Willow capital site.

A. Background

The Deception Creek management unit consists of approximately 65,700 acres of patented state land located in the Matanuska-Susitna Borough near Willow, east of the Parks Highway and west of the Hatcher Pass management unit.

In 1974 Alaska's voters passed an initiative to move the capital to one of three sites, all to be selected by a Capital Site Selection Committee. This management unit was selected as one of the three sites and in 1976, in response to a request from the Capital Site Selection Committee; the Department of Natural Resources (DNR) classified this site, and two others, as Reserved Use.

In November 1976 the voters selected Willow as the site for a new capital, but in 1982 they disapproved a proposition containing the total cost figures. This last vote suspended the capital move indefinitely.

Since the 1982 vote, the state has retained the Reserved Use classification on these lands and has not allowed activities to take place there other than those that are generally permitted on state land (e.g., hunting). The land within the capital site is some of the best remaining in state ownership. It has important wildlife resources (especially moose), but in addition, it is an accessible, contiguous block of state land that has valuable timber resources, prime development land, grazing resources, and recreation potential. Periodically, the Division of Land and Water Management (DLWM) receives requests for use of these resources but has refused these requests pending review of the classification and planning for the unit.

B. Relationship to Other Plans

Although the Deception Creek management unit is included within the boundaries of the *Willow Sub-basin Area Plan,* the plan does not address it because at the time the plan was done this area was dedicated for use as the capital site. The resource maps included in Appendix 2 of the Willow Plan do cover this area. This plan is an amendment to the *Willow Sub-basin Area Plan.*

This plan utilized the planning done by the Capital Site Planning Commission and incorporated many of its land use recommendations.

The management unit is not within a Coastal District Plan. A small part of subunit 3A is covered by the City of Houston Comprehensive Plan. See subunit 3A in Chapter III of this document.

C. What This Plan Does

The process for developing this land use plan provided an opportunity to review and revise the existing policy. The Department of Natural Resources (DNR) found general support for allowing short-term multiple uses while preserving the option to use this area, or portions of it, as a capital site or other major use not foreseen at this time. This plan preserves the aggregate value of the site but makes its resources available for limited, short-term multiple uses, such as small timber sales. DNR believes this is an appropriate interim policy until such time as the *Willow Subbasin Plan* and *Susitna Area Plan* are revised, or for a ten-year period.

The plan directs the management of state lands in the Deception Creek management unit. All DNR decisions will comply with the provisions of the plan. The plan identifies the types of development and protection that should occur on the land, the sites or areas appropriate for these uses, and the rules under which they will occur.

The types of decisions made by the plan are described below.

LAND USE DESIGNATIONS identify the primary and secondary land uses of major importance in each of the subunits.

LAND USE CLASSIFICATIONS The land use designations made on state lands in this plan are officially established in state records through the state's land classification system. The classifications will be shown on status plats. Generally, the classifications indicate the primary uses. In this plan Resource Management classification was used in some areas to indicate lands that the Matanuska-Susitna Borough is interested in acquiring if the unit is not used as the site for a capital city (see below). Users must refer to this plan for more detailed information on secondary or prohibited uses and policies for management of the area.

MANAGEMENT INTENT statements provide the land manager with an overall sense of what uses and the level of use that should occur in each subunit. This is a general policy statement intended to serve as a guide in future land use decisions.

MANAGEMENT GUIDELINES provide the rules under which uses may occur. This gives the land manager more specific direction in decision-making and lets the public know what to expect. It provides for consistency in management of the area.

This plan does not control uses on private lands.

D. Issues that this Plan Addresses

1. **Long-range versus interim uses** Among those involved in the process, there was general agreement that the Deception Creek management unit should be available for a variety of short-term uses but that no action should be taken that precludes such possible long-term uses as a capital city, university campus, or other uses not yet envisioned. Therefore, the uses designated by this plan are envisioned as interim uses.

2. **Settlement** Settlement is the term used to describe DNR's major land conveyance programs. Since the programs remove land from state management, they are necessarily long-term decisions. Therefore, settlement is a prohibited use until such time as this plan is revised or amended.

3. **Grazing and Wildlife** A preliminary analysis has identified grasslands that have grazing potential within portions of the planning area. The unit also has important wildlife habitat. This plan allows grazing outside of important brown bear and moose habitat and calls for a range survey prior to revision of the plan to better determine the location and value of grasslands. At present, the demand for grazing is low and better grasslands are available in the Hatcher Pass management unit. This plan also specifies conditions under which grazing may occur in order to minimize its negative impact on wildlife and its habitat.

4. **Mining** The capital site was closed to locatable mineral entry in 1982. This plan proposes to reopen to locatable mineral entry, under leasehold, that portion of the unit not included in the capital city core development area. Also to remain closed to new locatable mineral entry are anadromous streams and lakes and buffers along or around some of them, a stretch along the Hatcher Pass Road and Willow Creek to allow for public gold panning, and that portion of the right-of-way of the Hatcher Pass Road that lies within the unit.

   The capital site was originally closed to mineral entry to prevent conflict between mining claimants and "dedicated future uses of the Willow South proposed capital site." The plan that was subsequently developed by the New Capital Site Planning Commission did not anticipate any development outside the core development area. Therefore, even if a capital city or other major development is located here at some point in the future, mining in the area proposed for reopening is not expected to be a significant conflict because it would be outside the area where development is most likely to take place.

5. **Forestry** The management unit contains important timber resources. The plan addresses how these timber resources are to be managed. Trees will be made available only for small commercial and personal use sales. The plan adopts interim guidelines governing how trees will be harvested; ultimately, the area will be subject to the guidelines in the Susitna Forest Plan. The plan also proposes specific cutting areas for 1989-1994. (See subunit 5, Middle Deception Creek.)

6. **Recreation** The management unit is currently used for hunting, snowmobiling, dogmushing, and other forms of dispersed recreation. It has the potential to be more heavily used if parts of it are intensively developed. This plan identifies and protects areas with recreation potential.

7. **Borough Selections** The Matanuska-Susitna Borough has filed selections and nominations within this management unit. Some of these selections were filed before the area was designated as a capital site. If the unit is not to be used for a capital city, the borough is interested in maintaining its selections and nominations here. This plan does not address whether or not any of the selections should go to the borough. It does identify borough interest areas and calls for classifying them Resource Management or Public Recreation. Borough interest areas are lands where the Borough believes it has valid selections. Resource Management and Public Recreation classifications are selectable and conveyable under AS 29.65. The purpose of these classifications is to keep the option open for future conveyance of these lands to the Borough in some combination under the municipal entitlement and land exchange provisions of AS 29.65. This does not constitute a decision to convey these lands to the Borough. According to state records, the State has patented and approved borough selections exceeding the Borough's entitlement by 2000 acres. Little of the patented or approved land is within the planning area. If, after survey of these lands is completed, the Borough has a remaining entitlement and decides to pursue their selections in the planning area, the plan may be amended if appropriate.

E. How this Plan Was Developed

This plan was developed by the Southcentral Regional office of Division of Land and Water Management, based on resource information supplied by the various resource agencies. A draft of the plan was prepared and circulated for review to state agencies, the Matanuska-Susitna Borough staff, and the Wasilla Soil and Water Conservation District. The draft plan presented several alternative management approaches, including a selected alternative which was the approach emphasized. The draft was then revised, based on comments from the agencies, and conflicts were resolved by an interagency planning team. A second draft of the plan was made available for public review. Public meetings were held on the plan in May and June of 1988. Following receipt of public comment, the plan was revised, based on the comments received, in consultation with other resource agencies and the Matanuska-Susitna Borough. The final plan was then adopted by the Commissioner of the Department of Natural Resources and approved by the Matanuska-Susitna Borough (Assembly Resolution 89-201).

F. How This Plan May Be Changed

Procedures to be followed for changes or special exceptions to the plan are described in Appendix III. When the *Susitna Area Plan* is revised, the *Willow Sub-basin Area Plan* will be incorporated within it. This plan, which is an amendment to the *Willow Sub-basin Area Plan,* will also be incorporated within the *Susitna Area Plan.* The policies of this plan are intended to be in effect for 10 years but may be revised earlier as a part of the *Susitna Area Plan* revision or in response to changed conditions.

G. Plan Implementation

All actions called for in this plan that require funding (e.g., laying out a timber sale) are dependent on the availability of sufficient funds. A summary of actions needed to implement this plan is presented in Chapter IV.

CHAPTER II

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CHAPTER II

UNIT WIDE LAND MANAGEMENT POLICIES

A. MANAGEMENT INTENT

Overall Intent

The overall management intent for the Deception Creek management unit is to retain the area in public ownership for at least ten years and manage it for multiple use, primarily forestry and wildlife habitat. This intent is explained in more detail in the individual subunits in Chapter III. A second overall intent is to preserve future options for use of the area for such purposes as a capital city, a university, a new industry, or other use not foreseeable at this time. Therefore, no long-range commitments will be made unless it is determined that a given use will not block or hinder long-term use of the site as a whole or is in the state's best interest. Sale of land under the state's major land disposal programs is prohibited. Remote cabins are also prohibited. Lease proposals will be considered case by case and may be allowed if consistent with this overall management intent and the remainder of this plan. A lease is more likely to be issued on the periphery of the area than in the capital site development core area (subunits 5A, 5B, 5C and 6). It is also more likely that a lease would be issued for five years than for twenty years.

Timber

Most of the timbered areas within this unit are available for harvest. They will be managed for small commercial sales and personal use cutting. Specific cutting plans for the next six years affect only subunit 5a and 5c and are explained in Chapter III. This plan designates areas where forestry is a primary use. Because these areas are designated forest lands within the Susitna Basin, they will also be addressed by the Susitna Forest Plan now being prepared by the Department. Most of the guidelines in this plan that govern timber harvest are interim and will be replaced by those of the Susitna Forest Plan when it is adopted.

Grazing

Grazing will be a secondary use in subunit 5A, T18N, R3W, SM, sections 4-8. In addition, grazing will be an allowed use in the rest of the management unit except in subunits 2A, 2B and 5C. When this plan is revised, the possibility of allowing grazing in subunits 2A, 2B and 5C should be reevaluated. In the interim, a range survey should be done for subunits 2A and 2B that determines the location, extent, and value of the grassland resource. Also during the

interim, the Department of Fish and Game (ADF&G) will collect further data on the extent of brown and black bear use in these subunits. This is dependant on funding available. When this information is available, the primary and secondary use designations for these subunits can be reevaluated. Research is also needed to determine whether livestock grazing is compatible with maintaining important wildlife habitat. These subunits support concentrations of brown bear and constitute one of the six most important moose harvest and production areas in the Susitna Basin. They are important winter range for moose and are heavily used by rutting moose. Livestock use of the area may not be compatible with the present level of use by moose. Brown bear and livestock are not compatible.

Public Recreation

Portions of the management unit have public recreation values. This is especially true of the 4½ sections along the Hatcher Pass Road (subunit 1). Other areas with public recreation values include Bullion Mountain, Willow Creek Island, Frying Pan (Lynx) Lake, Bench Lake, and the slopes of Bald Mountain. The primary recreational value is for dispersed recreation. No recreational facility development is planned (except in subunit 1) and much of the recreational value is potential and will increase if the area is eventually settled. The Public Recreation designation and classification is generally intended to identify and protect the recreational values for future use.

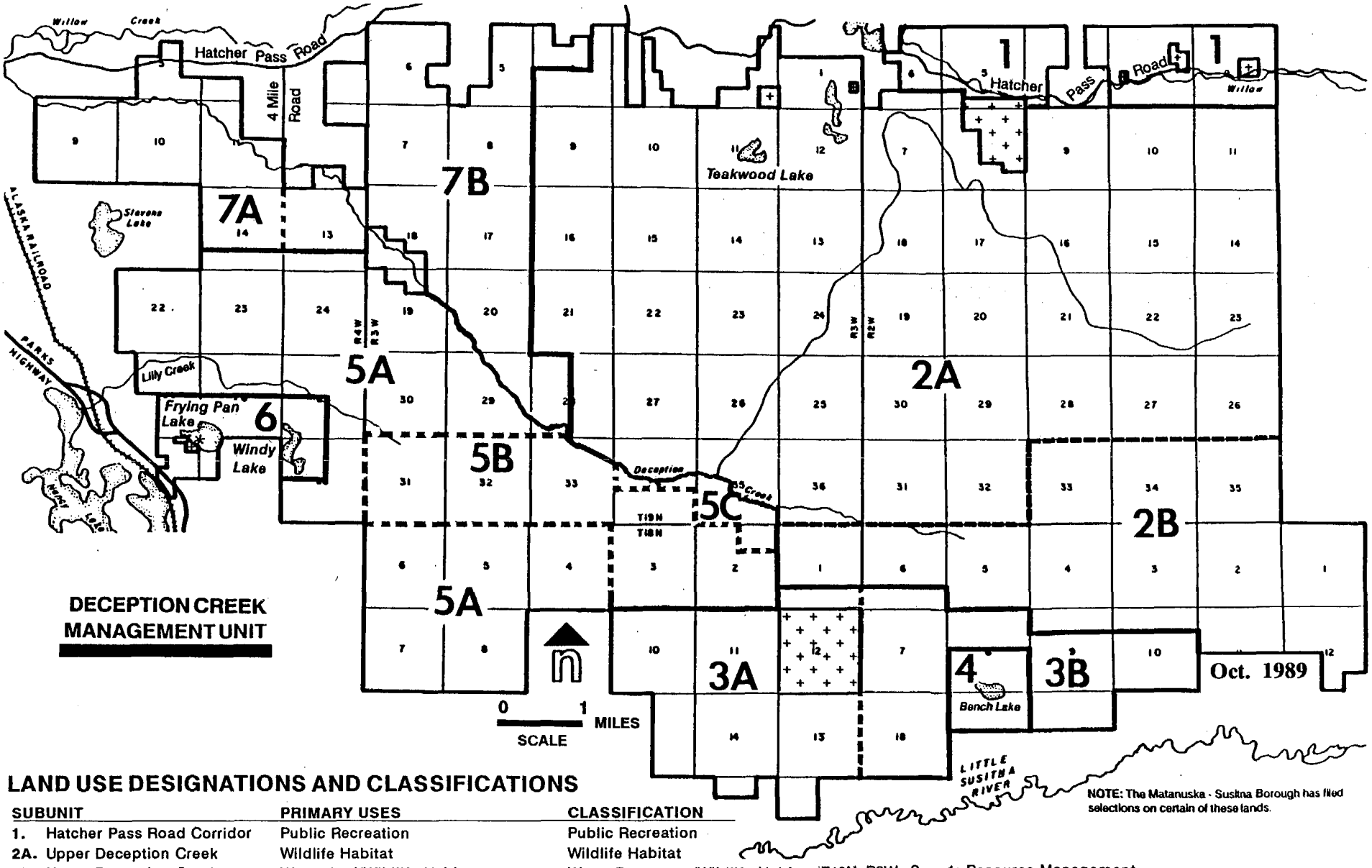
Mining

Most of the management unit will be reopened to mineral entry under leasehold except for the capital city core development area (subunits 5A, 5B, 5C, and 6); Deception Creek and its tributaries; corridors along other anadromous streams and around anadromous lakes; a stretch along Willow Creek for a public gold panning area; and the Hatcher Pass Road right-of-way. These areas will remain closed to new locatable mineral entry.

Borough Selections

This plan does not address whether lands selected by the Matanuska-Susitna Borough should be approved. The borough is interested in maintaining both its selections and its nominations within the unit. The plan recognizes borough interest areas (lands where the borough believes it has valid selections) and calls for classifying them either Resource Management or Public Recreation, both of which are selectable, conveyable categories under AS 29.65. (See Introduction for further explanation.) The plan also identifies primary uses on these lands and sets out how the state will manage them until a decision is made on their ownership. Prior to authorizing uses on these lands, DNR will consult with the borough.

More detailed management intent is given for each subunit following the unit wide management guidelines.



NOTE: The Matanuska - Susitna Borough has filed selections on certain of these lands.

LAND USE DESIGNATIONS AND CLASSIFICATIONS

SUBUNIT	PRIMARY USES	CLASSIFICATION
1. Hatcher Pass Road Corridor	Public Recreation	Public Recreation
2A. Upper Deception Creek	Wildlife Habitat	Wildlife Habitat
2B. Upper Deception Creek	Watershed/Wildlife Habitat	Water Resources/Wildlife Habitat; T18N, R3W Sec. 1: Resource Management
3A. South Slope	Forestry/Watershed/Wildlife Habitat	Resource Management
3B. South Slope	Forestry/Watershed/Wildlife Habitat	Forestry/Water Resources/Wildlife Habitat
4. Bench Lake	Forestry/Public Recreation/ Watershed/Wildlife Habitat	Public Recreation/Water Resources/ Wildlife Habitat
5A. Middle Deception Creek	Forestry/Watershed	Resource Management
5B. Middle Deception Creek	Forestry/Watershed/Wildlife Habitat	Resource Management
5C. Middle Deception Creek	Wildlife Habitat	Resource Management
6. Frying Pan Lake	Forestry/Public Recreation/Watershed	Public Recreation/Resource Management
7A. Lower Deception Creek	Forestry	Resource Management
7B. Lower Deception Creek	Forestry	Forest Land

Private, university, or borough land

2.3 acre parcel of state land on Frying Pan Lake

B. UNIT WIDE MANAGEMENT GUIDELINES

These unit wide management guidelines were, in most cases, adapted from the management guidelines in the *Hatcher Pass* or *Matanuska Valley Moose Range Management Plans.* The guidelines in the *Moose Range* and *Hatcher Pass Plans* are in some cases more restrictive than those in the *Susitna Area Plan.* In the Moose Range this is because it is a legislatively designated area. The Hatcher Pass Management Plan guidelines are more restrictive because of its high recreation values. The Deception Creek management unit has many similarities to the Moose Range and Hatcher Pass units: all three are part of the hillside overlooking the Matanuska valley and are used by Valley residents for recreation (including hunting); the Hatcher Pass and Deception Creek units share the scenic Hatcher Pass Road; below timberline, the mix of forest and wildlife resources is similar to the Moose Range; above timber line, the wildlife resources in the Deception Creek unit are similar to the Willow Mountain subunit in Hatcher Pass.

The more restrictive guidelines of the Hatcher Pass Management Plan are appropriate for the Deception Creek unit at this time because of the intent of this plan to preserve the option to use this unit or a portion of it for a capital city or other major development. When this plan is revised, the unitwide guidelines should be reevaluated to determine if they are still appropriate.

The management guidelines of the *Susitna Area Plan* also apply to this management unit unless otherwise indicated.

FISH AND WILDLIFE GUIDELINES

1. In order to protect wildlife and provide both consumptive and nonconsumptive recreational opportunities related to wildlife, the Department of Natural Resources and the Alaska Department of Fish and Game (ADF&G) will take the following steps:

   a. **Managing Wildlife Habitat** Management of wildlife habitat is primarily addressed under such other sections as grazing, forestry, and subsurface. In addition, special wildlife habitat features should be preserved where possible, such as snags, beaver ponds/waterways, naturally occurring mineral licks, raptors nest trees, fish and wildlife breeding and seasonal concentration areas, and transition zones. This guideline applies generally to the entire management unit, but the emphasis for implementation of this guideline will be in those subunits where wildlife habitat is a primary use.

   b. **Protect Important Areas** Disturbance/development in fish and wildlife nesting, calving, spawning and other birthing and rearing areas will be limited by Title 16 of the Alaska Statutes, other statutes and regulations, and the guidelines within this plan.

2. **Locations of Habitat Enhancement Activities**

   a. **Utilize Existing Roads** Because enhancement activities are expected to be based primarily on timber harvests, the locations of these activities in the near term generally will be in areas with sufficient road access to permit timber harvests. Habitat enhancement activities may take place in the future, in other areas, as access becomes available.

   b. **Areas Without Roads** Enhancement activities may also occur in areas without roads by utilizing existing trail systems and aircraft (helicopters) as necessary to maintain wildlife species.

   c. **Grazing Permits** Moose habitat enhancement activities may be conducted on grazing permit areas upon a 30-day notice to the permittee.

3. **Habitat Enhancement Methods** Specific habitat enhancement methods should be determined through consideration of their cost effectiveness, browse production capabilities, and impact on goals for other resources. In addition to timber harvests (see Forestry guidelines), the following methods may be applied.

   a. **Grazing** Carefully managed intensive grazing is, at this time, an unproven habitat enhancement technique that may improve moose habitat in areas where the growth of browse species is limited by rapidly growing bluejoint reedgrass. Research pilot projects will be conducted at the request of the Alaska Department of Fish and Game to determine if using intensive grazing as an enhancement method will reduce competitive grasses.

b. **Burning** Controlled burning may be used as a means of manipulating vegetation as a method of site preparation, and/or as a means of slash disposal. Guidelines for burning of timber apply to burning for enhancement.

c. **Heliotorch** Aerial habitat enhancement techniques including the use of the heliotorch may be used in areas without roads.

d. **Mechanical Crushing/Hydro-axing** Mechanical crushing, hydro-axing, or chain-saw thinning may be used independently or in conjunction with other methods to manipulate vegetation changes. These methods will be used only where salvage of forest products is not feasible.

FORESTRY GUIDELINES

FORESTRY GUIDELINES THAT APPLY FOR DURATION OF PLAN

1. TIMBER HARVEST METHODS

a. **Timber Harvest and Wildlife Enhancement** Where feasible and prudent, timber harvest will be done in a manner that enhances wildlife habitat. Moose habitat is the priority for enhancement activities because this is one of the six most important moose areas in the Susitna Basin. Habitat enhancement activities for fish and/or wildlife species other than moose shall occur when biological and/or population statistics indicate that improvements in survival, reproduction, and/or population numbers may be significantly improved through habitat enhancement/rehabilitation activities.

b. **Areas Where Timber Harvest/Habitat Enhancement Activities will be Limited**

(1) **Subunit 2 and 5C** No timber harvest activities shall occur in subunit 2A, 2B, and 5C unless specifically requested and/or approved by the Alaska Department of Fish and Game except as provided in the guidelines for these subunits.

(2) **Scenic Areas** Timber cuts in areas visible from the Hatcher Pass Road will be designed to minimize visual impact wherever possible.

2. TERM AND TYPE OF TIMBER SALE

The timber in this management unit that is available for timber harvest will be managed for small commercial sales; each sale would generally be 200,000 to 300,000 board feet (30 to 45 acres) up to a maximum of 1.5 million board feet (approximately 215 acres, this would generally be divided into blocks of 40 to 50 acre cutting units). The length of sales will generally be 3 to 5 years. Any sale between 6 and 10 years in length must be reviewed by the Matanuska-Susitna Borough and agreed to by the Division of Land and Water Management to ensure that the sale does not preclude other uses of the unit. No sale will exceed 10 years in length, and a 10-year sale may not be done any later than three years after the adoption of this plan. However a 5-year sale is allowed as long as 8 years from the adoption of this plan if the agencies agree that it is appropriate, i.e., will not block some other major use. (See subunit 5 for description of sales proposed during the next six years.)

INTERIM FORESTRY GUIDELINES

These guidelines will be superceded by the *Susitna Regional Forest Plan* guidelines when that plan is adopted.

1. TIMBER MANAGEMENT METHODS

a. Areas Where Timber Harvest Activities will be Limited

(1) **Timber Harvest Buffers** Timber harvest buffers will be laid out in the field during the actual sale design and will be based upon the following guidelines:

(a) **Buffers Around Cutting Units** Cutting units should generally be surrounded by a 100-foot buffer unless such a buffer is detrimental to wildlife or their habitat or unnecessary as a screen between the cutting area and most users of the area. Required buffers may be increased or decreased based on specific summer line-of-sight requirements necessary to maintain a natural-looking environment and to provide for restricted views from one cutting unit to another cutting unit. Prevention of windthrow should also be considered in determining buffer width. No more than 300 feet will be required between harvest units although on occasion more will be left.

(b) **Eagle and Peregrine Falcon Protection Buffers** Eagle nests trees and Peregrine Falcon nests shall be protected as required by federal law. There will be no disturbance of natural vegetation within a 330' radius around any eagle or Peregrine Falcon nesting tree and/or nesting site.

(c) **Activities Allowed in Timber Harvest/Habitat Enhancement Buffers**

* Selective-tree cutting.
* Disease and insect control and prevention with pesticides and herbicides subject to Department of Environmental Conservation regulations and the guidelines of this plan.
* Grazing, consistent with the grazing guidelines in this chapter.
* Access and utility line development across buffer areas should be kept to a minimum. Access and utility facilities should be located
  - outside of buffers to the extent feasible and prudent,
  - perpendicular to buffers, upon entering the buffer, to the extent feasible and prudent,
  - so as to reduce visual impacts from primary access routes,
  - and require consultation with ADF&G if they cross or are located within buffers.

(d) See also guidelines for lakeshores and stream corridors in this section.

(2) **Other Unique Habitat and/or Plant Communities** Timber harvest shall be restricted in certain limited areas with unusual habitats. Examples include isolated stands of over-mature timber valuable for tree-hole-nesting bird life and other wildlife species or plant species such as Calypso orchid habitats. Interagency review will be required prior to resource development in the area of rare or endangered species if identified in the future.

(3) **Slope Restrictions** Special consideration will be given to any timber harvest/habitat enhancement projects on slopes exceeding 40 percent. Mechanical scarification is discouraged where slope is greater than 40 percent. Research projects on contoured mechanical scarification are allowed. The findings may increase the acceptable slope for scarification applications.

(4) **Areas with Heritage Resources** The Division of Forestry (DOF) will make every effort to protect heritage resources and to notify the Division of Parks and Outdoor Recreation (DOPOR) if any are found. Timber harvest will not be allowed in areas of known and recorded Alaska Heritage Resources until DOPOR has approved the method for protecting the heritage resource and given approval to proceed with timber harvest methods.

b. **Review of Timber Sales and Cutting Plans**

The Department of Natural Resources will include any proposed harvest in this management unit in its general five-year timber harvest schedule. This five-year schedule will be circulated for interagency review annually, at the time it is updated. In addition, prior to offering a particular sale, information on that sale will be circulated for interagency review and public notice as required by AS 38.05.945. Both documents will include the following information: a map of the proposed cutting areas, a legal description, volume to be cut, length of sale, access, and reforestation plans.

c. **Design of Timber Cuts**

(1) **Forest Clearing Size** The width of any harvest operation resulting in forest clearings shall be established by the Division of Forestry in consultation with the Alaska Department of Fish and Game. The Department of Natural Resources will consult with the Alaska Department of Fish and Game to design forest clearings that are appropriate for moose habitat enhancement consistent with other public benefits, including long term forest management. As a general guideline, large group selection cuts or clearcuts should not exceed 600 feet in width. The edge of these clearings may not exceed 1,000 feet without meandering. Cutting unit size will generally be 40 to 50 acres. No cutting unit resulting in a forest

clearing shall exceed 160 acres unless it can be demonstrated that the larger clearing will not have a significant adverse effect on wildlife. In making that determination, the Department of Natural Resources will consult with the Department of Fish and Game. In determining the shape of the clearcut, the prevailing wind direction will be considered. Topography, elevation, seed dispersion, sufficient area to ensure sun-warmed areas adequate to permit seed sprouting, and other on-site factors will be considered in determining forest clearing size.

(2) **Reforestation of Cuts** All harvested units shall be reforested.

(a) **Seed trees** The Division of Forestry shall identify the amount and location of birch seed trees that shall be left standing in timber cuts to produce seeds for birch reproduction.

(b) **Scarification** Scarification may be used to encourage regeneration. Scarification, the mechanical removal of the surface organic layer or the mixing of this layer with mineral soil, removes competitive plant species and allows seedlings to establish themselves.

(3) **Escape Cover** Wildlife require vegetated areas for escape cover. Escape cover shall be left on appropriate locations within each harvest unit. ADF&G, in consultation with DOF, will determine the necessary vegetation width for escape cover; however, no more than 300 feet shall be required.

d. **Erosion Control** Silvicultural operations and access development will be designed to minimize erosion.

e. **Burning** Controlled burning may be used as a means of manipulating vegetation as a method of site preparation and/or as a means of slash disposal.

(1) **Burning Prescription** All broadcast burning operations shall require preparation of a site-specific burning prescription and a burn plan. No broadcast burning will be conducted outside the area described in the burning prescription. Members of the public who will be affected by the burn will be contacted by DOF. The public and local community councils will receive written notice of burning activities when the Division of Forestry (DOF) prepares the burn plan. Signs will be posted on major roadways to notify the public of any ongoing controlled burning in process.

(2) **Burning Near Private Land** No broadcast burning operation will be conducted within 1,320 feet (¼ mile) of privately owned buildings or improvements and 1/8 mile of undeveloped private land.

(3) **Slash Disposal Burns** Slash disposal burns utilizing the pile and burn method will not require a burn plan except where the Area Forester determines this to be in the best interest of the State.

(4) **Heliotorch** A heliotorch may be used in roadless areas for controlled burning for regeneration or other silvicultural purposes. Use of a heliotorch requires a burn plan that is subject to review as described in (1) above.

f. **Pesticides and Herbicides** Pesticides and herbicides may be used when the Area Forester determines the use will benefit forest management efforts and meet the Department of Environmental Conservation (DEC) requirements. ADF&G and DEC will be consulted prior to the use of pesticides or herbicides.

(1) **Plan of Operations** Any use of pesticides and/or herbicides shall require a written plan of operations; that describes in detail the pesticides or herbicides to be used, the reasons for use, potential effect on humans, wildlife and vegetation types, the expected results, (the area the chemicals will be used in,) the method of application, and the application rates. In addition to this the plan shall describe how and when an evaluation of the effectiveness of the pesticide application will be prepared after the application.

(2) **Notice** Public notice must be given prior to the use of pesticides/herbicides and signs must be posted in areas where pesticides/herbicides have been used.

(3) **Application** Generally, pesticide/herbicide application will be done through ground application to remove grass. It is unlikely aerial application will be used. Aerial application may be used to prevent a large disease or insect outbreak. Pesticides and/or herbicides will not be applied within one-quarter mile of private dwellings, anadromous streams, and lakes with fishing or other recreational potential.

(4) **Evaluation** After pesticide/herbicide application, an evaluation of the effectiveness will be prepared.

g. **Mechanical Crushing/Hydro-axing** Mechanical crushing, hydro-axing, or chain-saw thinning may be used independently or in conjunction with other methods to manipulate vegetation changes as a method of pre-commercial stand management. These methods will be used only where salvage of forest products is not feasible.

GRAZING GUIDELINES

Grazing is designated as a secondary use in the southern portion of subunit 5A and is an allowed use everywhere else within the Deception Creek Management Unit except in subunits 2A, 2B, and 5C. Grazing will be allowed under permits only except in the southern portion of subunit 5A where leases are allowed. See further information on grazing in those subunits in Chapter III. Also see discussion of grazing under Management Intent in Section A of this chapter. These guidelines replace those in the *Susitna Area Plan* (SAP) except for SAP guideline number 3 relating to multiple use management of grazing lands. A range management plan is not required prior to issuing grazing permits in this unit unless, as a result of a range survey and/or increased demand, it appears that grazing is likely to be a significant widespread use within this unit.

1. AUTHORIZATION REQUIREMENTS

a. **Permit Required** All grazing of domestic livestock on all state lands not now under permit or lease shall be authorized by a permit. Permits would not be required for incidental grazing use that is generally permitted on state land such as horse travel. Leases are allowed in subunit 5A.

b. **Term of Permits**

(1) **Policy for term of permits**

Permits (1 to 5 years) may be issued wherever grazing is not prohibited as long as they do not adversely affect fish and wildlife.

(2) Criteria to be used to determine whether a permit is appropriate are listed below. No criteria should be used exclusively; rather, all the criteria should be considered collectively.

CRITERIA FOR DETERMINING IF A PERMIT IS APPROPRIATE

(a) Small numbers of animals, generally 25 or less.
(b) Non-commercial domestic animals.
(c) Specific area considerations.
* Small areas.
* Short grazing period requirements.
* Few range improvements needed.
* Site specific benefits, e.g., research with intensive grazing to determine if it results in reduction of grass competition with other moose browse species.

c. **Permit Requirements** Prior to issuance of a grazing permit, the following conditions must be met:

(1) A grazing operation plan will be completed by the permittee with assistance from the Soil Conservation Service (SCS), the Alaska Department of Fish and Game, the Division of Agriculture, and the Division of Land and Water Management. (Note: SCS participates only if the permittee is a district cooperator and requests assistance. DNR must consult ADF&G before approving the grazing operation plan and issuing the grazing permit. The intent is that ADF&G's comments be given particular weight in areas where wildlife habitat is a primary use.)

(2) The grazing operation plan will be made a part of the grazing permit.

d. **Grazing Operation Plans** Grazing operation plans for permits will include the elements listed below. Grazing operation plans may be revised annually to allow changes in stocking rates, improvements, etc., as indicated by range conditions and trend information.

(1) SCS range survey data or sufficient on-site range inspection by DNR, ADF&G, SCS and the applicant to verify existing range conditions.

(2) Range conservation practices, including but not limited to:
- grazing system
- use guidelines
- stocking rates
- seasons of use

(3) Range improvements to be required.

(4) Monitoring system to be used.

(5) Location and legal description.

(6) Maps
- range site map
- range improvements

(7) Any proposed artificial modification of natural vegetation (e.g. clearing, burning, crushing, seeding, etc).

e. **Common Use Areas** A grazing operations plan is required for common use areas. Common use areas are encouraged in order to fully utilize the range resource and to reduce fencing and facility requirements.

f. **Public Access** Public access to state lands is not to be restricted by a grazing permittee.

g. **Termination of Grazing Privileges** Failure to comply with permit terms shall result in termination of all grazing privileges.

h. **Conservation Agreement** If the permittee unilaterally cancels the "Conservation Agreement" with the DNR Soil and Water Conservation District, the permit will be subject to termination.

i. **Examination for Disease** Prior to placing stock on the permit area, all livestock shall be examined by a state licensed large animal veterinarian for the diseases and parasites identified in Table 3 (see Appendix IV). All livestock shall be free of visible symptoms of any contagious/infectious disease parasites prior to releasing them in the unit. Livestock found to carry an infectious/contagious disease will be restricted from placement in the unit for a 60-day period to allow for treatment and re-testing by a licensed veterinarian. (Note: Imported feeder cattle are exempt from the BRT test. Therefore, by state law they are restricted to the owner's property, and may not be put on public range land.)

j. **Parasite Treatment** All livestock shall be treated for and be free of ectoparasites and endoparasites by using standard treatments and acceptable drugs prior to release in the unit.

k. **Notification** DNR shall be formally notified by the permittee a minimum of 48 hours prior to the release of livestock on state lands. The notification shall include:

   (1) The number and type of livestock to be released;

   (2) Doctor of Veterinary Medicine certification that the livestock have been inspected for infectious diseases that are a threat to wildlife and are found by visual examination to be free of infectious and contagious diseases, ecto- and endoparasites.

l. **Overutilization of Moose Browse Species** Stock shall be removed from that portion of the management unit where the annual production of moose forage species (willow, aspen, and birch) has been determined by SCS and ADF&G to be overutilized. (Overutilization is considered to have occurred if approximately ten percent (10%) of the existing annual growth has been consumed over what the moose normally consume annually.)

2. RANGE CONSERVATION PRACTICES

a. **Forage Utilization** Utilization of key species (Blue joint and fescues) shall be limited to no more than 30 percent of the annual forage production of those species. Modification of this guideline may occur as a result of range condition, trend studies, and utilization checks if those studies or checks prove a higher utilization will be beneficial for forage production without adverse effect on wildlife habitat. Modification may also be authorized if higher utilization is desired for wildlife habitat enhancement or recreation management reasons. Consultation with ADF&G is necessary prior to modification of the 30 percent utilization guideline.

b. **Grazing Systems**

(1) Where season-long grazing occurs, utilization shall be no more than approximately 40 percent of the allowable forage during any given 30-day period.

(2) Other systems may be developed as a result of research and utilized if approved by the ADF&G and DNR (Division of Agriculture).

(3) A multiple-pasture (rotational) grazing system is generally preferred for areas where grazing is expected to be a continuing use.

c. **Stocking Rates** Initial stocking rates will be determined using range survey data as a general guide. Modification of the stocking rates may occur as a result of changes identified from conducting annual utilization checks or identifying changes in condition and trend.

d. **Monitoring** The DNR or its qualified designee shall monitor grazing operations by conducting timely seasonal range condition, trend, and utilization surveys to ensure that overgrazing and environmental degradation does not occur and that recommended stocking rates and densities are followed. Survey findings shall be reported to the permittee, Division of Agriculture (DOA), Division of Land and Water Management (DLWM) and ADF&G.

If environmental degradation is found to be caused by livestock activities, the grazing operation plan and livestock activities shall be modified to eliminate the undesirable action. Any restoration or rehabilitation needed as a result of overgrazing must be approved by DNR and ADF&G.

e. **Changes** Stocking rates, densities, length of season, and percent of forage utilization levels may change as a result of research activities sanctioned by the DLWM, Division of Agriculture (DOA) and ADF&G and conducted in cooperation with the ADF&G.

f. **Riparian Zones** Riparian zones will be recognized as special treatment areas when developing the grazing operation plan. See definition of riparian zones in the Glossary (Appendix 1).

g. **Waterbodies** The grazing operation plans will identify waterbodies to be given special consideration. These include, but are not limited to, all streams and lakes shown on the U.S.G.S. 1:63,360 topographic maps.

h. **Access to Certain Identified Waters** Livestock shall be prevented from having open access to certain streams and riparian habitat identified by DNR and ADF&G and noted in the grazing operation plan. Some or all of these riparian zones may be identified as threatened by DNR and ADF&G. Buffers will be established to protect the threatened riparian zones; the buffers will be at least 100-feet wide on each side of the waterbody above the ordinary high water mark. There will be no grazing allowed in these buffers. The grazing operation plan will identify those riparian zones to which this applies. Livestock may have access to these streams at predesignated fenced watering areas if no other water sources are readily available.

i. **Salting** Salting may be used to disperse concentrations of livestock use.

3. **SEASON OF USE**

a. **Range Readiness** Stocking the range shall not occur before Blue Joint (Calamagrostis spp.) grass reaches four to eight inches in height. A determination on range readiness shall be made by Alaska Department of Natural Resources (DNR). Key locations to determine range readiness shall be established where grass growth can be determined. The Soil Conservation Service (SCS) in cooperation with the DNR shall assist in making the determination on how and where these plots shall be established.

b. **Maximum Grazing Period** The maximum grazing period in any one grazing season is 75 days.

c. **Stock Removal Date** Stock removal dates will be specified in each permit. Generally all stock shall be removed from the range two weeks prior to moose hunting season or August 31, whichever comes first. However, in some cases the grazing period and stock removal date may be extended depending on the individual grazing operation plans, current utilization checks, and ADF&G approval. In some cases a date earlier than August 31 may be specified.

4. **WILDLIFE**

a. **Brown Bear** Livestock shall not be grazed in areas determined by ADF&G to have spring, summer, or fall concentrations of brown bear.

b. **Moose** Livestock shall not be grazed in areas having high concentrations of moose in either summer or winter unless it can be demonstrated by the research recommended in guideline number 6 that grazing will not have a negative effect on the moose.

c. **Browse Species Conservation** Browse species will be conserved for primary use by wildlife through selection of areas and season of use guidelines.

d. **Livestock Predation** Grazing conducted in known or suspected predator range (wolf or bear) is done at the permittee's own risk. The ADF&G will not conduct predator control activities for the purpose of reducing livestock losses due to predators and will not be responsible for any losses to livestock. Permittees should be advised to comply with regulation 5 AAC 92.410, "Taking Game in Defense of Life or Property."

e. See Fish and Wildlife guideline number 2c.

5. **RANGE IMPROVEMENTS**

a. **Approval** All range improvements must be approved as a part of the grazing operation plan and permit agreement.

b. **Facilities** No permanent facilities will be authorized as a part of a grazing permit.

c. **Fencing** Fencing plans should be specified in the grazing operation plan after consultation with ADF&G and DNR during the grazing operation plan development or amendment process.

d. **Interim Fencing Guidelines** ADF&G and DNR will develop a permanent fencing plan. In the interim, the guidelines below apply.

(1) A fencing plan shall be submitted for approval as part of a grazing operation plan. The fencing plan will address the following subjects:

* Type of fencing.
* Construction specifications
* Purpose of fencing (e.g. confine livestock, exclude livestock, sub-divide grazing land).
* Location of fencing.
* Fence management.
  - Drop down areas/requirements
  - Intersections with recreation trails/roads
  - Maintenance
  - Permanent nature of fence

(2) Fences shall to the extent feasible and prudent be located and constructed so as to permit passage by moose through an area while reducing to the minimum the potential injury to moose.

(3) To this end, ADF&G recommends that barbed wire will not be used for wire fences. The fence height and spacing of wires will be such that potential injury to moose is minimized and passage of adults and juveniles is maximized. (Specific guidelines for fence height and wire spacing will be developed.) One; two; or three-wire electrified fencing is acceptable.

(4) Fence construction should be designed so as to allow dropping the fence to the ground if necessary at the end of the grazing season in areas of intensive recreational use, established wildlife travel patterns, and/or areas of heavy snow accumulation.

(5) Fence construction will provide for easy passage of people where recreation trails and fences intersect. Foot traffic can be accommodated by pass-throughs or stile construction. Off-road vehicle or snow machine traffic on trail/fence intersections will be accommodated by cattle guards or similar devices to allow safe off-road vehicle passage.

(6) Fence lines should be cleared of any obstructions prior to construction so as to allow the fence to be clearly visible by animals and people. Such clearing will be maintained for the life of the fence.

(7) Fences should be constructed and maintained so the top wire is made highly visible by use of "poly tape" or other sight barrier material.

(8) An alternative permanent fencing method for known moose migration routes may be pole fencing. Sections of pole fencing across known moose trails should be tested as an alternative fencing method to wire fencing.

(9) All materials used in the construction of fences shall have a minimum life expectancy of 15 years or the length of the permit.

e. **Effect on Wildlife** To the extent feasible and prudent, fencing will be designed, constructed, and maintained so as to reduce the adverse effect on wildlife populations or hunting, trapping, and other recreational use. In selected wildlife or recreational areas, some fences will be removed or dropped to the ground at the end of that season's use. ADF&G should be consulted on fencing options.

f. **Removal at End of Permit** Facilities and fencing will be removed at the end of the grazing permit period if not renewed. The permittee's responsibilities for removal will be specified in the permit.

6. RESEARCH NEEDS

The following interactions between domestic animals and wildlife need field observations, scientific research, and documentation.

Grazing permittees should participate in the process of documenting the effects of grazing in their permit areas. DNR and ADF&G will identify a specific set of observations and documentation requirements for each permit site as a part of the permit.

Moose and livestock food habits and behavior are largely unknown in this management unit although Alaska Department of Fish and Game (ADF&G) is learning more about moose habitat distribution. In order to intensively manage moose, livestock, and vegetation in this area; research is needed on food habits, forage quantity and quality, plant tolerance to utilization, and habitat manipulation.

a. **Range Survey** Before this plan is revised, SCS should do a range survey in subunits 2A and 2B that is specific to this area and field verified. The survey will determine the location, quantity, and quality of the grasslands in this unit as well as the number of cattle the area will support.

b. **Food Habits and Behavior** Information is needed on the physical locations of moose year around and livestock grazing patterns in the summer. Food habits must be identified to determine which species to consider in available forage calculations. Moose are known to browse in both winter and summer and may also graze to some extent in the summer. Livestock are primarily grazers but are known to browse. No detailed food studies have been done in the area. Food items must be identified before one can determine how many animals a range will ultimately support. Information on livestock grazing patterns should be obtained from other areas and applied to this unit to the extent possible.

c. **Forage Quantity and Quality** The initial stocking rate of a range will be based on quantity of available forage and the nutritional value. At different times of the year lower nutritional levels may be acceptable while at other times, such as prior to calving, higher levels are needed. Before grazing is allowed, DNR will establish control plots within the area to be grazed. Condition and trend plots must also be established to monitor range condition, species composition, and nutrient production.

d. **Tolerance to Utilization** Most plants that are grazed or browsed require utilization to maintain productivity. However, too much can be harmful, and this varies by species. Conclusions from studies by ADF&G in the Kenai National Wildlife Refuge and by Chugach National Forest indicate that willow should not be browsed beyond a one-fourth-inch diameter. Sometimes grazing and browsing may change the vegetation composition in an area. This could be either beneficial or detrimental depending on management objectives. For instance, overgrazing grass would be harmful to the grass, but this may reduce competition for the woody species. Hence, browse and forest products may increase. Species specific studies are needed to determine the effects of livestock grazing on the main forage species.

e. **Habitat Manipulation** The Department of Natural Resources, Division of Forestry, in cooperation with ADF&G, is managing the firewood and commercial cutting in the southwest corner of the Matanuska Valley Moose Range to improve moose browse, to research regeneration of species, and to research cut area shape and size effects on moose. The major component of much of the understory is bluejoint reedgrass, a competitive grass with poor nutrient value at the end of the summer unless it has been grazed. Improvements following the cutting program could include revegetation with a less aggressive, more nutritional grass. Better range would be available and browse and wood products would be increased. An analysis is needed of the results of different cutting practices and regeneration techniques under a variety of physical conditions. Results of this study should be utilized to manage grazing within the Deception Creek Management Unit.

HERITAGE RESOURCES GUIDELINES

1. RESOURCE SURVEY

Cultural and historical values located in the Deception Creek Management Unit will be surveyed, assessed, and researched by DNR, funding permitting.

2. NEW DISCOVERIES

At any time when a cultural or historical resource is located through an administrative action, or by a member of the public, the Office of History and Archaeology, Division of Parks and Outdoor Recreation, DNR will be notified; and the site will be protected until an evaluation of the resource values can take place.

3. NATIONAL HISTORIC REGISTERS

Trails, structures, and other heritage resources determined by the state (DOPOR) to be significant and containing potential for qualifying on the National Register of Historic Places should be recommended for placement on the Register.

LAKESHORE AND STREAMS CORRIDOR GUIDELINES

Note: These guidelines are more restrictive than those normally found in area plans. They are based on guidelines in the Hatcher Pass Management Plan and have been adapted for this plan because the option to develop the unit as a capital site is retained for the interim life of the plan. Therefore, the option to develop an open space system with undisturbed vegetation is also important. This unit has many more lakes than Hatcher Pass; and, in the long run, parts of it are likely to be used for more intensive development. These guidelines should be reevaluated when the plan is revised and longer term uses are determined.

1. RIPARIAN ZONES

Any activity altering the habitat/vegetation within the riparian zone of anadromous fish streams shall require concurrence by the Department of Natural Resources and the Alaska Department of Fish and Game, subject to existing laws. The following activities require review and concurrence.

a. Road and trail construction
b. Habitat enhancement projects
c. Timber cutting
d. Material removal
e. Grazing

Where such activities occur within the Hatcher Pass Road right-of-way, the Department of Transportation and Public Facilities (DOT/PF) should consult with DNR and ADF&G prior to removal of vegetation except when such removal is done for purposes of routine road maintenance.

2. STREAM BUFFERS

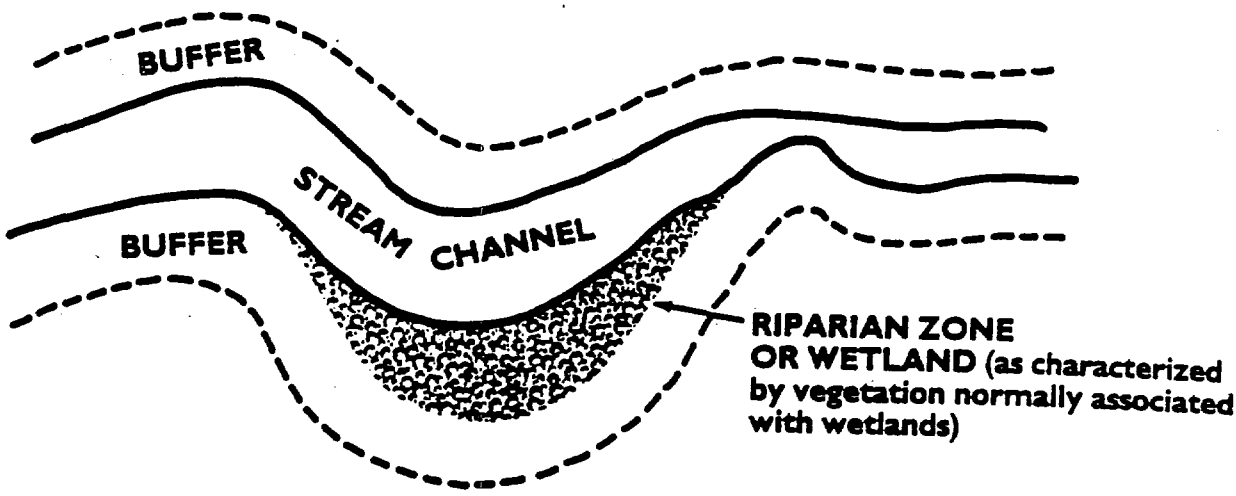
In order to protect water quality, riparian habitat, and recreation values, a buffer of essentially undisturbed land and vegetation shall be protected along the following streams (except as noted below within the Hatcher Pass Road right-of-way).

a. **Group I - Deception Creek, Lilly Creek, the outlet of Bench Lake, and the eastern creek in Section 16, T18N, R2W, S.M.** The buffer area shall be normally 200 feet on either side of the high water mark and shall include all streamside riparian vegetation zones

b. **Group II -** Other perennial streams identified on a U.S. Geological Survey 1: 63,360 topographic map or field verified by ADF&G and DNR; the buffer shall be 100-feet wide on either side of the high water mark and shall encompass the adjacent riparian vegetation zones. (See illustration in Figure 1.) However, where the Hatcher Pass Road right-of-way and the buffer along Willow Creek overlap, routine road maintenance may occur. For road realignment and reconstruction, DOT/PF should consult with DNR and ADF&G before removal of vegetation.

FIGURE 1

STREAM BUFFER ILLUSTRATION



c. **Buffer Adjustments**

(1) **Riparian Zone Less Than 100 Feet** The buffer width on Group II streams may be reduced to the width of the riparian zone or 50 feet, whichever is greater, if field verification by ADF&G and DNR concludes the riparian zone is less than 100-feet wide.

(2) **Slope Effects** Buffer widths on Group I and II streams should be adjusted to reduce potentially adverse impacts of development within sloping buffer areas. Buffer widths should follow the following table:

Average Side Slope	Buffer Width
0 - 20 %	SB
20 - 40%	SB + 25%
40% or greater	SB + 50%

SB = Standard buffer (Group 1 = 200' and Group II = 100')

(3) **Wind Effect** In forest harvest areas, riparian buffer widths should be widened as necessary to increase resistance to windthrow of the residual buffer trees in areas subject to strong winds.

d. **Activities Allowed in Group I and II Stream Buffers**
The following activities are allowed in stream buffers unless otherwise prohibited by this plan. Before these activities may occur in the buffers for Group 1 streams, they must be approved by the Alaska Department of Fish and Game.

(1) Selective-tree cutting as approved by the Division of Land and Water Management.

(2) Disease and insect control and prevention with pesticides and/or tree removal as approved by the Division of Land and Water Management and Division of Environmental Conservation.

(3) Grazing as approved by the Division of Land and Water Management, in consultation with the ADF&G and consistent with the grazing guidelines in this chapter.

(4) Picnic facilities, foot paths, parking, and other recreational developments for which no feasible alternative exists due to the location of access routes in stream valley floors. Such allowable recreational developments will be designed to prevent bank erosion, increased run off of water, and other negative impacts to anadromous fisheries.

(5) Road and trail access to and/or across streams for recreation, habitat enhancement, or forest operations as approved by DLWM.

(6) Access to and/or across streams for utility lines such as powerlines and waterlines, etc. Utility systems should not be located so that they parallel stream systems; rather they should cross streams in a perpendicular fashion to the extent feasible and prudent.

3. LAKE BUFFERS

a. **Lakes Less Than 5 Acres** Buffer widths for lakes 3 acres to 5 acres in size are set at 200 feet landward of the lake's high water mark.

b. **Lakes Between 6 and 100 Acres** Buffer widths for lakes 6 acres to 100 acres in size are set at 300 feet landward of the lake's high water mark.

c. **Lakes Over 100 Acres** Buffer widths for lakes exceeding 100 acres in size are set at 400 feet landward of the lake's high water mark.

d. **Side Slope Adjustment** Buffer widths for lakes should be adjusted to reduce potentially adverse impacts on wetlands from development on adjacent side slopes. Buffers should be the standard buffer width for side slopes of 0 - 20 percent, 25 percent additional buffer should be added to the normal buffer width for side slopes of 20 - 40 percent and 50 percent additional buffer should be added to the normal buffer width for side slopes of 40 percent or greater.

e. **Hatcher Pass Road** If a lake buffer overlaps with the Hatcher Pass Road right-of-way, routine road maintenance may occur. For road realignment and reconstruction, DOT/PF should consult with DNR and ADF&G before removal of vegetation.

f. **Allowable Activities** Activities allowed within lake buffers include items (1) through (5) under stream buffers. In addition, the activities listed below are allowed. If the lakes contain anadromous fish, ADF&G must approve these activities before they are allowed in the buffers around those lakes.

   (1) Access for development and utilization for sport fishing shall be an allowable activity within these buffers.

   (2) Access to lakes for utility lines such as powerlines and waterlines, etc. Utility systems should not be located so that they parallel lakeshores.

MATERIALS GUIDELINES

1. LOCATION OF MATERIALS SOURCES

The preferred order of the sources for the extraction of sand and gravel is listed below. This order was selected based on the other resources present and the sensitivity of those resources to the extraction of materials. Other criteria to be considered in making a final decision on the location of material sources are the location where the materials are to be used, other possible sources outside the unit, and the cost of transporting materials to the proposed development site from alternative sources. A final decision should be based on both costs and impacts on the environment and on proposed or existing uses.

a. Upland areas in subunit 7.
b. Inactive floodplain sites in subunit 7.
c. Subunit 3.
d. Subunit 1 and sections 1 and 2 of subunit 2 provided that sites are screened from the road and from recreational use areas within these units.
e. No gravel extraction is allowed in the remainder of subunit 2A or in subunits 2B or 5C, unless no feasible or prudent alternative exists. In that event, a bond will be required of the developer. The amount will be based on the project and will be adequate to repair disturbances created by mining.

2. SCREENING

A natural, topographic, or embankment screen sufficient to shield the material sites and equipment from the view of motorists traveling along the Hatcher Pass Road will be maintained.

3. ACCESS

The access road to a material site will be limited to 40 feet in width and, when practical, constructed with sufficient curvature to prevent direct view of the open excavation by the traveling public on the Hatcher Pass Road. To the extent practical, the material source should be located so that the access to it does not cross streams, wetlands, or other environmentally sensitive areas due to both the cost of constructions and the environmental impact.

4. STREAM CROSSINGS

See Transportation guideline number 3g.

5. **VEGETATION REMOVAL**

a. **Utilization of Timber** If there is sufficient volume, standing timber in areas to be excavated should be offered to the public. Trees less than five inches in diameter and brush should be buried or clipped and stockpiled within the site and later used for site rehabilitation.

b. **When and Where** Vegetation may be removed no more than one year before material site development. The area of vegetation removal will be for the immediate areas of the excavations, access, sites for overburden storage, material stockpiles, and equipment.

6. **REHABILITATION**

a. **Overburden** Stripped overburden will be stockpiled within the boundaries of each site. Upon completion of material excavation, the overburden that was temporarily stockpiled will be spread as evenly as possible across the floor of the pit.

b. **Revegetation Requirement** Material sites will be rehabilitated and revegetated when the project is completed or all desired materials are removed. The expense of the rehabilitation will be borne by the developer. DNR and ADF&G will determine specific rehabilitation requirements on a case-by-case basis.

c. **Slope Requirement** The sites will be excavated leaving side slopes of 2:1 or flatter, and all excavated surfaces dressed to relatively smooth contours for rehabilitation.

d. **Fisheries Enhancement** Material sites used for fisheries enhancement will be done in accordance with ADF&G recommendations.

7. **SITE MANAGEMENT**

a. **Material Stockpiles** Material stockpiles will be located within the excavated pit when there is adequate room to store them there.

b. **Equipment** Screen decks, crushers, and hot mix plants should be located within the pit when feasible. Hot mix plants should not be allowed near waters with fisheries values.

c. **Site Expansion** Excavated slopes suitable for future site expansion will be excavated leaving interim slopes of 2:1 or flatter, but will not be rehabilitated until site expansion is completed. Plans for expansion of material sites must be reviewed by DNR and ADF&G for compatibility with public use, scenic views, and wildlife habitat.

d. **Fuel Storage Facilities** Stationary fuel storage facilities must not be placed within the annual floodplain of a watercourse and should be located outside of stream/lake buffers. These must be contained or confined in a manner that would prevent any spillage from entering an adjacent waterbody.

e. **Fueling Activities** Fueling activities shall not be conducted within 100 feet of any lake, river, stream, drainage system, or on an annual floodplain of a watercourse. Such activities shall occur outside stream/lake buffers.

f. **Fuel Spills** Absorbent material in sufficient quantity to handle operational spills should be on hand at all times for use in the event of fuel spill. The mining plan may require this if the operation is of sufficient size and duration.

g. **Permanent structures** Permanent structures are prohibited.

8. BEST MANAGEMENT PRACTICES

ADF&G will utilize its manual, *Best Management Practices for Placer Mining,* in issuing its own Title 16 permits and in its review of and development of recommendations for the plan of operations and miscellaneous land use permits for material extraction. Any recommendation by ADF&G for rejection or modification of a miscellaneous land use permit or a plan of operations for material extraction will be based on the *Best Management Practices.* (This document is available from the ADF&G Habitat Division in Anchorage, Palmer, or Fairbanks; local libraries; Division of Mining in Anchorage; and the Division of Land and Water Management Anchorage and Wasilla offices for anyone interested in referencing the document while designing a mining plan of operations.)

9. WATER QUALITY

Surface runoff from mining operations must be contained within the working site to prevent discharge to any adjacent surface waters. Any discharge that does occur must meet the Alaska Water Quality Standards and may require an EPA, National Pollution Discharge Elimination System, or DEC wastewater discharge permit.

10. WATER BODIES AND RIPARIAN HABITAT

a. **Water Body Requirements** There shall be no gravel removed below the active water table or within 50 feet of a waterbody unless material extraction is part of a fishery enhancement project and approved as an exception to Groups I and II stream buffer requirements. Fifty feet is a minimum; a greater distance may be specified where necessary due to site conditions. Vegetation will not be disturbed within this buffer zone unless approved by ADF&G.

b. **Shallow, Even Removal** Gravel shall be removed in shallow, even lifts so as not to create any pits or depressions that could entrap fish after periods of high water.

c. **ADF&G Guidelines** Material sites used for fisheries enhancement will be done in accordance with ADF&G recommendations.

11. BUILDING STONE

Applications to quarry building stone in commercial quantities within the management unit will be considered on a case-by-case basis. Rock quarry operations will be subject to the applicable guidelines for the mining of sand and gravel as well as other applicable guidelines in this chapter.

PUBLIC AND COMMERCIAL RECREATION GUIDELINES

1. PUBLIC FACILITY DEVELOPMENT

a. **Location of Facilities** There is expected to be minimal development of public facilities in this management unit during the life of this plan (prior to revision of the plan for the Deception Creek management unit) with the possible exception of trailheads and parking areas. Any development of public recreation facilities on state land will be limited to areas outside subunits 2A, 2B and 5C, with the possible exceptions of the Deception Creek corridor and trailhead development. ADF&G will be given the opportunity to review and comment on any proposed development of a public facility to ensure that the development does not jeopardize existing hunting and trapping use of the area.

b. **Picnic and Campsites** Picnic areas and campsites will be located off the Hatcher Pass Road in areas out of view of the road where possible. To protect the scenic quality, a spur road with suitable signs will direct the traveler to the site.

c. **Parking Areas** Parking areas will be located out of view of the Hatcher Pass Road where possible. Trees or contours (either natural or artificial) should be used for screening. Use of boulders or planted vegetation may be appropriate at some sites.

2. COMMERCIAL AND NON-COMMERCIAL DEVELOPMENT

a. **Authorization Criteria** Permit or lease applications for the use of state lands for commercial or other private sector recreational purposes will be evaluated on a case-by-case basis. Permits or leases will be issued only if they are consistent with the management intent for this management unit, will not have an unacceptable adverse impact on other uses, wildlife and scenic values, and if they provide a clear public benefit. The overall management intent calls for interim uses of the management unit in order to preserve future options for its use. A short-term lease (e.g. five years) is more consistent with the interim intent than a 20-year lease. A proposed development outside the capital city core development area (subunits 5A, 5B, 5C and 6) and on the periphery of the management unit may not seriously affect future options for the site as a whole and therefore may not be inconsistent with the management intent. See subunit 1 for guidelines specific to that unit.

b. **Tourist Gold Panning Businesses** These are prohibited on Willow Creek and its tributaries in the near term. Reevaluate when the plan for this management unit is revised if there is a demand. Consider the results of such businesses in the Hatcher Pass Management Unit as part of the evaluation. In the event a site is offered, Hatcher Pass Management Plan guidelines (4)-(6), pages 137 and 138, apply.

SUBSURFACE GUIDELINES

1. MINERAL CLOSURES

a. The following areas will remain closed to new locatable mineral entry.

(1) The capital site core development area as identified in the capital site 1982 General Development Plan (subunits 5A, 5B, 5C, and 6):

T19N, R4W, SM: Sec 13 S1/2S1/2, Sec 14 S1/2S1/2, Sec 22-27 and Sec 34-36 (those portions within the Deception Creek management unit)

T19N, R3W, SM: south of Deception Creek

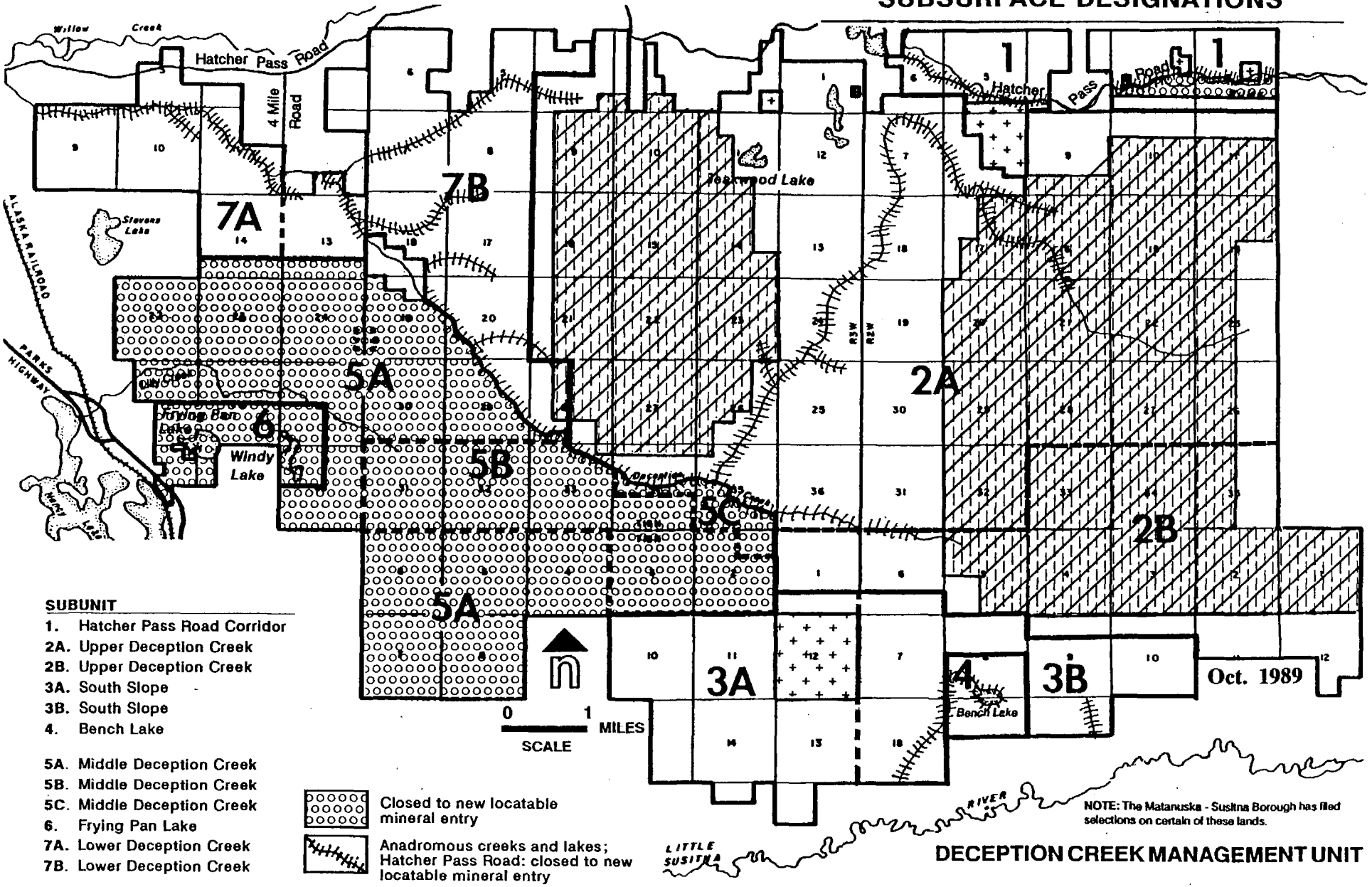
T18N, R3W, SM: Sec 2-8

The purpose of continuing to keep this portion of the original capital site closed to new locatable mineral entry is to protect the surface development potential of the site and preserve the option for a new city. Such uses constitute significant surface uses that would be incompatible with mining.

(2) The streambed of Deception Creek and its tributaries as shown on the Subsurface Designations map (between the ordinary high water marks on either side).

(3) The outlet of Bench Lake, the eastern stream in section 16, T18N, R2W, SM, and 200 feet above ordinary high water on both sides; and Bench Lake and a buffer 200 feet around it. (Closures are also justified for Frying Pan (Lynx) Lake, Windy (L) Lake and a 200-foot buffer around them; and Lilly Creek and 200 feet above ordinary high water on both sides of Lilly Creek; but they are already covered by inclusion within the core development area; if the closure of the core development area is lifted in the future, these three areas should remain closed.) The purpose of retaining these closures and the closure along Deception Creek and its tributaries is to protect the anadromous fish streams and areas and the recreational values of the river corridor. These constitute significant surface uses that would be incompatible with mining.

SUBSURFACE DESIGNATIONS



SUBUNIT

1. Hatcher Pass Road Corridor
2A. Upper Deception Creek
2B. Upper Deception Creek
3A. South Slope
3B. South Slope
4. Bench Lake

5A. Middle Deception Creek
5B. Middle Deception Creek
5C. Middle Deception Creek
6. Frying Pan Lake
7A. Lower Deception Creek
7B. Lower Deception Creek

Private, university, or borough land

* 2.3 acre parcel of state land on Frying Pan Lake

Closed to new locatable mineral entry

Anadromous creeks and lakes; Hatcher Pass Road: closed to new locatable mineral entry

Open to locatable mineral entry under leasehold

Areas open to locatable mineral entry under leasehold but subject to special guidelines

NOTE: The Matanuska - Susitna Borough has filed selections on certain of these lands.

DECEPTION CREEK MANAGEMENT UNIT

(4) Approximately 185 acres in sections 2 and 3, T19N, R2W, SM, south of the Hatcher Pass Road along Willow Creek. The purpose of this closure is to provide a location for public gold panning which would be incompatible with a private claim to the subsurface.

(5) The Hatcher Pass Road corridor right-of-way (100 feet on each side of the center line) in sections 2-6, T19N R2W.

b. Mineral licks sites will be closed case by case as they are identified and approved by ADF&G and DNR.

2. MINERAL LEASEHOLD

The balance of the Deception Creek Management Unit will be open to new mineral entry under leasehold.

3. APPROVALS FOR EXPLORATION AND MINING

a. **Miscellaneous Land use Permits** Under existing regulations, mining operations that will involve use of heavy equipment, disturb the riverbed, restrict public access, and/or involve building or using a surface structure require approval by the Division of Mining. Off-site operations (i.e. access) require the approval of DLWM. This approval is given by issuance of a Miscellaneous Land Use Permit except during the development phase of a mine that requires a lease. To simplify the permitting process, mine operators can file an Annual Mining Application which serves as a combined permit application for several agencies.

Data Needs The applications for Miscellaneous Land Use Permit will include, in addition to the standard Annual Mining Application questionnaire, sufficient explanation to show how the mine operator plans to comply with the plan guidelines for mineral development, rehabilitation of mine sites, and relationship to other resources (the scenic resources, cultural resources, and public access guidelines.) If the Annual Mining Application form is used, additional details may be attached on a separate sheet(s) as necessary.

Copies of the Annual Mining Applications and of the issued Miscellaneous Land Use Permits will be distributed to agencies that request copies.

b. **Plan of Operations for Mineral Leases** An approved plan of operations is required prior to mining. (On land subject to leasehold requirements, an approved plan of operations takes the place of the miscellaneous land use permit that would be required for unleased land.)

The plan of operations must show how the operator proposes to comply with the lease stipulations and other pertinent guidelines in this plan. It includes a reclamation plan.

Data Needs Plans of operation will follow existing regulations given in 11 AAC 86.800. In addition, the following information will be required:

(1) Justification for vegetation clearing.
(2) Clearly delineate proposed access roads within the lease or accessing the lease on a topographic map.
(3) Location, size and purpose of any proposed structures and, if applicable, description of how visual guidelines will be met.

c. **Approval of Plan of Operations and Miscellaneous Land Use Permits** DNR will approve plans of operation required for locatable mineral leases and Miscellaneous Land Use Permits if the plans or permit applications adequately address the guidelines of the applicable area plans and this plan, and DNR has consulted with and given careful consideration to the recommendations of ADF&G and the Department of Environmental Conservation. Violation of the plan of operations or Miscellaneous Land Use Permits is cause for enforced cessation of operations or termination of the lease, if, after a reasonable period of time, a negotiated solution cannot be reached with the operator, or in the event of repeated violations.

d. **Best Management Practices** ADF&G will utilize its manual, *Best Management Practices for Placer Mining,* in issuing its own Title 16 permits and its review of and recommendations for plans of operations and miscellaneous land use permits for mining and mining-related activities. Any recommendations by ADF&G for rejection or modifications of a miscellaneous land use permit or a plan of operations for placer mining will be based on Title 16 and the ADF&G *Best Management Practices.* (This document is available from ADF&G or DNR for reference to any miner interested in its use in designing the mining plans.)

4. MINERAL EXPLORATION AND DEVELOPMENT

a. Guidelines that Apply to Entire Management Unit

(1) **Roads** No roads shall be constructed for exploratory mining.

(2) **Validity Determination** In subunits 1, 2A, 2B, and 5C, prior to issuing a mining lease, DOM will do a validity determination if necessary to establish that there is a valid mineral discovery (however, lack of a validity determination may not be construed as proof that DNR considers a claim valid).

(3) **Permanent Structures** No permanent structures shall be constructed until a lease is granted and production occurs.

(4) **Removal of Vegetation** Vegetation may be removed no more than one year ahead of mining unless unusual circumstances exist. The area of vegetation removal will be for the immediate areas of the excavations, sites for overburden

storage, settling ponds, access roads, equipment storage, and other authorized structures. This must be outlined in the mining plan.

(5) **Tailings and Overburden** Overburden and tailings will be stockpiled and/or deposited in accordance with the plan of operations.

(6) **Control of Run-off, Siltation and/or Pollution** The area must be managed to minimize non-point sources of pollution.

(7) **Residential Use** Seasonal or year-round residential use on the mineral location or lease will not be allowed except where necessitated by the mining operation in the judgement of the Division of Mining. The intent is to prohibit use of mining locations or leases for homesites, non-mining related business or recreation sites.

b. **Special Guidelines that Apply to Area Shown on Subsurface Designations Map**

Note: The following guidelines apply to major portions of subunits 2A and 2B, a small part of subunit 7B, and a buffer 200 feet above ordinary high water along both sides of Deception Creek and its tributaries as depicted on the Subsurface Designations map. The reason for these special guidelines is the high wildlife values in these areas. The alternative that was considered was continuing to keep these areas closed to locatable mineral entry.

(1) **Inspection Prior to Detailed Exploration** Following preliminary exploration, an inspection of areas targeted for more detailed exploration is required to determine whether a Miscellaneous Land Use Permit (MLUP) shall be issued for detailed exploration activities. The inspection will be conducted by DLWM, DOM, and ADF&G representatives and expenses shall be paid by the miner.

(2) **Use of Heavy Equipment in Exploration** The use of heavy equipment shall be prohibited for exploratory mining purposes unless it is determined that use of such heavy equipment will not damage habitat (e.g., a drill flown in by helicopter).

(3) **Pre-development Inspection** Prior to issuing a lease, a pre-development inspection of the prospect site by DLWM, DOM and ADF&G representatives is required. Costs of this inspection shall be paid for by the miner. The purpose of this inspection is to evaluate the effects of the proposed mining operation on wildlife and wildlife habitat to determine what mitigation measures may be needed. On-site conferences should be held between the mine operator and DNR, ADF&G, and the Department of Environmental Conservation officials. The intent is to assist the mine operator in developing the operation in a manner that promotes compatibility with wildlife and recreational uses of the area.

(4) **Surface Disturbance Limitation** Surface disturbance by mining activities (including access) within the two large areas shown on the Subsurface Designations map as subject to special guidelines shall not exceed one percent (1%) of these areas, exclusive of the stream buffers. Surface disturbance by mining activities (including access) within the anadromous fish stream buffers shall not exceed 1 percent of the total area within the stream buffers. The remaining portions of these areas shall be closed to further mining activities and mineral entry when surface disturbances as a result of mining have reached the one percent (1%) maximum surface disturbance threshold. No additional MLUPs, mining leases, etc., shall be issued or authorized until the disturbed wildlife habitat lands have been rehabilitated as required by the reclamation plan.

(5) **Determination of Pre-development Conditions** Pre-development conditions and values for the habitat, wildlife use, and public use shall be determined prior to authorization of development. The cumulative value of the lost resource and its use will also be determined. These should either be done by the state, with costs paid by the applicant, or by the applicant in consultation with the Department of Fish and Game. In either case, DNR must approve the design of the evaluation and the scope of the evaluation must be appropriate to the scale of changes proposed.

(6) **Bonding** A third-party surety or performance bond shall be required of the miner, operator, or mining lease holder. The amount will be based on the project and will be adequate to repair disturbances created by mining. The bond shall be forfeit if the conditions of the mining lease and reclamation plan are violated by the mining lease holder or its employees. The bonding company is responsible for carrying out the requirements of the reclamation plan.

5. REHABILITATION OF MINING SITES

a. **Reclamation Plan Required** Reclamation plans will be required for mining activities authorized by a miscellaneous land use permit or a mining lease. The reclamation plan will address plant density, plant cover, and plant diversity. The reclamation plan is done and approved as part of the plan of operations.

b. **Phased Reclamation** Disturbed acreage should be kept to a reasonable minimum and reclaimed as phases of the mine operations are completed unless this is not feasible or prudent.

c. **Rehabilitation Requirements** The mining lease holder/operator shall be required to remove structures and to rehabilitate the mining site, road/roads and all other surface disturbance related to exploration, development and production when mining is completed. Disturbed areas will be reclaimed to a state which is equivalent to the pre-mining natural conditions; the reclamation will be monitored for five years to ensure that the revegetation is successful. The successful reclamation and monitoring

is the responsibility of the applicant. Excavated areas and waste disposal sites will be recontoured to a natural appearing shape at an average slope no steeper than 3:1 or equivalent to the original slope, topsoil replaced, and the area revegetated. ADF&G and the Division of Agriculture's Plant Materials Center should be consulted as to types of vegetation most conducive for returning the mined area to a state which approaches the "pre-mining" natural conditions. Use of native plant species is preferred. See discussion of revegetation in the Transportation and Access portion of this chapter.

6. RELATIONSHIP TO OTHER RESOURCES

a. **Scenic Resources** Special requirements will be included in leases for mines in areas visible from the Hatcher Pass Road. These requirements will be designed to minimize alteration of the appearance of the natural landscape as seen from the road. The requirements may address the location and type of structures, storage of equipment, removal of trash, and utilities. It is recognized that in many cases it will not be possible or feasible to hide mining operations from view of the road; the emphasis will be on screening or eliminating the storage of solid waste within view of the road.

b. **Cultural Resources** Mining will avoid areas with cultural resources to the extent possible. Where this is not possible, negative impacts will be minimized. If artifacts are discovered while mining, the discovery must be reported immediately to the Office of History and Archeology, Division of Parks and Outdoor Recreation. Work that would disturb the artifacts must be stopped until the State Historic Preservation Officer has given directions as to the preservation of the artifacts in accordance with AS 41.35.010.

c. **Public Access Across Mining Claims**

(1) Public access within an active mine area may be restricted only if authorized under an approved plan of operations or land use permit in order to protect public safety or to prevent unreasonable interference with the rights of the miner.

(2) "No trespass" signs may only be posted in the immediate working area or on storage buildings after access restrictions have been authorized by DNR. They must not be used to block or intimidate the public's use of legal access.

(3) Facilities will not be located where they would block public access to public waters or lands.

TRANSPORTATION AND ACCESS GUIDELINES

1. HATCHER PASS ROAD

a. **Degree of Improvement** The Hatcher Pass Road should be upgraded as outlined in the Hatcher Pass Plan. The road will be paved in this section only if the traffic volume is so high that the only feasible way to maintain the road is by paving it. The intent is to keep the road as a low-speed, scenic roadway.

b. **Pullouts and Parking Areas** Preliminary identification of parking areas (trail heads) has been made based on recreational uses and scenic qualities. These are located in subunit 1, in section 2 (m. 31, north side of road); sections 4 and 5 (north side); section 5 (north side); and section 6 (south side). See Hatcher Pass Management Plan, Map 12. Pullouts may be needed in addition. ADF&G, DOPOR, and DOT/PF will work cooperatively to designate the appropriate vehicle pullouts at locations determined to be good for wildlife viewing during any future reconstruction of the Hatcher Pass Road. The final decision on the location of any road turnouts or parking areas will be made after considering recreational use patterns, scenic views, cost, safety, and roadway geometrics. Pullout or parking areas should not be located where they create traffic safety problems.

c. **Design Considerations** All reconstruction and maintenance of the Hatcher Pass Road in sections 2-6, T19N, R2W, S.M. should be done in a manner that enhances or, at minimum, does not detract from the scenic views from the road. The following guidelines should be followed to the extent economically and physically feasible, given that the Hatcher Pass Road is an existing road. To achieve these standards, it may be necessary for DNR to provide an easement to allow sufficient room for cut and fill contouring. In steep portions of the road, safety considerations or low level funding may make following design standards infeasible.

(1) **Restoration of Adjacent Areas** After construction, the adjacent terrain should be restored to a natural appearing condition as similar to the original as possible.

(2) **Contour Grading Plan** The design of the roadway should follow the contour of the topography to the extent that the standards for recreational roads can be met. The intent is that the road should blend with the landscape.

(3) **Slope Molding** Excessive fill should be avoided to the extent possible by careful route location. Slope molding techniques should be incorporated to blend the cuts and fills into the adjacent landform. Examples include the following:

Cuts perpendicular to creeks or draws should be incised upstream to create a natural appearance along the confluence. Short ridges between draws may be elongated and rounded to a convex form according to the surrounding terrain. The appearance from the road should be as if the ridgeline curves and flows smoothly downward and connects with the draws as if naturally, rather than that of harsh vertical lines.

Knobs left on a downhill side of a road cut should be removed to accentuate desirable views or provide turnouts. Exceptions with particular visual interest may be considered.

(4) **Revegetation/Landscaping** Disturbed areas will be revegetated to provide soil and slope stability, improve the view, reduce maintenance, and provide food and cover for wildlife. See Appendix IV for details.

(5) **Clearing** Selective vegetative clearing and thinning should be implemented to reflect the vegetative patterns in the vicinity. At locations where the roadway slopes downward or curves to reveal a spectacular view, clearing may be practiced to provide viewing opportunities or to frame the overlook.

Thinning and clearing may also be practiced in communities where aboriginal species predominate, e.g., willow or alder. Selective clearing provides increased sunlight, decreased moisture, and conserves soils that would be lost if the area were clearcut and revegetation expenses eliminated.

(6) **Rock Cuts** Some slopes may require rock cuts. Blasting techniques should be used that expose natural rock fractures, display geologic history depicted by the existing strata and prevent vertical drill marks on the walls. Where rock cut is required at a draw or spring, the water feature should be accentuated; an example would be creating a waterfall design. Cuts exceeding 20 vertical feet should be created in staggered benches, sculptured similarly to the adjacent topography. The benches should be provided topsoil and seeded. To minimize the size and scale of the rock cuts, trees or shrubs may also be considered on the benches.

(7) **Erosion Control** Temporary or permanent erosion control practices should be required and should be designed to be pleasing to view. See Appendix IV for details.

(8) **Bridges** Bridges should be designed to match the character and contour of the topography. They should be consistent with the curvilinear design of the contour grading plan. Minimal ground disturbance should be emphasized. Fill should be used at a minimum to promote a spacious effect and provide anticipated viewing opportunities. Disturbed ground should be recontoured and revegetated similarly to that of the adjacent terrain.

2. TRAILS MANAGEMENT

a. **Parking** Developing public parking facilities is a priority before trails will be upgraded.

b. **Buffers** Recreational trails recognized by this plan will have a minimum 50 foot vegetated buffer on each side of the trail center line. The intent is to maintain a natural appearing landscape. This guideline should be reviewed at the time this plan is revised to determine whether a wider buffer is needed. That may be the case if it is decided that some of the land is not to be retained in public ownership or if the use of the trails increases. The trails to which this guideline applies:

Willow Creek Sled Trail
"Nike Site" Trail
Bench Lake Trail
Houston-Meadow Lakes Trail
Lloyd's Trapline and Dog Mushing Trail
Bald Mountain Trail

Activities allowed within trail buffers include the following:

(1) Disease and insect control and prevention with pesticides or selective tree cutting as approved by ADF&G, Division of Parks and Outdoor Recreation, DLWM and DEC and subject to the requirements of interim forestry guideline number 1 f (1)-(4).

(2) Other recreational trails may cross these trails and their buffers.

(3) Logging roads and utility lines may cross these trails and their buffers if no feasible and prudent alternative exists. Such crossing should be at 90° or as close to that as possible.

(4) Material sites solely for the purpose of maintaining the trail.

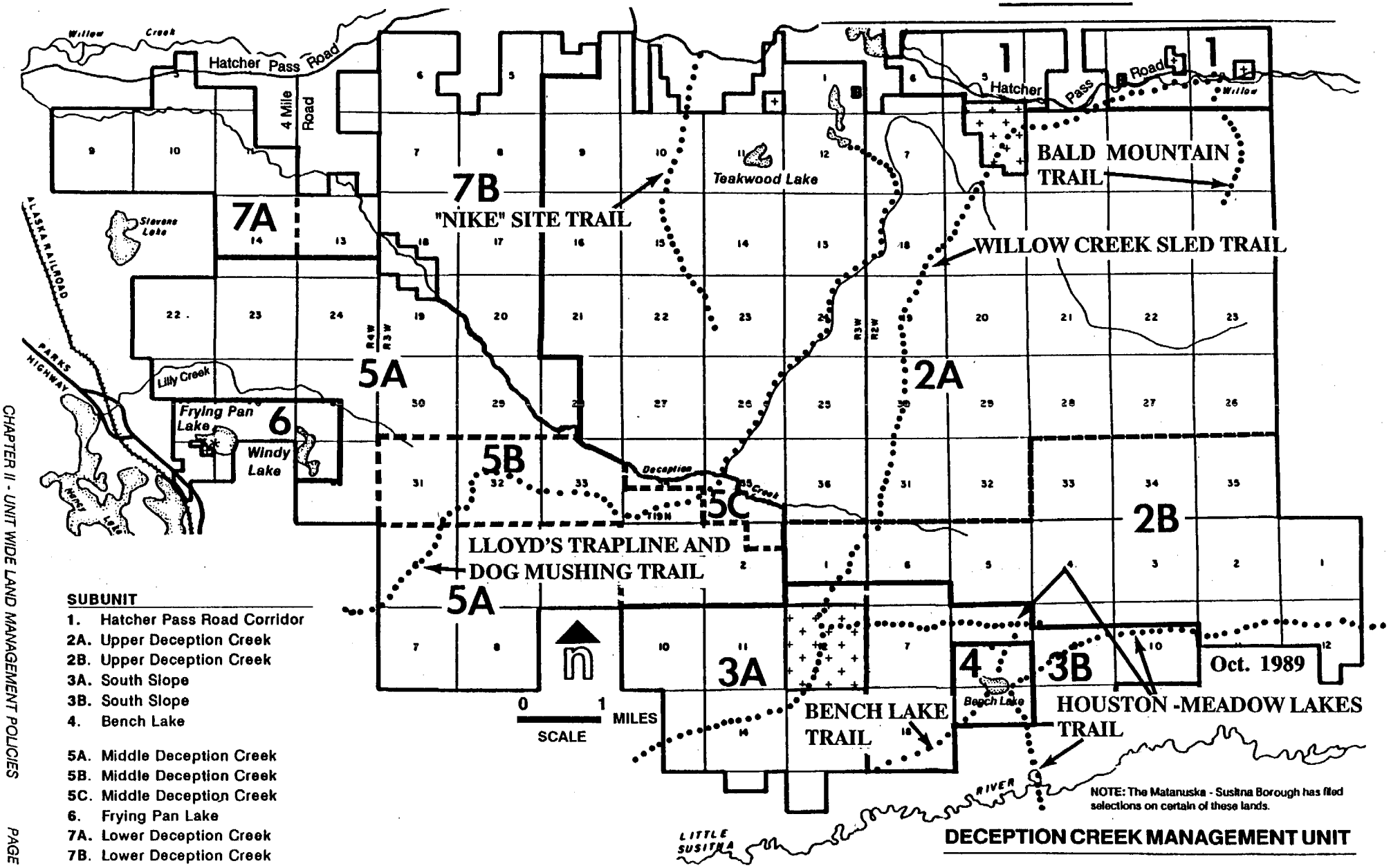
(5) Habitat enhancement activities that involve the conversion of brush are allowed.

(6) Selective tree cutting (single tree selection cuts) provided that it does not substantially alter the appearance of the woods from the perspective of the trail user.

(7) Grazing as approved by the Division of Land and Water Management, in consultation with ADF&G and the Division of Parks and Outdoor Recreation, and consistent with the grazing guidelines of this chapter.

(8) Recreational facilities associated with the trail. Exceptions may occur in special recreation use areas.

TRAILS



SUBUNIT

1. Hatcher Pass Road Corridor
2A. Upper Deception Creek
2B. Upper Deception Creek
3A. South Slope
3B. South Slope
4. Bench Lake

5A. Middle Deception Creek
5B. Middle Deception Creek
5C. Middle Deception Creek
6. Frying Pan Lake
7A. Lower Deception Creek
7B. Lower Deception Creek

Private, university, or borough land

2.3 acre parcel of state land on Frying Pan Lake

(9) Trail maintenance.

c. **Implementation of restrictions** Implementation of the plan's restrictions to the trails listed in guideline number 2b above will be through the local platting authority.

d. **Maintenance** Trails will be maintained as funds and volunteer support permit.

e. **Volunteers** Agreements with volunteer groups for trailwork will specify that the group has no exclusive rights to use.

f. **Requirements** All recreation trails shall:

(1) Be open for public use.

(2) Have established legal access along the route through private and public lands.

(3) Provide parking at designated trailheads.

g. **Uses** The trails listed above may be used for access for logging subject to the following guidelines:

(1) Loggers should use only one side of the trail where it is wide enough and leave the other side of the trail for recreational use, particularly dog mushing.

(2) Loggers should avoid constructing berms that would block the use of the trail by mushers or other recreational users.

(3) The Department of Natural Resources should avoid authorizing the use of trails used by mushers if the trail is not wide enough to accommodate both uses.

3. **RESOURCE ACCESS ROADS** Because of the high wildlife values of these subunits, the following guidelines apply to two types of new roads: year-round roads and winter or temporary roads. If a road is built for year-round travel it is almost impossible to close it down and make it a temporary road in this management unit because there is no major physical barrier such as a river. Therefore, unless DNR decides that a year round road is either desirable or not objectionable, roads built to access resources will be winter roads.

a. **Subunits 2A, 2B, and 5C** There will be no year-round roads in subunits 2A, 2B and 5C unless necessary for the development of a major mineral discovery. Temporary winter roads in these subunits will be designed and located so as to have minimal impact on moose and important moose winter habitat. In order to ensure that this standard is met, ADF&G will review the design and location of any temporary winter road in these subunits and must agree that the impact on moose and moose winter habitat is minimal. This policy applies to subunit 5C so long as it is in state ownership. It is recognized that subunit 5C is a borough interest area; it is not intended that this policy apply if the subunit becomes borough land.

b. **Minimum Amount Necessary; Winter Roads Preferred** Access roads for resource development will be kept to the minimum amount necessary for resource development. Road construction just for mineral exploration will not be allowed. Winter access roads will be used whenever possible unless DLWM determines that a permanent road is desirable. In making that determination, DLWM will consult with ADF&G and DOPOR and will consider the following criteria listed below; it is not intended that all three criteria must be met in every case:

(1) the road provides desired recreational access or facilitates appropriate levels of harvest of wildlife;

(2) an evaluation of wildlife needs determines that the road will have a positive effect on wildlife or will not have a significant adverse effect; the evaluation will be done by ADF&G;

(3) whether maintenance will be needed and the availability of funds for maintenance.

c. **Design and Location of Roads** Roads will be designed and located in a manner that minimizes soil erosion, visual impacts, and impacts on hunting, trapping, fish and wildlife, and their habitat. Where feasible and desirable, a road will be located so that it provides access for more than one purpose. For example, a well-placed road could serve the miner and also provide motorized access for grazing, hunting, and other recreational activities. An analysis of proposed roads in areas where wildlife habitat or public recreation is designated as a primary use will be performed by ADF&G or DOPOR, as appropriate. The analysis will include recommendations for routing and design of the road in a manner that will enhance or have minimum impact on wildlife, fisheries, and recreation values. Where desirable and feasible, access roads will be located so as to provide destination or loop recreation trails.

d. **Public Access** Resource access roads will serve as public access except when

(1) a determination is made by DNR in consultation with ADF&G that public use would negatively impact wildlife populations or recreation; or

(2) necessary to protect public safety; or

(3) necessary to protect the integrity of the roadbed.

e. **Future Closure** When access roads are detrimental to management of wildlife or public recreation, DNR may require that they be rehabilitated upon completion of resource development.

f. **Pre-Construction Approval** Proposed roads will be located on a topographical map and submitted for interagency review as part of the review of the plan of operations, miscellaneous land use permit, right-of-way permit, timber sale, or other proposed action.

g. **Stream Crossings** Culverts and/or bridges will be used at all stream crossings of year-round roads and shall follow ADF&G standards for fish passage. Winter roads that cross anadromous fish streams require Title 16 permits; on these, crossings alternatives to culverts and bridges may be used if acceptable to ADF&G.

h. **Low Speed Design** Access roads will be designed to constrain high speeds by motorized vehicles.

WATER GUIDELINES

1. PRIORITY USES

a. Except for public water supply and domestic use, the highest priority water use in the study area is for protection and maintenance of fish and wildlife habitat. DNR should not allow an appropriation of water to cause the instream flow or lake levels to fall below the amount determined necessary by ADF&G to protect or maintain fish and wildlife habitat, unless, under the procedures outlined in AS 46.15.080, the Commissioner of DNR makes a finding based on public review that the competing use for water is in the best public interest and no feasible and prudent alternative exists.

b. The appropriation of water shall be allowed to fulfill the purposes of a grazing lease, forest practice, mining operation, or other activities as long as the appropriation of water does not adversely affect the ability of prior water right holders to obtain their water, meets the criteria for issuance of a permit in accordance with AS 46.15.080 and meets all of the requirements and guidelines in this plan established to protect fish and wildlife populations, habitat, recreation and related public uses.

2. RESERVATION PRIORITIES

a. In accordance with applicable statutes, regulations and procedures, and as time and budget allow, management agencies shall give support to instream flow studies and reservations of water that are necessary to protect and promote resource values and uses identified in this plan for streams and other waterbodies.

b. High priority streams for instream flow study and possible reservation include Deception Creek and Willow Creek. These have been identified because of their high public values for habitat and their potential recreation value and the potential competition for water between these uses and resource developments. If necessary, instream flow reservations applied for under AS 46.15.145 will be made on these priority rivers and streams. The portion of Willow Creek within the plan area is already covered by an instream flow reservation for fish habitat (LAS 11562).

3. WATER QUALITY

Water quality shall be maintained in the streams, stream segments, or water bodies occurring in the Deception Creek Management Unit. The Water Resources Section of Division of Geological and Geophysical Surveys should establish annual water quality monitoring sites in key recreation, grazing and mining areas. In cases where water quality problems are identified, remedial action must immediately be taken by DEC. Of particular concern are potential impacts to recreational users, wildlife and/or fisheries as a result of discharge of sediment, turbid water, or toxic materials from mining areas and fecal contamination in grazing areas.

CHAPTER III

SUBUNITS

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5. Middle Deception Creek 65
6. Frying Pan Lake 69
7. Lower Deception Creek 70

CHAPTER III

SUBUNITS

SUBUNIT 1, HATCHER PASS ROAD CORRIDOR

1. **Background** The Hatcher Pass Road runs through this unit, and it is surrounded on two sides by the Hatcher Pass Management Unit. It is functionally a part of that unit and was not added to that unit at the time the Hatcher Pass Plan was done only because it was part of the capital site.

   The Willow Creek Sled Trail (shown on the USGS maps as the Sled Road trail) goes through this unit. It is an historic trail, put in originally to take supplies from the railroad at Houston to the Willow Creek Mining District. The Bald Mountain trail also goes through this subunit and provides access through timber to the alpine areas in subunit 2A.

2. **Primary Use**

   Public recreation.

3. **Classification**

   Public Recreation.

4. **Management Intent** This subunit will be managed primarily for public recreation and as though it were part of Baldy North/Lucky Shot Ridge subunit in the Hatcher Pass Management Plan. The management intent and guidelines for the Baldy North/Lucky Shot Ridge subunit apply.

   Approximately 185 acres in sections 2 and 3, T19N, R2W, S.M., south of the Hatcher Pass Road along Willow Creek, will remain closed to new locatable mineral entry. The purpose is to provide a location for public gold panning. No suction dredges will be allowed, and the site will not be identified by signs or advertised until the department has the ability to manage this use. (Public gold panning is a form of recreational mining. In order to ensure that the public will continue to have the right to pan for gold here, it is necessary to keep the area closed to locatable mineral entry by a private party.)

   Several trailheads/parking areas have been identified for this subunit. See Transportation guideline number 1b in Chapter II.

   Several parcels within this unit have been identified by the Matanuska-Susitna Borough as borough interest areas.

5. **Guidelines**

a. **Public Facility Development** Any public facility that would be visible from the Hatcher Pass Road and located within a quarter mile of the road should be located and constructed so that it harmonizes with the natural setting. The scale and design of the facility should be such that it does not visually overwhelm the natural setting.

b. **Commercial Recreational Development** Large scale commercial recreational developments are not permitted in this subunit. Guidelines in preceding paragraph also apply to private sector developments authorized on state land.

c. **Coordination Between Public and Private Sectors** Private commercial development on non-state land in the Hatcher Pass Road corridor will be encouraged to follow the same guidelines as are required above for public facilities. Opportunities for coordination between developers and resource managers will be encouraged. Considerations prior to facility construction on private lands include facility location, size, design, character, and operation. Cooperation between private and public facility developers can provide the opportunity for aesthetic unity throughout the area and the development of high quality recreational opportunities.

d. **Viewshed Guidelines** (The intent is to manage this subunit as though it were part of the Hatcher Pass Unit and ensure protection of the scenic drive, likely to be an increasingly important tourist attraction.)

(1) **Signs** If signs are used, they should be part of the system developed for the Hatcher Pass Management Unit. Continuity in type of sign material and design is required. Signs will be under 10 feet in height and will complement the natural setting. Natural materials such as stone or wood are preferred. Signs adjacent to the roadway will be limited to a single directional sign. Sign types and locations must be approved prior to construction by the Division of Land and Water Management and the Division of Parks and Outdoor Recreation. Any sign within the right-of-way of the Hatcher Pass Road must be approved by the Department of Transportation and Public Facilities.

(2) **Siting** Sensitive areas within the site will be identified. Structures will not be located on visually prominent points.

(3) **Parking** Parking lots should not be large and expansive as they create surface water and snow removal problems. Use natural topography as a guide for designing parking lot edges. Boulders, contours, and vegetation are all elements to consider to achieve a harmonious transition. Keep ground alteration to a minimum.

(4) **People Flow** Access roads, paths and steps provide important transitions and should be designed to harmonize with the entire development.

e. **Mine Development** To promote compatibility between the subunit's high scenic values and mining operations, these guidelines identify key features of mine development that can be managed to minimize alteration of the appearance of the natural landscape.

(1) **Siting, Type and Number of Mining Structures** Special care will be taken to site structures. The following guidelines will be followed in locating mining structures unless no feasible or prudent alternative exists.

(a) Place structures 1/4 mile or more from the maintained road system where possible, unless there is better screening potential such as a hollow or forested area nearer the road or unless the structure would be more distracting away from the road than near it.

(b) Place structures behind natural contours rather than on prominent points where feasible. This is particularly important in the treeless alpine zones.

(c) Place structures behind vegetative screens where such opportunity exists.

(d) Group structures together where possible.

(e) Keep structures to the minimum necessary to perform mining operations and remove them when no longer necessary for mining operations.

(f) Structures should blend with the landscape to the extent possible. For example, structures that are of a wooden, historic character or painted a dark color to blend with the terrain, sky, and/or shadows are encouraged. Shiny metal roofs are discouraged.

(2) **Management of the Mine Site** These guidelines are good management practices that also enhance visual appearance of the mine site by reducing the observer's sense of "cluttering" of the landscape:

(a) Operating equipment should be stored compactly in a location and manner that minimizes visual prominence.

(b) Abandoned or unusable equipment should be removed annually.

(c) Construction materials should be stored in one area that is screened from public view.

(d) Disposable materials (trash) should be neatly contained and removed from the mining site periodically.

f. **Utility Lines** In order to maintain the visual quality of the planning area for travelers on the Hatcher Pass Road, utility lines should be located so that they generally cannot be seen from the road. Where this is not feasible or prudent, the line will be located so as to be as unobtrusive as possible. Where Willow Creek is a major

visual attraction for users of the road, no line should located between the road and the creek unless it is buried or can be screened or no feasible or prudent alternative exists. Prior to granting approval for an overhead utility line that cannot be screened from the roadway, the authorizing agency (DOT/PF or DNR) will conduct interagency and public review of the proposal, including a public hearing if warranted by the degree of impact on the view and the probable level of public interest.

g. **Willow Creek Sled Trail** The Willow Creek Sled Trail should be rerouted around private property in T19N R2W, sections 5 and 8.

SUBUNITS 2A and 2B, UPPER DECEPTION CREEK

1. **Background** These subunits provide very important habitat for moose, brown and black bear, furbearers, and small game. They are particularly important to moose because the various habitats found there support high concentrations of moose in the summer, fall, and early winter seasons; extensive (high density) breeding activities followed by post-breeding bull aggregations (concentrations) occur in the timbered and forage production areas; calving occurs in much of the subunit.

   The Willow Creek Sled Trail goes through subunits 2A and 2B, shown on USGS maps as the Sled Road Trail. This is a 15.5 mile trail from Houston at about mile 58.4 on the Parks Highway to various points on the Hatcher Pass Road, including mile 31.3. Historically the trail was a winter supply route from Knik to War Baby and Lucky Shot Mines on Craigie Creek in the Talkeetna Mountains and to various mining claims along Willow Creek. Today the trail is a winter dog mushing trail that is also used by off-road vehicles and snow machines. This trail has a 50-foot wide right-of-way.

   In addition, the "Nike Site" trail goes through subunit 2A, from Hatcher Pass Road to Bullion Mountain. The first section (less than a mile) goes through private property (outside the unit). Bullion Mountain offers views of Anchorage and Denali and presently is used primarily as a destination for snowmachines. This trail has a 50-foot wide right-of-way.

   Lloyd's Trapline and Dogmushing Trail and the Bald Mountain trail also go through subunit 2A. Lloyd's trail runs from the Parks Highway just south of Nancy Lake to a small lake about 1½ miles south of Mile 35.5 of the Hatcher Pass Road (13.5 miles from the Parks Highway). It is a winter trail used primarily by local dog mushers. The Bald Mountain trail starts at the Hatcher Pass Road where the Willow Creek Sled Trail does and goes uphill to timber line.

   Local and urban residents of Southcentral Alaska use these trails for hunting, trapping, and exploring. The semi-remoteness and semi-wild, rugged character of the subunit is appropriate for these dispersed recreational activities. The subunit's importance as wildlife habitat and as a dispersed recreation area will increase in the future as land use activities in adjacent areas further decrease the availability of such opportunities.

   These subunits are alpine tundra in the higher elevations, a mixture of short stands of open white spruce forest and closed black spruce forest at mid elevations, with strips of closed deciduous forest at lower elevations along the western and southern edges. The open forest areas have alder, willow, or bluejoint reedgrass - common fireweed dominated understories and are considered by the U.S. Soil Conservation Service (SCS) to have moderate grazing potential. In addition, there are about six sections that SCS rates as high grazing potential. This includes the subalpine zone on Bald Mountain and the southeast facing slopes of Bullion Mountain. The vegetation in these areas is a mosaic of grassland and willow or alder scrub; the willow scrub appears to be more abundant here than in similar areas north of Willow Creek. The SCS analysis is based on photo interpretation without ground truthing within the management unit.

These subunits are generally hilly with steep slopes. Most valleys, lower side slopes and depressions are boggy. Meadows are characterized by tussocks in various stages of development with standing or running water underneath.

Subunit 2B is part of the watershed draining south to Bench Lake and the Little Susitna River. Bench Lake is one of the sources that Houston is considering for its water supply.

Technical Report Number 4 of the New Capital Site Planning Commission, published in 1982, states that the ". . . entire Deception Creek Gorge and the lands north and east of the Creek are identified as undevelopable. Although there are small pockets of developable land within this general area, steep slopes make it infeasible to provide road access, and adverse climatic conditions produced by the higher elevations make this area unsuitable for housing. Moreover, construction on the slopes draining down to Deception Creek could cause erosion which would affect salmon spawning in Deception Creek." The capital site plan allocated this unit as reserved use land, to be set aside for permanent habitat protection and recreation use. The first New Capital Site Planning Commission, in *Our New Capital City, A Report to the People of Alaska,* published in 1978, stated, "There will be no development in areas which could be harmful to fish in Deception Creek and elsewhere. Major open spaces will be maintained to accommodate the habitat of animals native to the area."

2. **Primary Uses**

2A Wildlife Habitat
2B Wildlife Habitat, Watershed

Secondary Uses

2A and 2B: Dispersed recreation

3. **Classification**

Subunit 2A: Wildlife Habitat
Subunit 2B: Water Resources Land and Wildlife Habitat except T18N, R3W, section 1, which is Resource Management.

Section 1 is classified Resource Management because it is contiguous to the capital site core development area; was identified as development reserve lands by the Capital Site Planning Commission; and is part of the borough interest lands. It also has important wildlife values. More information is needed in order to make a long range decision on the most appropriate primary use(s) of this section.

4. **Management Intent** Subunit 2 will be managed primarily for wildlife habitat and maintenance of its semi-wilderness character. In addition, subunit 2B will also be managed for its watershed values. Dispersed recreation is a secondary use in both subunits. No year-round roads will be allowed except as provided in Transportation Guideline number 3a in Chapter II. Mining is allowed only under lease except within Deception Creek and its tributaries which is closed to locatable mineral entry. Other leases are allowed only if they are compatible with this management intent, will not significantly adversely affect wildlife or its habitat, and will not require a permanent, year-round road.

5. **Guidelines**

a. **Mineral Closure** Deception Creek and its tributaries as shown on the Subsurface designations map in Chapter II will remain closed to new locatable mineral entry.

b. **Trails** The Willow Creek sled trail, the "Nike Site" trail, and Lloyd's Trapline and Dogmushing trail are subject to a 50-foot vegetated buffer on either side of center line. See the Transportation Section for activities allowed within this buffer.

c. **"Nike Site" Trail** Take necessary steps to ensure continued public access via this trail. Research the trail history to determine whether there is existing public easement and, if so, assert it (RS2477). If there is no existing easement, either an easement through private property should be acquired or the beginning of the trail rerouted, perhaps through section 2 in subunit 2A.

d. **Timber Harvest** No timber harvest will be allowed in these subunits except when specifically requested and approved by the ADF&G regional office with the following exception. ADF&G has three years from the adoption of this plan to identify where and under what conditions timber may be harvested below the 1000 foot contour level in section 1, T18N, R3W, S.M., and sections 3-6 and 9, T18N, R2W, S.M. If no report is completed within the three years, timber harvest will be allowed in these sections (below 1000 feet) subject to the guidelines for subunit 3 and the unitwide guidelines. In the preparation of this report, the Division of Forestry should be consulted and field work should be done jointly where possible.

The report must address the following:

(1) How many moose use this area in winter and how many moose use it in summer; what do they eat?

(2) What percentage of each category of these moose migrate?

(3) What percentage of each category of these moose are resident?

(4) What are the moose eating in the area now (what brings them here)?

(5) Locations within this area, if any, where the moose congregate (i.e. high use areas) and where disturbance of vegetation would be particularly harmful to the moose.

(6) If the study concludes that either no timber harvest should occur or that it should be very limited, the reasons for this conclusion should be specific as to why logging cannot be done in a manner that results in a moose population of equal size and health to that present before logging.

e. **Roads** See Transportation guideline number 3a.

f. **Grazing** Grazing is not allowed in subunits 2A or 2B. When SCS acquires additional range data, and if there is a request for a grazing authorization in subunits 2A or 2B; the planning team will reevaluate the grazing prohibition for these subunits. Grazing will not be allowed in brown bear concentration areas. During this period, ADF&G will collect further data on the extent of brown and black bear use of these subunits to the extent possible and that funding is available.

SUBUNITS 3A and 3B, SOUTH SLOPE

1. Background

This subunit contains most of the best stands of timber in the Deception Creek Management unit. Generally, the primary vegetation between 600- and 1000-foot elevations is closed deciduous forest in medium-aged stands (primarily birch, with some spruce). In addition, this subunit is known for its important wildlife habitat, especially moose winter and summer range; the variety of habitats provides for essential escape and thermal cover as well as habitat for other species. Black bear are commonly found in the area, especially during the spring moose calving period.

The Willow Creek sled trail, Lloyd's Trapline and Dogmushing trail, the Bench Lake trail, and the Houston-Meadow Lakes trail all pass through this unit, providing many opportunities for the public to hunt black bear, moose, and small game. Trapping for furbearing animals also occurs in this subunit.

The land within subunit 3A has been identified by the Matanuska-Susitna Borough as a borough interest area. It was also identified as development reserve land in Technical Report Number 4 by the New Capital Site Planning Commission in 1982.

Both subunits are part of the watershed for the city of Houston and surrounding development. Part of the watershed that is in subunit 3A and is of particular concern to the city of Houston is the unnamed tributary of the Little Susitna that rises in sections 10 and 11 and flows through sections 14, 15, and 23. (See Little Susitna Watershed map in this section, and Alaska Division of Geological and Geophysical Surveys' Public-data File 86-62, *Reconnaissance of Surface--Water Resources in the Houston Area, Alaska.)* Houston wants the option preserved to use this creek as a city water supply. (There is a 100-foot buffer on either side of this stream; see Lakeshore and Stream Corridor Guidelines in Chapter II.)

The portions of this unit that were adjacent to the Little Susitna River have been deleted from this plan because they were designated as part of the Little Susitna Recreational River by the legislature in 1988.

Slightly less than one section within this subunit is within the boundaries of the city of Houston and is zoned Public Lands and Institutions (PLI) E½ Sec. 15; NE¼NW¼ and NW¼NE¼ Sec. 23; and the NE¼ Sec. 24 of T18N, R3W, S.M. Timber harvest and other natural resource extraction activities are a conditional use in the PLI zone.

2. Primary Uses

Forestry, wildlife habitat, and watershed

3. Classification

Subunit 3A: Resource Management

Subunit 3A is classified Resource Management because, in addition to the designated primary uses, it also has long-term development potential. Not enough economic and social information is available at this time to determine how or whether the development potential (other than timber) should be realized. This decision should be reserved for the future [as envisioned in AS 38.04.005 (c)]. In such situations, Resource Management is an appropriate classification.

Subunit 3B: Forest Land, Water Resources Land, and Wildlife Habitat

4. **Management Intent** These subunits will be managed primarily for their forestry, wildlife, and watershed values. More specifically, the subunits will be managed for hardwood (deciduous) and softwood markets and as winter range for moose. Timber harvest must be designed and timed to meet both goals.

   This subunit is open to mineral entry under leasehold except for the 80 acres in section 23 which is mental health land. This will remain closed to new mineral entry until or unless the closing order on mental health land is lifted. At that time, this 80 acres should be opened to mineral entry under leasehold.

5. **Guidelines**

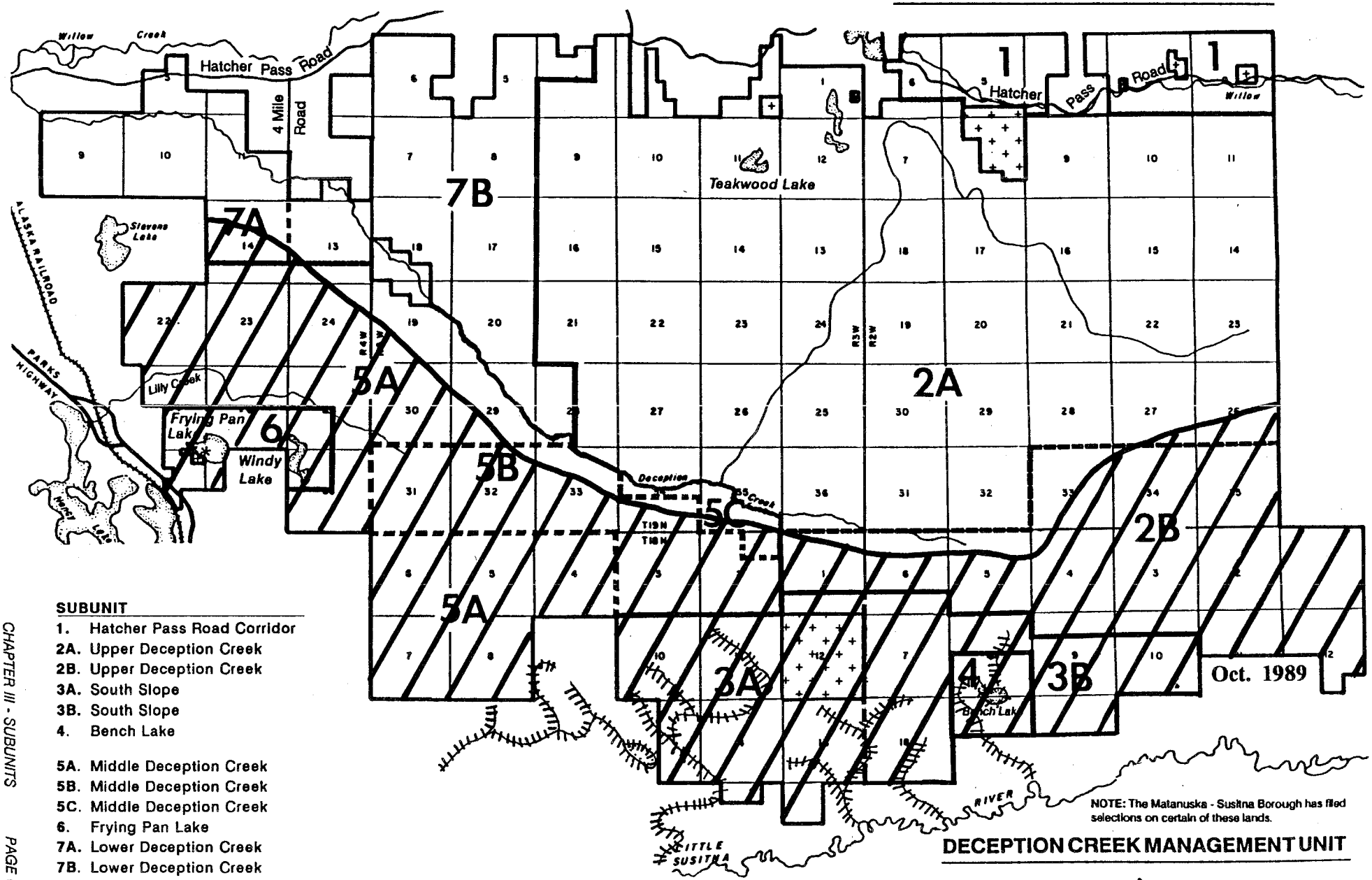
   a. **Timber Harvest** Certain forested areas within this subunit will not be harvested if determined by DNR to be necessary to protect seasonal habitat based on information provided by ADF&G.

   b. **Five-Year Cutting Plan** The Division of Forestry will include this area in its general 5-year cutting schedule, but will make it a separate subsection. Upon request at the time of their review of the 5-year cutting schedule, ADF&G will be given a subsequent opportunity to identify seasonal habitat that needs to be protected, maintained, or enhanced.

   c. **Design and Timing of Harvest** Design and timing of timber harvest and regeneration plans in this subunit must be mutually agreed to by the Division of Forestry and the Department of Fish and Game.

   d. **Trail Buffers** The Willow Creek Sled trail, the Bench Lake trail, the Houston-Meadow Lakes trail, and Lloyd's Trapline and Dogmushing trail are subject to a 50-foot vegetated buffer on either side of center line of these trails. See the Transportation section for activities that may take place within these buffers.

LITTLE SUSITNA WATERSHED



SUBUNIT

1. Hatcher Pass Road Corridor
2A. Upper Deception Creek
2B. Upper Deception Creek
3A. South Slope
3B. South Slope
4. Bench Lake

5A. Middle Deception Creek
5B. Middle Deception Creek
5C. Middle Deception Creek
6. Frying Pan Lake
7A. Lower Deception Creek
7B. Lower Deception Creek

Private, university, or borough land

2.3 acre parcel of state land on Frying Pan Lake

Little Susitna watershed

Potential water sources for Houston

NOTE: The Matanuska - Susitna Borough has filed selections on certain of these lands.

DECEPTION CREEK MANAGEMENT UNIT

0 1 MILES
SCALE

SUBUNIT 4, BENCH LAKE

1. **Background** Bench Lake is a sport fishing lake for rainbow trout. Juvenile silver salmon are commonly found in the outlet creek and lake. It is one of the sources being considered by the city of Houston for its water supply. It is a locally-used, winter motorized recreation area. According to the Matanuska-Susitna Borough, there is an old trail from the end of Armstrong Road at the eastern boundary of the city of Houston that goes to Bench Lake through section 18. Part of the network of trails known as the Houston-Meadow Lakes trail also goes through this unit. See the trails map in the Transportation Section. The area around Bench Lake is moose winter range.

2. **Primary Uses**
   Public recreation
   Fish and wildlife habitat
   Watershed
   Forestry

3. **Classification**

   Public Recreation, Water Resources Land, and Wildlife Habitat.

4. **Management Intent** This subunit will be managed primarily for its public recreation, fish and wildlife, watershed, and forestry values. It is intended that the unit be managed for all four primary uses, although state regulations limit to three the number of classifications that may be applied to any one area. The 400-foot buffer around Bench Lake will be managed to retain its natural characteristics. When this plan is revised and longer-term uses for the unit as a whole are determined, a decision should be made as to how Bench Lake should be managed in the long-term. (The Susitna Area Plan specifies three management categories: Wilderness Lakes, Recreational Development Lakes, and General Development Lakes. Which category applies to Bench Lake should be decided when this plan is revised.)

5. **Guidelines**

   a. **Timber Harvest** Timber harvest in this subunit will be subject to the same guidelines as subunit 3 (South Slope).

   b. **Trail Buffers** The vegetated buffer along the Bench Lake and Houston-Meadow Lakes trails will be 50 feet on either side of the trail. For activities allowed within the buffer, see Section 3, Trail Management, under Transportation.

SUBUNITS 5A, 5B, and 5C, MIDDLE DECEPTION CREEK

1. **Background**

Subunits 5 and 6 comprise the core development area of the once-proposed capital city. Most of the proposed town center was located in section 29 in the Capital Site 1982 General Development Plan. (See Capital Site 1982 General Plan in the Appendix.) All of subunit 5 has been identified by the Matanuska-Susitna Borough as a borough interest area.

Most of the unit is part of the Little Susitna watershed; the southern part of the unit is part of the watershed for the city of Houston.

This subunit also contains good timber, mostly birch, mostly 80 to 100 years old, with some spruce. These areas are interspersed with black spruce and wetlands.

Deception Creek is an important anadromous fish stream (the Fisheries Rehabilitation and Enhancement Division of the Department of Fish and Game obtains salmon eggs from the mouth). It also has important recreation potential. Possible eventual recreational uses in the Deception Creek corridor include a hiking trail and campsites and picnic sites. The southwest side of the Deception Creek gorge is within this subunit; it was identified as undevelopable by the Capital Site Planning Commission.

Subunits 5B and 5C have important wildlife values. Both are moose winter range, and subunit 5C is the south side of Deception Creek at the confluence of its north and east branches.

2. **Primary Uses**

5A Forestry and Watershed

5B Forestry, Watershed, Wildlife habitat

5C Wildlife Habitat; and Watershed southwest of the southwest bank of Deception Creek

Secondary Uses

5A Grazing

3. **Classification**

Resource Management.

This subunit is classified Resource Management because, in addition to the designated primary uses, it also has long-term development potential. Not enough economic and social information is available at this time to determine how or whether the development potential (other than timber) should be realized. This decision should be reserved for the future [as envisioned in AS 38.04.005 (c)]. In such situations, Resource Management is an appropriate classification.

4. **Management Intent** Subunit 5 will be managed primarily for its forestry and watershed values. There will be a 200-foot buffer above high water on each side of Deception Creek that will be subject to the stream corridor guidelines and the special mining guideline number 4b. (The boundary of this subunit is the ordinary high water mark on the south side of Deception Creek.) Much of this subunit has high settlement/development potential; it will be retained in state ownership, will remain closed to new locatable mineral entry, and will be managed to preserve the options for settlement. During the next six years, several small timber sales are proposed for this unit. See map entitled Proposed Timber Harvest Areas, and Timber Sales table below. The map also shows two proposed new logging roads, each to be 12 feet wide. The map shows only proposed commercial sales. In addition, the Division of Forestry expects to make some areas available for personal use cutting, but has not yet identified the locations. Most likely, one or more of the sales shown on the map will be converted into a personal use sale. Final cutting unit boundaries and road locations will be determined following agency and public review of the proposed timber sales.

5. **Guidelines**

   a. **Grazing in Subunit 5A** Grazing is allowed under lease or permit within T18N, R3W, sections 4-8 of subunit 5A, during the regeneration period following timber harvest. Regeneration must be established before a grazing permit or lease may be issued. The Division of Forestry should be given an opportunity to review grazing operations plans for this subunit. The length of a grazing lease may not exceed the period needed for regeneration.

   b. **Grazing in Subunit 5C** Grazing is not allowed in subunit 5C. When SCS acquires additional range data, and if there is a request for a grazing authorization in subunit 5C, the planning team will reevaluate the grazing prohibition for this subunit. Grazing will not be allowed in brown bear concentration areas. During this period, ADF&G will collect further data on the extent of brown and black bear use of these subunits, to the extent possible and that funding is available.

Table 1

CRITERIA FOR DETERMINING WHETHER A LEASE OR PERMIT IS APPROPRIATE

PERMIT	LEASE
(a) Small numbers of animals, generally 25 or less.	(a) Larger number of livestock, more than 25.
(b) Non-commercial animals	(b) Commercial Livestock.
(c) Small areas.	(c) Larger areas.
(d) Type and degree of conflict: Potential high conflicts with wildlife or other high value land uses which long-term grazing may negatively impact.	(d) Potential conflicts are of a less critical nature and can be managed within terms of the grazing operations plan.
(e) Shorter grazing seasons.	(e) Better sites and longer seasons of use.
(f) Less costly range improvements needed.	(f) Higher cost range improvements needed to mitigate other resource conflicts.
(g) Site specific benefits, which may allow short term use of a site such as utilizing intensive grazing to reduce grass competition with other species as a research method.	

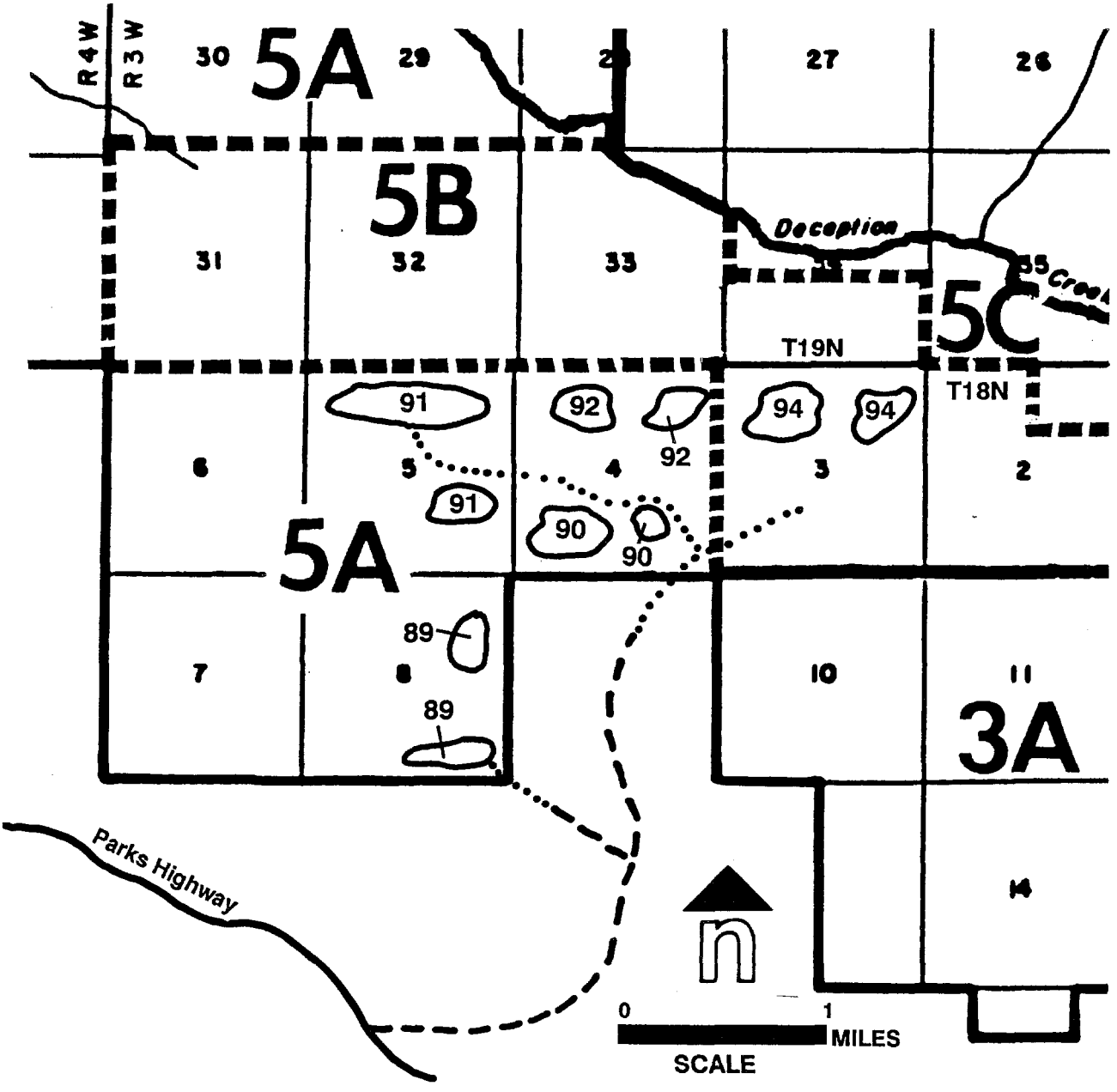
TABLE 2

PROPOSED COMMERCIAL USE TIMBER SALES 1989-1990

YEAR	Sale/ UNIT	ACREAGE	Contract Duration	Cords Birch	MBF* Spruce
1	89-1	35	2 yr	170	48
1	89-2	32	2 yr	130	52
2	90-3	35	3 yr	204	37
2	90-4	46	3 yr	300	43
3	91-5	80	3 yr	320	60
3	91-6	60	3 yr	240	30
4	92-7	70	3 yr	350	35
4	92-8	80	3 yr	370	75
5	----				
5	----				
6	94-9	65	3 yr	340	55
6	94-10	75	3 yr	460	65
		577 acres		2,884 cords	500 MBF

* MBF means thousand board feet

DECEPTION CREEK MANAGEMENT UNIT



PROPOSED COMMERCIAL TIMBER HARVEST AREAS 1989 - 1994

SUBUNIT	PRIMARY USE(S)
3A SOUTH SLOPE	Forestry/Watershed/ Wildlife Habitat
5B MIDDLE DECEPTION CREEK	
5A MIDDLE DECEPTION CREEK	Forestry/Watershed

Existing Roads/Trails

Proposed 12' Road

(89) Proposed cutting unit and year of sale

SUBUNIT 6, FRYING PAN LAKE

1. **Background** This unit was originally part of the capital site core development area. Most of it was designated as open space or for recreational uses. The area east and south of Windy (L) Lake was designated for residential use. The west side of Windy Lake (almost a peninsula) was identified as having high public recreation values in the Public Interest Land identification project in 1980. On Frying Pan Lake, there is private property on the east side of the lake with a cabin on it and a road to it. Two parcels on the south side of the lake were identified as having high public recreation values during the 1980 Public Interest Land identification process. Frying Pan Lake appears to have a good shoreland all around it; Windy Lake has more swamp around it. There is currently winter use of the area by local dog mushers from the Nancy Lake area. There may also be trapping. These lakes have recreation potential, especially if the surrounding lands are settled, for picnicking, camping, and swimming. The unit has scattered tracts of medium-aged birch, interspersed with tracts of black spruce and wetlands. The whole unit is part of the watershed for the city of Houston. The extreme southwest corner of this unit borders the Parks Highway and was classified Greenbelt as part of the Public Interest Land project in 1980.

2. **Primary Uses** Forestry, Public Recreation, Watershed

3. **Classification** Public Recreation/Resource Management

   This subunit is classified Public Recreation/Resource Management because it has both recreation and forestry values. The most appropriate long-term uses of this subunit will largely depend on the long-term uses for the adjacent subunit 5. Therefore, Resource Management in conjunction with Public Recreation is an appropriate classification for this subunit at this time.

4. **Management Intent** This subunit will be managed primarily for its forestry, public recreation, and watershed values. It will be retained in state ownership, will remain closed to new locatable mineral entry, and will be managed to preserve its recreational potential. The buffers around Frying Pan (Lynx) and Windy (L) Lakes will be managed to retain their natural characteristics. When this plan is revised and longer-term uses for the unit as a whole are determined, it should be decided which Susitna Area Plan management category should be applied to these lakes: Wilderness, Recreational Development, or General Development. Such uses as picnicking, camping, and swimming, and facilities to support them are allowed within the lakeshore buffers. See forestry and lakeshore guidelines.

SUBUNIT 7A AND 7B, LOWER DECEPTION CREEK

1. **Background** This subunit contains good timber, mostly birch, mostly 80 to 100 years old, with some spruce. The timber is interspersed with black spruce and wetlands, especially in subunit 7A. There is a road through the northern portion of subunit 7B into the private property in section 18, T19N, R3W, S.M. Deception Creek is an important anadromous fish stream; it is the Department of Fish and Game's main Chinook (King) salmon egg-taking station for their hatchery and transplant program in Southcentral Alaska. Deception Creek also has important recreation potential. Possible eventual recreational uses in the Deception Creek corridor include a hiking trail, campsites, and picnic sites. Lands within subunit 7A have been identified by the Matanuska-Susitna Borough as a borough interest area.

2. **Primary uses** Forestry

3. **Classification**

   7A Resource Management

   Subunit 7A will be classified Resource Management because it has been identified by the Matanuska-Susitna Borough as also having other development potential. Not enough information is available at this time to determine the best long-term use of these lands; therefore, Resource Information is an appropriate classification.

   7B Forest Land

4. **Management Intent** This subunit will be managed primarily for its forestry values and to protect Deception Creek. (See Lakeshore and Stream Corridor Guidelines.)

CHAPTER IV

IMPLEMENTATION

CHAPTER IV

IMPLEMENTATION

The following is a summary of the implementation steps called for in Chapter II or III of this plan. Page numbers are given for the original reference. All actions listed below are dependent on the availability of sufficient funds. Individual agencies will determine the priority of these projects relative to their other responsibilities.

Borough interest areas

See pages 4 and 8.

Forestry

1. Small commercial timber sales and personal use cutting (pp. 3, 7, 13, and 65-68)

2. See also #2 under Wildlife below

Grazing

1. Range survey, subunits 2A,and 2B, to determine location, extent, and value of the grassland resource. (pp. 7, 25)

2. Moose and livestock food habits and behavior (p. 25)

3. Evaluate forage quantity and quality in areas to be grazed (p. 25)

4. Determine tolerance to utilization of main forage species (p. 25)

5. When SCS acquires additional range data, and if there is a request for a grazing authorization in subunits 2A, 2B, or 5C, a planning team, composed of representatives of the agencies represented on the original planning team, will reevaluate the grazing prohibition for these subunits (pp. 60 and 66).

Heritage resources

Survey, assess, and research cultural and historic resources within the management unit (p. 27).

Recreation

Manage 185 acres along Willow Creek for public gold panning (p. 53)

Transportation and Trails

1. Pull outs and parking areas along Hatcher Pass Road in subunit 1. (p. 44)

2. Implementation of the plan's restrictions to the trails listed in Transportation guideline number 2b will be through the local platting authority (pp. 46-48)

3. Reroute the Willow Creek Sled Trail around private property in T19N R2W, sections 5 and 8 (p. 56)

4. Steps should be taken to ensure continued public access via the "Nike site" trail. These steps could include determining whether the trail is an RS2477 trail, acquiring an easement through private property, or routing the beginning of the trail around private property (p. 59).

Water

1. Instream flow studies for Deception Creek and Willow Creek (p. 51).

2. DGGS should establish annual water quality monitoring sites in key recreation, grazing, and mining areas (p. 51).

Wildlife

1. Collect further data on the extent of brown and black bear use of subunits 2A, 2B, and 5C, to the extent possible and that funding is available (pp. 8 and 60).

2. ADF&G will, within three years of the adoption of this plan, identify where and under what conditions timber may be harvested below the 1000-foot contour level in section 1, T18N, R3W, SM and sections 3-6 and 9, T18N, R2W, SM (in subunit 2). If no report is completed with three years, timber harvest will be allowed in these sections, below 1000 feet and subject to the guidelines for subunit 3 and the unitwide guidelines. In the preparation of this report, the Division of Forestry should be consulted and field work should be done jointly where possible (p. 59).

To revaluate when plan is revised At the time this plan is revised, a new list of issues will be identified, based largely on changes that have occurred in the interim since this plan was adopted. The list below includes issues that were not completely resolved by this plan either because of lack of data, the interim nature of this plan, or the need to consider the issues in a larger context.

1. Reevaluate the possibility of allowing grazing in subunits 2A, 2B, and 5C (pp. 7, 60, and 66). As part of this reevaluation, bear concentration areas should be mapped or "concentration" should be defined (see grazing guideline number 4a). Mapping could occur in conjunction with wildlife implementation task 1 above.

2. Reevaluate unit wide guidelines to determine appropriateness if new primary uses are selected when this plan is revised (p. 10).

3. Reevaluate prohibition on tourist gold panning businesses if there is demand; consider the results of such businesses in the Hatcher Pass Management Unit as part of the evaluation (p. 36).

4. Reevaluate the Resource Managernent classification for subunits 3, 5, 6, and 7A (pp. 61, 65, 69, and 70).

5. Determine long-term management category for Bench Lake (p. 62), Frying Pan, and Windy Lakes (p. 69).

APPENDIX I

GLOSSARY

APPENDIX I

GLOSSARY

AAC Alaska Administrative Code.

ADF&G Alaska Department of Fish and Game.

AS Alaska Statute.

DEC Alaska Department of Environmental Conservation.

Dispersed Recreation Recreational pursuits that are not site specific in nature; for example, snowmobiling, or dog mushing.

DLWM Division of Land and Water Management, a division of DNR.

DNR Alaska Department of Natural Resources.

DOF Division of Forestry, a division of DNR.

DOT/PF Alaska Department of Transportation and Public Facilities.

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

Feasible Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, technical, and safety factors.

Feasible and Prudent Consistent with sound engineering practice and not causing environmental, social, or economic problems that outweigh the public benefit to be derived from compliance with the guideline modified by the term "feasible and prudent".

Guideline A course of action that must be followed by DNR resource managers or required of land users when the manager permits, leases, or otherwise authorizes the use of state land or resources. Guidelines range in their level of specificity from giving general guidance for decision making or identifying factors that need to be considered, to setting detailed standards for on-the-ground decisions. Some guidelines state the intent that must be followed and allow flexibility in achieving it.

Land Use Designations Allocations that set out primary or secondary land uses. See definitions of primary and secondary land uses.

Locatable Mineral Locatable minerals include both metallic (gold, silver, lead, etc.) and nonmetallic (flourspar, asbestos, mica, etc.) minerals.

Management Intent Statement The statements that define the department's near and long-term management objectives and the methods to achieve those objectives.

Materials "Materials" include but are not limited to common varieties of sand, gravel, rock, peat, pumice, pumicite, cinders, clay, and sod.

Ordinary High Water Mark The mark along the bank or shore up to which the presence and action of the nontidal water are so common and usual, and so long continued in all ordinary years, as to leave a natural line impressed on the bank or shore and indicated by erosion, shelving, changes in soil characteristics, destruction of terrestrial vegetation, or other distinctive physical characteristics [from 11 AAC 53.900(23)].

Primary Use A use of major importance in a particular management unit. Resources in the unit will be managed to encourage, develop, or protect this use. Where a unit has two or more designated primary uses, the management intent statements and guidelines of the unit (together with existing regulations and procedures) will direct how these resources are managed to avoid or minimize conflict between these primary uses.

Recreational Mining Recreational mining is the use of state resources for the purposes of attempted or successful extraction of placer gold primarily for the purpose of enjoyment, pleasure and experience, rather than for the purposes of profitable extraction for resale or use. It does not require that the participant have exclusive rights to the minerals through a mining claim. As such, recreational mining is not mining or a subsurface use under State Mining Law. It is a surface use which falls into the generally permitted category of land use (11 AAC 96 and the Division of Land and Water Management Policy and Procedures Manual, Chapter 5122, sections 1.2-1.4).

Remote Cabin A cabin constructed under a permit issued through the Remote Cabin Permit program authorized in AS 38.04.079 and further described in 11 AAC 67.700-.790.

Riparian zones Ecosystems composed of (1) plant communities along rivers and streams and around lakes, ponds, springs, or bogs, whose vegetative structure and function is primarily determined by influences from the adjacent aquatic system, including a high water table or overbank flooding, and (2) the adjacent aquatic system. Along rivers and streams, riparian plant communities are those located within or adjacent to the boundaries of the active 100-year floodplain. These occur within or are often synonymous with the riverine corridor.

RS 2477 An historic federal statute, repealed in 1976, that granted transportation rights-of-way on unappropriated and unreserved federal land. These rights-of-way are established by public use or construction.

SCS Soil Conservation Service, U.S. Department of Agriculture.

Secondary Use A designated, allowed use considered important, but intended to receive less emphasis than a primary use because it has less potential than a primary use or contributes less to achieving the management intent of the unit than a primary use, or occurs only on limited sites. In those site-specific situations where a secondary use has a higher value than a primary use, the secondary use may take precedence over the primary use. Management for a secondary use will recognize and protect primary uses through application of guidelines, regulations, and procedures. However, if a secondary use cannot occur without detrimentally affecting a primary use in the management unit as a whole, the secondary use will not be allowed.

Settlement Transfer of state land to private ownership as authorized by AS 38.04.010, including fee-simple sale, homesteading and sale of agricultural rights; does not include leases, land-use permits, water rights, rights-of-way, material sales, or other disposals of interest in lands or waters.

Shall Same as "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 deviation from the intended action or set of conditions. A guideline may include criteria for deciding if such a deviation is justified.

State lands All lands, including uplands, tidelands, submerged lands, and shorelands belonging to or acquired by the State of Alaska, excluding lands owned by the University of Alaska.

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.

APPENDIX II

BACKGROUND INFORMATION

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C. Land Use/Economic Conditions 85

APPENDIX II

BACKGROUND INFORMATION

A. **General**

1. **Native Region**: Cook Inlet Region, Inc.

2. **USGS map coverage**: Tyonek C1, D1, Anchorage C7, C8, D7, D8

3. **Title/Land Status**:

   a. The Deception Creek Management Unit contains 65,698.68 acres of patented state land. Of that, 720 acres are Mental Health lands. The Mental Health lands are located in T18N, R3W, S.M., Sec. 05 S½SE¼; Sec. 07 S½, S½N½; Sec. 08 N½NE¼; Sec. 23 NW¼NE¼, NE¼NW¼. The remainder are general grant lands, except for one section of school grant lands.

   b. **Actions of record (issued):** See Willow State Capital Site status check regarding third-party interests (in file for Mineral Closing Order #250).

   c. **Previous Classification:** Reserved Use
   Number: 329 AM #5 and #7, and
   747 AM #4; 1000 and 1002.
   Classified Reserved Use in 1976 to protect it for potential use as a capital city.

   d. **Mineral Status:** closed to new locatable mineral entry by Mineral Closing Order #250 in 1982, based on Land Planning Report (LPR) 959 AM 1.

   e. **Management Agreements:** None.

   f. **Land survey:** The subject area is not completely surveyed. Federal survey exists for T19N, R3W. Partial Federal survey exists on T19N, R23 and 3W.

B. **Natural Resources on State land**

1. **Topography:** Flat to choppy with various aspects and slopes combined with gently rolling hills, meadows, spruce and birch forests, and muskeg and bogs.

   a. **Elevation:** from 300' to 3137'
   b. **Aspect/Slope:** Largely west and south facing slopes
   c. **Landform:** foothills of the Talkeetnas
   d. **Natural Hazards:** Minimal

2. **Soils:**

Type: All soils information is based on the SCS classification system in use in 1981. That system has since been revised. There are scattered parcels of what in 1981 were considered Class II and III soils. Some of these soils may be redefined as Class IV. The largest concentration of these soils is along the lower stretches of Deception Creek, a little less than a section, mostly in section 18, T19N, R3W, S.M. However, about one half of this is in private ownership. There are also scattered blocks of Class IV soils, mostly north of Deception Creek. The majority of the area consists of non-agricultural soils.

3. **Water:**

a. **Groundwater:** Deep well water potential from wells drilled in the broad drainage channel of Deception Creek.

b. **Surface:** Potential for diversion from Willow Creek to storage lakes above Capital Site core development area.

c. **Current usage:** None

d. **Public and Navigable:** Willow Creek.

4. **Minerals:**

a. **Gold and precious metals:** The entire management unit is part of the old Willow Creek Mining District. The geology of the eastern portion (the higher elevations) is similar to that of the Hatcher Pass unit; therefore, one could expect to find minerals (gold) similar to what has been found at Independence and Gold Cord. There is placer gold in Willow Creek. In general, it can be said that the foothills have moderate potential for precious metals.

b. **Oil, Gas, and Coal:** Potential coal, oil, and gas on the western edge of the area. At one time, there was an open pit coal mine at Houston, just outside the southwest boundary of the unit. North and west boundaries contain several expired coal prospecting permits.

5. **Forest resources:**

An estimated volume of 10,023,280 cubic feet of birch, aspen, and cottonwood, and 4,741,530 cubic feet of spruce exist in the site. The best timber is within the southern portion of the site. The commercial-quality timber covers approximately 17,230 acres and is capable of producing about 1,200 cords of fuelwood and 156.8 thousand board feet of sawtimber annually.

6. **Grazing:** The following information explains the map of Areas with Grazing Potential. This information was provided by the U.S. Soil Conservation Service based on interpretation of aerial photography. No ground truthing was done, but range inventory

data has been collected in the adjacent Hatcher Pass planning area. This management unit is more heavily forested than the adjacent Hillside subunit. It also has extensive muskeg areas; local people report that access is difficult to areas with grazing potential.

a. Some areas located in the western and central portion of the management unit are primarily closed forest and muskeg; south of Willow Creek are numerous morainal hills with open birch and birch-spruce forest. Grazing potential in closed forest and muskeg is generally low. In areas of open forest with bluejoint reedgrass understory, potential is moderate to high; however, these stands are usually surrounded by muskeg and are inaccessible.

b. The areas shown as having moderate grazing potential on the Grazing map are primarily open forest and woodland with either alder, willow, or bluejoint reedgrass-common fireweed dominated understories. Grazing potential of this area as a whole is estimated to be moderate, depending on the actual composition of the various understory types. Stands dominated by bluejoint reedgrass produce high quantities of forage.

c. The areas shown as high potential are subalpine zone; the vegetation is a mosaic of grassland and willow (occasionally alder or mixed willow-alder) scrub. Grazing potential of these areas as a whole is estimated to be high; however, from the photography it appears that willow scrub is more abundant in the Deception Creek Management Unit than in similar areas north of Willow Creek.

d. The extreme eastern portion of the site is true alpine zone; the vegetation here is a mosaic of low growing alpine types with grassland on areas of deeper soils. Grazing potential of this area is estimated to be moderate for cattle and moderate to high for sheep.

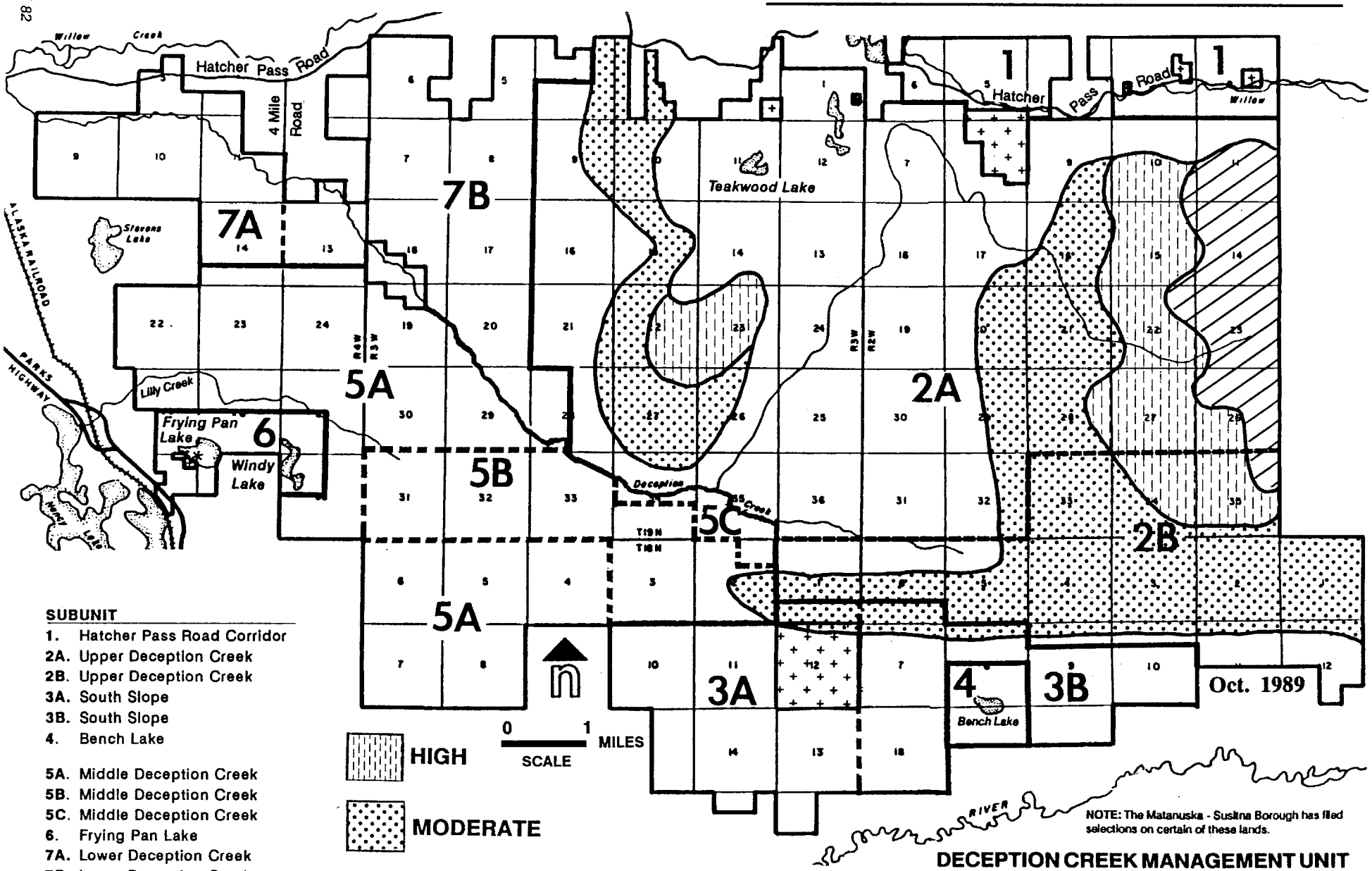
7. **Materials:**

Sand and Gravel: Surficial deposits mainly along Deception Creek, Willow Creek, and Lilly Creek.

8. **Wildlife (populations and habitat):**

a. **Big game:** One of the six most important moose population (production and harvest) areas in the lower Susitna Basin is located within the Deception Creek management unit. Extensive breeding, calving, and summer and winter foraging activities occur here. The most important habitat and harvest areas are on the slopes of Bald Mountain located north and east of Deception Creek and along a 3.5 mile-wide corridor overlapping Bullion Mountain and extending north to the management unit boundary. The unit also contains important brown and black bear habitat.

AREAS WITH GRAZING POTENTIAL



SUBUNIT

1. Hatcher Pass Road Corridor
2A. Upper Deception Creek
2B. Upper Deception Creek
3A. South Slope
3B. South Slope
4. Bench Lake

5A. Middle Deception Creek
5B. Middle Deception Creek
5C. Middle Deception Creek
6. Frying Pan Lake
7A. Lower Deception Creek
7B. Lower Deception Creek

Private, university, or borough land

* 2.3 acre parcel of state land on Frying Pan Lake

HIGH

MODERATE

MODERATE FOR CATTLE, MODERATE TO HIGH FOR SHEEP

(Based on interpretation of aerial photography with no ground truthing; does not consider access problems or conflicts with wildlife.)

b. **Sport hunting and trapping use:** Moose, bear, grouse, ptarmigan, and fur bearing animals.

c. **Waterfowl:** Ducks and geese.

d. **Raptors:** Eagles, Hawks, Falcons, Owls.

e. **Subsistence use:** None.

f. **Importance:** The value and magnitude of the fish and wildlife resources within this area are well known. It has a great diversity of wildlife species, a high density of moose, and is accessible to a large population center (Anchorage). The importance of this area for moose was recognized by the territorial game commission and the Department of Fish and Game as early as 1955. Since then, with few exceptions, the Department of Fish and Game has conducted aerial surveys of moose populations every year.

In 1986, the Department of Fish and Game conducted a moose census in game management subunit 14A which includes the Deception Creek Management Unit. From this effort it was determined that the Bench Lake area and the area along the marked sled trail from Houston into the Deception Creek Basin were more important as moose winter range than previously considered (Personal Communication Nick Steen).

Aerial survey, research, and harvest information clearly identifies much of the Deception Creek Management Unit as important annual and seasonal habitats of a large resident moose subpopulation, and of several other subpopulations of moose located adjacent to the site in the Lower Susitna River Basin and Matanuska Valley.

The Department of Fish and Game information indicates that the Deception Creek Management Unit lands are also important to moose subpopulations from the Talachulitna, Deshka, and Yentna river areas. Moose from these areas have migrated through the Deception Creek Management Unit lands to winter ranges near Houston and Pittman and along the floodplains of Willow Creek and the Little Susitna River. Other data suggest that several hundred moose from subpopulations on Willow Mountain and Moss Mountain (5-15 miles north of the Deception Creek Management Unit) migrate south onto and across the Deception Creek Management Unit to winter along the Little Susitna River and near Pittman and Wasilla.

The Department of Fish and Game data indicate that after winter, female moose move to particular areas and habitats for parturition. In the Deception Creek Management Unit, the Department of Fish and Game has recorded substantial numbers of moose in mid-elevation forested habitats (between the timberline ecotone zone used during post-rut and the lowland riparian areas used during winter) from mid-May to mid-July during calving. Particularly large numbers of moose occurred on west and south facing mid-elevation slopes from Bullion Mountain near Deception Creek east toward Bald Mountain. At this same time, black bears were commonly

observed utilizing the same zone of habitat. Use of forested habitat is thought to provide moose with a protective (ecological) separation from brown bears and with concealment from black bears.

In July, moose of both sexes start to reappear near and above the timberline ecotone habitats. Moose from different subpopulations that have either come to or crossed the Deception Creek Management Unit from other areas may stay in unoccupied habitats, vacated by natural mortality or previous season's harvest, until the breeding season which begins in early September. By this time, most of the moose have achieved a major portion of their body weight gain for the year in preparation for breeding (rutting) and winter.

The Department of Fish and Game data indicate that a large movement of animals occurs from alpine and other locations to lower mid-elevation densely timbered forest habitats in preparation for the breeding season. The data indicates that moose breeding activities take place in a fairly extensive portion of the Deception Creek Management Unit. Moose spend the rut in the area encompassed by timberline on the east to the 700-foot contour elevation and to Bullion Mountain near Deception Creek on the west, to Twelvemile Lake on the north, and to and including the area around Bench Lake on the south. The Department of Fish and Game data indicates that moose remain in these mid-elevation (approximately 700-1900 feet) timbered habitats through the rut until October when many of them return to the higher elevations at and above timberline.

The Department of Fish and Game's research activities have identified the following five dominant habitat zones (ranges) that occur in the Deception Creek Management Unit and are utilized extensively by moose seasonally:

(1) Post-rut forage range--located at and above the timberline ecotone and utilized from mid-October through December;

(2) Winter range--located in lowland areas near human settlements, highways and the railroad, and along the floodplains of Willow Creek, the Little Susitna River, and Deception Creek and utilized from December through April; during mild winters habitats located between 1200-2800 feet in elevation on Bullion Ridge and Bald Mountain are used as winter range; during heavy snow fall years, winter range is located in lowland areas near human settlements.

(3) Calving range--located in mid-elevation forested habitats primarily on south facing slopes between Bullion Mountain and Bald Mountain and utilized from mid-May through June;

(4) Summer range--located from mid-elevation forested habitat through alpine habitat and utilized from July through August; and

(5) Breeding (Rut) range--located in forested habitat from mid-elevations to timberline and utilized from September through mid-October. A moose travel corridor which traverses the Deception Creek Basin from Willow Mountain to the Little Susitna River (between Houston and the Schrock Road bridge) has been identified.

9. **Fisheries (populations and habitat):** Salmon, trout, whitefish, burbot, Dolly Varden, grayling. Anadromous streams are: Deception Creek, Lilly Creek, the outlet of Bench Lake, and the eastern stream in section 16, T18N, R2W, S.M.

10. **Recreation:** Key recreation resources identified in both the 1978 capital site development plan and the Willow Subbasin Plan are Bullion Mountain Scenic Area (T19N, R3W section 23), Twelve Mile Lake (about two sections south of the Hatcher Pass Road), and Willow Creek Island (less than a section along Willow Creek). Two others (Willow Plan) are the Susitna Scenic Area (extreme eastern edge) and Four Lakes (within the core area). The 1978 capital site development plan also shows a potential ski area in the northeast corner. In addition, there are several trails. (See discussion in individual subunits.)

C. **Land Use/Economic conditions:**

1. **Improvements/Facilities:** None presently exist except for a transmission line from the Teeland Substation on Knik Road to the Hatcher Pass Road (north of the Hatcher Pass Road this line becomes the Anchorage-Fairbanks intertie).

See map of Capital Site 1982 General Development Plan for location of proposed development for the capital city.

a. **Transportation/Access:**

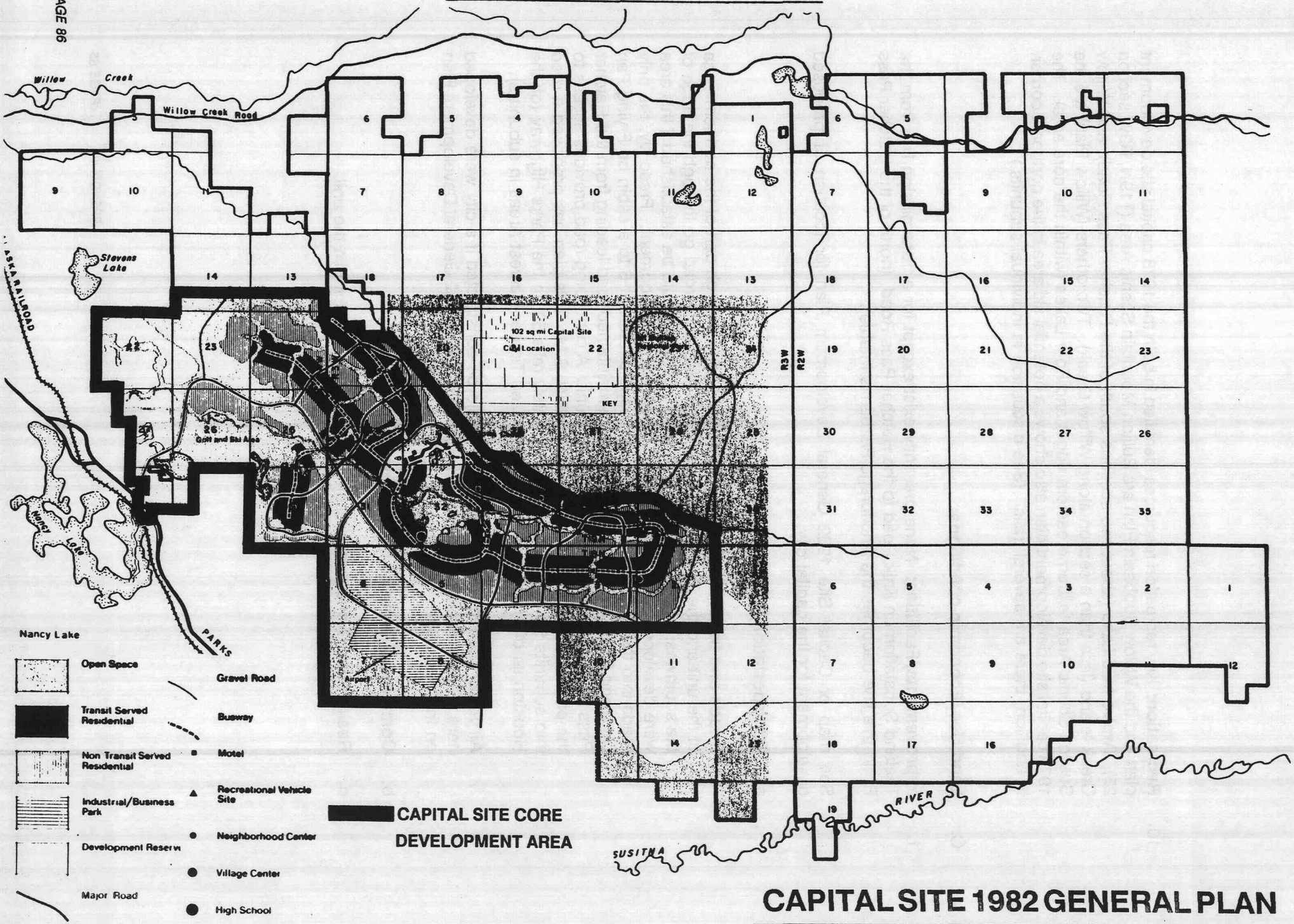
Roads and trails: The Hatcher Pass Road goes through part of the northern edge of the unit and the Parks Highway and the Alaska Railroad go through the edge of the southwest corner. A link to the Parks Highway would be established if this area were developed for a capital city or other major development. Presently, the only roads into the area are a road into the edge of subunit 6 to a cabin on Frying Pan Lake and Four Mile Road. This is a state-maintained road leading from the Hatcher Pass Road to the northwest edge of the unit. A continuing road provides access to the private parcel in section 18, T19N, R3W, S.M. This plan has proposed a road into subunits 5A and 5B from approximately mile 59 on the Parks Highway (off the Houston landfill road; see map of Proposed Timber Harvest Areas in subunit 5).

Airports/landing areas: An airport would be constructed if a city were developed here. See proposed airport location on Capital Site 1982 General Development Plan on the next page.

b. **Commercial/Industrial:** None exist at present.

c. **Residential:** None exist presently on the state lands within the unit.

DECEPTION CREEK MANAGEMENT UNIT



CAPITAL SITE 1982 GENERAL PLAN

2. **Non-Fish/Game Subsistance Resources:**

Vegetative: Most of the unit below 1,500 feet has white and black spruce and birch interspersed with pockets of typical bog vegetation such as sedges, blueberry and willow. The forests below 1,000 feet are typically better commercial quality. As the elevation increases on Bald Mountain Ridge, the trees give way first to grass scrublands, then subalpine (willow, alder, grassland, crowberry-blueberry hummocks) and finally, above 2,800 feet to alpine vegetation.

3. **Unauthorized Use:** At least five and possibly 25-30 cabins built and used by people using the area for recreation, e.g., snowmachiners. Cabins are not lived in permanently.

4. **Local government zoning/Use designations:** The management unit lies within the Matanuska-Susitna Borough. Most of it is not zoned. However, slightly less than one section at the southern edge of the unit is within the boundaries of the city of Houston and is zoned Public Lands and Institutions. (E½ Sec. 13, NE¼NW¼ and NW¼NE¼ Sec. 23, and NW¼ Sec. 24, T18N, R3W, S.M.)

5. **Services (existing):**

   a. **Road service:** None except as described above.

   b. **Communications/electricity:** Electricity exists on Hatcher Pass Road, portions of which are inside the management unit. A transmission line runs through the western edge of the management unit.

   c. **Other utilities:** None

6. **Adjacent land uses:**

   a. **Present:** The Willow Sub-Basin Area Plan completely encompasses the Deception Creek Management Unit. Within the Willow Sub-Basin Area Plan, the Hatcher Pass Management Plan abuts the northeast and eastern boundaries of the Deception Creek Management Unit; the legislatively designated Nancy Lakes Recreation Area and the community of Houston are adjacent on the southwest; the community of Willow is on the west; the Willow Creek Corridor is on the north; and the Little Susitna River runs just outside the southeastern portion of the site.

   The Hatcher Pass management unit land uses include mining, recreation, fish and wildlife, and grazing. A ski resort is proposed on the eastern side of this unit. The Houston and Willow land uses primarily include community land needs and the George Parks Highway scenic areas. The Willow Creek Corridor land uses include fish and wildlife, small farms, settlement, and recreation. The Little Susitna River and its tributaries in and along the southeastern portion of the unit are important salmon spawning streams. The Little Susitna River Corridor is important wildlife habitat and provides important recreation opportunities to people throughout the state.

b. **Projected future uses:**

(1) The **Willow Mountain Subunit** (Hatcher Pass Management Unit) adjacent to the northern boundary of the unit is primarily managed to maintain its wildlife resources and hunting opportunities as well as other types of dispersed recreation. It is open to mining, but has low mineral potential. Forestry is not a planned use. No commercial recreation facilities or settlement is allowed. The western portion of this subunit has been established as the Willow Mountain Critical Habitat Area.

(2) The **Lucky Shot Ridge/Baldy North Subunit** (Hatcher Pass Management Unit) to the east of the Deception Creek Management Unit is to be managed for a number of values. The road corridor is to be managed for its scenic value and for recreational access. Bald Mountain Ridge is to be managed for dispersed recreation and wildlife values. The area is open to mining which may occur in the future on Willow Creek, but is less likely on the ridge. No land sales are allowed.

(3) The **Hillside Subunit** (Hatcher Pass Management Unit) located in the southwestern corner of the Hatcher Pass Management Plan and adjacent to the eastern boundary of the Deception Creek Management Unit has steep, southerly slopes on Bald Mountain Ridge and is to be managed for scenic, recreational and habitat value. Below 1000 feet, commercial timber harvest and water resources protection is a management intent. High potential for grazing exists in section 6 and commercial lodges are allowed in section 7. A planned snowmachine trail and/or dog trails could eventually be routed from Hillside to the Willow Creek area via this management unit.

(4) **Nancy Lakes Recreation Area** The State Division of Parks and Outdoor Recreation has updated a master plan for the area which designates zones that permit varying levels of recreational development and intensity of use. It also designates specific areas for trail and facility development.

7. **Local economic conditions:** The area is currently subject to the statewide depression resulting from low oil prices.

APPENDIX III

PROCEDURES FOR PLAN MODIFICATION

APPENDIX III

PROCEDURES FOR PLAN REVIEW AND MODIFICATION

The land use designations, policies, implementation actions, and management guidelines of this plan may be changed if conditions warrant. The plan will be updated periodically as new data and new technologies become available and as changing social or economic conditions place different demands on state lands.

Changes to the plan will be made according to procedures outlined in Title 11 of the Alaska Administrative Code (11 AAC 55) and the Policy and Procedures Manual of the Division of Land and Water Management. The relevant section of 11 AAC 55 is given below. For further information, see the Policy and Procedures Manual.

11 AAC 55.030(f)

1. A revision to a land use plan is subject to the planning process requirements of AS 38.04.065. For the purposes of this section and AS 38.04.065, a "revision" is an amendment or special exception to a land use plan as follows:

    a. An "amendment" permanently changes the land use plan by adding to or modifying the basic management intent for one or more of the plan's subunits or by changing its allowed or prohibited uses, policies, or guidelines. For example, an amendment might close to new mineral entry an area that the plan designated to be open, allow a land use in an area where the plan prohibited it, or allow land to be opened to homestead entry in an area that the plan designated for retention in public ownership.

    b. A "special exception" does not permanently change the provisions of a land use plan and cannot be used as the basis for a reclassification of the subunit. Instead, it allows a one-time, limited-purpose variance of the plan's provisions, without changing the plan's general management intent or guidelines. For example, a special exception might be used to grant an eligible applicant a preference right under AS 38.05.035 to purchase land in a subunit designated for retention in public ownership. A special exception might be made if complying with the plan would be excessively burdensome or impractical, if compliance would be inequitable to a third party, and if the purposes and spirit of the plan can be achieved despite the exception.

2. A minor change to a land use plan is not considered a revision under AS 38.04.065. A "minor change" is a change that does not modify or add to the plan's basic intent, and that serves only to clarify the plan, make it consistent, facilitate its implementation, or make technical corrections.

APPENDIX IV

TABLE 3

TREATMENT AND MANAGEMENT OF LIVESTOCK DISEASES AND PARASITES

APPENDIX IV

Table 3

TREATMENT AND MANAGEMENT OF LIVESTOCK DISEASES AND PARASITES

Disease/Parasite	Testing and Treatment Before Release on Public Rangeland	Required Action if Animal Tests Disease Positive
Brucella-Tuberculosis	BRT test at least 60 days prior to release.	Required action if animal tests disease positive. Quarantine; remove from unit; inoculation.
Blue Tongue	Visual examination by licensed veterinarian 60 days prior to release date.	Restrict from release on public rangeland for 60 day period to allow retesting/recovery.
Anaplasmosis	"	"
Leptospirosis	"	"
Malignant Edema	"	"
Black Leg	"	"
Pasteurella	"	"
Parainfluenza III	"	"
Respiratory Syncytial Virus	"	"
Infectious Bovine Rinstracheiti (IBR)	"	"
Contagious Ecthyma	"	"
Equine Infectious Anemia	"	"
Scabies	"	"
Ovine Viral Diarrhea	"	"
Ovine Progressive Pneumonia	"	"
Endoparasites	"	"
	Administer by ingestion (Ivermectin) or other similar drug 60 days prior to release date.	
Ectoparasites	"	"
	Dust/spray with appropriate chemicals 60 days prior to release date.	

APPENDIX V

REVEGETATION AND EROSION CONTROL PROCEDURES

APPENDIX V

Revegetation/Landscaping Procedures Applicable to Hatcher Pass Road.

The short growing season, the unstable glacial till materials, and the value of the scenic resource necessitate revegetation practices. In addition to improving the view, modern revegetation practices reduce maintenance and provide soil and slope stability and food and cover for wildlife.

Selection of herbaceous materials should be determined based on the plants having long, tenacious roots for soil stability, fostering natural seed encroachment and being native to the area. Adaptive species may be selected if they are quick growing to provide soil stability and will succumb to the invasion of natural revegetation. Seed mixtures should change with soil and slope conditions.

Native Alaska wildflower seeds may be incorporated into areas of high visibility. Wildflower seeding should be minimal in areas where similar species exist on adjacent slopes that will naturally revegetate the right-of-way.

Landscaping materials may be acquired from the project site prior to construction. Shrubs such as willow or alder may be planted on slopes needing immediate stability to prevent slumps or landslides caused from groundwater upwelling. To create a smoother transition into the existing vegetation, small trees may be transplanted at the top of cut slopes or at the bottom of fills.

Erosion Control Procedures Applicable to Hatcher Pass Road.

Erosion control practices will promote accelerated recovery and reduced maintenance. Temporary containment or the diversion of clear water that traverses the construction areas will significantly minimize erosion hazards during construction. Groundwater and rain water should be collected from the construction site and strategically located in settling ponds hidden from view. On completion of construction, a decision should be made as to whether to keep the pond or not. If it is not to be kept, it should be drained, recontoured, and revegetated to blend with the natural terrain.

Other methods to control erosion hazards include the following. Rock gabions, wire cages filled with round rock or gravel and underlined by polyvinyl chloride, may be placed at culvert outlets where water velocity and concentration prevent reestablishment of grass or in streams where banks are being undercut by current. Silt collects between gravel and allows seed establishment.

The erosion hazard on slopes where groundwater springs are located can be controlled with buried perforated pipe that is permeable only by water. This reduces soil saturation, prevents sloughing, and promotes the establishment of vegetation.

Retaining walls, where necessary, should follow the same criteria as that for rock cuts. They should be of material and color similar to the surrounding terrain. They should also be benched and revegetated as appropriate.

APPENDIX VI

MATANUSKA-SUSITNA BOROUGH ASSEMBLY
RESOLUTION 89-201

Introduced by: Manager
Prepared by: Planning

MATANUSKA-SUSITNA BOROUGH

ASSEMBLY RESOLUTION 89-201 Substitute

"A RESOLUTION OF THE ASSEMBLY OF THE MATANUSKA-SUSITNA BOROUGH APPROVING THE DECEPTION CREEK LAND USE PLAN."

WHEREAS, the Department of Natural Resources, Division of Land and Water has developed a land use plan for the Deception Creek area (Willow Capitol Site); and

WHEREAS, the Division of Land and Water has held several public hearings on the plan; and

WHEREAS, most Borough land selections have been placed in conveyable land use classifications; and

WHEREAS, adoption of the plan will remove certain impediments to State timber sales in the area, which will benefit the local economy; and

WHEREAS, the plan postpones any action on the status of the Willow Capitol Site; and

WHEREAS, the plan is an interim plan and will be reviewed in its entirety in ten years; and

WHEREAS, the Borough Agriculture and Forestry Board has recommended approval of the Final Draft subject to the Borough being able to comment on the plan during the public notice period; and

WHEREAS, the Borough Planning Commission has recommended approval of the plan; and

WHEREAS, the Matanuska-Susitna Borough has Platting Powers; and

WHEREAS, prior existing legal uses and rights, including rights-of-way, should be recognized; and

WHEREAS, management unit 5C contains Borough interest lands; and

WHEREAS, year round roads are allowed to be developed on existing rights-of-way.

NOW THEREFORE, BE IT RESOLVED that the Assembly of the Matanuska-Susitna Borough approves the Deception Creek Land Use Plan (Final Draft) subject to review of the comments received on the Plan during the public notice period and subject to the following revisions:

1) Prior existing legal uses and rights, including rights-of-way, should be recognized and treated as non-conforming uses and the Plan's guidelines should not be used to deny such uses and rights; and

2) Existing non-conforming uses should be allowed to continue until abandoned and the removal of rights-of-way should be adjudicated in accordance with the existing vacation process; and

3) Any plan amendment, revision or modification should follow regulations set forth in 11 AAC 55.030 and the Plan should not contain any more restrictive requirements; and

4) Year round roads should be allowed to be developed in management unit 5C.

5)

PASSED AND APPROVED on this 19 day of September, 1989.

Dorothy A. Jones
Mayor

ATTEST:

Linda Dahl
Borough Clerk

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