

YAKATAGA AREA PLAN

April 1995



prepared by:

Alaska Department of Natural Resources
Division of Land
Resource Assessment & Development Section



Alaska Department of
**NATURAL
RESOURCES**

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The photos throughout this book are from the Division of Land, Resource Assessment & Development Section's photo files, except the mountain goat photo, which is from the Alaska Division of Tourism; John Hyde, photographer.

This book was released by the Alaska Department of Natural Resources and printed in Anchorage, Alaska, at a cost of \$35.60 per copy. Its purpose is to inform the public of the policies of the Yakataga Area Plan.

STATE OF ALASKA

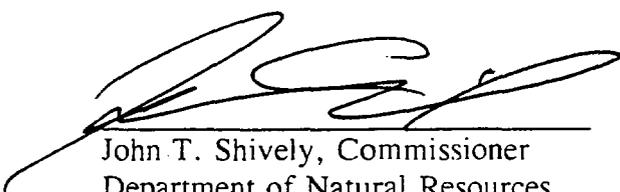
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF LAND

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The Commissioner of the Department of Natural Resources finds that the Yakataga Area Plan meets the requirements of AS 38.04.065 and 11 AAC 55.010-.030 for land use plans, and hereby adopts the plan. The Department of Natural Resources will manage state land in the planning area consistent with the plan.


John T. Shively, Commissioner
Department of Natural Resources

4/3/95
Date

The Alaska Department of Fish and Game assisted the Alaska Department of Natural Resources in preparing the Yakataga Area Plan. We appreciate the opportunity to represent the fish and wildlife habitat and harvest values during the development of the plan. The Alaska 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.


Frank Rue, Commissioner
Alaska Department of Fish and Game

11.15.95
Date

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PLANNING TEAM

The Yakataga Area Plan was developed by a planning team of state resource agency representatives (listed below). Final decisions were made by Department of Natural Resources administrators (see page vi).

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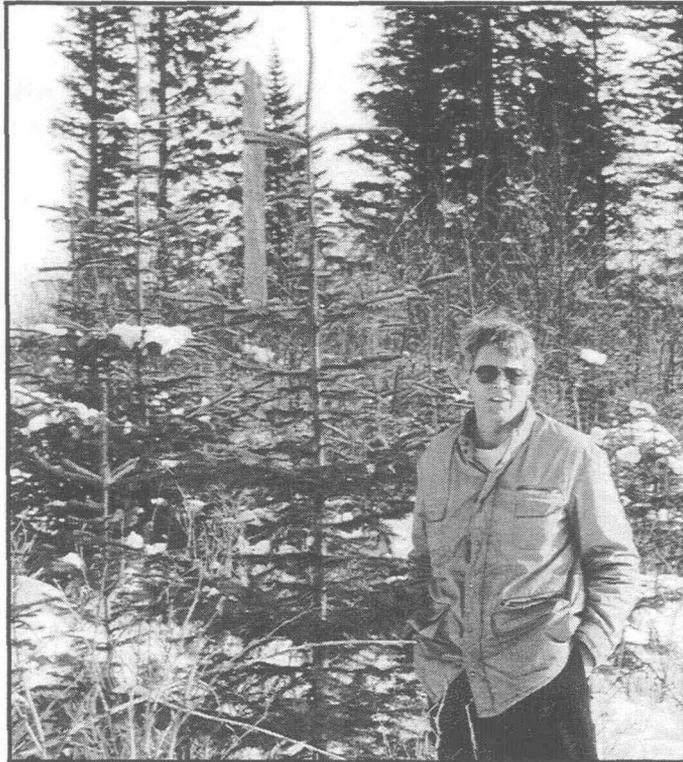
Chris Kent, Eric Decker

■ **Department of Fish and Game**

Lana Shea, John Palmes

■ **Department of Transportation and Public Facilities**

Mike McKinnon, Andy Hughes



Mike Peacock at forest regeneration site near Icy Cape, 1992

IN MEMORIAM

DNR would like to recognize the contributions of Mike Peacock to this plan, to state forestry management, and to the management of state land in the Yakataga area. On May 21, 1993, Mike, a DNR forester, was killed while on duty at the Icy Bay logging camp. Mike was the Division of Forestry's planning team representative for preparation of this plan, and contributed extensively to this planning effort. For most of his 14 years with the Division of Forestry, Mike administered timber sales in the Yakataga area. In recent timber harvests, he introduced progressive forestry management techniques. An avid outdoorsman, he contributed to this plan his knowledge of the area's fish, wildlife, hunting and recreation opportunities, in addition to his forestry expertise. Because Mike was easy to get along with and enjoyed talking to people, he provided the planning team with a wealth of information about the local people and their use of the area.

Mike was dedicated to improving the management of state land in the Yakataga area. This plan is better as a result of Mike's efforts. He is sorely missed.

POLICY DIRECTION

The following state agency personnel provided policy direction for the plan:

■ Department of Natural Resources

Commissioner's Office

John Shively, Commissioner; **Harry Noah**, former Commissioner; **Glenn Olds**, former Commissioner; **Harold Heinze**, former Commissioner; **Jules Tileston**, former Special Assistant to the Commissioner; **Raga Elim**, former Special Assistant to the Commissioner

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Division of Forestry

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Division of Mining and Water

Jules Tileston, Director; **Sam Dunaway**, Deputy Director; **Jerry Gallagher**, former Director; **Ric Davidge**, former Director of former Division of Water

Division of Parks and Outdoor Recreation

Neil Johannsen, Director, **Ron Crenshaw**, Planning Specialist

Department of Fish and Game

Frank Rue, Commissioner and former Director of the Division of Habitat and Restoration; **Carl Rosier**, former Commissioner; **Lana Shea**, Southeast Regional Manager and **Rick Reed**, former Southeast Regional Manager, Division of Habitat and Restoration

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Jim Anderson, Assistant Project Manager (1992-94)

Chas Dense, Assistant Project Manager (1992-93)

Ron Hurlburt, Assistant Project Manager (1991)

COMMUNITY AND REGIONAL ADVISORS

The planning team and staff would like to thank the following community and regional advisors, who provided resource and policy information:

U. S. Fish and Wildlife Service

Ed Grossman

National Park Service

Rick Mossman

U. S. Forest Service

Ken Holbrook, Don Steward

National Marine Fisheries Service

Tamra Faris

Bureau of Land Management

John Rumps

City of Yakutat

Larry Powell, Daryl James, Beth McKibben

City of Cordova

Walt Wrede, George Keeney

City of Seward

Christopher Gates, Tyler Jones

Yak-tat Kwaan, Inc.

Caroline Powell, Alex James

Chugach Alaska Corporation

Paul Tweiten, Mark Stahl

Sealaska Corporation

Richard Harris

University of Alaska

Martin Epstein, Rick Rogers

Mental Health Land Office

Dave Thomas

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Dick Mylius and **Marty Welbourn** for assistance in formulating the planning process, writing, editing, assistance at meetings, and a multitude of plan-related issues.

Pearl Reamer, **Jeanne Ratchner** and **Ronda Wilson** for assistance with typing, mailing lists, and mailings.

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Janet Burleson (aquatic farming), **Ed Fogels** (minerals and materials), **Anna Plager** (cultural resources), **Bruce Talbot** (settlement, aquatic farming, recreation and tourism, draft plan preparation, mineral and classification orders), **Dee Koester** (Chapter 2 editing and draft plan preparation) and **Alice Iliff** (editing), for their assistance on resource reports, editing, and preparing the draft plan.

Rich McMahon, **Jean Tam**, and **Sharon Rudolph** from the Land and Resources Information Section for assistance in computer mapping on geographic information systems (GIS).

Steve Phillips from the Division of Forestry for timber inventory data analysis and timber mapping.

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Ron Schonenbach, **Chris Landis**, and **Terry Rader** from the Division of Land's Southeast Regional Office for identifying land and water uses and issues.

The following individuals outside the Department of Natural Resources made notable contributions to the plan.

Pete Carlson from the Division of Tourism for evaluating recreation and tourism opportunities.

Dave Hardy, **Jim Cochran**, **Gordon Woods**, **Tom Thornton**, **Herman Griese**, and **Roy Nowlin** from the Department of Fish and Game for field knowledge of fish and wildlife resources, data compilation, and review of documents.

Andy Romanoff from the Southeast Alaska Conservation Council for recreation resource information, **Judy Braekel** for observations and documentation of wildlife concentration areas, and **John Vale** from the Yakutat Fish and Game Advisory Committee for aquatic farming impacts and land use information at the Tsiu River.

CHAPTER 1

INTRODUCTION

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CHAPTER 1

INTRODUCTION

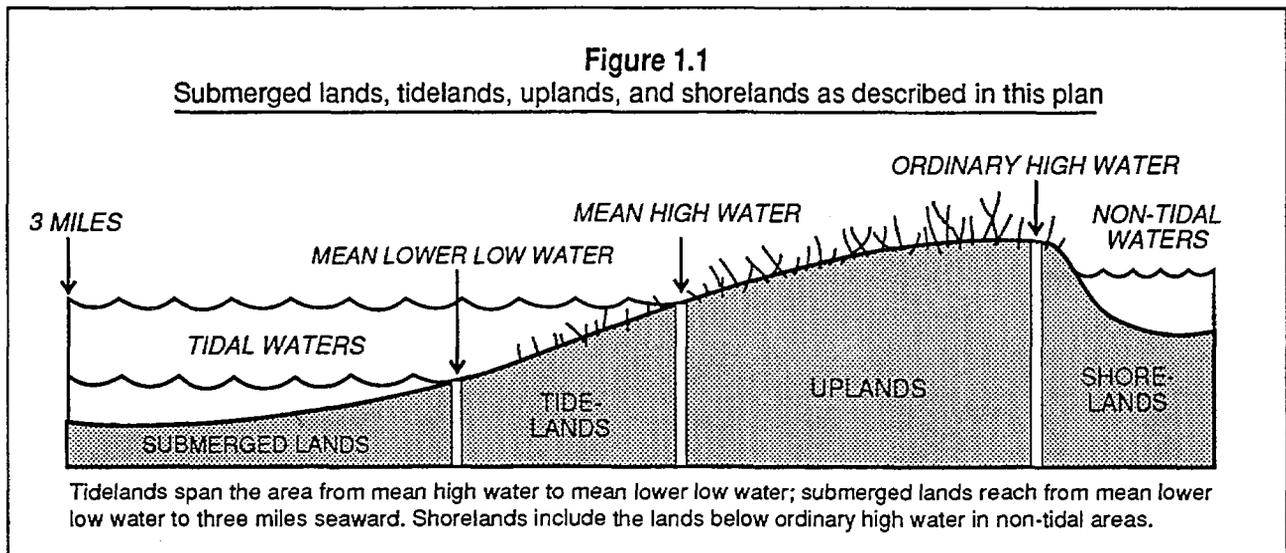
The Yakataga Area Plan directs how the Alaska Department of Natural Resources (DNR) will manage state uplands, shorelands, tidelands, and submerged lands between Cape Suckling and the northern boundary of Glacier Bay National Park (near Dry Bay). The plan provides land use designations, management intent, and management guidelines that apply to all state lands managed by DNR in the planning area. The plan is effective for twenty years, with periodic reviews and updating.

The Yakataga planning area is rich in natural resources. The area contains the best state-owned timber, a multi-million dollar commercial fishery, thriving wilderness recreation businesses, ongoing subsistence activities, and active placer gold mining. There is also potential for a world-class tourist destination at Bering Glacier.

State-owned lands in the Yakataga planning area are shown on Map 1-1 on page 1-3.

The area plan applies to approximately 1.4 million acres of state lands managed by DNR¹, including:

State-owned uplands and shorelands	338,448
State-selected uplands and shorelands	112,686
State-owned tidelands and submerged lands	932,840
Approximate acreage	1,383,974



¹ The area plan **does not** apply to state lands managed by state agencies other than DNR. The plan therefore excludes Yakataga State Game Refuge, Mental Health Trust lands, and Yakutat airport or other lands managed by DOTPF. The plan **does** apply to shorelands beneath navigable waterbodies, and to the state-owned and reserved subsurface mineral estate, such as beneath municipal lands. DNR has no acreage calculations available for these last two categories of land.



Icy Bay

Purpose of the plan

In 1990 the Alaska Legislature directed the Department of Natural Resources to complete a land use plan for the Yakataga area (Chapter 143, SLA 1990). The purpose of the area plan is to help resolve long-standing disputes over management of timber harvest, fish and wildlife, and other resource uses on state land.

The area plan meets numerous statutory and constitutional requirements for planning and management of state lands. In brief, the role of state land use plans was established by state statute (AS 38.04.005). It is the policy of the State of Alaska "...to establish a balanced combination of land available for both public and private purposes. The choice of land best suited for public and private use shall be determined through the inventory, planning, and classification processes..."

State land use plans are also a means to implement the natural resources policies of the Alaska Constitution. These policies include maximum use consistent with the public interest (Article VIII, Section 2); and sustained yield of all renewable resources (Article VIII, Section 4).

The final Yakataga Area Plan was revised to be consistent with the December 2, 1994 settlement agreement regarding litigation of the University of Alaska's timber rights in the Yakataga area.²

The planning process allows the Department of Natural Resources (DNR) to analyze resource information and public concerns before making long-range decisions about public land management. The planning process resolves conflicting ideas on land use and informs the public about what choices were made and why. Decisions are made on a comprehensive basis, rather than case by case, providing consistency and consideration of all resources throughout the planning area.

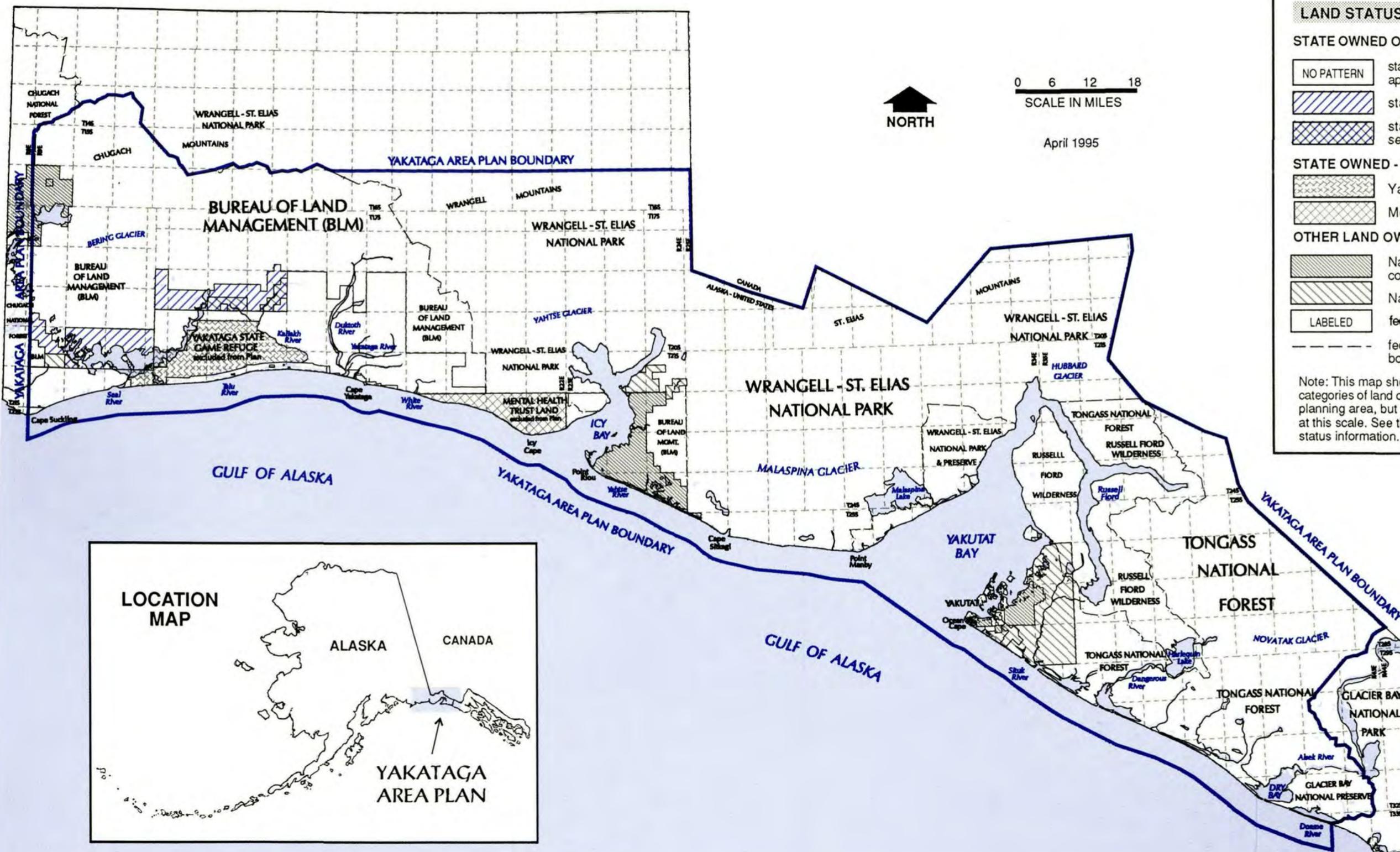
² The Memorandum of Agreement to settle the litigation (the settlement agreement) was signed by DNR [representing the State of Alaska], the University of Alaska, the Yakutat Fishermen's Association, Cordova District Fishermen United, the Alaska Center for the Environment, the Southeast Alaska Conservation Council, and the City and Borough of Yakutat. See Appendix C for more information.

YAKATAGA AREA PLAN

Yakataga Area Plan - location & generalized land status

YAKATAGA AREA PLAN

Yakataga Area Plan - location and generalized land status



LAND STATUS

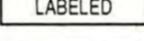
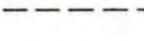
STATE OWNED OR SELECTED - SUBJECT TO PLAN:

-  NO PATTERN state owned - patented or tentatively approved
-  state selected
-  state and Native selection (dual selection)

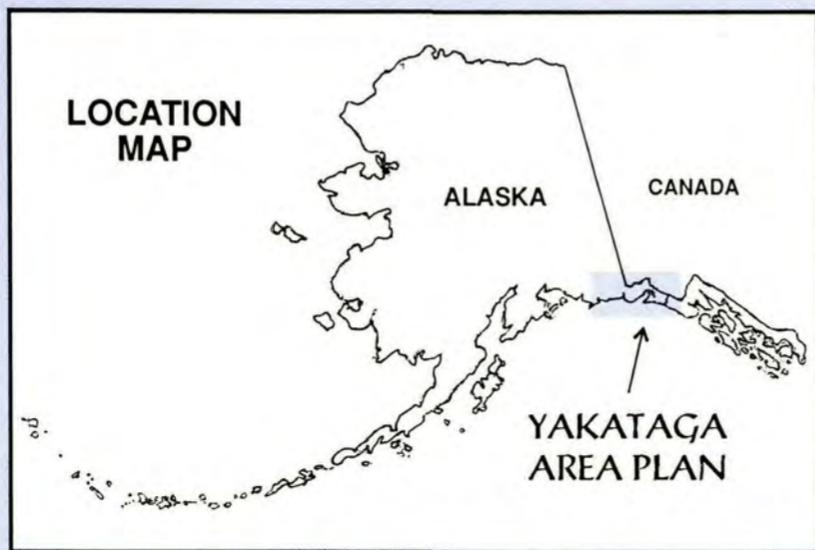
STATE OWNED - EXCLUDED FROM PLAN

-  Yakataga State Game Refuge
-  Mental Health Trust land

OTHER LAND OWNERSHIP

-  Native owned - patented or interim conveyed
-  Native selected
-  LABELED federal (National Forest, National Park, BLM)
-  federal conservation system unit boundary

Note: This map shows generalized land status. Additional categories of land ownership and use exist in the Yakataga planning area, but are too small or complex to be depicted at this scale. See the individual unit maps for detailed land status information.



How the plan was developed

Steps in the planning process

<input checked="" type="checkbox"/> Identify issues	spring 1991
<input checked="" type="checkbox"/> Map and analyze resources and uses	1991 to present
<input checked="" type="checkbox"/> Develop and review management alternatives	spring 1992
<input checked="" type="checkbox"/> Prepare the draft plan	fall 1992 - spring 1993
<input checked="" type="checkbox"/> The public and agencies review the draft plan	summer 1993
<input checked="" type="checkbox"/> Prepare the final plan using comments on the draft and provisions of the 1994 settlement agreement on the university timber rights	fall 1993 through 1994 ³
<input checked="" type="checkbox"/> The commissioner of DNR adopts the plan, and signs accompanying orders for land use classifications, mineral closures, and mineral leaseholds. ⁴ The Commissioner of DFG co-signs the plan.	April 3, 1995

Who developed the plan

Pages vii through x list the individuals with primary roles in developing this plan. These persons' roles were:

The **commissioner and directors** of DNR determined the overall allocation of resources among competing uses. The DNR and DFG commissioners negotiated to resolve several specific controversies, such as the forestry guidelines and mineral closures. This plan represents a consensus of state resource agencies.

The **planning team** was responsible for developing the detailed policies in the plan, such as the areawide guidelines, land use designations, and site-specific guidelines for specific subunits. The planning team also contributed much of the data and analysis for the resource inventories.

The **Yakataga planning staff** (also referred to as project staff) was responsible for research, writing, and coordination. The staff's responsibilities included data collection, public and inter-agency meetings, plan preparation, and responses to public comments.

The **community and regional advisors** contributed resource data, informed the planning team of local, Native, or federal management preferences, and edited drafts as the plan was developed. The **public** also served an advisory role. Individuals and special interest groups contributed information on current and potential resource uses, and expressed their ideas for resource allocation and management.

³ The plan was delayed pending approvals of the Mental Health settlement and the university timber settlement.

⁴ Two recommendations in the area plan will require legislation: inclusion of subunit 3c-4 in the Yakataga State Game Refuge, and long-term closure of the bed of the Situk River to mineral entry.

What the plan will do

The plan will help ensure that state resource management takes into account the sustained yield of renewable resources, that development is balanced with environmental concerns, and that public access is provided to state land. The plan encourages cooperation with other landowners to address conflicts caused by checkerboard land-ownership patterns. Finally, the plan documents the state's long-term intent for land management so that both public and private interests can coordinate their long-range planning and investments.

The plan balances many disparate and competing interests. It represents DNR's effort to reach a fair and responsible accommodation of all interests. The balance struck by the plan can be summed up as ensuring multiple use and reasonable access for resource development while protecting other important resources, uses, and values.

The plan prescribes management policy in several complementary parts:

■ Land use designations

Designation(s) for each subunit indicate the primary uses and resources DNR will emphasize in its management decisions. These designations are explained and mapped in Chapter 3.

■ Management intent

The planning area is subdivided into units and subunits. The plan provides site-specific management intent for these smaller areas.

■ Management guidelines

When potentially conflicting uses are designated in a management subunit, the plan uses guidelines to allow various uses to occur without unacceptable consequences. Management guidelines for specific management units are given in Chapter 3. Guidelines that apply to the entire planning areas are located in Chapter 2.

■ Classifications

All lands managed by DNR in the planning area will be classified consistent with the land use designations in this plan. Land use designations made by the plan are thereby officially established in state land status records. A table that shows how designations convert to classifications is located in Chapter 4.

More specifically, the plan will ensure the following:

- If a proposed use is designated, the use can, according to existing information, be authorized by DNR somewhere within the area designated. DNR will resolve exactly where and how a designated use will occur through the permitting process, using the management intent and guidelines of the plan, and information gathered in the site-specific project review.
- Uses that are neither designated nor specifically prohibited may be allowed if DNR determines these uses to be consistent with the management intent and guidelines for the management unit, and the relevant Chapter 2 guidelines.
- Conflicts with significant fish and wildlife habitat, and harvest areas and recreation areas from incompatible uses are avoided, minimized, or mitigated through plan management intent and guidelines.
- Where upland resource development is planned, there will be reasonable access across state tidelands.

What the plan won't do

There are some important issues that are not addressed in this plan:

■ Non-DNR lands

This plan does not apply to lands owned by the borough, federal government, DOTPF, University of Alaska, Mental Health Trust, Native corporations or other private landowners.⁵

■ Legislatively designated areas

The plan does not apply to the Yakataga State Game Refuge or any other legislatively designated areas.

■ State oil and gas lease sales

This plan does not determine whether DNR will hold oil and gas lease sales. The Department's state-wide policies for oil and gas are found in the Five-Year Oil and Gas Leasing program (AS 38.05.180). The DNR Division of Oil and Gas will use the lease sale process to develop and apply specific stipulations for oil and gas exploration, development, and production activities on a case-by-case basis for each oil and gas lease sale using the lease sale process. Subsequent to a lease sale, surface land uses and activities related to oil and gas development are subject to this area plan.

■ Fish and wildlife allocation

This plan does not determine allocation of fish and game stocks, nor hunting or fishing regulations. Such decisions are the responsibility of the state boards of Fisheries and Game.

■ Short-term, generally-allowed uses

The area plan does not regulate activities that do not require a written authorization on state land, such as hiking, camping, boating, hunting, and fishing by individuals.

■ Decisions on specific applications

While plans provide general management intent for state lands, plans do not make decisions about specific land-use authorizations. Decisions on specific land use authorizations are made through DNR's permit review process. Any land-use authorizations must, however, be consistent with the plan, and existing laws and regulations.

■ Actions by agencies other than DNR

The plan does not prescribe actions or policies for agencies and governments other than DNR.

⁵ The area plan applies to the tracts where the university holds one-time timber rights under ADL 223456: DNR retained ownership of these lands. For more information on the status of non-state lands within the planning area, see Chapter 4 and Appendix C.

Summary of plan implementation and modification

The plan is implemented through administrative actions such as leases, permits, land conveyances, classification orders, and mineral orders. The plan serves as the final finding for land classification and mineral orders. Chapter 4 presents the details of plan implementation recommendations and procedures.

The plan is intended to be in effect for twenty years. Economic and social conditions in Alaska and the planning area are certain to change and the plan must change with them. DNR will review the plan periodically to monitor progress in implementing the plan and to identify problems that may require amendment or modification.

Specific modifications may be made whenever conditions warrant them, though a request for these changes must follow certain procedures. The plan may be amended upon approval by the Commissioner of DNR following public review and consultation with appropriate agencies. See Chapter 4 for a description of plan modifications, amendments, special exceptions, and minor changes.

The relationship between the Yakataga Area Plan and other plans

Other plans have been developed in the Yakataga area. DNR developed the Cape Yakataga Site Specific Plan in 1990 to address a proposed timber sale extension. This area plan supersedes the site-specific plan.

The City and Borough of Yakutat anticipates completion of a coastal plan under the Alaska Coastal Management Program (ACMP) in 1996. Activities on state lands within the Yakutat coastal planning district must be consistent with the Yakutat program. Activities on state lands in the entire planning area must also be consistent with the *statewide* coastal plan.

The City and Borough of Yakutat (CBY) will prepare a comprehensive plan for all lands within its boundaries. Activities on state lands in the CBY must be consistent with the borough comprehensive plan and borough ordinances unless there is an overriding state interest.

Additional resource information

DNR has prepared a series of maps and reports on resources in the planning area. This draft plan contains only summary tables of resource information (see Chapter 3). The resource reports offer more comprehensive information on the locations of resources, their current and potential uses, and their economic values. The following reports and maps are available through the DNR Division of Land in Anchorage and Juneau.

- aquatic farming
- cultural resources
- fish and wildlife
- forestry
- minerals and materials
- recreation and tourism
- settlement
- vegetation maps (including timber size and density) for the area from Cape Suckling to Icy Bay
- recreation and tourism map: existing and potential uses
- access map: (anchorage, airstrips, roads)
- fish and wildlife atlas:
 - upland big game mammals
 - furbearers
 - marine mammals, waterfowl, and eagles
 - fish and shellfish
 - commercial fish and shellfish harvest
 - guided and sport fishing and hunting
 - community harvest of fish and wildlife

Call the DNR public information staff at (907) 269-8400 in Anchorage or (907) 465-3400 in Juneau to inquire about the above reports and maps.

CHAPTER 2

AREAWIDE GUIDELINES

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CHAPTER 2

AREAWIDE GUIDELINES



White River valley

Introduction

This chapter presents several broad land management policies as well as management policies for each of the major resources affected by the plan:

- aquatic farming
- coordination and public notice
- fish and wildlife habitat and harvest
- floating residential facilities
- forestry
- heritage resources
- materials
- public and private access
- recreation, tourism, and scenic resources
- settlement
- shoreline and stream corridors
- subsurface resources
- trail management
- transportation and utilities
- upland and waterfront development, and
- water resources.

YAKATAGA AREA PLAN

The policies in this chapter consist of goals and management guidelines. **Goals** are the general conditions DNR is trying to achieve. **Guidelines** are specific directives that DNR will apply to land and water management decisions as resource use and development occur.

These policies apply to all state land managed by DNR, regardless of the land use designation, except for two cases:

- these policies do not apply to Mental Health Trust lands;
- these policies do not apply to the Yakataga State Game Refuge.¹

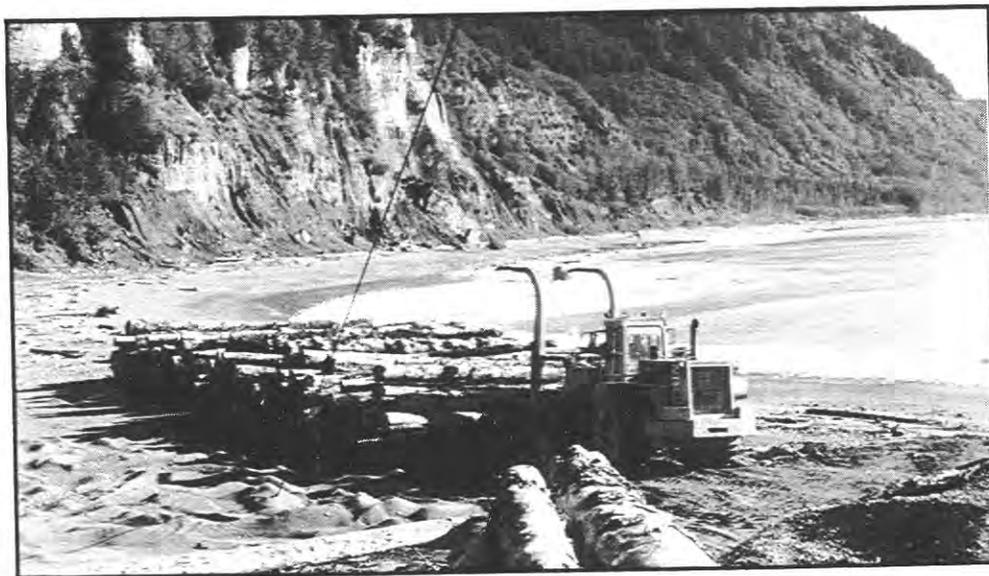
These policies *do* apply to DNR lands where the University holds one-time timber rights under ADL 223456.

Some of the guidelines in this chapter commit DNR to develop more site-specific or project-specific guidelines through Forest Land Use Plans (FLUPs). These include Habitat Guideline E, Forestry Guidelines A, F, G, H, I, J, K, and Recreation Guideline G. In accordance with these guidelines, DNR will design additional protection needed for certain resources based on field knowledge of a particular site and details of the proposed development project.

During the university's timber harvest, DNR will use the university's Annual Operating Plans to implement those area plan guidelines that reference Forest Land Use Plans.² The Annual Operating Plans are subject to state agency review through the ACMP process.³

In accordance with the 1994 settlement agreement [Section 3], "all timber harvest operations conducted by the university under ADL 223456, including harvest on the Yakataga tract and on the substitute tract, will remain subject to and must be consistent with...without limitation...the final Yakataga Area Plan."

For definitions of terms commonly used in this chapter, see the Glossary in Appendix A.



Yarding logs at the Icy Cape log transfer facility

1 DNR has some management responsibilities within state game refuges, but the legislature directed that this area plan should not apply to the Yakataga refuge (Ch. 143, Sec. 4, SLA 1990).
2 December 1994 settlement agreement, section 3.
3 Appendix D explains FLUPs and Annual Operating Plans.

Goals

Goals are general conditions DNR attempts to achieve through management decisions. The goals listed here are consistent with the Alaska Constitution (Article VIII), Alaska Statutes (Title 38), and the legislation that directed preparation of this area plan (CSSS HB 346, Chapter 143, SLA 1990). Goals are listed alphabetically. No single goal has a priority over the others.

Economic development

Provide opportunities for jobs and income by managing state land and resources to:

- A. support a vital, self-sustaining local economy,
- B. generate net revenues to the state, and
- C. benefit the economic well-being of the state as a whole.

Fiscal costs

Minimize the need and the fiscal cost to provide government services and facilities, such as schools and roads. Locate settlement where there is a sustainable economic base and where necessary services can be efficiently provided.

Public health and safety

Maintain or enhance public health and safety for users of state land and resources.

Public use

Provide and enhance diverse opportunities for public use of state lands, including uses such as hunting, fishing, boating, and other recreation.

Quality of life

Maintain or enhance the quality of the natural environment, including air, land, water, and fish and wildlife habitat. Protect heritage resources. Preserve the character and lifestyle of local communities and provide lifestyle choices for all Alaskans.

Settlement

Provide opportunities for private ownership and leasing of land currently owned by the state.

Sustained yield and multiple use

Maintain the long-term productivity and quality of renewable resources including timber, fish and wildlife, and recreation and tourism opportunities. DNR will manage state lands for multiple uses, subject to the management intent of this plan, which may indicate a preference among uses in particular subunits.

Aquatic farming

A. Aquatic farming and competing uses

Aquatic farming is an allowable use on state tidelands or submerged lands. However, aquatic farming may pose conflicts with existing marine uses. Chapter 3 and Appendix F list existing marine uses in specific areas. Areas with existing marine uses may be available for aquatic farming if DNR determines that:

1. it is possible to site, design, and operate the two or more uses compatibly in the area, or
2. there is no feasible and prudent⁴ alternative for aquatic farming while one exists for the competing use.

In no case will DNR allow aquatic farming to foreclose access to mineral, timber, important fish and wildlife, or recreation resources unless feasible and prudent alternative access exists.

B. Aquatic farming caretaker facilities

Floating caretaker facilities for aquatic farming operations are allowed in areas where there is no feasible and prudent upland alternative and no significant competing use. Refer to Floating Residential Facilities Guideline F for areas of conflict.

C. Preferred storage sites

Shellfish awaiting test results for paralytic shellfish poisoning (PSP) before shipment should be stored on exposed gravel and sand beaches, or the least biologically active area that provides protection from severe weather conditions, because these sites are less biologically productive than salt marshes or tidal flats. See National Oceanic and Atmospheric Administration's Environmental Sensitivity Index Type maps for locations of exposed sand and gravel beaches.

⁴ **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." Originally derived from the Alaska Coastal Management Program (ACMP) regulations. A written decision by the land manager is necessary to justify a variation from a guideline modified by the term "feasible and prudent."

Coordination & public notice

A. Upland owner objection to use of tidelands or submerged lands

If the upland owner objects to an application for use or development of adjacent tidelands or submerged lands, the applicant must demonstrate to the satisfaction of the Department of Natural Resources (DNR) that there is no feasible and prudent alternative site. A feasible and prudent alternative site is one that DNR, in consultation with the applicant, finds physically suitable, that meets the guidelines of this plan and other permit requirements, and has no objection from the upland owner. If no feasible and prudent alternative site has been identified, DNR will adjudicate the application considering at least the following:

1. whether site design and operating stipulations can effectively minimize or eliminate the objection; and
2. the magnitude of the potential impacts to the upland owner, including but not limited to monetary cost, changes to present or expected land management, and the consequences of trespass.⁵

B. Upland owner permission for shore use

For proposed tideland or submerged land activities that use non-state uplands, DNR will not issue an authorization until the applicant has requested the upland owner's permission. The applicant must submit to DNR copies of his request to the upland owner. Alternatively, the applicant may show how all necessary housing, warehousing, processing, and other uses will be accommodated on the tidelands.

1. **If upland support is essential.** If upland support is essential to the project's success, and DNR is ready to authorize the activity before the upland owner's permission is obtained, DNR should hold the authorization pending that permission.
2. **If upland support is not essential.** Where upland support is not essential to the project's success, DNR may authorize the use with the stipulation that activities requiring upland support will not begin until the applicant notifies DNR that the upland owner's permission has been obtained. For example, where a facility can use either anchors or shore ties, DNR may authorize the facility with the provision that shore ties will not be used without the upland owner's permission.

If the upland owner denies or cancels an authorization for upland support, the permittee will notify DNR and DNR may modify or cancel the tideland authorization, based on an evaluation of the circumstances. DNR will notify the upland owner if DNR cancels the authorization.

C. Notice and coordination regarding university timber rights

1. When DNR issues authorizations on lands included in the university settlement, DNR will inform the applicant of the university timber rights under ADL 223456 and state the earliest date on which nearby timber harvest might occur. DNR will submit the proposed authorizations to the university for their review.
2. For the duration of the university timber rights under ADL 223456, no use of timber will be allowed on lands included in the university settlement unless approved by the university.

D. Notice to aquatic farm operators

DNR should notify aquatic farm permit holders when it reviews applications for activities that may affect existing aquatic farm operations. DNR should give the permit holders an opportunity to comment.

⁵ DNR has cause to revoke an authorization for use of tidelands or submerged lands if the user is convicted of trespass or unauthorized use of adjacent land related to the activity on state land.

Fish & wildlife habitat and harvest

Fish & wildlife habitat

A. Mitigation

When authorizing the use or development of state lands, the Departments of Natural Resources (DNR) and Fish and Game (DFG) will recognize the requirements of the activity or development and the benefits it may have to habitat when determining stipulations or measures needed to protect fish, wildlife, or their habitats. The costs of mitigation relative to the benefits to be gained will be considered in the implementation of this policy.

All land use activities will be conducted with appropriate planning and implementation to avoid or minimize significant adverse impacts on fish, wildlife, or their habitats.

The departments will enforce stipulations and measures, and will require the responsible party to remedy any significant damage to fish, wildlife, or their habitats that may occur as a direct result of the party's failure to comply with applicable laws, regulations, or the conditions of the permit or lease.

When determining appropriate stipulations and measures, the departments will apply, in order of priority, the following steps. Mitigation requirements listed in other guidelines in this plan will also follow these steps.

1. **Avoid** anticipated, significant adverse impacts on fish, wildlife, or their habitats through design, siting, timing, or other management options.
2. When significant adverse impacts cannot be avoided by design, siting, timing, or other management options, the adverse impact of the use or development will be **minimized**.
3. If significant loss of fish or wildlife habitat occurs, the loss will be **rectified**, to the extent feasible and prudent, by repairing, rehabilitating, or restoring the affected area to a functional state.
4. DNR will consider requiring **replacement** with or **enhancement** of fish and wildlife habitat when steps 1 through 3 cannot avoid substantial and irreversible loss of habitat. DFG will clearly identify the species affected, the need for replacement or enhancement, and the suggested method for addressing the impact. Replacement with or enhancement of similar habitats of the affected species in the same region is preferable. DNR will consider only those replacement and enhancement techniques that have either been proven to be, or are likely to be effective and that will result in a benefit to the species impacted by the development. Replacement or enhancement will be required by DNR only if it is determined to be in the best interest of the state either through the AS 38.05.035(e) or permit review process. Replacement may include structural solutions, such as creating spawning or rearing ponds for salmon, creating wetlands for waterfowl; or non-structural measures, such as research or management of the species affected, or legislative or administrative allocation of lands to a long-term level of habitat protection that is sufficiently greater than that which they would otherwise receive.

B. Uses in designated fish and wildlife habitat⁶

When reviewing a proposed use, DNR will consider the type of fish and wildlife habitat upon which the habitat (H) designation is based. The habitat information is shown on the fish and wildlife maps and is also described in the subunits in Chapter 3. Mitigating measures will be designed for the specific type of fish and wildlife habitat that occurs in the designated area.

1. **Designated uses.** If "H" fish and wildlife habitat is designated jointly with other uses, the department policy is:
 - a. the jointly designated uses are compatible; or
 - b. that with appropriate design, siting, and operating stipulations, the designated uses can be made compatible and significant adverse impacts to the "H" habitat avoided; or
 - c. that the other use is of sufficient importance or lacks a feasible and prudent alternative and that it should be allowed within the "H" habitat consistent with Guideline A of this section and ACMP policies.
2. **Non-designated uses.** Within "H" fish and wildlife habitat areas, uses that are not designated in Chapter 3 and that result in habitat alteration through dredging, filling, significant compaction of vegetation and sediment, alteration of flow patterns, discharge of toxic substances, disturbance during sensitive periods, or that significantly decrease the value and productivity of the habitat area are initially considered incompatible with the plan's management intent and the "H" fish and wildlife habitat designation.

However, non-designated uses that cause significant adverse impacts to designated habitat areas as described above, may be allowed if:

- a. DNR and DFG determine through new information or more detailed analysis that the area is not "H" habitat as defined in the plan; or
- b. if the project receives a final consistency determination under the ACMP, and significant adverse impacts are mitigated under Guideline A or under stipulations developed for the ACMP determination.⁷

C. Habitat manipulation

Habitat manipulation through water control, timber management practices, or other measures may be used to improve habitat for certain fish and wildlife species where DFG determines that it is beneficial to the species or habitat and DNR determines that it is compatible with other primary uses.

D. Threatened and endangered species

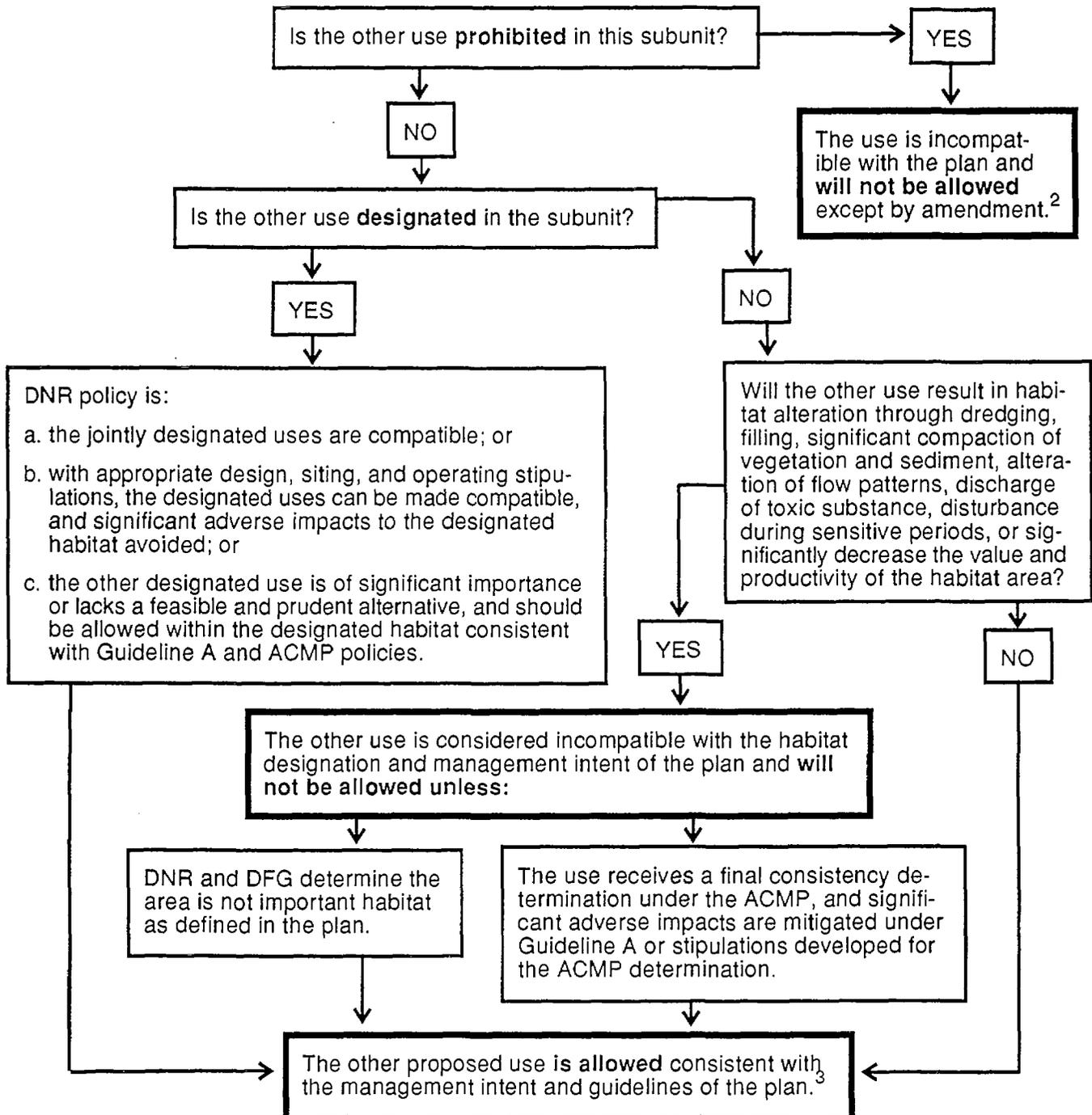
All land use activities will be conducted consistent with state and federal endangered species acts. DNR's intent is to avoid jeopardizing the continued existence of threatened or endangered species by 1) providing for their continued use of an area; and 2) avoiding modifying or destroying their habitat.

⁶ The areas designated fish and wildlife habitat (H) in Chapter 3 of the plan were defined using the best information available at the time the plan was written. When better information becomes available through additional studies, site inspections, or other means, that information will be used in permitting decisions and will be incorporated into the plan in the next update. The definition of important habitat (H), is in the Glossary and the criteria DFG used to map important habitat are stated in Appendix E.

⁷ Note that a project is not guaranteed DNR authorization even though all the above conditions are met. DNR will not authorize projects that do not meet DNR legal requirements or that DNR determines not to be in the state's best interest.

Figure 2.1

Other uses¹ in designated fish & wildlife habitat areas^{2, 3}



1 Uses other than protection, maintenance or enhancement of fish and wildlife habitat.
 2 See Chapter 4 for plan amendment procedures.
 3 A project is not automatically guaranteed DNR authorization even though all the above conditions are met. DNR will not authorize projects that do not meet DNR legal requirements or are determined not to be in the state's best interest.

Through interagency consultation, DNR will identify the habitat locations that support threatened or endangered species. Specific mitigation recommendations should be identified through interagency consultations for any land use activity that potentially affects threatened or endangered species. When this plan was approved, the following species in the Yakataga area were listed as threatened or endangered.⁸

■ American peregrine falcon (<i>Falco peregrinus anatum</i>)	Endangered
■ Arctic peregrine falcon (<i>Falco peregrinus tundrius</i>)	Threatened
■ Gray whales (<i>Eschrichtius robustus</i>)	Endangered
■ Humpback whale (<i>Megaptera novaeangliae</i>)	Endangered
■ Steller sea lion (<i>Eumetopias jubatus</i>)	Threatened

DNR will consult the Fish and Wildlife Enhancement Office of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service when proposed activities on state land may involve threatened or endangered species.

DNR will consult the National Marine Fisheries Service before authorizing activities within one mile of a sea lion haul out.



Brown bear

E. Bear habitat and forest management activities

Through the Forest Land Use Plan process (FLUP), DNR will make allowances for important bear habitat identified by DFG.⁹ Allowances in the FLUP will address impacts to bears in concentration areas during the periods that bears concentrate in these areas, along with maintenance of vegetation for food and cover. DNR, in cooperation with DFG, will apply more detailed habitat protection through the Forest Land Use Plan (FLUP) process. The concentration areas are mapped in the Fish and Wildlife Resource Atlas of the Yakataga Area Plan. Concentrated use of spring feeding areas extends from April 20 to May 30, or a shorter period specified by DFG depending on actual weather conditions. Concentrated use of summer/fall feeding areas often depends on the timing of salmon spawning in particular streams and will be determined in the FLUPs.

⁸ The list of species will change over time. Check with DFG, USFS, and NMFS for the most recent state and federal lists of threatened or endangered species.

⁹ For timber harvest under ADL 223456, the university's Annual Operating Plan rather than a FLUP will be the means to implement this guideline.

F. Fish and wildlife enhancement activities

Fish and wildlife enhancement activities on state lands, whether by DFG or other parties, will be consistent with the management intent for those lands. DFG and DNR will consider any impacts from increased public use on existing uses.

G. Eagles

Activities that potentially affect bald or golden eagles will be consistent with the state and federal Endangered Species Acts and the Eagle Protection Act of 1940 as amended. DNR will consult with the U.S. Fish and Wildlife Service for locations of eagle nest, roost, and perch trees to avoid disturbance.

H. Trumpeter swan nesting and brood rearing concentration areas and wintering areas

Where feasible and prudent, all land use activities in or near trumpeter swan nesting and brood rearing concentration areas and wintering areas, including sales or the granting of leases or permits, will be conducted to avoid disturbance to swans or detrimental alteration to the habitat. Leases or permits may include seasonal restrictions on activities to avoid disturbance to swans. DNR will consult DFG to identify current or potential nesting or brood rearing concentration areas or wintering areas and to determine guidelines to follow and activities to avoid.

I. Bear and human interaction

Where feasible and prudent, work camps and waste disposal sites will be sited farther than one mile from bear concentration areas to minimize the encounters between humans and bears and reduce "Defense of Life or Property" bear mortality. All solid wastes will be disposed of in a DEC-approved manner to avoid habituating bears to human food and causing bears to be killed in defense of life and property.

Except for stream crossings, roads will be built farther than 600 feet from bear summer/fall concentrations along streams where feasible and prudent, to prevent displacing bears away from the critical salmon feeding areas.

J. Harbor seal pupping and molting

DNR will consult the National Marine Fisheries Service before authorizing activities on (1) lands within one mile of harbor seal pupping and molting areas and (2) state waters or tidelands or submerged lands within three miles of harbor seal pupping and molting areas. DNR's intent is to avoid disturbance to harbor seals during these vulnerable life stages.

Fish & wildlife harvest

K. Uses in designated fish and wildlife harvest areas

The areas designated fish and wildlife harvest (HV) in the plan were delineated using the best information available at the time the plan was written. When better information becomes available through additional studies, site inspections, or other means, DNR will use that information in permitting decisions and incorporate it into the plan in the next update.

When reviewing a proposed use in a designated harvest area, DNR will consider mitigating measures for the specific type of fish and wildlife harvest that occurs in that designated area. The harvest resources for the area are shown on the fish and wildlife maps and are also described in the subunits in Chapter 3.

1. **Designated uses.** If fish and wildlife harvest areas (HV) are designated jointly with other uses, the department policy is:
 - a. the designated uses are compatible, or
 - b. that with appropriate design, siting, and operating stipulations, the other designated use can be made compatible and significant adverse impacts to the harvest use avoided, or
 - c. that the other use is of sufficient importance or lacks a feasible and prudent alternative and that it should be allowed within the harvest area consistent with the guidelines of the plan and ACMP policies.
2. **Non-designated uses.** Non-designated uses are initially considered to be compatible in designated harvest areas if the non-designated uses will avoid significant adverse impacts on the harvest activity for which the area was designated. A non-designated use is considered incompatible if guidelines and stipulations could not be expected to prevent a significant adverse impact on the designated harvest activity.

L. Access to fish and wildlife harvest areas

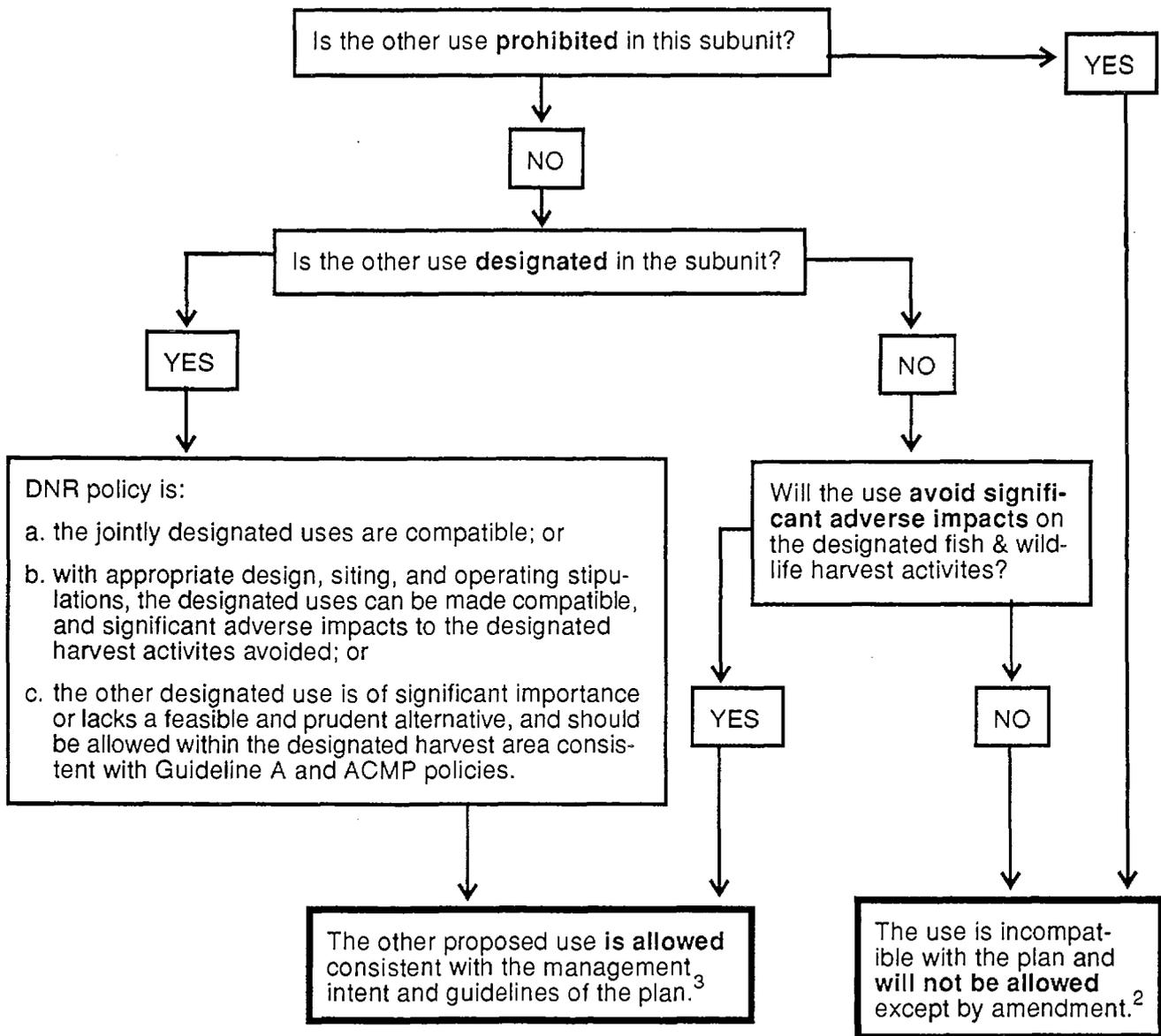
When feasible and prudent, activities adjacent to designated commercial or community fish and wildlife harvest areas will not foreclose public access during the harvest or use season unless alternative access is available. This includes public access to commercial set net areas.

M. Activities in intensive set net and troll fishing areas

If there are feasible and prudent alternatives, tideland and shore facilities should not be located where they would obstruct trolling, set net, or other types of fishing in intensive fish harvest areas. Intensive fish harvest areas have been identified by DFG in the Yakataga Area Plan Fish and Wildlife Resources Atlas.

Figure 2.2

Other uses¹ in fish & wildlife harvest areas^{2, 3}



1 Uses other than protection, maintenance or enhancement of fish and wildlife harvest areas.

2 A project is not guaranteed DNR authorization even though all the above conditions are met. DNR will not authorize projects that do not meet DNR legal requirements or are determined not to be in the state's best interest.

3 See Chapter 4 for plan amendment procedures.

Floating residential facilities¹⁰

A. Siting residential float homes to avoid conflicts

To protect existing resources and uses, unless the tidelands and submerged lands are designated for float homes, residential float homes should not be authorized in:

1. areas designated for fish and wildlife habitat or harvest (HV). However, DNR may issue an authorization if DFG determines that the specific site does not meet the criteria for fish and wildlife habitat or harvest for which the designation was made;
2. areas designated for recreation (RP, RD);
3. areas designated waterfront development (WD) except to support resource development activities as described in Guideline E below;
4. areas designated public facilities - transfer (PT) or public facilities - retain (PR);
5. near known heritage resource sites;
6. near a permitted aquatic farming operation (Note: This does not refer to a "floating caretaker facility" necessary for an aquatic farming operation); or
7. adjacent to residential areas, including uplands zoned residential (D) by the CBY, state-owned uplands designated settlement (S), or lands with existing private residences. However, an authorization not to exceed one year may be given to an upland owner for his temporary occupancy during construction of a residence on his upland parcel.

Note: Floating residential facilities within state parks will be authorized only through a management plan prepared pursuant to AS 41.21.302(c) and subject to the concession contract requirements of AS 41.21.027. Long-term private use of state park land and water is rarely allowed under any circumstances.

B. Process for resolving conflicts

Where there are conflicts between float homes and other uses, DNR generally will decide in favor of the use with the greatest benefit to the state. Where a float home is already permitted at a site proposed for another use, the DNR regional manager will determine if there are feasible and prudent alternatives for the other use, and weigh the impacts on the permitted float home owner. Unpermitted floating residential facilities have no standing in the authorization process.

C. Avoid grounding

Floating residential facilities will be located only where they will not ground at any tide stage.

D. Avoid creating hazards

Floating residential facilities will not block or otherwise adversely impact navigation. Floating residential facilities will be securely anchored so the facilities will not break loose or create hazards to other users or to fish and wildlife habitats.

¹⁰ **Floating residential facilities** - Any floating structures or watercraft intended for anchored or moored residential use. Includes float homes, float lodges, floating caretaker facilities, and float camps. These structures require a DNR authorization if anchored or moored on state-owned tidelands or submerged lands. See definitions of individual terms in the glossary, Appendix A.

E. Ensure adequate upland access

Where upland access will be required, floating residential facilities should be sited only where there is legal and environmentally acceptable upland access. The U.S. Forest Service does not allow private residential use of National Forest uplands and objects to siting any facilities offshore in wilderness areas, designated recreation areas, and high-use dispersed recreation sites. This includes use of the uplands for shore ties.

F. Floating residential facilities that support resource development activities

Authorizations for floating residential facilities associated with resource development (such as floating caretaker facilities or float camps) should be limited to the time resource development is occurring. These authorizations should terminate when the resource development activity ends, or sooner if the need for the floating facility ends.

Floating facilities that support resource development activities should be consolidated where feasible and prudent if adverse impacts will be minimized.

1. **Temporary floating facilities** (less than two years or two seasons) should not be allowed in designated concentrated recreation areas (RP) or fish and wildlife harvest areas (HV) unless:
 - a. they are a designated use or are needed to support a designated use, or
 - b. the applicant demonstrates to the satisfaction of DNR that there is no feasible and prudent alternative and DNR determines that allowing the facility is in the state's best interest.
2. **Permanent floating facilities** (more than two years or two seasons) may be allowed in areas where there is no significant competing use. Permanent floating facilities will not be allowed in designated concentrated recreation areas (RP) or fish and wildlife harvest areas (HV) unless they are a designated use or needed to support a designated use.

G. Duration of authorizations for float homes

Residential float homes may be authorized for up to five years. This duration will maintain DNR's management flexibility while providing limited security to float home residents.

H. Post authorizations in a conspicuous place

DNR authorizations for floating residential facilities will be posted in a conspicuous place on the floating facility and will be visible from the most common access route.

I. Anchor floating facilities to protect access

Anchoring methods, such as shore ties, anchors, or rock bolts, will not prevent access to or along tidelands nor present a hazard to navigation. In areas of significant public use, anchoring methods will not impede such access. Anchors or rock bolts are preferred over shore ties, to protect access and prevent girdling of trees. Shore ties will not be used without authorization from the upland owner. Weighting or marking of shore ties may be required to prevent hazards to navigation.

Forestry

Note: The Forest Resources and Practices Act (AS 41.17) and Regulations (11 AAC 95) provide additional policy and guidance for managing forest related activities. Site specific guidelines for forestry management activities will be addressed through the Forest Land Use Plan or the university's Annual Operating Plans prior to any commercial timber sale or harvest (AS 38.05.112).

A. Timber harvest

1. **Forest Land Use Plans (FLUP).** This area plan will not make timber harvest decisions. Before commercial timber harvest decisions are made for the Yakataga area, the Division of Forestry will prepare a draft Forest Land Use Plan (FLUP)¹¹ that is the preliminary decision document. FLUPs will contain site-specific guidelines for timber harvest.

For timber harvest by the university under ADL 223456, the university's Annual Operating Plan rather than a FLUP will be the means to apply site-specific guidelines for timber harvest.

2. **Timber harvest stipulations.** All timber harvesting operations will be conducted according to the stipulations in the Forest Land Use Plans, Forest Resources and Practices Act, and other state guidelines and laws.
3. **Size and shape of timber harvest units.** Harvest unit size will not exceed 160 acres, except after consultation with DEC and DFG, and public review and commissioner approval through the FLUP or the university's Annual Operating Plan. Non-linear borders are preferred on cutting units to minimize visual impact. The size, shape, and spacing of timber harvest units and interspersed leave areas will be based upon considerations of wildlife travel impediments, silvicultural requirements, wildlife feeding, the purposes of adjacent special management areas and leave areas, windfirmness, vegetation patterns, terrain, and harvest equipment efficiency.
4. **Leave area design criteria.** Forested leave areas should include natural travel corridors such as ridge points, the forested edge of swamps, the coastal fringe, and riparian corridors. Leave areas are essential to provide interconnected habitat for many species for travel, feeding, resting, and escape or avoidance of predators. Guidelines developed by the U.S. Forest Service concerning windthrow will be used in the design of leave areas.
5. **Management of leave areas.** Bridge timbers may be taken from leave areas narrower than 330 feet only if there is no feasible and prudent alternative.
6. **Harvest unit layout.** A patch cutting system of interspersed cutting units and leave areas will be used where feasible and prudent. The state will lay these units out following DOF Southeast Region Engineering Guide -Forestry Road Standards.
7. **Slopes greater than or equal to 70 percent.** Forest management activities may not be conducted on slopes greater than 70 percent unless approved in writing by DOF after receiving recommendations from DEC and DFG. Timber operations will be designed to prevent mass wasting and to maintain soil productivity, tree regeneration, and fish habitat.
8. **Fell trees away from vegetated tideflats.** Trees will be directionally felled away from vegetated tideflats. Logging debris will not be deposited on vegetated tideflats.

¹¹ FLUPs are generally completed between five and 14 months prior to the anticipated timber auction date. An opportunity will be provided for agencies and the public to review and comment on FLUPs. The DOF will evaluate and respond to comments to this document in the final FLUP. If the timber harvest decision proceeds, DOF will modify it as needed using public and agency comments.

B. Log transfer facilities and sort yards

All sort yards and log transfer facilities (LTF) will be constructed, sited, operated, and monitored in compliance with the *Log Transfer Facility Siting, Construction, Operation, and Monitoring/Reporting Guidelines* (October 21, 1985). Modifications to the approved operations require interagency review and approval.

Guidelines for siting resource transfer facilities are located in the Upland and Waterfront Development section of this plan.

C. Cutting and gathering wood for personal use

Dead and down wood on state land may be gathered for personal use. This wood may not be used for barter, sale, or commercial purposes. Live or standing dead trees on state land may not be harvested without DNR authorization.

D. Beach log salvage

Beach log salvage will be administered under the provisions of the ACMP consistency review procedures. If, in the future, beach log salvage is no longer covered under the provisions of an ACMP general concurrence determination, and if beach log salvage activities are proposed, this plan should be amended to include guidelines to manage beach log salvage.

E. Maintain a mosaic of habitat

Forested land will be managed to provide a mix of cut and uncut areas to maintain a sustained yield of fish, wildlife, and commercial timber.

F. Mountain goat winter habitat

1. Forestry management activities are prohibited in mountain goat winter habitat mapped in the Fish and Wildlife Resources Atlas of the Yakataga Area Plan. This habitat is essential to maintain the sustained yield of mountain goats in the Yakataga area. The mature timber canopy coverage in these areas provides shelter, accessible forage, and travel to escape terrain or new food sources. The mapped habitat may be updated by DFG during the FLUP. Within the university's substitute timber tract, mapped goat habitat will be examined in the field and DNR will preclude timber harvest only in areas that DFG verifies on the ground serve as winter goat habitat. The criteria for mapping winter goat habitat are explained in the glossary (Appendix A).
2. The Forest Land Use Plans or the university's Annual Operating Plans will address the following conditions when designing forestry management activities within ¼ mile of mapped goat winter habitat, with due deference to DFG:
 1. provide necessary movement corridors for goats in winter,
 2. prevent noise or other human disturbance of goats in winter through seasonal restrictions,
 3. ensure windfirmness within mapped goat winter habitat, and
 4. minimize improved public access in order to minimize unmanageable illegal harvest of goats.

Within the university's substitute timber tract, only Number 1 and Number 2 of the above restrictions apply, and they apply only from November 15 to May 31 of each year. DNR, with due deference to DFG, may approve earlier lifting of restrictions 1 and 2 on a site-specific basis within the university's substitute timber tract.

DNR will consult with DFG and apply appropriate provisions for goat winter habitat during the FLUP or ACMP review of the university's Annual Operating Plans.¹²

If a party withdraws from the settlement agreement pursuant to Section 16 of that agreement, and the university receives status quo ante rights to harvest timber at Cape Suckling as if the agreement had not occurred, the goat habitat guideline from the October 1994 draft Yakataga Area Plan¹³ would replace this version.

G. Moose winter habitat

Forest management activities within 1,000 feet of mapped moose winter feeding concentration areas will be consistent with maintenance of thermal and security cover and winter browse production, and will require consultation with DFG. Refer to mapped habitat in the Fish and Wildlife Resources Atlas of the Yakataga Area Plan or updated moose habitat maps in FLUPs. Opportunities for enhancing moose habitat will be considered.

DNR will consult with DFG and apply appropriate provisions for moose winter habitat during the FLUP or ACMP review of the university's Annual Operating Plans.

If a party withdraws from the settlement agreement pursuant to Section 16 of that agreement, and the university receives status quo ante rights to harvest timber at Cape Suckling as if the agreement had not occurred, the moose habitat guideline from the October 1994 draft Yakataga Area Plan¹⁴ would replace this version.

H. Species that need additional habitat protection in forestry management areas

Some species in the planning area will need habitat maintenance measures more detailed than this area plan provides. Species that require further consideration include, but are not limited to: moose, goats, black and brown bears, swans, and eagles. DOF, in cooperation with DFG, will apply more detailed habitat protection through the Forest Land Use Plan (FLUP) process. Allowance for goat, bear and moose habitat will be made in the FLUP. The FLUP will address the following: 1) shelter; 2) accessible forage; 3) travel to escape terrain or new food sources; 4) special provisions; 5) unusual conditions; 6) significant impact; 7) if needed, mitigation as outlined in Habitat Guideline A of this plan, and 8) timber harvest methods and configurations to provide natural travel corridors and escape cover.

I. Coastal edge of timber

Forestry management activities within 500 feet of the coastal edge of timber must maintain 90 percent of the overstory canopy coverage, plus or minus 2 percent, throughout the rotation; and must be consistent with the maintenance of wildlife habitat, visual aesthetics, recreation and tourism values and opportunities, and windfirmness. Timber harvested from the coastal buffer will avoid construction of roads in the buffer, except as necessary to cross the buffer, and harvest design and methods will otherwise minimize the alteration of the natural coastal fringe of forest. Timber harvest will be seasonally scheduled to avoid disturbance of wildlife, recreation, and tourism uses of the coastal buffer.

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- 12 For timber harvest under ADL 223456, the university's Annual Operating Plan rather than a FLUP will be the means to implement this guideline.
- 13 The October 1994 draft plan exempted the university from the goat guideline for timber harvest within Cape Suckling Tract A-148 under terms of ADL 223456. Mountain goat winter habitat was largely excluded from the university timber harvest through the original conveyance terms of ADL 223456. If the university reclaims timber harvest rights at Cape Suckling, DNR will consult with DFG and apply appropriate provisions for goat winter habitat in the Cape Suckling tract during ACMP review of the university's Annual Operating Plans.
- 14 The October 1994 draft plan exempted the university from the moose guideline for timber harvest within Cape Suckling Tract A-148 under terms of ADL 223456. Moose winter habitat along the major stream corridors in the Cape Suckling tract was excluded from the university timber harvest through the original conveyance terms of ADL 223456. If the university reclaims timber harvest rights at Cape Suckling, DNR will consult with DFG and apply appropriate provisions for moose winter habitat in the Cape Suckling tract during ACMP review of the university's Annual Operating Plan.

The intent is to maintain the ocean shoreline vegetation critical for natural wildlife travel corridors, thermal shelter, escape cover, and food adjacent to the dunes, estuaries, and coastal wetlands that are heavily used feeding areas for brown and black bears, land otters, mink, wolves, and bald eagles. The specific timber stands to be retained shall be determined in the field by DFG and DNR during the Forest Land Use Plan and/or ACMP review of Annual Harvest Plans.¹⁵

J. Special management zones (SMZS) on large rivers

The Kiklukh, Kaliakh, Kulthieth, Duktoth, and Yakataga Rivers will be specifically addressed during the Forest Land Use Plans to ensure that forest management along these rivers is consistent with maintenance of fish and wildlife habitat and recreation.¹⁵ These rivers are large dynamic rivers (USFS types FP4, FP5, and GO2) characterized by a grade ≤ 3 percent and a channel contained by vegetation rather than landforms. DNR will give due deference to DFG and will consult with DPOR in determining the appropriate width of the special management zones and the necessary measures to maintain habitat and recreation values.

K. Special management zones within 100 to 300 feet of anadromous or high-value resident fish streams, adjacent to the 100-foot no timber harvest zone

Forest management activities between 100 and 300 feet of anadromous or high-value resident fish streams where these streams pass through important habitats of concern may occur after the FLUP has been adopted and a final finding completed. The FLUP must be consistent with the maintenance of important fish and wildlife habitat mapped for the Yakataga Area Plan in the Fish and Wildlife Resources Atlas. Habitat maps may be updated by DFG during the FLUP process. The mapped habitats of concern include the following:

- bear summer/fall concentration areas
- bear spring concentration areas
- moose winter concentration areas
- mountain goat winter habitat
- bald eagle feeding concentrations
- trumpeter swan nesting and molting
- beaver concentration areas
- highest quality land otter habitat
- bald eagle nest sites

The 100- to 300-foot special management zone will not apply on yet-to-be identified anadromous streams within the university's substitute tract. Yet-to-be identified anadromous streams are those that were not listed in the 1994 ADF&G Atlas to the Catalog of Waters Important for spawning, rearing, or migration of salmon. There will still be a 100-foot no-timber-harvest zone along yet-to-be identified anadromous streams.

¹⁵ For timber harvest under ADL 223456, the university's Annual Operating Plan rather than a FLUP will be the means to implement this guideline.

L. Road standards for forestry management activities:**1. Road location:**

- a. DNR will locate mainline and secondary roads for forestry management activities. Others may locate spur roads (less than 500 feet in length) within units accessing designated landings subject to advance approval by DNR.
- b. Where feasible and prudent, roads will be located away from streams supporting fish habitat, creating an effective vegetative filter and minimizing impacts on water quality.
- c. Roads will be located and surveyed in accordance with the DOF Southeast Region Engineering Guide -Forestry Road Standards.

2. Road design:

- a. All roads will be designed according to the DOF *Southeast Region Engineering Guide - Forestry Road Standards*.
- b. Surfacing material will be the minimum necessary to allow for log trucking without surface deformation.
- c. Turnouts will be intervisible with a surface length of 50 feet with 25 foot tapers.
- d. The state will design and approve all bridges. All bridges not meeting the minimum load carrying capacity of U80 will be repaired or replaced.
- e. All roads will be designed to maximize resource access while minimizing significant adverse impacts to the environment.



Old-growth forest near Cape Yakataga

M. Deferral of state timber sales except on the university timber tracts

DNR will not offer for harvest state timber in the Yakataga area from Icy Bay westward to Cape Suckling sooner than December 2014 (twenty years from the date of the settlement), with the exception of small timber sales to enable the construction and operation of a cabin and trail system. DNR will allow small timber sales for the exclusive purpose of providing logs for construction, maintenance, or repair of, or firewood associated with, the trail and cabin system.

The university's harvest of timber on the White River tract, the Yakataga tract, and the substitute tract (as mapped in ADL 223456) is not subject to this deferral.

Heritage resources

A. Investigations on public land

The state will continue to protect heritage resources of local, regional, or statewide importance by encouraging and recommending heritage resource investigations on public lands.¹⁶ Such investigation will be conducted according to professionally accepted standards and practices established by the Chief of the Office of History and Archaeology, DNR Division of Parks and Outdoor Recreation.¹⁶

B. Surveys for heritage resources prior to land disposals or other authorizations

The DNR Office of History and Archaeology will determine which state lands have high potential to contain important heritage resource sites, but for which there is inadequate information to identify and protect the sites. In these potential heritage resource areas, DNR land managers should contact the Office of History and Archaeology prior to project implementation, land offerings, or other DNR authorizations. Surveys or inventories of heritage resources should be conducted prior to development.

C. Evaluating heritage resources

Those heritage resources discovered through survey or known from records already on file with the state must be evaluated for their significance and for research and preservation potential. DNR will achieve this by:

1. continued consultation with appropriate agencies, private groups, and concerned professionals; and
2. using established federal, state, and local guidelines and regulations to evaluate significance.

D. Heritage resources adjacent to recreation facilities

Recreation facilities should not be placed adjacent to heritage sites if increased public use might allow vandalism or unintentional damage to the site, unless the recreation facility includes heritage resource interpretation and protection.

E. Heritage resources adjacent to developed facilities

Developed facilities will not be located near known heritage resource sites if adverse impacts are likely to occur.

¹⁶ The state, the federal government, and Native corporations have cooperative roles in protecting heritage resources and should continue to work together toward this goal. Federal and Native land managers provide information on heritage resources on their lands to the Office of History and Archaeology. Data from all sources is entered into the Alaska Heritage Resources Survey (AHRS), an inventory of reported historic and prehistoric sites, which is available to land managers for use in management decisions.

Materials¹⁷

A. Minimize impacts to other uses and resources

DNR will ensure that material sale contracts minimize significant adverse impacts to other important resources and uses. These resources and uses include existing water rights, water resource quantity and quality, navigation, fish and wildlife habitat and harvest, commercial forest resources, recreation resources and uses, heritage resources, adjacent land uses, scenic resources, and access to public or private lands. DNR will minimize significant adverse impacts to other uses as follows:

1. **Materials site plan and field marking.** DNR will require a materials site plan, which must include a sketch showing pit access, boundaries and depth, overburden stripping and disposal location, surface water quality and erosion and sediment control, and reclamation measures. Material site boundaries should be staked and flagged for reference on the ground.
2. **Interagency consultation.** Before materials are extracted, DNR will follow state, federal, and local requirements in consulting appropriate agencies regarding protection of other resources. These agencies include: Department of Fish and Game, Division of Parks and Outdoor Recreation, Division of Water, Division of Forestry, Department of Environmental Conservation, U.S. Army Corps of Engineers, and the City and Borough of Yakutat (when activities occur within its boundary).

B. Material extraction from sensitive areas¹⁸

Under two conditions, DNR may authorize dredging and filling in wetlands, including gravel extraction and construction of roads and pads: if the proposed activity will not cause significant adverse impacts to important fish and wildlife habitat or important ecological processes; or if no feasible and prudent alternative exists and the extraction is in the public interest. DNR will require mitigation if a materials extraction cannot avoid significant adverse impacts to important habitat and ecological processes.

If the only feasible and prudent source of gravel is an active¹⁹ or inactive²⁰ floodplain of a stream or river, the following guidelines will be used, in addition to the design consultation required in guideline A, to minimize negative impacts of material extraction on other resources and uses.

1. **Stream type preference.** Stream types should be selected for material extraction based on the following order of preference (most to least preferable): braided, split, meandering, sinuous, and straight. This order of preference reflects the volume of gravel available from exposed bars and the floodplain width. Wider floodplains allow extraction farther from the river channel which reduces the environmental impacts.
2. **Stream size preference.** Generally, the largest river in a given area should be selected for a gravel operation. Larger rivers have higher volumes of gravel and a wider floodplain. The proportionally smaller disturbance in large river systems will reduce the overall effect of gravel removal.

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

18 These guidelines are adopted from: *Gravel Removal Studies in Arctic and Subarctic Floodplains in Alaska*, USFWS, Biological Services Program, June 1980.

19 Active floodplain - that portion of the floodplain that is flooded frequently; it contains flowing channels, high-water channels, and adjacent bars and usually contains little or no vegetation.

20 Inactive floodplain - that portion of the floodplain that is flooded infrequently, it may contain high-water and abandoned channels and is usually lightly to heavily vegetated.

3. **Avoid active channels.** Gravel should not be mined from active channels, in order to reduce detrimental effects on water quality, aquatic habitat, and biota. However, if hydraulic changes can be minimized, in-channel sites will replenish more rapidly than other areas, and effects on the terrestrial biota and scenic quality of the floodplain will be avoided or greatly minimized.
4. **Avoid vegetated habitats.** Whenever possible, material extraction should avoid vegetated habitats.

Sites for extracting less than 50,000 cubic yards should be located to avoid vegetated gravel deposits and minimize removal of important browse species.

Sites for extracting over 50,000 cubic yards should be located along large rivers that contain sufficient gravel in non-vegetated areas or terrace locations on the inactive side of the floodplain.

5. **Maintain channel stability.** In active or inactive floodplains, operators should maintain buffers with the intent to constrain active channels to their original locations and configurations.
6. **Site design and rehabilitation.** DNR will require site rehabilitation consistent with 11 AAC 97, the Mining Reclamation regulations. If mitigation of pit sites is required, DNR should consider habitat enhancement features such as shoreline and water depth diversity, islands, and, if desirable, an outlet stream to provide fish habitat. DNR will consult DFG and USFWS to determine appropriate habitat features.

C. Retain materials site in land disposal areas

If a designated settlement area contains high value materials resources, DNR will generally identify a materials extraction site and retain it in public ownership for future use before offering lands for conveyance.

D. Screening materials site

Material sites will, where feasible and prudent, be screened from roads, residential areas, recreational areas, and other areas of significant human use. Sufficient land will, where feasible and prudent, be allocated to the materials site to allow for such screening.

Public and private access

A. Retain access

Public access to areas with significant public resource values should be improved or maintained by retaining access sites and corridors in public ownership, by reserving rights of access when state land is sold or leased, by acquiring access, or by asserting rights-of-way through Revised Statutes Section 2477²¹ (RS 2477). This plan does not recommend any trails for assertion under RS 2477; however, assertion of RS 2477 trails may occur at some time in the future. Generally, section line easements should not be vacated unless alternative, physically usable access can be established or DNR has determined that state lands in the area should be roadless.

B. Access to non-state lands

Reasonable access will be accommodated across state lands to other public and private lands. Existing legal access will not be precluded unless equivalent access is available.

C. Anchorages

Other activities may be allowed in anchorages shown on the maps in Chapter 3 only if DNR determines the use or capacity of the anchorage will not be significantly diminished, or if there is no feasible and prudent alternative for the other activity and DNR determines allowing it to occur is in the state's best interest.

D. Management of 17(b) easements

Generally, DNR will not accept management of easements under Alaska Native Claims Settlement Act Section 17(b) unless the state already actively manages a portion of the trail or easement, or state management will best protect public access to state lands.

E. Public access in conjunction with resource development

When an access route is constructed for resource development, DNR should ensure that existing public access to mineral, recreation, fish, wildlife, forest, and other public resource areas will be maintained or improved. When determining whether or not to improve existing access, DNR and other relevant agencies will consider public safety, public expense, and the potential for increasing user conflicts.

F. Adequate access rights

Where practical and within the limits of available funding, full public rights of access should be provided when roads are constructed by state or local governments. DNR or DOT/PF should acquire and record perpetual exclusive easements when the state acquires access rights across property in other ownerships.

G. Limiting access

Access to state lands may be curtailed at certain times to protect public safety, allow special uses, and prevent harm to the environment and fish and wildlife. Examples of conditions that may justify limiting public access are timber harvest operations, high soil moisture content when traffic may cause extensive damage to roads and trails, and sensitive populations of fish or wildlife.

²¹ **Revised Statute (RS) 2477.** An 1866 federal statute that granted transportation rights-of-way on unappropriated and unreserved federal land. These rights-of-way are established by public use or construction. The statute was repealed in 1976, but use or construction of trails prior to 1976 allows subsequent assertion of a right-of-way.

H. Coordinate with the Department of Transportation and Public Facilities (DOT/PF)

Access needs, such as right-of-way widths or road locations, should be coordinated with DOT/PF. This guideline does not commit DOT/PF to construct or maintain public access facilities.

I. Coastal access to trailheads

DNR will protect coastal access across state tidelands to designated trail corridors that begin at the shoreline.

J. Access for recreation and fish and wildlife harvest

Public access is not precluded in designated recreation (RP, RD) or fish and wildlife harvest (HV) areas.



Beach along Gulf of Alaska

Recreation, tourism, and scenic resources

A. Coordinate with other landowners

Recreation management, including the location and management of recreation facilities, will take into account the current and likely management by the City and Borough of Yakutat, the U.S. Forest Service, and private landowners, so as not to unnecessarily duplicate facilities and to provide opportunities where facilities do not exist.

B. Location of public recreation facilities

1. **Preferred locations.** Recreation facilities, including campsites, mooring buoys, recreation trails, public use cabins, and other facilities for the general public, are needed in these situations:
 - a. when overuse is damaging the environment; or
 - b. to direct public use and activities away from inappropriate areas; or
 - c. to accommodate conflicting uses; or
 - d. to facilitate and encourage additional public recreational use; or
 - e. for public safety; or
 - f. to direct public recreational use to and through areas with high scenic and recreation values.
2. **Inappropriate locations.** Recreation facilities are not appropriate where the management intent is to maintain the natural condition of the area free from additional concentration of recreation users or significant evidence of human use. Unless the management intent of this plan indicates otherwise, tidelands adjacent to designated National Forest and National Park wilderness areas are in this category.

C. Locating mooring buoys

Mooring buoys will not be located:

1. in existing natural anchorages unless they would increase the capacity or reliability of the anchorage (for example, make it reliable in different wind or wave conditions); or
2. adjacent to frequently used campsites, unless intended as a part of the campsite development; or
3. where they may interfere with commercial fishing; or
4. in areas that will conflict with state parks or federal wilderness management objectives; or
5. in or adjacent to sensitive habitats, such as eelgrass beds, unless they will help preserve the habitat by minimizing the use of anchors.

D. Location and suitability of commercial recreation facilities

Commercial recreation facilities (including onshore and floating lodges, tent camps, or other facilities) may be authorized where allowed in the management intent and guidelines outlined in Chapter 3, and where they fulfill the following conditions:

1. **Impacts on other users.** The commercial facility and the use it generates will avoid, to the extent feasible and prudent, significant adverse impacts on the amount and quality of existing resource uses. It is recognized that a quantitative determination of the effects of the proposed facility will rarely, if ever, be possible, but an assessment of impacts should use information available from DNR, DFG, the Department of Commerce and Economic Development, Department of Environmental Conservation, the upland owner, or other sources to determine the following:
 - a. The number of commercial recreation leases, permits, and facilities that already exist on state and other lands in that management unit and adjacent management units and the amount of use they generate;
 - b. Management intent and guidelines of this or subsequent plans for the unit;
 - c. Management objectives for nearby non-state lands (to the extent this information is available);
 - d. For facilities supporting recreational fish and wildlife harvest, DNR should consult DFG concerning the effect of increased harvest on the fish and wildlife resource, and on established commercial and community harvest users;
 - e. The existing amount of public use, if this information is readily obtainable.
2. **Siting, design, construction, and operation.** The commercial recreation facility will be sited, designed, constructed, and operated in a manner that avoids significant adverse impacts to natural resources and existing uses of the area. To the extent feasible and prudent, lodges should be sited to be visually and acoustically hidden from main travel routes, frequently used anchorages, locally or regionally important campsites, and frequently used recreation areas. Float lodges should not be sited more than one per bay except where DNR intends to concentrate uses in order to minimize conflicts with existing use.
3. **Upland access to floatlodges.** Where upland access to a float lodge is anticipated, the float lodge will be located where there is legal upland access to the site.

E. Authorizations adjacent to existing recreation facilities

Activities may be allowed adjacent to recreation facilities, such as public use cabins, lodges, or fuel stops, if DNR determines that the two uses can be made compatible by design, siting or operating guidelines; or if there is no feasible and prudent alternative for the activity. This guideline also applies to sites reserved for future recreation facilities. DNR's determination should be made after consultation with the recreation facility manager.

F. Minimize visual impact of facilities

Facilities on state uplands and tidelands should be located and designed to blend in with the natural surroundings. DNR may apply stipulations to a proposed development plan in order to accomplish this guideline. DNR should consider location, size, color, materials, requirements for vegetative or topographic screening, or other measures as appropriate.

G. Recreation area viewshed protection

DNR authorizations should minimize significant adverse impacts to the viewsheds of existing recreation sites by placing appropriate conditions or restrictions in Forest Land Use Plans²², plans of operations, and permits. The first 500 feet of the coastal fringe of timber and seaward beaches and tidelands are important for recreation activities and viewshed quality. Other recreation sites meriting viewshed protection include, but are not limited to: rivers used for recreation, hunting and fishing, DNR-authorized hunting and fishing guide camps, and routes for hiking and camping along beaches. Due deference will be given to DPOR when identifying limits and impacts to viewsheds and visual quality objectives.

H. Existing recreation areas adjacent to waterbodies

DNR should minimize significant adverse impacts to recreation use and aesthetic values when authorizing activities within 300 feet of the ordinary high water mark of a waterbody with existing recreation use.

I. Accommodate potential recreation sites

Recreation and tourism use in the planning area is growing. Only existing recreation sites have been identified. As new information becomes available on use and recreation growth patterns, DNR will consider additional measures to accommodate and enhance recreation and tourism opportunities. When authorizing activities, DNR will consult with DPOR and the Division of Tourism for recommendations.

J. Development of a cabin and trail system west of the Duktoth River

State lands west of the Duktoth River will accommodate the development of a "hut-to-hut" cabin and trail system, including a base lodge and overnight cabins. The cabin and trail system will require DNR authorizations for the use of state land.

²² For timber harvest under ADL 223456, the university's Annual Operating Plan rather than a FLUP will be the means means to implement this guideline.

Settlement

A. Planning and coordination

1. **Consider non-state land offerings.** When considering whether to market state land, DNR should consider land offerings planned or proposed by other entities, such as the City and Borough of Yakutat (CBY), Native corporations, the University of Alaska, or the Mental Health Trust; and the availability of land for settlement on the local market.
2. **Competition.** Although the DNR will coordinate its offerings with other landowners, it may compete with the private sector or local governments if necessary to satisfy demand, provide market choice, or moderate unreasonably high prices.
3. **Local plans.** DNR will comply with provisions of borough or municipal comprehensive plans and ordinances regarding the location and density of land development unless local requirements are inconsistent with a major overriding state interest.
4. **Coordinate with the City and Borough of Yakutat.** Within the City and Borough of Yakutat (CBY), DNR should coordinate land offering programs with similar programs of the CBY in order to achieve common objectives. To this end, DNR would consider developing a joint land offering plan with the local governments. This plan would consider CBY's plans for road extensions and levels of services in different areas. The land offering plan should demonstrate what community objectives would be met and how the requested capital improvement funds would support municipality-wide priorities for roads and service extensions to benefit current and future residents.

B. Isolated parcels of state land

DNR has acquired and will continue to acquire isolated parcels of land through foreclosure, escheat, and other methods. The following guidelines apply to management, classification, and possible conveyance of these parcels. Land management actions conducted according to the following guidelines do not require a plan amendment:

1. **In or near previous state land offering.** If the parcel is in or immediately adjacent to a previous DNR land offering, DNR should consider whether it is appropriate for retention for Settlement and offer it for auction or lease. If not, DNR can classify it for materials sites, roads, schools, parks, or other public facilities.
2. **Parcels near other state land.** If the parcel adjoins or is surrounded by other state land, manage it according to the management intent and guidelines applicable to the adjacent lands.
3. **Parcels not near other state land.** Evaluate isolated parcels of state land through interagency review to determine their highest and best use. DNR should consider these parcels for a variety of uses such as commercial recreation leasing, mining, retention in state ownership, exchange, transfer to the adjacent land owner, or sale.

C. Retain lands for public safety and to protect and enhance other resources

1. **Protect life and property.** The state will retain public lands and coordinate with the local governments to discourage development in areas of flooding, shifting stream channels, unstable ground, significant avalanche risk, or other hazards.
2. **Protect recreational and heritage resources.** DNR will retain appropriate areas for outdoor recreation, trails, campsites, boat launches, and heritage resource sites. Areas for both intensive and dispersed uses should be retained.

D. Criteria for designing land offerings

1. **Retain land for community and public uses.** DNR should retain appropriate greenbelts, public-use corridors, water supply areas, buffer areas, materials sites, roads, parks, and other public facilities, as well as other open spaces to help create an efficient, aesthetic, and environmentally sound land use pattern in developing areas.
2. **Consider cost of public services.** In accordance with AS 38.04.010, DNR will attempt to guide year-round settlement to areas where services exist or can be provided with reasonable efficiency. State land offerings located beyond the range of existing schools or other necessary public services are appropriate primarily for seasonal recreational use. Public services should not be expected in remote areas. No remote land offerings are proposed in this plan.
3. **Ensure access.** DNR should ensure that legal, practical public access (roads, trails, or other options most appropriate to the particular situation) is identified and reserved within land offerings. (See also Public and Private access and Trail Management Guidelines in this chapter.) DNR should use field assessment, and where appropriate obtain road grade profiles, to ensure that access routes are feasible.

Identified access routes will be described in land offering brochures. Where needed to reduce the likelihood of conflicts with existing private owners, DNR may brush or flag public access routes to land offering projects. DNR will ensure actual physical access is available or can be developed (road, air, or water) to any new state subdivision project.

4. **Subdivision design.** Subdivisions will be designed to preserve and enhance the quality of the natural setting and the recreational opportunities that make an area attractive to potential buyers. State subdivision design will take into account site limitations such as slope, drainage, soils, erosion, and other features to ensure that sites offered are buildable in an economic manner that does not have unacceptable significant adverse impacts to the environment. All state subdivisions must be reviewed and approved as required by DEC regulations.
5. **Easements.** Easements are one means that may be used to acquire rights for public access through private land. Easements should be large enough to meet the intended public purpose, but as small as possible so as to minimize conflict with private property rights. Easements generally will not be used to retain a public interest in lands within a subdivision. Instead, DNR will generally retain public interest lands in public ownership. Exceptions to this policy may be made where the interest protected is very limited, such as for local pedestrian access that is not part of an integrated neighborhood or community trail system. This policy will minimize confusion between public use and private ownership rights.

E. Authorizing residential structures to support commercial activities

When authorizing residential facilities to support commercial activities, (for example, set net fisheries camps or aquatic farming caretaker facilities), DNR will evaluate in writing at least the following points:

1. **Alternative sites.** Evaluate whether more feasible and prudent alternative locations exist that would have fewer significant adverse impacts;
2. **Total number and concentration of sites.** Evaluate whether:
 - a. spacing between activities is sufficient to minimize adverse impacts among various users (such as noise, scenic or habitat degradation, or access obstruction);
 - b. the number of authorizations in a particular area should be limited due to habitat, recreation, or other concerns;
 - c. similar uses should be concentrated to avoid proliferation and retain areas for other beneficial uses.

YAKATAGA AREA PLAN

3. **Suitability of the development plan.** Evaluate the overall development plan to determine whether:
 - a. the overall development plan is appropriate for the intended use including the number and size of facilities, type of structures, and acreage;
 - b. temporary, semi-permanent (movable), or permanent structures are most appropriate relative to the intended use, duration of use, location, and other considerations;
 - c. employee accommodations are included in development plans to prevent proliferation of unauthorized land use. Separate land use authorizations will not be issued to employees of an authorized commercial operator;
 - d. a plan should be required for the method and location of stored equipment in the off-season (which may be a centralized core area) to minimize impacts (including visual and safety consideration) to animals and other users (such as recreationists) during the off-season;
 - e. occupancy should be limited to the season of primary use, including necessary setup and shutdown, to discourage residential or other unauthorized use of the site;
4. **Protection of other resources.** Determine measures necessary to protect state resources, such as requiring:
 - a. operating or seasonal stipulations to minimize impacts to fish and wildlife habitat (refer to the mapped fish and wildlife habitat resource atlas for the Yakataga Area Plan);
 - b. a plan for garbage disposal methods that minimize the state's liabilities regarding solid waste;
 - c. appropriate provisions from #2 on the back of Land Use Permit Application 102-1084A (Rev. 7/92) regarding vehicle use, disturbance of natural drainage systems, disturbance of vegetation, interference with other activities, cleanliness of sites, and mineral exploration.
5. **Performance standards.** Determine whether performance standards such as the following should be required:
 - a. a performance guarantee (deposit, surety bond, cd, etc.) sufficient to cover costs of remote site rehabilitation and removal of improvements, including vehicles, if the lessee or permittee fails to perform;
 - b. insurance sufficient to cover reasonable liability to protect the public and its resources;
 - c. whether re-authorization should be dependent on proof that past use of the site was for the intended commercial use (such as by fish tickets).

F. Commercial set net support facilities

Authorizations for commercial set net support sites will be issued only to holders of DFG limited entry commercial set net fishing licenses for the area. The sale or revocation of the commercial fishing license should be cause for revocation of the associated land use authorization.

G. Big game hunting guide camps

Authorizations for big game hunting guide camps will be issued only to guides currently registered with DFG and the Department of Commerce and Economic Development.

H. Commercial recreation facilities

Refer to Recreation section for guidelines on commercial recreation.

Shoreline and stream corridors

A. Retain public access adjacent to waterbodies

When transferring land out of state ownership or leasing land, DNR should reserve public access as follows:

1. **Public access adjacent to waterbodies.** DNR should reserve public access when the management intent is to protect the public's right to travel along the shore of a waterbody. Public rights reserved normally will include only the right of ingress and egress, inclusive of the right to pause briefly to observe wildlife, take photographs, or rest. On an individual basis, the state may reserve specific rights (for example, the right to fish or to picnic) as necessary to protect the public interest.
2. **Appropriate travel mode.** Access will be reserved for the appropriate travel mode. In tideland, lakeshore, or stream corridors that are sensitive to vehicular travel, access should be reserved for pedestrian use only.

B. Widths of reserved public access, building setbacks, and management zones

Although individual reserved access widths, building setbacks, and fish habitat zones may vary, a basic level of consistency is needed to avoid confusion. Table 2.1 on the following page describes minimum widths for reserved public access, building setbacks, and fish management zones.

Table 2.1

**Reserved Public Access, Building Setbacks, and Management Zones;
Minimum Widths adjacent to Waterbodies**

guideline description	minimum width	where it applies	primary purpose	qualifiers
1. Public access ■ All waters	50 feet landward above ordinary high water mark of fresh waterbodies & 50 feet landward and seaward from mean high water of marine waters	lakes, streams, tidelands, coastal uplands	Provide public access along waterbodies	Where feasible and prudent. If not feasible and prudent, provide alternative access. Prohibited: Residential structures, fences, and other non-water dependent structures that will obstruct passage.
2. Building setback ^{A,B} ■ All waters except anadromous waters	50 feet landward above ordinary high water mark	All non-anadromous lakes, streams, tidelands (measured above mean high water)	Protect public values, habitat, public access, and recreation, along all waterbodies.	Where feasible and prudent, and necessary to protect public values along the stream.
3. Building setback ^{A,B} ■ Anadromous waters ■ High quality resident fish-bearing waters	100 feet landward above ordinary high water mark	Catalogued anadromous lakes, streams, tidelands (measured above mean high water)	Protect public values along anadromous fish waterbodies. If the setback was vegetated prior to human activity, the setback shall be vegetated or revegetated to replicate the natural shade and bank stability along the stream. Incorporate measures to prevent adverse changes including accelerated erosion, turbidity, sedimentation, and temperature differences within the waterbody or adjacent wetlands.	Applies only to non-water-dependent uses.
4. Fish habitat management zones	300 feet landward above ordinary high water mark or mean high water (on tidal waterbodies)	Catalogued anadromous streams	Maintain or enhance anadromous fish habitat. Only activities that are or can be made compatible with this objective will be allowed in these zones. DNR will consult with DFG during project planning to determine the appropriate design and maintenance of projects.	Site-specific circumstances may sometimes dictate a fish habitat zone wider than 300 feet. Mineral locations are excepted. Forestry activities regulated under the Forest Practices Act are excepted.
	300 feet landward above ordinary high water mark	Catalogued anadromous streams & lakes, and streams & lakes with high-quality resident fish habitat	Maintain high quality fish habitat by keeping sources of water pollution a sufficient distance from waterbodies. Pollution sources include: roads, LTFs, sort yards, shops, generators, permanent fuel structures, camps).	Where feasible and prudent. (See Upland and Waterfront Development Guideline C.)

The following facilities and uses are excepted:

A) Docks, bridges, culverts, and public structures whose purpose is access to or across the stream or lake;

B) Uses that must be in or adjacent to the waterbody in order to function, such as placer mining activities, fish culturing, water supply intakes, and similar uses.

Table 2.1

**Reserved Public Access, Building Setbacks, and Management Zones;
Minimum Widths adjacent to Waterbodies**

guideline description	minimum width	where it applies	primary purpose	qualifiers
5. Large river special management zones	width to be determined	Kiklukh, Kaliakh, Kulthieth, Duktoth, & Yakataga Rivers	Ensure that forest management is consistent with maintenance of habitat and recreation	Measures will be decided during Forest Land Use Plans with interagency involvement. In the special management zone along the Kiklukh River (established by Forestry Guideline J), no-harvest provisions may not extend beyond the boundaries of the no-harvest zone established under ADL 223456 (see map in Appendix C).
6. Recreation management zones along waterbodies	300 feet from ordinary high water mark of waterbodies with existing recreation use	lakes, streams, tidelands, & coastal uplands (landward & seaward measured from mean high tide)	Minimize significant adverse impacts to recreation use and to aesthetic values for recreation	Site specific circumstances may sometimes dictate a recreation zone wider than 300 feet. Mineral locations are excepted.
	400 feet from ordinary high water on both banks, as mapped in ADL 223456	Tashalich and Okalee Rivers	Protect habitat and recreation values	No timber harvest; other conditions listed in Chapter 3, Units 1a-1 and 1a-9
	approx. one-half-mile wide as mapped in ADL 223456	Kiklukh River	Protect habitat and recreation values	No timber harvest; other conditions listed in Chapter 3, Unit 1a-5.
7. Habitat & recreation zone encompassing the coastal edge of timber	500 feet from the seaward edge of mature timber stands	Coastline	Maintain overstory canopy coverage and avoid construction of roads and new surface uses in order to maintain wildlife habitat, visual aesthetics, recreation and tourism values and opportunities, and wind-firmness. See the functions of the coastal edge of timber, defined in Appendix A - Glossary.	Forestry activities must maintain 90 percent of the overstory canopy coverage, plus or minus 2 percent (see Forestry Guideline I). Avoid construction of roads except as necessary to cross the buffer. (See Transportation & Utility Guideline G.) Avoid new surface uses (see Transportation and Utility Guideline G). Avoid construction of facilities that compromise the integrity of the coastal fringe for wildlife habitat or dispersed recreation. (See Upland and Waterfront Development Guideline O.) Protect viewshed quality with site-by-site stipulation (see Recreation, Tourism, and Scenic Resources Guideline G)

Subsurface resources

Minerals Development²³

Note: By statute, all state lands are open to exploration and location for locatable minerals unless specifically closed by the Commissioner.

DNR generally requires a land use permit for minerals exploration (AS 38.05.850), and a mining and reclamation plan for minerals development (under AS 38.05, AS 27.19 and 11 AAC, chapters 86, 96 and 97). These permits will manage any adverse effects of mining on surface resources or uses by applying state and borough laws and regulations and the management intent and guidelines of this plan. DNR may limit some forms of access in specific areas to avoid resource damage.

A. Protect fish habitat

When DNR issues a permit for mining in or adjacent to designated fish habitat, the permit will require any measures necessary for the operation to meet statutes and regulations for fish protection and water quality standards. These measures may include levees, berms, seasonal restrictions, and settling ponds.

Mining in fish habitat requires permits from DEC. Mining in fresh water fish habitat and certain estuarine habitat also requires permits from DFG.

B. Offshore prospecting permits

DNR determines what areas will be opened for offshore prospecting permits under AS 38.05.250. No areas in the planning area are currently open for permits. Offshore areas may be opened to prospecting permits or through a future lease sale.

C. Submarine tailings disposal

Submarine tailings disposal was federally prohibited when this plan was being developed. If the federal Environmental Protection Agency authorizes submarine tailings disposal at some future time, DNR will apply the guidelines and management intent from this plan when considering authorizations for this use on state lands.

D. Oil and gas

This plan defers decisions on offering oil and gas leases to DNR's existing leasing process. Subsequent to a lease sale, surface land uses and activities related to oil and gas development are subject to this area plan.

Note: In October 1994, the Division of Oil and Gas issued a Preliminary Finding favoring the proposed oil and gas lease sales for approximately 563,490 acres of state-owned onshore and offshore lands between Icy Cape and Cape Suckling. If approved, the sale will be held in 1996.

²³ With the exception of Guideline "D" above, these guidelines apply to locatable minerals. Locatable minerals under state law include both metallic (gold, silver, lead, etc.) and non-metallic (asbestos, mica, etc.). Locatable minerals do not include materials (see definition under Materials section) or leasable resources (oil, gas, coal, phosphates, sodium, potassium, oil shale, or geothermal resources).

Mineral leasehold location and closures

In the Yakataga Area Plan planning area, DNR has determined that mining is incompatible with certain anadromous fish waterbodies shown on map 2-1 and listed in Appendix B. Therefore, under this plan, approximately 2,797 acres of shorelands are closed to new mineral entry. Approximately 21,459 acres of shorelands and tidelands are subject to mineral leasehold. Mineral closures and leaseholds are listed and mapped in Appendix B.

The decision to apply mineral location closures and leaseholds was made by the commissioner within the parameters set by the Alaska Statutes. AS 38.05.185(a) states, "State land may not be closed to mining or mineral location unless the commissioner makes a finding that mining would be incompatible with significant surface uses on state land." The fact that an area is closed to new mineral location will not be cause for denying access across state land. **Mineral closures do not affect valid existing claims.**

Each of the waterbodies listed in Appendix B has had a peak escapement count that meets the criteria below.

- a. 500 pink salmon *and* 500 chum salmon; or
- b. 1,000 pink salmon *or* 1,000 chum salmon; or
- c. 500 coho salmon *or* 500 sockeye salmon.

Maintaining the high quality anadromous fish habitat in these streams and avoiding impacts to water quality is essential to sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries.

Trail management

A. Identify important trails

Before state lands are leased or conveyed, DNR will identify trails that merit retention in public ownership. The Division of Land will identify trails in consultation with the Division of Parks and Outdoor Recreation (DPOR), other appropriate divisions of DNR, DOT/PF, DFG, affected private land owners, and local governments. Any agency, organization, or individual may identify public trails to be considered for protection.

B. Protect trails and routes of regional or statewide significance

Trails of regional or statewide significance will be identified through revisions to this plan²⁴ or through subsequent management plans, and retained in state ownership. These trails will be recorded on the state's land record system and reserved through issuance of a trail easement.²⁴ Trails of regional or statewide significance generally have a history of public use and likelihood for increased use. Routes with potential for significant public use, based on high resource values, should also be identified and retained in state ownership.

C. Protect local trails

Local trails should be retained in public ownership if they serve as collector trails that connect to a public open space system or regional or statewide trail, or if they form an established transportation system for local residents. Local trails will be identified and protected through management plans or land conveyance design under guidelines recommended in DNR's subdivision design manual. Local trails will be recorded on the state's land record system and reserved through issuance of a trail easement.

D. Trail buffer widths and activity areas

Trails of regional or statewide significance on state land will be protected by a publicly-owned buffer that has a minimum width of 100 feet (50 feet each side of center line). This buffer is intended to protect the quality of the experience of the user and to minimize negative effects from adjacent land uses. Buffer widths may be increased to minimize land use and ownership conflicts, to protect the privacy of adjacent landowners, to separate motorized from non-motorized uses, to allow future siting of public facilities, to allow flexibility for rerouting, or to adapt a trail to specific public uses or aesthetic or environmental concerns.

Buffer widths may vary along the length of a trail because of the above considerations. The width of a buffer on any portion of a trail should also be based on the management intent for adjacent public land as expressed through applicable land use plans. Trail buffers should be located and designed in consultation with appropriate divisions of DNR, DFG, and DOT/PF, local governments, affected private land owners, and appropriate user groups. Activity areas of 10 to 40 acres may be identified along trails for other uses such as camping or rest areas.

E. Land use in publicly-owned buffers

To maintain the aesthetic character, trail buffers will be managed to maintain the natural vegetation within the buffer. Other activities must not diminish the quality of the recreation experience and the aesthetic character of the trail buffer, to the extent feasible and prudent. This guideline does not preclude trail crossings or rerouting as described below. Trails may be cleared to allow for the appropriate recreation experience.

²⁴ Under this guideline, DNR will consider recording the trail to be developed by the university west of the Duktotoh River.

F. Rerouting trails

Trails may be rerouted to minimize land use conflicts or to facilitate use of a trail if alternate routes provide opportunities similar to the original. If trails are rerouted, DNR should require construction of new trail segments if warranted by type of use. Rerouting trails should be done in consultation with DPOR and other affected divisions of DNR, DOT/PF, DFG, local governments, private landowners, and appropriate user groups. If a development project necessitates rerouting a trail, the developer should bear the costs of rerouting.

G. Trail crossings

When it is necessary for powerlines, pipelines or roads to cross trail buffers, crossings should be at as close to a 90-degree angle to the buffer as feasible and prudent.

Transportation and utilities

A. Site utilities to minimize impacts to other resources

Facilities to support settlement and utility rights-of-way, including generation and transmission structures, transmission cables, and sewage and water lines, will be sited to minimize significant adverse impacts to other valuable resources or uses.

B. Access plans for state land offerings or resource development projects

Before a land offering or the initiation of a resource development project, DNR should identify appropriate locations for access, in consultation with the Department of Transportation and Public Facilities (DOT/PF) and appropriate adjacent public land managers. DNR should also identify responsibilities for design, construction, and maintenance of any proposed transportation facilities.

C. Joint use and consolidation of surface access

DNR will encourage joint use and consolidation of surface access routes and facilities where feasible and prudent. Surface access should be sited and designed to accommodate future development and avoid unnecessary duplication. DNR should require evaluation of the feasibility of using an existing route or facility before authorizing a new route or facility.

D. Purpose of roads on state land

The goal of roads on state lands is to optimize long-term public use benefits from new access while minimizing significant adverse impacts on existing public uses and maintaining the full range of recreation and tourism opportunities to the extent practical.

E. Standards for roads and stream crossings

All roads will at a minimum be built to DNR/DOF Southeast Region Forestry Road Standards, as stated in the Haines State Forest Plan. Road and development plans will receive interagency review. All road and stream crossings will meet the standards of the Forest Resources and Practices Act (AS 41.17). Disturbed stream banks should be recontoured, revegetated, or rehabilitated by other measures to prevent soil erosion into adjacent waters. Cross drains will be adequate to prevent ponding on the uphill side of the road.

F. Siting roads, berms, pads, ramps, or causeways

Roads, berms, pads, ramps, and causeways will, to the extent feasible and prudent, be routed to avoid wetlands, tideflats, and streams, minimize alteration of natural drainage patterns, and avoid significant long-term adverse impacts to recreation, water quantity, or water quality. Clean fill (free from organic material) will be used for construction in any of the above-listed types of waterbodies.

Transportation routes will be sited to avoid fish and wildlife habitats of concern where feasible and prudent. Important habitats of concern are habitats for moose, goats, black and brown bears, swans, and eagles. Route location should be determined in consultation with the Department of Fish and Game (DFG).

G. Roads in the coastal edge of timber

Roads may not pass through or cross over the 500 foot coastal fringe of timber unless there is no feasible and prudent alternative. The intent is to keep at least a 500-foot forested separation between the coast and roads running parallel to the coast in order to avoid disturbance of the high habitat, aesthetic, recreation, and tourism values of the coastal buffer.

H. Clearing limits in road rights-of-way

The width of clearing limits in rights-of-way (ROWs) should be minimized in order to reduce costs of road construction and maintenance and to minimize impacts to other resources, including fish and wildlife habitat. Limits should be 60 feet in width or ten feet beyond the toe of cut and fill, whichever is greater. There should be no cutting of trees beyond the ROW except those identified by the state as hazard trees.

I. Timber salvage from rights-of-way

All timber with high value for commercial or personal use should be salvaged under direction of the Division of Forestry on rights-of-way to be cleared for construction.

J. Road maintenance and disposition

DNR will identify a responsible party to maintain roads, or will require roads to be closed to prevent erosion and other water quality problems. Because streams in this area are hydrologically active, frequent maintenance or repair of bridges, culverts and roads is required.

K. Closure of inactive or unmaintained roads

When no regular use is anticipated within one year, roads will be closed to prevent erosion and illegal waste disposal. This does not apply to the main haul road.

L. Road access management

Public access management may be necessary in response to safety and wildlife management concerns. In determining whether roads should be kept open or put to bed, DNR will consult with DFG regarding the need for particular road management measures to maintain fish and wildlife resources in the area.

M. Remove temporary berms, pads, or ramps on tidelands

If a temporary road, berm, pad, ramp or causeway is placed on tidelands, DNR will require clean fill free from organic material, and construction methods that facilitate removal of the fill. DNR will require that the permittee or lessee restore any temporary fill site to blend with original contours after the temporary access is no longer required, unless removal or restoration would cause more damage than leaving the fill in place.

N. Joint use and consolidation of airstrips

DNR will require joint use and consolidation of airstrips and related facilities where feasible and prudent to promote efficient returns from this land-intensive use and to minimize the liability from proliferation of public airstrips. Before authorizing a new site, DNR should require evaluation of the feasibility of using an existing airstrip. Airstrips should be sited and designed to serve multiple users, avoid unnecessary duplication, and minimize adverse impacts on resource values and uses.

O. Demonstrable public need for airstrip

Airstrip development may be allowed if:

1. there is a demonstrated significant public need for the airstrip; and
2. there are no feasible alternatives to meet the public need for increased access that would have less significant impacts on habitat, recreation, or other uses.

P. Risk management for airstrips

The following requirements and recommendations are intended to minimize the state's liability:

1. DNR will advise the Department of Administration's Division of Risk Management of airstrip applications and request comments on liability reduction and coverage.
2. DNR will require applicants to obtain a determination of airspace requirements from the Federal Aviation Administration (FAA).
3. DNR will recommend that applicants construct and maintain the airstrip to FAA standards.
4. DNR will require as-built surveys of completed airstrips.

Q. Public access to airstrips

In general, airstrips developed on state land should be made available for use by the general public.

DNR does NOT intend to discourage private individuals from airstrip development. However, DNR discourages exclusive private airstrips on state land because it is inefficient to reserve a large land area for a single use by a single party.

DNR will consider airstrips case-by-case, including renewal of expired rights-of-way. In considering airstrip applications, DNR will consider the plan's goals, management intent, and:

1. opportunities for alternative access;
2. surrounding terrain and topographic features, in order to minimize disturbance to other uses;
3. habitat values, recreation uses in the area, and riparian vegetation and hydrology;
4. existence of previously or naturally cleared areas;
5. benefits to the public including reciprocal easements of public use;
6. opportunities for consolidating airstrips or joint-use airstrips when more than one applicants are likely to apply for airstrips in adjacent areas;
7. FAA input and requirements, and;
8. other public and agency comments.

Upland and waterfront development

A. Performance guarantees

The Department of Natural Resources will require performance guarantees or assurances from applicants whose development plans pose possible significant risk to state land. The Director of the Division of Land has the discretion to waive such requirements if: 1) there is a significant and overriding public benefit from the project which may not be realized without the waiver, or 2) sufficient performance guarantees are already in place through other municipal, state, or federal agencies.

B. Siting and operating resource transfer facilities and sites²⁵

1. **Avoid or minimize conflicts with other important uses.** Resource transfer sites and facilities should be sited and operated to avoid or minimize interference with important established personal, commercial, or recreational uses.
2. **Require joint use and consolidation.** Joint use and consolidation of Resource Transfer Sites will be required where feasible and prudent, for efficiency and to minimize impacts to other uses. The feasibility of using or modifying existing sites will be evaluated before a new site is authorized.
3. **Accommodate future use.** Resource transfer sites should be sited and designed to accommodate future development and avoid unnecessary relocation of sites.

C. Water pollution sources near rivers, lakes, and streams

Where feasible and prudent, roads, log transfer facilities, sort yards, shops, generators, permanent fuel structures, camps (including set net camps) and other sources of pollution will be located farther than 300 feet from lakes, streams or rivers supporting anadromous or high quality resident fish.

D. Minimize soil erosion

Soil erosion caused by development projects will be minimized by restricting the removal of vegetation adjacent to waterbodies and by stabilizing disturbed soil as soon as possible. Disturbed stream banks and lake shores should be recontoured, revegetated, or otherwise restored as soon as possible to prevent soil erosion.

E. Maintain windfirm timber

In forested areas with high wind exposure, DNR may apply conditions to timber clearing in order to ensure a windfirm boundary along the remaining timber. The intent is to preserve commercial forestry, habitat, and aesthetic values of the timber.

F. Remove temporary berms, pads or ramps

Temporary berms, pads, or ramps will be removed and restored to blend with original contours after the temporary access is no longer required, unless removal or restoration would cause more damage than leaving the berm, pad, or ramp in place.

²⁵ **Resource transfer facility:** Any facility or mechanism necessary to transfer timber, minerals, or other resources from uplands to marine water, including all necessary components such as log rafting and sorting areas, or floating camps.
Resource transfer site: A site for facilities necessary for transferring timber, minerals, or other resources from uplands to marine waters, including all necessary components such as log rafting and sorting areas, or floating camps. A single resource transfer site may contain more than one resource transfer facility.

G. Fuel storage

1. **Permanent fuel storage.** Fuel storage structures that are located on state uplands will have a physical barrier to prevent the flow of fuel into rivers, lakes, streams, and tidelands. Where feasible and prudent, permanent fuel storage facilities will not be located on docks. This guideline may be waived if solutions are approved by DEC.
2. **Temporary fuel storage.** Temporary fuel storage, to the extent feasible and prudent, should be located at least 100 feet from any rivers, lakes, streams, and tidelands to minimize potential contamination.

H. Protect anchorages

DNR will maintain the capacity and suitability of the anchorages shown in Chapter 3 (see tables and maps). Other activities may be allowed in anchorages only if DNR determines the use or capacity of the anchorage will not be significantly diminished, or if there is no feasible and prudent alternative for the other activity and DNR determines that allowing the activity serves the state's best interest.

I. Siting and design of breakwaters, jetties, causeways, harbors, and marinas

Breakwaters, jetties, causeways, harbors, and marinas will, to the extent feasible and prudent, be sited and designed to minimize impacts on longshore transport, circulation, and mixing. The site and design should also optimize flushing to avoid concentration of pollutants. Harbors, marinas, and launch ramps should be sited where uplands are available to accommodate related demand for parking, support facilities, and increased traffic flow.

J. Design of bulkheads

DNR will authorize bulkheads only for erosion control or to reduce the size of fills required for water-dependent uses. Where necessary, bulkheads should be designed to do the following:

1. facilitate flushing;
2. minimize the potential for toe scour, wave energy enhancement, or accelerated erosion;
3. allow for outward groundwater flow or runoff;
4. prevent fines from washing away, if fines are included in fill material.

K. Temporary access across tidelands

Temporary access across tidelands (such as on-loading or off-loading materials from ships or barges) will, to the extent feasible and prudent, occur at higher tidal stages to minimize compaction of substrate and crushing of invertebrates.

L. Equipment on tidelands

Equipment operated on tidelands will avoid or minimize significant adverse impacts to fish and wildlife habitat. DNR authorizations may require siting or timing restrictions to achieve this result.

M. Pilings preferable to fill

Piling structures are preferable instead of fill for shoreline development in areas that are free from icebergs. All shoreline development must also comply with federal regulations implementing Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.

N. Tidelands fill for residential purposes is not allowed

Filling state tidelands, submerged lands, or shorelands for residential purposes will not be allowed.

O. Surface uses in the coastal edge of timber

DNR will, to the extent feasible and prudent, direct new surface uses that could compromise the integrity of the coastal edge of timber, such as roads, permanent facilities and camps, to locate outside of the 500-foot-wide coastal edge of timber. The intent is to maintain the biological and ecological functions of the natural coastal fringe of timber.

This guideline will allow continuation of authorized surface uses where they are actively occurring in the coastal fringe at the time this plan is adopted.

P. Avoid outburst flood areas

Development should be avoided in potential glacial-outburst flood areas. This includes low areas along the Yakataga, White, and Seal rivers. Where they are necessary, any permanent structures or facilities placed along these rivers should be engineered to withstand stream erosion, deposition, and severe flooding.

Q. Assessment of natural hazards

DNR may require an applicant to provide information on natural hazards at a proposed project site, to assist DNR in minimizing safety risks. Primary natural hazards in the planning area include: high earthquake potential associated with the Yakataga seismic gap; active seafloor faulting; tsunamis; ground instability (both onshore and offshore) associated with high influx of glacially derived sediment; coastal erosion; glacier outburst and related flooding; snow avalanches near steep terrain; severe storm winds and surges, particularly along the open gulf and spits that confine river mouths; and possible future influx of large icebergs into marine travel routes.

R. Development considerations along exposed tidelands and shoreline

The Gulf of Alaska coast in the planning area is exposed to extreme wave, storm, and erosion actions. When reviewing proposed tideland and shoreline development, DNR should consider the following:

1. The western shores of Icy Bay and Yakutat Bay are subject to relatively high wave energies compared to the eastern shores of these bays. If feasible, development on tidelands or the shoreline should be located on the eastern shores.
2. Erosion at the mouth of Icy Bay and west to Cape Yakataga is extreme (37 meters per year maximum at Pt. Riou).
3. Storm surge flooding occurs along the open Gulf of Alaska. There is also a high tsunami hazard because of the likelihood of major earthquakes or submarine landslides. Before authorizing shoreline development along the open Gulf of Alaska, DNR should determine reasonable set-backs or other measures to avoid or withstand storm surge flooding or tsunamis.
4. This coast has highly unstable seafloors due to steep slopes, unconsolidated sediments, and active surface and near-surface faults. Mapping and avoiding these features is the most effective measure to minimize damage to offshore structures from sea floor instability or active faulting .

S. Other development west of the Duktotoh River

State lands west of the Duktotoh River will accommodate non-forestry development and uses consistent with proper forest management and the protection of fish and wildlife habitat.

Water resources

A. Water intake structures and fish protection

When issuing water rights for waters providing fish habitat, DNR will require installation of practical water intake structures that avoid entrainment, entrapment, or impingement of fish. The simplest and most cost-effective technology that accomplishes the goal may be used to implement this guideline.

Water intake structures should be screened, and intake velocities will be limited to prevent entrapment, entrainment, or injury to fish. The structures supporting intakes should be designed to prevent fish from being led into the intake. Structures must not impede fish migration. Screen size, water velocity, and intake design will be determined in consultation with DFG. Other effective techniques may also be used to achieve the intent of this guideline.

B. Avoid alteration of the riverine hydrologic system

To the extent feasible and prudent, uses and activities in water bodies will avoid channeling, diverting, or damming that will have a significant adverse impact on habitat important to aquatic furbearers, such as land otter, mink, and beaver; waterfowl; moose; bald eagles; and fish; and on other public interest benefits derived from a natural hydrologic system.

C. Maintain hydroelectric potential

DNR may maintain locally significant hydroelectric potential, including potential microhydro development, by placing conditions on permits to appropriate water from streams with this potential. DNR's intent is to achieve maximum public benefits from the stream without loss of water rights to the initial water user.

D. Commercial glacier ice harvest and competing uses

Commercial harvest of glacier ice in mapped seal haulout or pupping areas will not be allowed during the period of use by seals. Applicants for commercial glacier ice harvest activities near seal haulout or pupping areas should consult the National Marine Fisheries Service.

DNR will minimize conflicts between commercial glacier ice harvest and established uses such as fish and wildlife habitat, harvest and recreation. Timing, seasonal, or other restrictions may be used to minimize conflicts.

E. Instream flow reservations

Under AS 46.15.145 and 11 AAC 93.141, state agencies, federal agencies, or private citizens may apply to reserve instream flows for these purposes:

1. Protection of fish and wildlife habitat, migration, and propagation.
2. Recreation and park purposes.
3. Navigation and transportation purposes.
4. Sanitary and water quality purposes.

CHAPTER 3

LAND MANAGEMENT POLICIES FOR EACH MANAGEMENT UNIT

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CHAPTER 3

LAND MANAGEMENT POLICIES FOR EACH MANAGEMENT UNIT

Introduction

The purpose of this chapter is to present resource information and prescribe management policy for specific tracts of land. The policy prescription has three parts. A **designation** indicates which resource uses DNR intends to emphasize in a particular area to produce the maximum benefits for Alaskans. A designation does not necessarily preclude other uses. The designation is accompanied by **management intent** and **management guidelines** specific to that area. These three pieces of information—designations, statement of intent, and management guidelines—promote the most beneficial use(s) and set conditions for allowing undesigned uses. This information should always be taken into consideration along with areawide guidelines provided in Chapter 2.

The planning area is divided into 13 units (regions) and 102 subunits. (See Unit Index Map on page 3-3.) Management subunits are generally homogeneous in resources and topography.

Background information

This chapter presents the following **background information** for each of the thirteen management units:

- **physical features:** the most prominent geographical features, such as mountains, rivers, and glaciers; and the vegetation and general terrain
- **access:** general location of airstrips, roads, trails, and anchorages
- **land status:** land ownership and land selections within the management unit
- **adjoining lands:** land ownership of and management authority for lands adjoining the management unit
- **resources and uses:** a summary of the predominant resources and uses. More specific resource information, if available, is listed in the table and text for each subunit.
- **management considerations:** legal issues, such as unauthorized uses or university timber rights; potential future uses; and natural conditions or hazards, such as flooding.

A **summary table of resource information** and a **map** showing the subunits are provided at the end of each management unit description.

YAKATAGA AREA PLAN

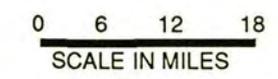
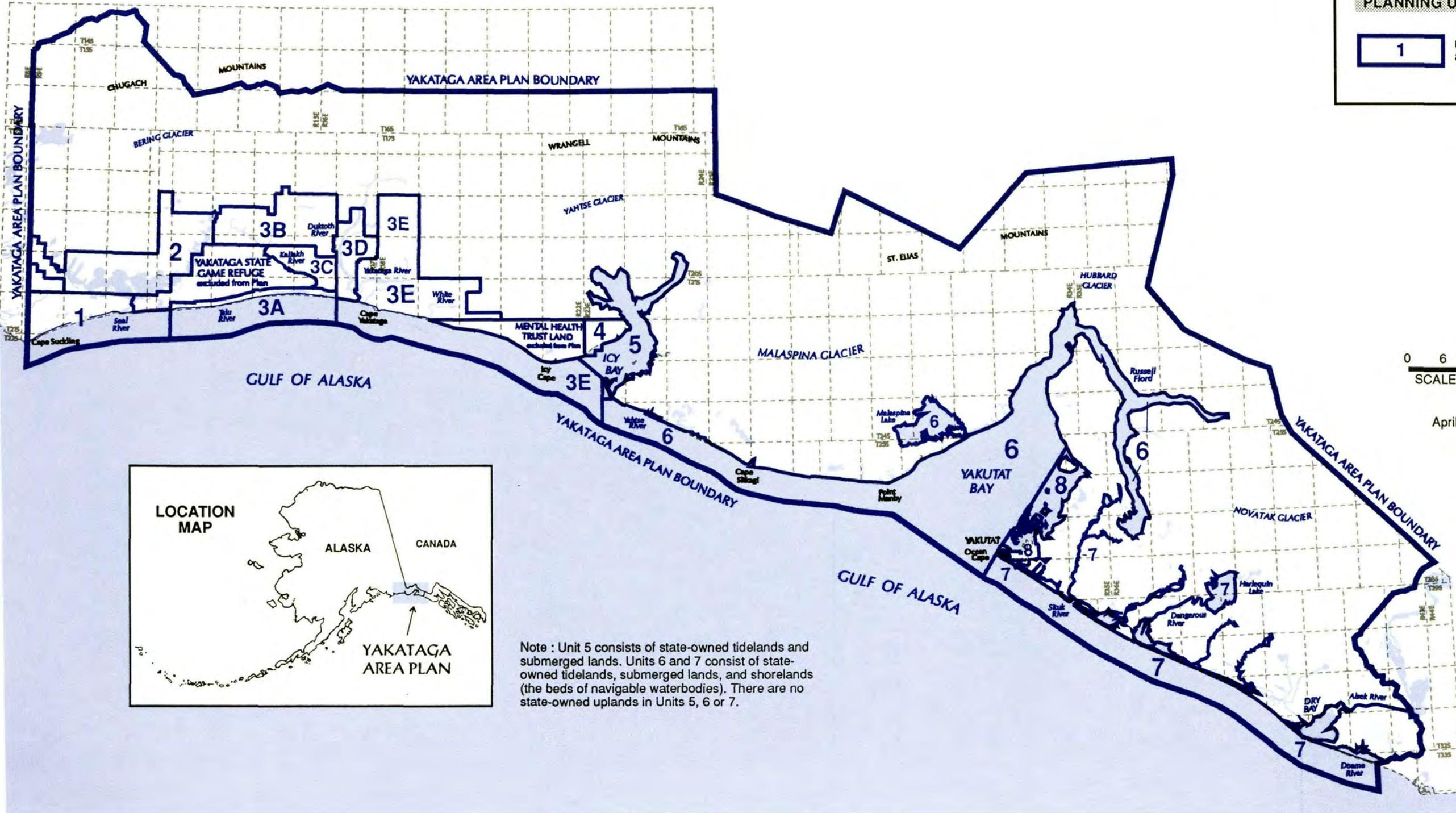
Yakataga Area Plan - Unit index map

YAKATAGA AREA PLAN

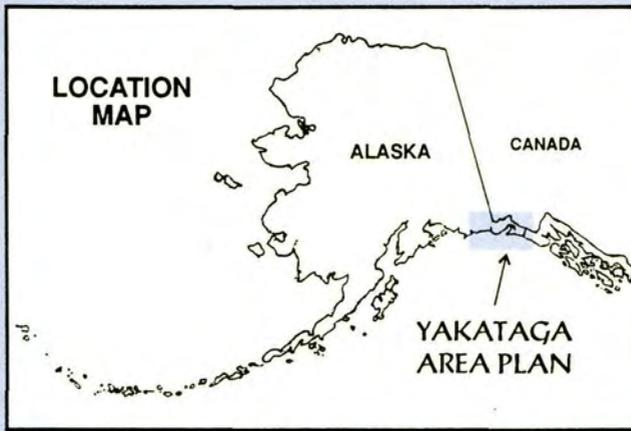
Yakataga Area Plan - Unit index map

PLANNING UNITS

1 management unit boundary and number



April 1995



Note : Unit 5 consists of state-owned tidelands and submerged lands. Units 6 and 7 consist of state-owned tidelands, submerged lands, and shorelands (the beds of navigable waterbodies). There are no state-owned uplands in Units 5, 6 or 7.

Management policy for the 102 subunits is presented as follows:

- **land use designation:** the primary or co-primary uses for each subunit. Designations are described in more detail later in this chapter.
- **management intent:** a summary of the objectives DNR will try to achieve through land use authorizations or actions
- **guidelines:** guidelines specific to this subunit that the DNR adjudicator will follow in reviewing applications and other land actions. (Areawide guidelines in Chapter 2 also apply.)
- **general information:** explanation of site-specific resources, uses, or management considerations.

Land use designations¹

A **designated use** is a primary use in a particular management subunit. DNR will manage resources and activities in order to promote, enhance, protect, or maintain this use. Some subunits have two or more designated uses. If conflicts arise between co-designated uses, DNR will apply the management intent statement and guidelines for the subunit to minimize conflicts.

A designated use does not preclude other compatible uses. DNR manages for multiple use (11AAC 55.040).

Designations are based on resource inventories and the planning team's desired management for each subunit. The resource inventory for the Yakataga Area Plan includes the best available information for the following resources and uses:

- aquatic farm suitability and sensitivity areas
- forest types
- fish and wildlife habitat
- fish and wildlife harvest
- heritage resources
- recreation areas and facilities
- mineral potential
- material sites
- settlement needs
- access and transportation.

Designations may reflect current or future uses. This plan guides land uses for the **next twenty years**, subject to periodic reviews. The plan may assign a designation to ensure a **future use** that will best serve the public interest, even if that use is not imminent.

A designation does not *guarantee* that DNR will approve all proposals for a designated use. DNR will still require best management practices for siting and operating proposed uses. Other regulatory agencies may require permits for some uses. Also, users of state tidelands and shorelands may need to acquire access rights to adjoining non-state uplands.

Upland access across state tidelands, including developed access facilities, may be allowed within all land use designations where DNR determines the proposed facilities are consistent with the management intent and applicable guidelines of the plan and the Public Trust Doctrine. An explanation of the Public Trust Doctrine is located in Appendix C.

¹ Also see glossary in Appendix A for definitions of "Designation," "Designated Use," "Prohibited Use," and Management Intent Statements.

DESIGNATIONS USED IN THIS PLAN (definitions follow)

F Forestry (timber production)	RD Recreation - dispersed
G General use	RP Recreation - public use site
H Fish & wildlife habitat	S Settlement
HV Fish & wildlife harvest	T Transportation
HR Heritage resources	WD Waterfront development (commercial or industrial)
M Minerals development (active or imminent)	

Designation levels

Several resources have a two-tiered designation, Level 1 or Level 2, to indicate the degree of emphasis DNR wants to place on production and development of that resource. There are Level 1 and Level 2 designations for:

- forestry (F1 or F2)
- habitat (H1 or H2)
- fish and wildlife harvest (HV1 or HV2)
- dispersed recreation (RD1 or RD2); and
- public use site recreation (RP1 or RP2).

All other land use designations have a single level of emphasis. See further explanation on page 3-9. Note: The **sequence** in which multiple designations are listed for a specific management unit does not indicate priorities. For example, in a unit designated F2 H2, forestry and habitat have equal priority; F2 H2 would be the same as H2 F2.

Definitions of designations:

Forestry

- F** Commercially valuable forest land that the Division of Forestry has identified as suitable for timber production. Commercial forest is land with over 8,000 board feet of timber per acre (net international 1/4 inch rule), or producing twenty cubic feet of industrial wood per year.

General use

- G** Land which will provide some combination of recreation, habitat, resource development, future settlement, or other uses. This designation is applied when lack of resource information prevents a specific resource allocation at the time of the plan, or when lack of current demand indicates development is unlikely during the 20-year life of the plan. All other uses are presumed compatible.

Fish and wildlife habitat

- H** Land with habitat values that the Department of Fish and Game (DFG) has described and mapped as important for maintaining fish and wildlife resources.

DFG has identified two classes of habitat. The most valuable habitat ('A' value habitat) is defined as "limited, concentrated use area for fish and wildlife species during a sensitive life history stage where alteration of the habitat and or human disturbance could result in a permanent loss of a population or species' sustained yield." For the Yakataga Area Plan, DFG identified 26 'A' habitat types by species and use patterns. Appendix E lists the different mapped habitat types.

'B' fish and wildlife habitat areas are the second most valuable habitat types. 'B' habitats are: highly productive components of the ecosystem where alteration of the habitat or human disturbance would reduce the yield of fish and wildlife populations whether directly or cumulatively. For the Yakataga Area Plan, DFG identified 11 'B' habitat types by species and use patterns (see Appendix E).

Fish and wildlife harvest

HV Localized, traditional harvest areas of limited size where alteration of habitat could permanently limit sustained yield to traditional users; or areas of intense harvest where the level of harvest has or is projected to reach the harvestable surplus for the resource. For the Yakataga Area Plan, DFG identified eleven types of harvest or use areas under this second harvest criteria. Appendix E lists the harvest criteria for designation.

Heritage resources

HR Land where there is active preservation of, or research for, significant historical, prehistoric, paleontological, or other cultural values; or where there is reason to believe that these values exist.

Minerals development

M Land where mineral resources exist and where development is occurring, or is reasonably likely to occur, or where the Division of Mining believes that commercial quantities of minerals exist. This designation notifies the public and interest groups that the state feels mining within those areas serves the public's best interest.

All state land is open for new mineral locations except where previously closed under AS 38.05.185. Mining will be treated as a designated use in all subunits except in subunits closed to mineral entry. If a management unit is open to new mineral location and has a primary surface designation such as wildlife habitat or public recreation, the surface designation will not be construed automatically to prevent mineral development. Limited areas are closed to mineral location where significant conflicts occur between mining and recreation, or mining and anadromous fish waterbodies.

A resource designation of "minerals development" generally is not applied as a surface land use designation to broad areas. The problems in locating and measuring subsurface resources make it difficult and misleading to apply this category in the same way designations are used for surface resources, such as timber.

This plan applies a primary surface designation for minerals where intensive mineral exploration or development is currently taking place or is highly likely in the near term (5 to 10 years).

DNR may effect mineral closures listed in this plan that are less than 640 contiguous acres. A legislative act is generally required to close permanently an area exceeding 640 contiguous acres [AS 38.05.300(a)(2)]. For the proposed mineral closures in this plan that exceed 640 acres, DNR will issue an interim closure that will remain in effect until the legislature approves it, or until the 90th day of the next legislative session, or the adjournment of the next legislative session, whichever comes first.

Closures do not affect existing mineral locations. All state land is available for coal or oil and gas leasing.

Recreation and tourism - dispersed use

RD Areas that attract recreationists or tourists who range throughout the area. Also, areas that offer high potential for dispersed recreation because of desirable recreation conditions that are scattered or widespread rather than localized. DNR may allow developed facilities. The need will depend on the relative concentration or dispersal of visitors, and on visitors' expectations for a semi-primitive or primitive recreation experience.

Recreation and tourism - public use site

RP Areas that attract concentrations of recreationists or tourists compared to the rest of the planning area; or areas with high potential to attract concentrations of recreationists and tourists. These areas offer localized attractions, and/or ease of access, and/or developed facilities. Examples include cabins, lodges, anchorages, airstrips, etc. The recreation and tourism may be either public or commercial.

Settlement

S Areas suitable for sale, leasing, or permitting of state lands to allow private recreational, residential, commercial, industrial, or community use. This designation will generally be used for areas appropriate for subdivisions, set net camps, and other concentrated residential/ commercial areas. Unsettled or unsold land in the management unit will be designated and managed for uses compatible with the type of anticipated settlement.²

Transportation

T Land identified for the location of easements and rights-of-way under AS 38.04.065(f), including transportation, pipeline, or utility corridors, or land under consideration for a right-of-way. Transportation designations reflect the need for efficient inter-regional infrastructure, the need for intra-regional access to resources on state and non-state land, and consideration of the impacts of increased access on resource uses.

Waterfront development

WD Use of tidelands, submerged lands, or shorelands for intensive water-dependent or water-related facilities, usually for industrial or commercial purposes. Waterfront development includes: piers, wharves, harbors, aquatic farms, log storage, log or mineral transfer facilities, seafood processing facilities, commercial recreation facilities, and other resource development support facilities.

² The settlement designation does not imply that DNR will immediately initiate land sales. DNR is unlikely to initiate land sales in the Yakataga area in the next five years. DNR land sales depend on funding. There is greater demand for state land sales in other parts of the state. Any sale would require two or more years of planning by DNR.

Management intent

The statement of management intent in each subunit elaborates on the designation. This statement may highlight which particular resources or uses earned the designation. It may note the season of use or the particular location of the designated use. Management intent also sets the tolerance level for adverse impacts to the designated resource(s).

The management intent also notes any identified need for future access or additional site specific information that should be compiled before DNR authorizes various uses.

Correlation of designations and management intent

Each statement of management intent has a directive verb based on the level of the designation. These verbs—promote, protect, enhance, maintain, and allow—are defined in the glossary (see Appendix A).

Level 1 or single level designations

- F1 Promote forest management
- H1 Protect or enhance fish and wildlife habitat
- HV1 Protect or enhance conditions for fish and wildlife harvest
- HR Protect or enhance heritage resources
- RD1 Protect or enhance conditions for dispersed recreation
- RP1 Protect or enhance access and facilities for public use site recreation
- M Promote minerals exploration and development
- WD Promote waterfront development
- S Promote sale, leasing or permitting

Level 2

- F2 Maintain opportunities for forest management
- H2 Maintain fish and wildlife habitat
- HV2 Maintain conditions for fish and wildlife harvest
- RD2 Maintain conditions for dispersed recreation
- RP2 Maintain access and facilities for public use site recreation
- T Maintain opportunities for transportation facilities
- G Allow general uses

Level 1 designations are followed by a statement that all activities will, to the extent feasible and prudent, **avoid significant adverse impacts** to the designated use.

Level 2 designations are followed by a statement that all activities will **minimize significant adverse impacts** to the designated uses.

Single and co-designated uses

Some subunits have multiple designations, while others have only one. Management intent and guidelines are important guidance for resolving conflicts between designated uses.

The relation between designated uses is:

- Levels 1 & 1: Uses are equally important and assumed to be compatible.³ All other activities will, to the extent feasible and prudent, avoid significant adverse impacts to both Level 1 designated uses. The order listed does not indicate order of importance.
- Level 1 alone: The designated use is the single most important use. All other activities will, to the extent feasible and prudent, avoid significant adverse impacts to this designated use.
- Levels 1 & 2: Emphasis is on the Level 1 resource. The Level 2 resource will be accommodated somewhere in the unit, in a manner that avoids impacts to Level 1 resources. All other activities will, to the extent feasible and prudent, avoid impacts to significant adverse impacts to Level 1 and minimize significant adverse impacts to Level 2 resource.
- Levels 2 & 2 Uses are equally important but not necessarily compatible. Both uses will be accommodated in the unit, in a manner that minimizes significant adverse impacts to the other Level 2 resources. DNR will maintain a balance of Level 2 resources proportional to their abundance within the unit. All other activities will minimize significant adverse impacts on Level 2 resources. The order listed does not indicate order of importance.
- Level 2 alone: There is a single dominant use or resource, with moderate value compared to other occurrences of this use in the planning area. All other activities will minimize significant adverse impacts to the Level 2 resource.
- Undesignated uses: 11 AAC 55.040(c) explains the subordinate status of undesignated uses as follows: undesignated uses are initially presumed to be compatible with the primary (designated) use. However, if the department (DNR) determines that there is a use conflict and that activities attendant to an undesignated use are incompatible with the designated use, the undesignated use shall either cease or the user shall modify the activity to enable DNR to determine that the incompatibility no longer exists.

³ This plan generally did not co-designate F1, M, or S with H1, HV1, RD1, or RP1. There is a history of conflict, or perceived conflict, between some of these uses. Some agencies and public interests perceive that maximizing one type of these uses would have inevitable impacts on the quality and character of the other type of uses. However, the December 1994 settlement agreement required a co-designation of F1 H1 in subunit 3b-6. This is unlikely to cause management problems for two reasons: the 1994 settlement agreement applies a twenty-year timber moratorium that includes to subunit 3b-6; and requires that DNR revise this area plan before future state timber harvest in the moratorium area. The settlement agreement also requires a co-designation of S and RD1 in subunit 8a-1.

Management Guidelines

Management guidelines direct the timing, amount, or specific location of activities to ensure that these activities are compatible with other resource values.

The guidelines may identify prohibited or restricted uses within a subunit. These are uses that have significant conflicts with other significant uses or resources and will not be permitted without a plan amendment. **There are very few restricted uses.**

Flexibility of the plan

The land use designations shown on the maps in this chapter are intended to be flexible. Undesignated uses may be permitted case-by-case if DNR determines they are consistent with the statement of management intent for the management unit and consistent with applicable management guidelines.

DNR may modify land use designations within a subunit through on-the-ground implementation activities, such as site planning or disposal, if modifications adhere to the intent of the plan and follow the procedures described in Chapter 4 under the section "Types of Changes to the Plan". Uses not originally designated may be permitted if they are consistent with the intent for a particular management unit.

This plan will not provide direct answers to many of the site-specific issues frequently encountered by state land managers. Rather, the area plan's general policies for the area guide the state land managers toward a more informed decision.

Commitment to continued resolution of conflicts

This area plan presents *general* management intent and guidelines with a commitment to additional planning and agency and public comment when long-term or widespread development is proposed for a particular site. Future planning will include:

- Annual Operating Plans for timber harvest by the university under ADL 223456;
- Forest Land Use Plans (FLUPs) for any other state commercial timber sales (see Appendix D);
- ACMP review for projects within the coastal zone; and
- DNR's issuance of preliminary decisions and final findings for any sale, lease or disposal of state interests.

This area plan defers detailed planning to these subsequent processes with the understanding that a) more specific guidelines may be needed to maintain existing high value uses and sustained yields; and b) more detailed analysis of the resources and the proposed actions is necessary to develop effective, efficient, *specific* guidelines.

DNR currently provides 30-day public notice in both state-wide and local media before approving the above types of actions (AS 38.05.945).

If DNR's budget levels or future changes in policy curtail site specific planning and analysis, this area plan will be amended with public input to resolve issues that have been deferred by this plan to the curtailed processes.

Definitions

Definitions of terms used frequently in this chapter are found in the glossary (see Appendix A).

Unit 1**CAPE
SUCKLING****Background**

The Cape Suckling unit lies between the Bering Glacier terminus and the Gulf of Alaska. The unit was defined primarily by land status and remoteness. Until the December 1994 settlement agreement, the university held one-time timber rights to much of the unit.

Physical features

Several areas of terrain and vegetation are unique within the planning area. The Cape has rocky shoals and islets, with westward views of Kayak Island. The remainder of the 13-mile shoreline is probably the most remote in the planning area because overland access is blocked by the Seal River. The shoreline includes a broad sand beach, backed by rolling dunes, with trees or shrubs beginning one-half to one-mile inland. The Suckling Hills rise to about 1,500 feet and have treeless rounded crests. There is an uninterrupted expanse of dense mature spruce between the Kiklukh and Tashalich rivers. Between the Tashalich and Seal rivers, the vegetation cover is primarily alder, willow, and young cottonwood.

Bering Glacier, Vitus Lake, and Seal River are the locus of dynamic glacial activity. Seal Beach (at the mouth of Seal River) is eroding rapidly, and the U.S. Geological Survey predicts that tidewater influx at the Bering Glacier will cause the glacier to retreat rapidly within the next 10 years.¹ In 50 to 100 years, as the Bering Glacier continues to retreat, a new fiord system will be created. The glacier's retreat may be interrupted by periodic surges, as occurred in 1994 and 1995.

Access

Small aircraft provide the only access to and from this unit. Aircraft use the beach or unauthorized airstrips at the Kiklukh and Seal rivers. There are no roads within the unit, and future connection to outside roads is complicated by the intervening distances, wetlands, and river crossings. There are no anchorages; however, the mouth of the Seal River may be accessible to small boats. Icebergs up to 60 feet long currently float out the Seal River into the Gulf of Alaska. If the barrier beach is breached, icebergs up to 1,500 feet long may enter the gulf, posing a hazard to navigation.

Land status

Through the December 1994 settlement agreement, the University of Alaska agreed to relinquish all timber harvest rights within Unit 1 in return for timber rights east of Duktoth River.² If any party to the settlement subsequently withdraws from the agreement, the university could reclaim timber rights within Unit 1. Appendix C contains a map and an explanation of the terms and history of the December 1994 settlement agreement.

Adjoining lands

State-selected lands border to the north. The Yakataga State Game Refuge borders to the east. State-owned tidelands and submerged lands in the Gulf of Alaska form the south boundary of this unit. Chugach National Forest lies to the west.

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- 1 Predictions of Bering Glacier's future activity were presented in 14 scientific papers at the American Geophysical Conference in December 1994.
 - 2 In accordance with the December 1994 settlement agreement, when the litigation over ADL 223456 was formally dismissed by the superior court and the university received timber cutting rights to the substitute tract east of Duktoth River, the university relinquished its one-time timber cutting rights at Cape Suckling subject to the university's right to return to the status quo ante pursuant to subparagraph 4(i) and paragraph 16 of that agreement.

Resources and uses

Recreation and fish and wildlife and harvest are the primary existing uses in Unit 1. Guided sport fishing, kayaking, and camping take place on the main rivers and lakes. Beachcombing and hiking occur along the beach. Guided hunting in the Suckling Hills has been curtailed by a decline in the goat population (from 32 in 1980 to 7 in 1990). DFG biologists report that this goat population experiences heavy predation from wolves because escape terrain is limited. The isolation of the Suckling Hills from other mountainous areas limits the chance for goats from other populations to restock the area.

The coastal meadows and dunes attract concentrations of brown bears and black bears from mid-July to mid-August.

The shore and nearshore at Cape Suckling attract the largest concentrations of waterfowl along the coast for migratory staging. The reefs are also a sea otter concentration area.

The U.S. Geological Survey and Alaska Division of Geological and Geophysical Services have on-going scientific studies of glacial dynamics and influences in the eastern part of the unit. Bering Glacier is likely to be a highly significant data collection area for glacial research and successional events into the next century.

Approximately 12,440 acres, or one-third of the unit, have operable commercial timber. There is presently no road system or Log Transfer Facility (LTF) in the Cape Suckling area. Timber harvest in this area would most likely require a road westward through Chugach National Forest to an LTF at Okalee Spit or Controller Bay. Construction of a road through Chugach National Forest would require approval from the U.S. Forest Service (USFS). The road, and any other facilities on National Forest land, would be subject to the National Environmental Policy Act (NEPA) and may require preparation of an Environmental Impact Statement. The NEPA process would address impacts to fish, wildlife, commercial fishing, and anchorages.

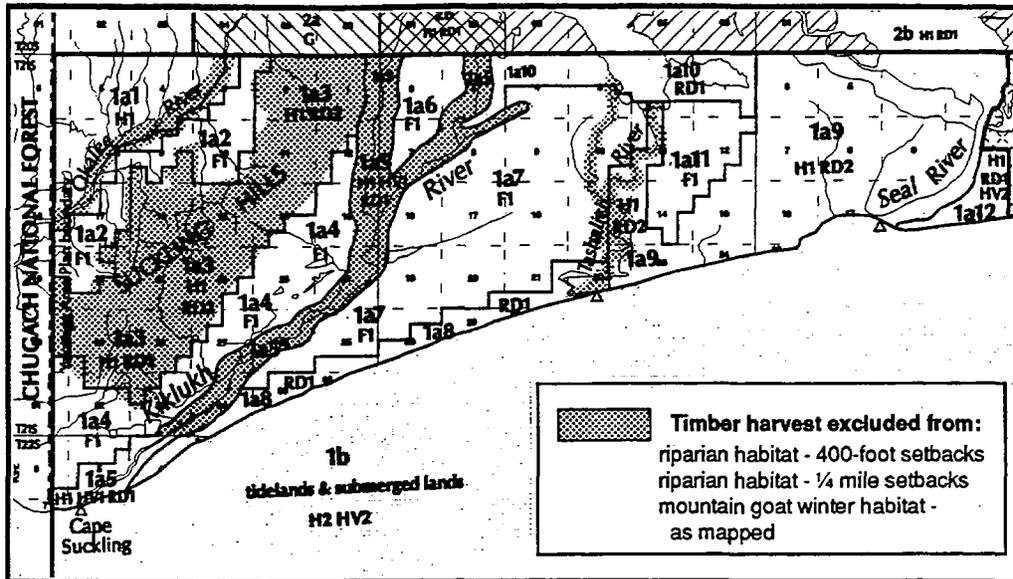
An LTF on state tidelands in Controller Bay or adjacent to Okalee Spit would require an authorization from DNR. These tidelands are in the Prince William Sound Area Plan (PWSAP), not the Yakataga Area Plan.³

Management considerations

Near the Bering Glacier terminus, Management Units 1a-9 through 1a-12 are undergoing rapid transformation as the glacier alternately surges and recedes. The entire area provides the scientific community with many unique opportunities for research: the rapid retreat of the glacier; the progressive expansion and salinization of Vitus Lake, the uncovering of glacier landforms; the erosion of Seal Beach; and creation of a world-class fiord system. The glacial retreat will also provide the opportunity to study: the glacial history of the area through interstadial forests and peat bogs; interstadial climates; ancient sand dunes and shorelines; prehistoric earthquakes; isostatic rebound; glacial and pro-glacial hydrology; revegetation of deglaciated lands; establishment of salmon runs within Vitus Lake; establishment of new wildlife habitat and bird rookeries; introduction and establishment of benthic species in Vitus Lake; and rates of glacial sedimentation. For more information on scientific values and research opportunities, see Management Unit 2.

Upland resource development in Unit 1 is hampered by lack of tidewater facilities for resource transfer. The nearest protected anchorage is 15 miles west at Okalee Spit in Chugach National Forest, outside the planning area.

³ DNR recognized the potential need for an LTF when the PWSAP was developed but the suitability of possible sites was not determined. See the management intent for Subunit 29b of PWSAP, page 3-249.



The university's previously-held timber rights influenced DNR's development of management intent for this unit. Subunit boundaries, designations, and guidelines in the Cape Suckling area correspond to previous university timber boundaries set by ADL 223456, shown on Map 3-2, above. When DNR updates this area plan,⁴ DNR will reconsider the management boundaries, designations, and guidelines.

In accordance with the December 1994 settlement agreement, DNR will manage the Cape Suckling tract as general state land.⁵ The tract is available for addition to the Yakataga State Game Refuge, subject to future legislative action.

DNR will not make state timber available for sale or harvest within this management unit until at least December 2014, except for harvest incidental to development of a cabin and trail system.⁶ In addition, before future state timber offerings, DNR must revise the Yakataga Area Plan, including a re-examination of land classifications and land use designations. The annual allowable cut for state land must also be recalculated after the area plan is revised.

The Yakataga area is very seismically active. Historic seismicity suggests a 67 percent probability of a great earthquake (exceeding 8.2 on the Richter scale) before 2000. Manmade structures on or near active surface faults may be subject to extreme ground accelerations, catastrophic ground failure, or direct displacement.

Tsunami hazards are high, both from earthquakes and submarine slides. There are near-surface faults and potential submarine slide areas just offshore from Unit 1. The most effective means of mitigating against possible damage to offshore structures due to seafloor instability or active faulting is by careful mapping and avoidance of these features.

There is potential for outburst flooding along Seal River if a narrow barrier beach containing Vitus Lake erodes further or is breached by a tsunami or storm waves. Large icebergs, currently trapped in Vitus Lake by the barrier beach, could float into the Gulf via the breached outlet, posing hazards to manmade structures or shipping in the Gulf.

- 4 The Yakataga Area Plan will be updated in 20 years as provided in the December 1994 settlement agreement. DNR must update the plan before it may hold state commercial timber sales outside the University's timber rights tracts east of Duktoth River. The plan update must reconsider land use decisions.
- 5 If any party withdraws from the settlement agreement, pursuant to Section 16 of the agreement, the University would re-acquire timber rights to Cape Suckling *status quo ante*, as if the agreement had not been entered into, except that the volume of timber harvested from the substitute tract would be subtracted from the Suckling timber rights.
- 6 See Appendix C for the history and terms of the December 1994 settlement agreement.

Unit 1 - Cape Suckling resource allocation summary

Forestry

Access. If timber harvest is to occur, the plan identifies the need for future development of a road corridor across Unit 1 to a log transfer facility. DNR would determine the location and design of that road corridor when a timber harvest was proposed.

Availability. Under the settlement agreement regarding the university timber litigation, there will be no state timber sales or harvests, except incidental to a cabin and trail system, until at least December 2014.

The plan applies a forestry designation to nearly all the commercial timber in Unit 1 that is subject to the university settlement [ADL 223456]. ADL 223456 excluded university timber harvest in several river corridors and goat habitat areas.

Several areas subject to the university settlement appear to have no commercial timber, based on vegetation maps and operating constraints. The plan designated these non-commercial or non-timber areas for other uses than forestry. The plan does not prohibit timber harvest in these areas.

Fish and wildlife harvest

Access. The plan acknowledges the use of the beach and several other unimproved areas for intermittent wheel-plane access. There is currently no road system in Unit 1. The plan directs DNR to close inactive or unmaintained roads to prevent environmental and safety hazards.

Fish and wildlife harvest is a designated use along Kiklukh River and the mouth of Seal River. Several areas used for guided hunting and community harvest areas are designated for forestry. If the university reclaims timber harvest rights in the Unit 1 Cape Suckling area, the value of guided hunting and community harvest may drop in forestry areas because of aesthetic changes to the landscape, changes to habitat, and the likelihood of increased hunting competition.

Fish and wildlife habitat

Riparian habitat. Riparian habitat along the four largest streams in this unit is protected from timber harvest by no-logging buffers established under ADL 223456 and this plan. These riparian corridors preserve habitat for anadromous fish as well as eagle wintering, swan nesting and brood rearing, and bear feeding concentration areas.

Goat habitat. If the university reclaims timber harvest rights in the Unit 1 Cape Suckling area, the area plan exempts the university from plan guidelines for goat and moose winter habitat. These types of habitat were largely excluded from university timber harvest under terms of ADL 223456. DNR and DFG will advocate appropriate measures for goat and moose habitat through the ACMP review of the university's timber plans.

Coastal habitat. A 500-foot wide buffer along the coastal edge of timber will preserve important habitat for species that feed and travel along the coast, such as brown and black bears, river otters, mink, wolves, and bald eagles. The plan's areawide guidelines limit forestry activities and new surface uses in this 500-foot-wide buffer.

Minerals development

DNR has adopted a mineral leasehold location policy for the Kiklukh and Tashalich Rivers.

Unit 1 - Cape Suckling resource allocation summary, continued

Recreation and tourism

River recreation. Recreation and tourism are designated uses along three of the four major rivers in Unit 1. These areas are excluded from the university timber harvest. Along the Tashalich and Kiklukh Rivers, DNR will identify and protect recreation sites to be managed for access and public use, including camping and boat launches. The plan states that road crossings may not impede float access to or along the rivers.

Bering Glacier tourism and scientific interest. The area plan acknowledges the national and international scientific values of the Bering Glacier forelands. During plan updates, DNR will re-evaluate parts of Unit 1 bordering Bering Glacier to see whether more intensive recreation management, or creation of a park, is warranted. When DNR authorizes activities, it will consider how the terms and duration of authorization affect the potential for creation of a state park.

Coastal fringe. Recreation designations extend the length of the coast from Cape Suckling to the Refuge, incorporating non-forested dunes and, near the Seal River, inland areas of immature or scrub forest. In addition, the plan maintains recreation values within a 500-foot-wide buffer of mature timber along the coast, within which logging and new surface uses will be limited. This coastal edge of timber will provide scenic qualities, shelter for recreation uses, and wildlife watching opportunities.

Settlement

The area plan did not designate settlement lands in Unit 1. There is a public interest in retaining these lands in state ownership as directed by AS 38.04.015, based on their forestry, habitat, recreation, scientific, and cultural values. Furthermore, settlement might compel the state to provide essential services which could create an economic burden because of the area's remoteness.

Transportation

The area plan acknowledges the potential need for road construction in several parts of Unit 1 if timber harvest is to occur. Road location will be determined when timber harvests are planned.

The area plan acknowledges the potential need for an airstrip near the Seal River (Bering Glacier outlet).

Waterfront development

There are no likely waterfront development sites along this exposed outer coast. The primary values of the waterfront in Unit 1 are recreation, natural scenery, and habitat. If timber harvest is to occur, the plan acknowledges the need for an overland transportation link to possible waterfront development sites in Chugach National Forest west of the planning area.

Other resources

The scientific and cultural resources of the Bering Glacier forelands are documented in this plan and protected by a site specific guideline in several subunits within Unit 1. Forestry is a co-designation on one part of the forelands: however, commercial forestry may be precluded or delayed by the university settlement and by sparseness and immaturity of commercial timber.

Subunit 1a-1 - Okalee River

■ Designation

Habitat (H1)

■ Management Intent

Protect or enhance fish and wildlife habitat, particularly for moose wintering, waterfowl and shorebird migrations, and swan and eagle nesting. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to these habitat values.

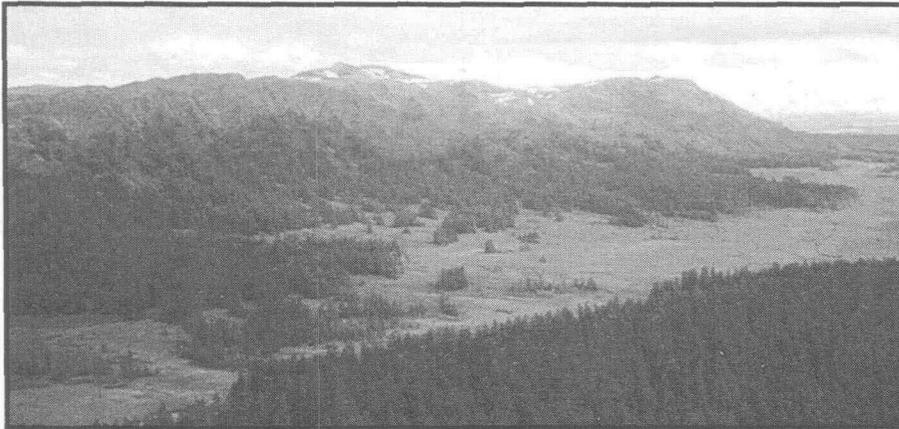
Access through this unit may be needed to develop resources on adjoining state lands.

■ Guidelines:

No timber harvest A corridor 400-feet-wide on either side of the Okalee River, as mapped in ADL 223456, will be managed as a no-timber harvest area for habitat and recreation. (See university settlement map in Appendix C.)

■ General information

This unit is vegetated by willow, alder, and young cottonwood. There is no commercial timber.



Suckling Hills

Subunit 1a-2 - north face of Suckling Hills

■ Designation

Forestry (F1)

■ Management intent

Promote forest management for sustained yield of timber. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to timber resources and production.

Provisions for maintaining mountain goat habitat in this unit will be addressed through interagency review at the time DNR receives project applications. Forestry Guidelines F and H (from Chapter 2) may serve as a reference for mitigating non-forestry development within goat habitat.

■ Guidelines:

No timber harvest A corridor 400-feet-wide on either side of the Okalee River, as mapped in ADL 223456, will be managed as a no-timber harvest area for habitat and recreation. (See university settlement map in Appendix C.)

■ General information

See the table at the end of this unit.

Subunit 1a-3 - Suckling Hills

■ Designation

Habitat and dispersed recreation (H1, RD2)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly for mountain goat winter habitat and bear feeding areas on south facing slopes, and eagle winter concentration areas. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to these habitat resources.

Maintain conditions for dispersed recreation consistent with the habitat resources listed above. All activities will minimize significant adverse impacts to dispersed recreation.

Provisions for maintaining mountain goat habitat in this unit will be addressed through interagency review at the time DNR receives project applications. Forestry Guidelines F and H (from Chapter 2) may serve as a reference for mitigating non-forestry development within goat habitat.

■ **Guidelines:** None. There are no guidelines specific to this unit.

■ General information

The mountain goat population in the Suckling Hills has dwindled to less than 10 in the past few decades, partly because there is limited steep terrain where goats can escape predators. The isolation of the Suckling Hills from other mountains limits the likelihood that goats will immigrate and replenish the population.

Subunit 1a-4 - south face of Suckling Hills

■ Designation

Forestry (F1)

■ Management intent

Promote forest management for sustained yield of timber. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to timber resources and production.

Provisions for maintaining mountain goat habitat in this unit will be addressed through interagency review at the time DNR receives project applications. Forestry Guidelines F and H (from Chapter 2) may serve as a reference for mitigating non-forestry development within goat habitat.

■ Guidelines:

Mineral leasehold location

In portions of the beds of the Kiklukh River and its tributaries that support anadromous fish, new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map showing where leasehold location applies.

■ General information

This unit contains mature spruce, as well as immature spruce interspersed with willow, alder, and young cottonwood.

Subunit 1a-5 - Kiklukh River corridor

■ Designation

Habitat, harvest, and dispersed recreation (H1, HV1, RD1)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly for anadromous fish habitat, swan and eagle nesting, and bear feeding. All activities will, to the extent feasible and prudent, avoid significant adverse activities to these habitat resources.

Protect or enhance conditions for fish and wildlife harvest, particularly commercial set net fishing, guided sport fishing, and community harvest of moose and fish. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the harvest activities listed above.

Protect or enhance conditions for dispersed recreation along the Kiklukh River, particularly for boating and camping. Maintain public access to and along the Kiklukh River for recreation, hunting, and fishing. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the recreation uses listed above.

■ Guidelines:

Maximum width of special management zone along Kiklukh River

If DNR applies additional management measures for the Kiklukh River under Forestry Guideline J, these measures will not extend outside the no-harvest zone mapped in ADL 223456.

Recreation access sites

A site on the lower Kiklukh River (T21S R9E) will be managed for access and public use including camping, boat takeouts, and aircraft landing. A suitable replacement site may be identified and reserved during the Forest Land Use Plan (FLUP) process.

Before issuing leases for commercial uses in the Kiklukh River corridor, DNR will assess the recreation values along a one- to two-mile stretch from the proposed lease, and select and reserve a public recreation site(s). The reserved site(s) will be noted on DNR's status plats. A plan amendment is not required for DNR to designate these sites. Eventually, these public sites will be spaced at intervals of approximately 2 to 4 miles along the Kiklukh River and the coast from Cape Suckling to ensure resting and camping opportunities for recreationists along the river and coast. Sites will be selected and managed to maintain firewood and fresh water sources for camping, shelter from prevailing winds, scenic qualities, natural vegetation, and opportunities for seclusion and privacy. These sites will be retained in public ownership and DNR will reserve access to and along the river banks and to the coast from these sites.

No timber harvest in habitat and recreation corridor

A corridor averaging one-half mile wide along the Kiklukh River, as mapped in ADL 223456, will be managed as a no-timber harvest area in order to protect habitat and dispersed recreation (see university settlement map at the end of Unit 1). The no-harvest corridor will extend at least 400 feet from mean high water from both banks of the Kiklukh River.

Commercial recreation leasing under 38.05.073.

DNR may consider commercial recreation leasing by competitive bid under AS 38.05.073.

Road crossing	A road crossing of the Kikluh River may be allowed. The crossing will not impede float access to or along the river.
Roads	Timber harvest roads are allowed within this subunit where there is no feasible and prudent alternative for access.
Mineral leasehold location	In portions of the beds of the Kikluh River and its tributaries that support anadromous fish, new mineral entry will be allowed only by leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map showing where leasehold location applies.

■ General information

There is a commercial set net camp and a sport fish camp on the Kikluh River.

The timber in this subunit is excluded from the university settlement.

The dunes along the coast [T22S] are subject to destabilization if the vegetation is disturbed.

Subunit 1a-6 - above Kikluh River confluence

■ Designation

Forestry (F1)

■ Management intent

Promote forest management for sustained yield of timber. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to timber resources and production.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

See the table at the end of this unit.

Subunit 1a-7 - lowlands between Kikluh and Tashalich rivers

■ Designation

Forestry (F1)

■ Management intent

Promote forest management for sustained yield of timber. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to timber resources and production.

Retain public access to and along the Kikluh River, Tashalich River, and the coast for recreation, hunting, and fishing.

■ Guidelines:

Recreation access sites	Two recreation access sites near the mouth of the Tashalich River (T21S R10E, sections 21 and 22) will be managed for access and public use (camping, boat takeouts, and aircraft landing).
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Before issuing leases for commercial uses along the coast, DNR will select and reserve public recreation sites at intervals of approximately two to four miles near the coast between Cape Suckling and Seal River to ensure resting and camping opportunities for recreationists along the shore. The reserved sites will be noted on DNR's status plats. A plan amendment is not required for DNR to designate these sites. Eventually, these public sites will be spaced at intervals of approximately 2 to 4 miles along the Kiklukh River and the coast from Cape Suckling to ensure resting and camping opportunities for recreationists along the river and coast. Sites will be selected and managed to maintain firewood and fresh water sources for camping, with shelter from prevailing winds, scenic qualities, natural vegetation, and opportunities for seclusion and privacy. These sites will be retained in public ownership and DNR will reserve access to and along the shore.

Habitat and recreation corridor

A corridor 400-feet-wide on either side of the Tashalich River, as mapped in ADL 223456, will be managed as a no-timber harvest area for habitat and recreation (See university settlement map in Appendix C.)

Road crossing

A road crossing of the Tashalich River may be allowed. The crossing will not impede float access to or along the river.

Mineral leasehold location

In portions of the beds of the Tashalich River and its tributaries that support anadromous fish, new mineral entry will be allowed only by leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map showing where leasehold location applies.

■ **General information**

Unit 1a-7 generally contains the coastal edge of timber, which provides shelter and scenic values for recreation along the coast. The coastal edge of timber provides shelter and a travel corridor for bears feeding in the dunes and other species using the adjoining dunes and grasslands.

Subunit 1a-8 - Suckling shoreline

■ **Designation**

Dispersed recreation (RD1)

■ **Management intent**

Protect or enhance conditions for dispersed recreation, particularly for wildlife viewing, beach hiking, beach combing, and photography. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the recreation uses listed above.

■ **Guidelines:**

Habitat and recreation corridor

Corridors 400 feet wide on either side of the Tashalich River, and approximately one-half-mile wide along the Kiklukh River, as mapped in ADL 223456, will be managed as no-timber harvest areas for habitat and recreation.

**Recreation
access sites**

Before issuing leases for commercial uses along the Suckling shoreline, DNR will assess the recreation values along a one- to two-mile stretch from the proposed lease, and select and reserve public recreation sites. The reserved sites will be noted on DNR's status plats. A plan amendment is not required for DNR to designate these sites.

Eventually, these public sites will be spaced at intervals of approximately two to four miles along the coast between Cape Suckling and Seal River to ensure resting and camping opportunities for recreationists along the shore. Sites will be selected and managed to maintain firewood and fresh water sources for camping, shelter from prevailing winds, scenic qualities, natural vegetation, and opportunities for seclusion and privacy. These sites will be retained in public ownership and DNR will reserve access to and along the shore.

**Mineral leasehold
location**

In portions of the beds of Tashalich River and its tributaries that support anadromous fish, mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map showing where leasehold location applies.

■ General information

Recreation and adventure tourism along the coast is growing. The highest economic values for adventure tourism depend on maintaining the wild character, scenic values, and wildlife viewing opportunities.

The inland boundary of Unit 1a-8 generally lies at the coastal edge of timber. The unit is characterized by rolling dunes and grasslands with no timber. The dunes are subject to destabilization if the vegetation is disturbed. The southern end of the unit, in T22S, is outside the university timber settlement area [ADL 223456].

Subunit 1a-9 - Bering Glacier forelands and middle Tashalich River**■ Designation**

Habitat and dispersed recreation (H1, RD2)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly for bears, moose, waterfowl and seals. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to these habitat resources.

Maintain conditions for dispersed recreation, consistent with the habitat resources listed above. All activities will minimize significant adverse impacts to recreation values and uses.

DNR will re-evaluate the resource values of this subunit as the movement of Bering Glacier continues, and will consider the potential for creation of a state park, based on the current status of the university timber rights, other land ownership changes, and the recreation and scientific values of this subunit.



*Mouth of
Tashalich
River*

■ **Guidelines:**

Land authorizations

Terms and duration of land authorizations should preserve scientific and other values and research opportunities related to Bering Glacier (see details in Unit 2). Any DNR authorizations should be tailored to maintain the potential for creation of a state park at Bering Glacier.

Leases

Leases should be no longer than ten years in order to maintain flexibility for creation of a state park.

Habitat and recreation corridor

Corridors 400-feet wide on either side of Tashalich River and Seal River, as mapped in ADL 223456, will be managed as no-timber harvest areas for habitat and recreation.

Recreation access sites

Before issuing leases for commercial uses along the ocean shoreline, DNR will assess the recreation values along a one- to two-mile stretch from the proposed lease, and select and reserve a public recreation site(s). The reserved site will be noted on DNR's status plats. A plan amendment is not required for DNR to designate these sites.

Eventually, these public sites will be spaced at intervals of approximately two to four miles along the coast between Cape Suckling and Seal River to ensure resting and camping opportunities for recreationists along the shore. Sites will be selected and managed to maintain sources of firewood and fresh water for camping, shelter from prevailing winds, scenic qualities, natural vegetation, and opportunities for seclusion and privacy. These sites will be retained in public ownership and DNR will reserve access to the shore.

Commercial recreation leasing under 38.05.073

DNR may consider commercial recreation leasing by competitive bid under AS 38.05.073.

Airstrip

An airstrip may be authorized in this subunit.

Outburst flooding	DNR should advise applicants for land uses along Seal River of the potential for outburst flooding from Vitus Lake. Avoid construction or storage in potential flood areas, where practical.
Mineral leasehold location	In portions of the beds of the Tashalich River and its tributaries that support anadromous fish, new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map showing where leasehold location applies.

■ General information

Over half of this unit is low dunes covered by riparian and lowland willow. The dunes are subject to de-stabilization if the vegetation is disturbed. Immature cottonwood and spruce are scattered across the central part of the unit, one-half to one mile inland from the coast, Seal River and Vitus Lake. These stands are low density (generally 10 to 20 percent canopy coverage).

This unit has high scientific and tourism values deriving from the neighboring Bering Glacier (see explanation in Management Unit 2). The Gulf of Alaska is eventually expected to breach the 1.8 mile expanse of dunes and grassland currently separating the ocean from Vitus Lake. High tides exceeding two meters in the Gulf of Alaska currently enter Vitus Lake through Seal River.

Icebergs up to 20 meters long currently float down Seal River into the Gulf. Larger icebergs (as long as 500 meters) are currently floating in Vitus Lake and are expected to wash into the Gulf of Alaska after the beach is breached.

Subunit 1a-10 - Tashalich headwaters lakes

■ Designation

Dispersed recreation (RD1)

■ Management intent

Protect or enhance conditions for dispersed recreation, particularly future potential as a state park. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the recreation uses listed above.

DNR will re-evaluate the resource values of this subunit during plan updates and consider the potential for recreation management or creation of a state park, based on the current status of the university timber rights, other land ownership changes, and the recreation and scientific values of this subunit.

■ Guidelines:

Land authorizations	Terms and duration of land authorizations should preserve scientific and other values and research opportunities related to Bering Glacier (see details in Unit 2). Any DNR authorizations should be tailored to maintain the potential for creation of a state park at Bering Glacier.
Leases	Leases should be no longer than ten years in order to maintain flexibility for creation of a state park.

■ General information

This unit may have high scientific and tourism values deriving from the neighboring Bering Glacier (see explanation in Management Unit 2).

Subunit 1a-11 - lowlands east of Tashalich River

■ **Designation**

Forestry (F1)

■ **Management intent**

Promote forest management for sustained yield of timber. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to timber resources and production.

DNR will re-evaluate the resource values of this subunit during plan updates and consider the potential for recreation management or creation of a state park, based on the current status of the university timber rights, other land ownership changes, and the recreation and scientific values of this subunit.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ **General information**

This unit may have high scientific and tourism values deriving from the neighboring Bering Glacier (see explanation in Management Unit 2).

Subunit 1a-12 - mouth of Seal River

■ **Designation**

Habitat, dispersed recreation, and harvest (H1, RD1, HV2)

■ **Management intent**

Protect or enhance fish and wildlife habitat, particularly for anadromous fish, seal concentrations, and eagle feeding and wintering. Protect or enhance conditions for dispersed recreation, particularly for wildlife viewing for seals, waterfowl, and shorebirds. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources and recreation uses listed above.

Maintain conditions for fish and wildlife harvest consistent with the habitat and recreation activities listed above. All activities will minimize adverse impacts to harvest activities.

DNR will re-evaluate the resource values of this subunit during plan updates and consider the potential for recreation management or creation of a state park, based on the current status of the university timber rights, other land ownership changes, and the recreation and scientific values of this subunit.

■ **Guidelines:**

Airstrip An airstrip may be authorized in this subunit.

Land authorizations Terms and duration of land authorizations should preserve scientific and other values and research opportunities related to Bering Glacier (see details in Unit 2). Any DNR authorizations should be tailored to maintain the potential for creation of a state park at Bering Glacier.

Leases Leases should be no longer than ten years in order to maintain flexibility for creation of a state park.

Outburst flooding DNR should advise applicants for land uses along Seal River of the potential for outburst flooding from Vitus Lake. Avoid construction or storage in potential flood areas where practical.

■ General information

This unit is mostly dunes and grassland. The dunes are subject to destabilization if the vegetation is disturbed. This unit may have high scientific and tourism values deriving from the neighboring Bering Glacier (see explanation in Management Unit 2). The beach is eroding approximately 65 yards inland each year. The Gulf of Alaska is eventually expected to breach the 1.8 mile expanse of dunes and grassland currently separating the ocean from Vitus Lake. High tides exceeding two meters in the Gulf of Alaska currently enter Vitus Lake through Seal River.

Icebergs up to 20 meters long currently float down Seal River into the Gulf. Larger icebergs (as long as 500 meters) are expected to wash into the Gulf of Alaska after the beach is breached.

Subunit 1b - tidelands and submerged lands between Cape Suckling and Midtimber Lake**■ Designation**

Habitat and harvest (H2, HV2)

■ Management intent

Maintain conditions for fish and wildlife habitat and harvest. All activities will minimize significant adverse impacts to habitat resources and harvest activities.

■ Guidelines: None. There are no guidelines specific to this subunit.

■ General information

Tsunami hazards are high, both from earthquakes and submarine slides. There are near-surface faults and potential submarine slide areas just offshore from Management Unit 1.

Unit 1 - Cape Suckling

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
1a-1 Okalee River	H1	<ul style="list-style-type: none"> ■ no commercial timber ■ willow, alder, cottonwood and grass over the entire unit ■ moose winter habitat ■ moose rutting in northern part of unit ■ trumpeter swan nesting and brood rearing ■ eagle feeding concentration areas and documented nest sites ■ eagle winter concentration area ■ waterfowl/shorebirds spring/fall concentration area ■ anadromous fish habitat has not been surveyed by DFG 	<ul style="list-style-type: none"> ■ Remote. No commercial timber. Timber within 400 feet of Okalee River is excluded from harvest.
1a-2 north face of Suckling Hills	F1	<ul style="list-style-type: none"> ■ mature spruce and hemlock ■ mountain goat winter habitat on timbered slopes oriented east to southwest, between 300 to 1,500 foot elevation, and within 1/4 mile of cliffs ■ eagle winter concentration area and feeding concentration areas ■ community harvest: goat ■ anadromous fish habitat has not been surveyed by DFG 	<ul style="list-style-type: none"> ■ Suckling Hills goat population is geographically isolated and has recently declined by 75 percent. ■ The Suckling Hills have been closed to goat hunting since the early 1990s.
1a-3 Suckling Hills	H1 RD2	<ul style="list-style-type: none"> ■ mountain goat winter habitat ■ alpine vegetation on most slopes ■ eagle winter concentration area ■ bear spring feeding concentration area on south slopes 	<ul style="list-style-type: none"> ■ Suckling Hills goat population is geographically isolated and has recently declined by 75 percent. ■ The Suckling Hills have been closed to goat hunting since the early 1990s.
1a-4 south face of Suckling Hills	F1	<ul style="list-style-type: none"> ■ mature spruce ■ mountain goat winter habitat on timbered slopes oriented east to southwest, between 300 to 1,500 foot elevation, & within 1/4 mile of cliffs ■ community harvest: goat, moose ■ bear spring concentration areas on south slopes ■ guided moose hunting ■ moose winter habitat ■ anadromous fish streams ■ eagle winter concentration area ■ trumpeter swan nesting and brood rearing area 	<ul style="list-style-type: none"> ■ Suckling Hills goat population is geographically isolated and has recently declined by 75 percent. ■ The Suckling Hills have been closed to goat hunting since the early 1990s.

Unit 1 - Cape Suckling, continued

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
1a-5 Kiklukh River corridor	H1 HV1 RD1	<ul style="list-style-type: none"> ■ cottonwood, willow and alder; scattered stands of young spruce ■ eagle winter concentration area ■ eagle roosting, eagle nest sites ■ trumpeter swan nesting and brood rearing area ■ commercial set net & guided sport fishery on Kiklukh River ■ community harvest: moose, fish ■ bear summer/fall feeding concentration area ■ beaver concentration area upstream from confluence ■ anadromous fish production: 14,000 coho (third-highest coho-producing river in planning area) 	<ul style="list-style-type: none"> ■ A corridor averaging one-half-mile wide along the Kiklukh River will be managed as a no-timber-harvest area for habitat and recreation, as mapped in ADL 223456. See map in Unit 1.
1a-6 above Kiklukh River confluence	F1	<ul style="list-style-type: none"> ■ immature spruce and cottonwood on 1/3 of acreage; 2/3 is non-forested or inoperable ■ eagle feeding and winter concentration area ■ trumpeter swan nesting and brood rearing area ■ moose rutting 	
1a-7 lowlands between Kiklukh & Tashalich rivers	F1	<ul style="list-style-type: none"> ■ mature spruce ■ marten habitat in dense timber ■ eagle winter concentration area ■ swan nesting along Kiklukh River ■ commercial sport fishery on Kiklukh River ■ community harvest: moose, fish ■ trumpeter swan nesting and brood rearing area ■ anadromous fish production: 14,000 coho, also pink salmon 	<ul style="list-style-type: none"> ■ A corridor 400-feet wide on either side of the Tashalich River will be managed as a no-timber-harvest area for habitat and recreation, as mapped in ADL 223456. See map in Unit 1.
1a-8 Suckling shoreline	RD1	<ul style="list-style-type: none"> ■ primarily dunes and grassland ■ Wildlife viewing, beach hiking, beach combing, photography. High recreation values based on contrasting scenery and pristine qualities. ■ wheel planes on beaches provide primary access ■ bear spring/summer/fall feeding concentration area along shore and dunes ■ sea otter known concentration ■ eagle winter concentration area 	<ul style="list-style-type: none"> ■ No commercial timber in this subunit. ■ Dunes are subject to destabilization if vegetation is disturbed.

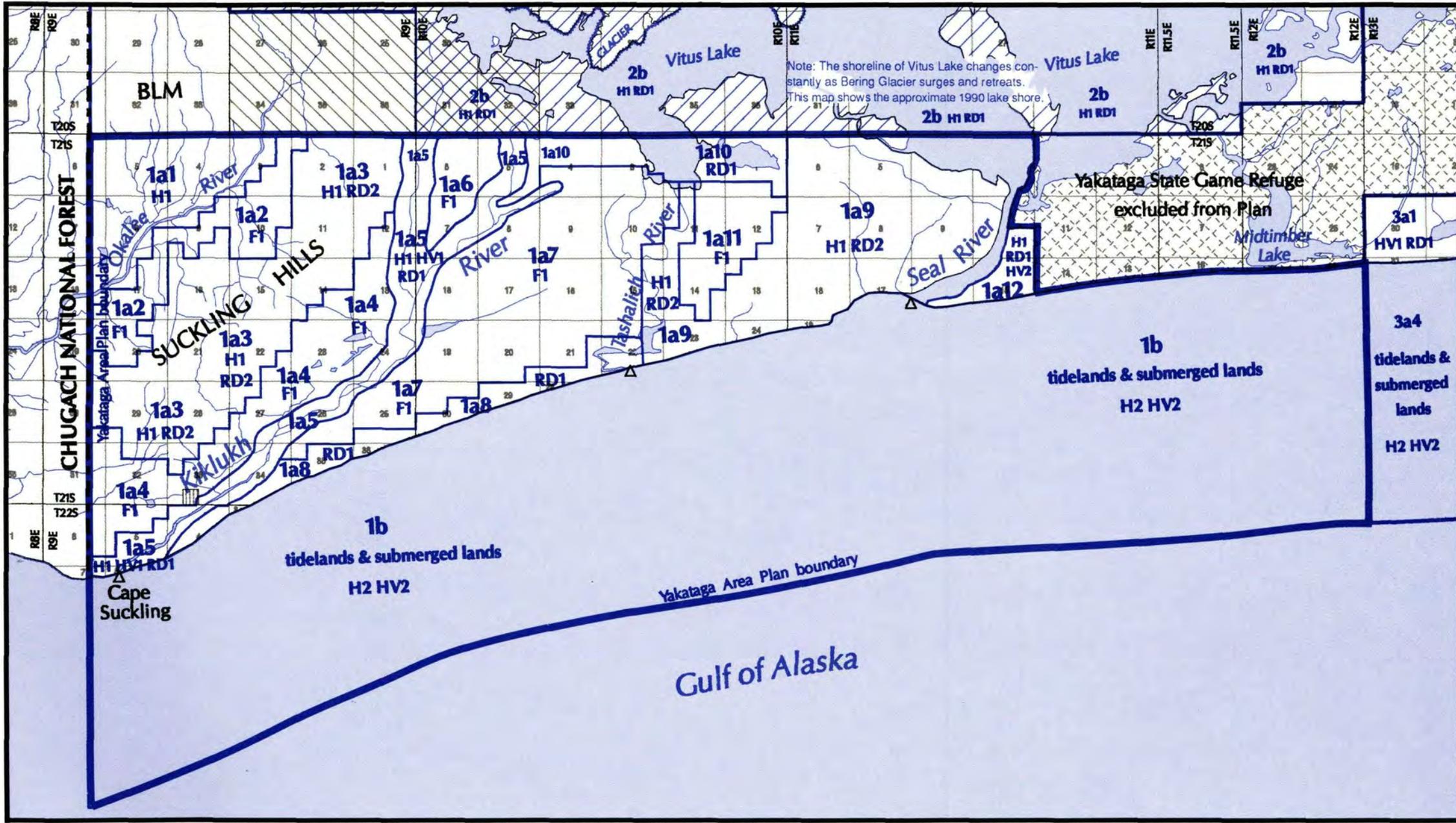
Unit 1 - Cape Suckling, continued

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
<p>1a-9 Bering Glacier forelands & middle Tashalich River</p>	<p>H1 RD2</p>	<ul style="list-style-type: none"> ■ immature cottonwood and spruce with alder and willow dominating eastern unit ■ anadromous fish production: Tashalich River ■ bear summer/fall feeding concentration areas along Tashalich River & the coast ■ bear spring feeding west of Seal River mouth and in interior of unit ■ moose rutting ■ moose winter habitat throughout unit ■ guided moose hunting ■ community harvest: moose ■ geese molting on lakes ■ swan nesting and brood rearing concentration areas in wetlands, along Tashalich River, & on lakes southwest of Bering Glacier ■ seal haul out concentration in Vitus Lake and along Seal River ■ eagle winter concentration area 	<ul style="list-style-type: none"> ■ Mostly non-commercial timber or non-forest, or inoperable. ■ USGS has predicted imminent breach of seal beach and rapid retreat of Bering Glacier, creating a tidewater fjord. Seal River is a barrier to overland transport because channel instability and icebergs make crossing or bridging difficult. ■ Waterfowl use the lakes; specifics are unknown. ■ The timber in this unit has low value or is inoperable at present but it may have value in the future.
<p>1a-10 Tashalich headwater lakes</p>	<p>RD1</p>	<ul style="list-style-type: none"> ■ mostly non-forest: sparse patches of immature spruce ■ beaver concentration area 	<ul style="list-style-type: none"> ■ USGS predicts expansion of Vitus Lake with retreat of the Bering Glacier.
<p>1a-11 lowlands east of Tashalich River</p>	<p>F1</p>	<ul style="list-style-type: none"> ■ immature spruce and cottonwood ■ moose winter habitat and moose harvest in south & east parts of this unit, close to cottonwood/alder areas ■ guided moose hunting ■ community harvest: moose 	
<p>1a-12 mouth of Seal River</p>	<p>H1 RD1 HV2</p>	<ul style="list-style-type: none"> ■ dunes, grassland, and alders ■ wildlife viewing for seals, waterfowl, shorebirds ■ seal concentrations in Seal River (approx. 50-75) and passage for seals to Vitus Lake (approximately 300) ■ eagle feeding concentration area ■ eagle winter concentration area ■ commercial set net fishery ■ An airstrip east of Seal River is used for access to scientific research and recreation. ■ anadromous fish production 	<ul style="list-style-type: none"> ■ USGS has predicted imminent breach of Seal Beach, creating a tidewater fiord: probable scientific and natural history attraction.

Unit 1 - Cape Suckling, continued

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
1b tidelands & submerged lands between Cape Suckling & Midtimber Lake	H2 HV2	<ul style="list-style-type: none"> ■ major migratory bird corridor ■ Waterfowl spring/fall migratory staging area at cape is largest staging area along this coast. ■ recreation: hiking, beachcombing, wildlife viewing ■ eagle winter concentration ■ sea otters at Cape Suckling ■ scoter molting concentration area at Cape Suckling ■ community harvest of fish at mouth of Kiklukh River ■ waterfowl hunting near mouth of Tashalich River ■ commercial salmon setnets at mouths of Kiklukh, Tashalich, and Seal rivers ■ commercial salmon trolling ■ commercial tanner crab harvest offshore 	

Unit 1 Cape Suckling



YAKATAGA AREA PLAN

Unit 1 Cape Suckling

PLANNING UNITS

- [Solid line] management unit boundary
- [Dashed line] subunit boundary and number

LAND STATUS

STATE OWNED OR SELECTED: SUBJECT TO PLAN

- [No pattern] state owned - patented or tentatively approved
- [Diagonal lines] state selected
- [Cross-hatch] state and Native selection (dual selection)

STATE OWNED BUT EXCLUDED FROM PLAN

- [Dotted pattern] Yakataga State Game Refuge

OTHER LAND OWNERSHIP

- [Labeled] federal
- [Diagonal lines] Native selected
- [Horizontal lines] private, including Native Allotments

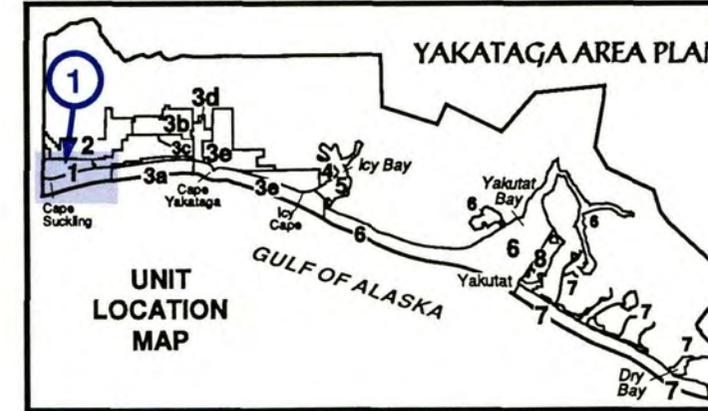
MAP FEATURES

- [Triangle] anadromous fish stream mouth
- [Wavy line] glacier margin

Note: The Yakataga Area Plan's 3-mile offshore limit is measured in nautical miles rather than statute (land) miles. One nautical mile is equal to 1.151 statute miles.



April 1995



UNIT 2**BERING
GLACIER****Background**

Unit 2 encompasses the terminal lobe of Bering Glacier, a vast piedmont glacier undergoing a dramatic cycle of surge and retreat.

Physical features

Bering Glacier is part of the largest icefield in North America. It ranks among the largest temperate glacier systems in the world.

The rapid retreat of Bering Glacier, which has been interrupted by periodic galloping surges, has attracted intense national and international scientific interest. During the early 1990s, Bering Glacier retreated at an average rate of 0.6 miles per year. As Bering Glacier retreated, Vitus Lake expanded to over 50,000 acres in the early 1990s, with icebergs up to 1,500 feet long.

In 1994 and 1995, the glacier surged explosively at rates occasionally reaching 300 feet per day, and reclaimed much of the lake. Rivers have become lakes because their outlets have been cut off by the ice advance. Water levels have risen 75 feet in Tsiu and Tsiyat lakes, formerly river channels.

Scientists predict that the beach separating Vitus Lake from the Gulf of Alaska will breach, and the tidal incursion will cause the glacier to retreat nearly 35 miles in the next 50-100 years, creating a fiord as large as Yakutat Bay. High tides exceeding six feet in the Gulf of Alaska presently enter Vitus Lake through the Seal River.

Access

There are unimproved airstrips on both sides of Seal River.

Land status

All lands in this unit are state-selected from the Bureau of Land Management. Subunit 2a (in Range 9E) was selected as a potential overland transportation corridor to the Copper River region via one of the river drainages in Chugach National Forest. Subunit 2b (in Ranges 10E and 11E) was selected for high habitat values and for outstanding scenic, recreation, and scientific values (described in following sections).

Adjoining lands

This selection adjoins state land to the south and east. Chugach National Forest borders to the west. The U.S. Bureau of Land Management manages lands to the north.

Resources and uses

Since 1989, Bering Glacier has been the leading research site for glaciologists examining the latest scientific ideas on surging, drastic retreat, and iceberg calving dynamics. Field research has involved teams of 35 or more scientists and support crews from universities and agencies, including the U.S. Geological Survey and Alaska's Division of Geological and Geophysical Surveys (DGGs).

■ Scientific values

DGGS has identified the following scientific research opportunities associated with Bering Glacier:

1. **The first modern-day observation of catastrophic calving retreat of a piedmont-type glacier.** The calving front is significantly wider than any other calving glacier in Alaska. The Bering and Columbia glaciers are the only two glaciers undergoing catastrophic retreat in North America, and possibly in the world.
2. **Calving retreat in a pro-glacial saline lake.** The terminus presently fronts in 200-meter-deep "Vitus Lake", which captures most of the icebergs. Measurements of calving rates and study of calving processes at Bering Glacier will allow comparisons to glacial calving in fiords.
3. **Periodic bathymetric measurements of unusual accuracy.** The expansion and salinization of Vitus Lake have caused almost all of the glacier sediment to be deposited in the lake with little sediment escaping through Seal River. Periodic bathymetric measurements document rates of glacial sedimentation with accuracy not usually possible elsewhere.
4. **Erosion of the barrier beach.** Entrapment of Bering Glacier sediments in Vitus Lake also provides the opportunity to observe the effects of erosion of the barrier beach without the replenishment from the glacier.
5. **The introduction and establishment of marine species to Vitus Lake.** Vitus Lake is becoming increasingly saline from tidal influx through Seal River. There are unique opportunities to study the transition from a freshwater to a marine environment. This will include establishment of salmon runs, bird rookeries, and benthic species. Flocculation of sediments resulting from salinization allows further analysis of the glacial activity.
6. **Chronology of past glaciations and climatic change.** Interstadial forests and peat bogs, exposed as the Bering Glacier retreats, allow scientists to chronicle past glaciations and climate change. This record of the Holocene glacial and climatic history of coastal Alaska is important for understanding the influence of the Gulf of Alaska on continental climate. It may also prove important for the study of global warming.
7. **Dendrochronological studies.** Study of tree rings in the Bering Glacier area for both living trees and recently-uncovered ancient forests enable a two-to three-thousand-year study of forest conditions.
8. **Mapping the inland Cape Yakataga formation as the glacier retreats inland and exposes bedrock.** This mapping increases understanding of subsurface resources.
9. **The relation of isostatic and tectonic uplift.** Retreat of the glacier may expose traces of prehistoric faulting and ruptures.
10. **Documentation of a full surge cycle during a phase of catastrophic retreat.** A major portion of the Bering Lobe has surged in 1994.

■ Habitat values

The Nature Conservancy has identified the Bering Glacier system as having outstanding significance for biodiversity. Physical isolation and harsh conditions may have encouraged the evolution of unique plants and animals (speciation), especially on nunataks (*State Land Selection Project, Final Report, Volume 1, March 19, 1993*).

Vitus Lake and the periglacial areas are important habitat for harbor seals, trumpeter swans, dusky geese, and other waterfowl.

■ Scenic and recreation values

The Bering Glacier area has high scenic values, particularly at Vitus Lake where there is dynamic calving activity and sharp visual contrast between the lake, glacier, and mountains. Commercial recreation guides lead kayaking and wildlife viewing tours at Vitus Lake.

Unit 2 - Bering Glacier resource allocation summary

Forestry

Unit 2 appears to have no commercial timber.

Fish and wildlife harvest

Only a small part of Unit 2, the Grindle Hills, supports intensive hunting. There are no harvest designations in this unit.

Fish and wildlife habitat

Most of Unit 2 is designated habitat in order to protect concentrations of seals, swans, and geese in the Vitus Lake area, and to recognize the scientific interest in habitat evolution and transformation during a dynamic icefield advance and retreat.

Minerals development

There are no recorded mineral prospects.

Recreation and tourism

Most of Unit 2 is co-designated for dispersed recreation. This should promote opportunities for tourism based on natural history, scientific attractions, and scenery. The area plan recommends further evaluation of this unit for a potential state park to protect glacial-related phenomena of national and international scientific interest.

Settlement

The area plan did not designate settlement lands in this area. Most of this unit is glaciated and inhospitable for settlement. There is a public interest in retaining these lands in state ownership as directed by AS 38.04.015, based on their habitat, recreation, scientific, and cultural values. In addition these lands are remote from essential services. When DNR authorizes activities, it will ensure that the terms and duration of authorizations protect cultural and scientific values and do not affect the potential for creation of a state park.

Transportation

Subunit 2a was selected as a potential transportation corridor. Feasibility and or need for an overland transportation corridor have not been studied.

Waterfront development

This unit has no marine waterfront. Future retreat of Bering Glacier and the anticipated creation of Bering Fiord could create opportunities for marine access.

Subunit 2a - upper Okalee River

■ Designation

General uses (G)

■ Management Intent

Allow general multiple uses.

The state selected upper Okalee River for potential construction of an overland transportation link between the Yakataga and Copper River regions. The need for, and the feasibility of, an overland route are undetermined.

The value of this area for scientific study, wildlife habitat, and recreation and tourism may increase as the Bering Glacier retreats. As new information becomes available, DNR should re-evaluate the unit's resources and management including the potential for a state park.¹

■ Guidelines:

Land authorizations	Terms and duration for land authorizations should preserve the scientific and other values and research opportunities detailed at the beginning of this unit. Authorizations should be tailored to maintain the potential for creation of a state park at Bering Glacier.
Leases	Leases should not exceed ten years in order to maintain flexibility for creation of a state park.
Scenic & tourism potential along transportation route	If an overland transportation route is planned through this unit, DNR will consult with DPOR and the Division of Tourism to identify a corridor that optimizes the scenic and tourism values.
Mineral leasehold location	In the beds of Kiklukh River and its tributaries that support anadromous fish, new mineral entry will be allowed only under leasehold in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga areas's community and commercial harvest fisheries. See Appendix B for a map showing the leasehold location area.

General information

This land selection was filed late in the planning process, after resource data had been collected for other areas. Consequently, DNR has no information on forestry or recreation in Subunit 2a. Information on habitat is incomplete. The proximity of the Bering Glacier may create tourist and scientific interest.

¹ Initial analysis by the Nature Conservancy for the Department of Natural Resources showed that nunataks and the western Bering Glacier have potential for rare species and outstanding biodiversity significance. (*State Land Selection Project Final Report, Volume 1, March 1993*, The Nature Conservancy of Alaska.)



Bering Glacier

Subunit 2b - Bering Glacier terminus and Grindle Hills

■ Designation

Habitat and dispersed recreation (H1, RD1)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly for seals, waterfowl, moose, and mountain goats. Protect or enhance conditions for dispersed recreation, particularly scenic values. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat and recreation resources listed above.

DNR will preserve and support opportunities for scientific research related to the Bering Glacier. All activities will, to the extent feasible and prudent, avoid disturbance to the ongoing natural change and the records of past activity of the Bering Glacier system.

The value of this area for scientific study, wildlife habitat, and recreation and tourism may increase as Bering Glacier retreats. As new information becomes available, DNR should re-evaluate the subunit's resources and management, including the area's potential for a state park. A biological inventory should be conducted before DNR considers major or wide-ranging development, to determine whether rare plants live in the area.²

² Initial analysis by the Nature Conservancy for the Department of Natural Resources showed that nunataks and the western Bering Glacier have potential for rare species and outstanding biodiversity significance. (*State Land Selection Project Final Report, Volume 1, March 1993. The Nature Conservancy of Alaska.*)

YAKATAGA AREA PLAN

The state's purpose in selecting Bering Glacier is to acquire islands and coastal uplands within the future bay. Because the future shoreline of the fiord is not known, the state should defer asking for conveyance of this selection and the legislature should wait before designating a state park.

■ Guidelines

- | | |
|----------------------------|---|
| Land authorizations | Terms and duration for land authorizations should preserve the scientific and other values and research opportunities detailed at the beginning of this unit. Authorizations should be tailored to maintain the potential for creation of a state park at Bering Glacier. |
| Leases | Leases should not exceed ten years in order to maintain flexibility for creation of a state park. |

■ General Information

The Alaska Division of Geological and Geophysical Surveys has identified unusual opportunities for scientific research at Bering Glacier.

Bering Glacier provides some of the most spectacular glacier and alpine scenery in the world. Vitus Lake entraps a spectacular jumble of giant icebergs up to 1,500 feet long.

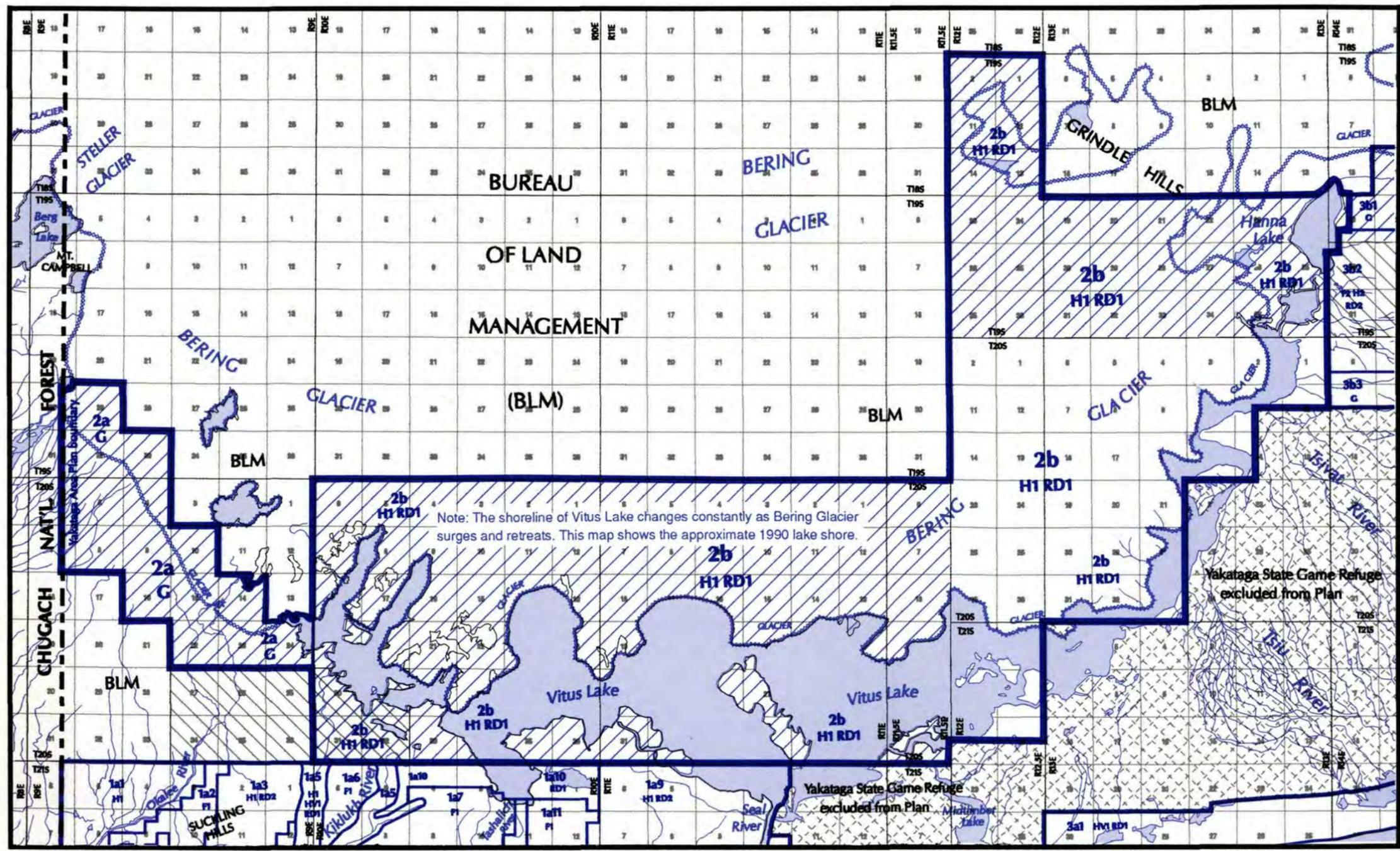
The Grindle Hills, Donald Ridge, and Hanna Lake areas in the northern part of the unit have goat winter habitat. Lakes along the flank and terminal lobe of Bering Glacier are used by molting geese and perhaps migrating waterfowl. Vitus Lake is a known haul out concentration area for harbor seals.

Unit 2 - Bering Glacier

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
2a upper Okalee River	G	<p>habitat values:</p> <ul style="list-style-type: none"> ■ extensive moose rutting ■ extensive moose winter habitat ■ brown and black bear spring concentration area east of Suckling Hills ■ eagle concentration area at lower elevations east & west of Suckling Hills ■ swan nesting and brood rearing north and west of Suckling Hills ■ anadromous fish and trout overwintering in upper Kiklukh River. ■ Most creeks have not been field surveyed for anadromous fish. ■ community harvest: moose, fur trapping ■ guided harvest: moose, black & brown bear ■ scenic values: Vitus Lake, Bering Glacier and nunataks ■ No vegetation inventory available. ■ USGS maps indicate extensive marsh lands. 	<ul style="list-style-type: none"> ■ USGS predicts that Bering Glacier will one day retreat, creating a fiord rivaling Glacier Bay. Glacial retreat will create expanding bird and marine habitat. BLM has drafted a management plan to designate these lands as an Area of Critical Environmental Concern.
2b Bering Glacier terminus & Grindle Hills	H1 RD1	<p>scenic and recreation values:</p> <ul style="list-style-type: none"> ■ flightseeing ■ icebergs trapped in Vitus Lake ■ glacial and alpine scenery at close range ■ interstadial forests and peat bogs ■ commercial kayak tours <p>scientific values:</p> <ul style="list-style-type: none"> ■ national & international scientific interest in glacial influences on landforms, hydrology, habitat succession, and ancient climate and geology <p>habitat values:</p> <ul style="list-style-type: none"> ■ seal haulout concentration area at Vitus Lake (approx. 300) & concentration in the mouth of the Seal River (approx. 50 to 75) ■ swan brood rearing in Vitus Lake ■ Dusky Canada geese migrate along the shore of Bering Glacier and Vitus Lake ■ goose molting ■ moose winter concentration and moose rutting in southern & southeastern part of unit ■ mountain goat winter habitat - Grindle Hills ■ beaver concentration - southern part of unit ■ extensive goose molting - Hanna Lake and periglacial lakes and ponds ■ harbor seal concentration area at Vitus Lake ■ guided goat hunting ■ non-forested 	<ul style="list-style-type: none"> ■ USGS predicts that Bering Glacier will one day retreat, creating a tide-water fiord rivaling Glacier Bay. Glacial retreat will create expanding bird and marine habitat. ■ BLM has drafted a management plan designating these lands as an Area of Critical Environmental Concern. ■ Rated as having outstanding biodiversity significance by the Nature Conservancy (<i>State Land Selection Project Final Report, 1993</i>)

YAKATAGA AREA PLAN

Unit 2 Bering Glacier



Note: The shoreline of Vitus Lake changes constantly as Bering Glacier surges and retreats. This map shows the approximate 1990 lake shore.

YAKATAGA AREA PLAN

Unit 2 Bering Glacier

PLANNING UNITS

- management unit boundary
- 1 a 1 subunit boundary and number

LAND STATUS

STATE OWNED OR SELECTED: SUBJECT TO PLAN

- NO PATTERN state owned - patented or tentatively approved
- diagonal lines state selected
- cross-hatching state and Native selection (dual selection)

STATE OWNED BUT EXCLUDED FROM PLAN

- cross-hatching Yakutaga State Game Refuge

OTHER LAND OWNERSHIP

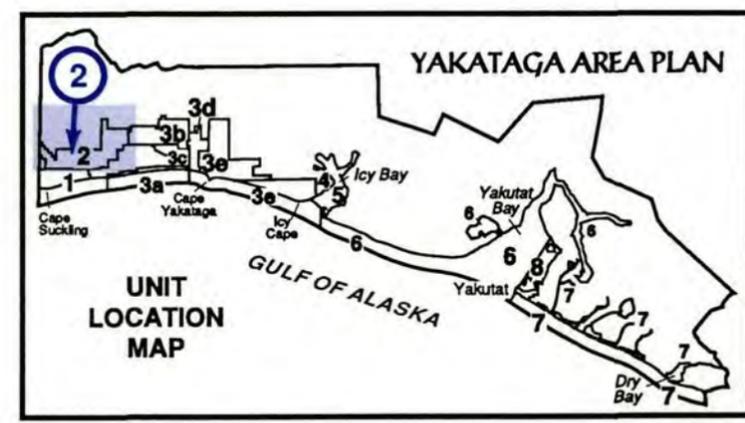
- Labeled federal (BLM, National Forest)
- Native selected

MAP FEATURES

- glacier margin



April 1995



UNIT 3A**TSIU TO DUKTOTH
COASTAL STRIP****Background**

Unit 3A is defined by its importance as coastal habitat for wildlife and as an access area for commercial set net fishing and sport fishing.

Physical features

Unit 3A is a one-mile wide strip of sand dunes, grasslands, and lagoons backed in some places by strips of mature timber on uplifted beach terraces.

Adjoining lands

The Gulf of Alaska pounds the southern edge of the unit. The Yakataga State Game Refuge forms the northern and western boundary. The proposed addition to the refuge and a 1,490-acre tract of university land abut the northeast and east edge of Unit 3A.

Land Status

There are three Native allotments near the Kaliakh River mouth and two near Tsiu River. All other lands are state-owned.

Access

During the commercial fishing season at the Tsiu and Kaliakh rivers, fishermen travel the tidelands on all-terrain vehicles (ATVs) between scattered fish camps and aircraft landing areas. Fish buyers land DC-3 and C-46 aircraft on the flat areas of beach near the river mouth to transport salmon to processing plants in Yakutat and Cordova. Fish buyers need to locate their operations near the airstrip for efficiency.

Access across Unit 3A from the beach to the refuge is important for hunting, sport fishing, and wildlife viewing. This access is particularly important along the four major rivers.

Resources and uses

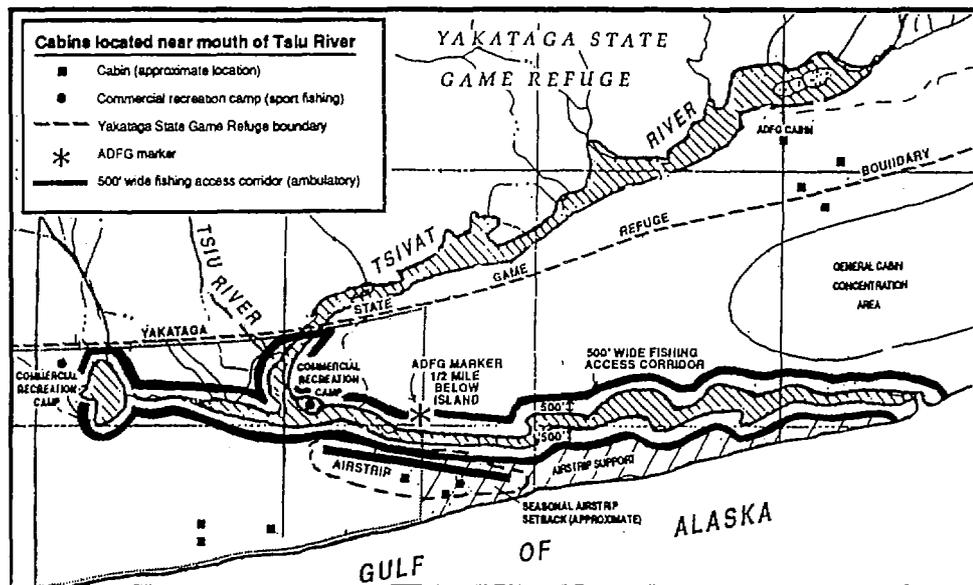
Important habitat in Unit 3A includes harbor seal haulout concentrations in the Tsiu, Tsiwat, Kaliakh and Duktoth River mouths, eagle roosting and nesting concentrations, and trumpeter swan nesting concentrations. The Chiuki River is reported to be the most productive nesting and brood-rearing area to trumpeter swans in the state, and the Kaliakh's concentration of eagles is also high, even by Alaska standards. Mature timber stands along these river mouths provide important moose winter habitat and provide cover for bears converging on the coast and rivers to feed. Unit 3A is a vital ecosystem component of the adjoining Yakataga State Game Refuge.

The Tsiu River mouth is the focal point for coho salmon fishing in the western planning area. There is a smaller fishery at Kaliakh River. The set net season runs from late August until October.

Approximately 30 cabins have been built without authorization near the mouth of the Tsiu, and two near the mouth of the Kaliakh.¹ Most of the Tsiu cabins are used by commercial fishers, their crews, or fish buyers. Several are reportedly used by sport guides or for personal or recreational use. Trespass will be enforced under existing authorities. Existing fish camps may be authorized under current

¹ Owners of unauthorized cabins do not have preference rights.

Map 3.5
Tsiu River mouth



lease and permit programs. DNR will implement standard stipulations for fish camps in the Yakataga area after completion of this area plan. Map 3-5, above, shows facilities at the Tsiu River mouth.

Two sport fish camps, with DNR permits, have operated on the west shore of the Tsiu for several years. DNR issued several additional sport camp permits in 1994. DFG maintains a cabin inside the boundary of the refuge to manage the Tsiu fishery.

Management considerations

DNR has received reports of incipient or potential conflict between sport and commercial fish camps. Sport fish camp operators prefer a separation distance to buffer their sites from noise and lights and round-the-clock activity at commercial camps, which may diminish aesthetic and economic values for sport clientele. DNR management concerns at fish camps include: abandoned structures, vehicles, and refuse; potential disturbance of dune vegetation; and improper waste management leading to the killing of bears in defense of life and property.

The shifting dunes, rapidly shifting river channels, and occasional flooding of low areas make it difficult to identify appropriate areas for permanent structures. Land in unstable areas may be lost to erosion or other natural events. The land manager will need to confirm the current location of the Tsiu, Kaliakh, and Duktoth rivers when considering applications for lands near these rivers.

The Yakataga area is seismically very active. Historic seismicity suggests a 67 percent probability of a great earthquake (exceeding 8.2 on the Richter scale) before 2000. Man-made structures on or near active surface faults may be subject to extreme ground accelerations, catastrophic ground failure, or direct displacement. Tsunami hazards are also high.

DNR will not make state timber available for sale or harvest within this management unit until at least December 2014, except for harvest incidental to development of a cabin and trail system.² In addition, before future state timber offerings, DNR must revise the Yakataga Area Plan, including re-examination of land classifications and land use designations. The annual allowable cut for state land must also be recalculated after the area plan is revised.

² See Appendix C for the history and terms of the December 1994 settlement agreement.

Unit 3A - Tsiu to Duktoth resource allocation summary

Forestry

Under the settlement agreement regarding the university timber litigation, there will be no state timber sales or harvests, except incidental to a cabin and trail system, until at least December 2014.

The area plan allows timber harvest in Subunit 3a-2 (Chiuki and Kaliakh River mouths) if consistent with wildlife habitat and recreation. Approximately 100 acres of commercial timber elsewhere in the unit are not designated for Forestry.

Fish and wildlife harvest

Fish camps. The area plan designates the Tsiu River mouth and the adjoining coast and tidelands for fish and wildlife harvest to support the intensive commercial set net and sport fisheries. The Division of Land is actively seeking to bring trespass camps into compliance.

Access. The area plan establishes a 500-foot-wide public use corridor along both banks of the Tsiu and Tsiyat Rivers, and an access corridor between the Tsiu and Kaliakh Rivers. The plan also has a guideline for setbacks from the airstrip to deter dune encroachment.

Abundance. An increase in the number of fishermen and guides may create competition and reduce individuals' harvest volumes. Area plans have no authority over allocation of fish and game stocks.

Character. At the time of this plan, fishermen did not support separation of sport and commercial fish camps, or other guidelines that would restrict the location of camps. Camp operators desire flexibility to respond to the dynamic physical and hydrological changes of the coastal plain.

Retention in public ownership. DNR will retain Unit 3A in state ownership to ensure public access for harvest and to allow camps to relocate in response to physical conditions.

Fish and wildlife habitat

Most of the coastal strip is designated for habitat.

Riparian habitat. The Tsiu River mouth is not designated habitat because of the intensive commercial and recreational use. However, the plan enables DNR to consider additional habitat protection of the Tsiu because the plan retains the land in state ownership and establishes a 500-foot-wide public access zone bordering the river. To protect the natural hydrologic regime of the river, the plan prohibits erosion control measures.

Coastal habitat. The two areawide guidelines for a 500-foot-wide buffer at the coastal edge of timber are the main provisions for coastal habitat.

Tidelands and submerged lands. Tidelands and submerged lands near the Tsiu and Kikluh river mouths are designated H1 HV1 for protection of anadromous fisheries, and species that congregate because of the fishery. Other tidelands and submerged lands within the three-mile limit are designated H2 HV2.

Unit 3A Tsiu to Duktoth resource allocation summary, continued

Minerals development

DNR has adopted a mineral leasehold location order that applies to the state-owned shorelands and tidelands (lagoons) of the Duktoth, Tsiu, and Kaliakh rivers, which flow through this unit. If DFG initiates a mineral closure on the Tsiu and Tsvat rivers, DNR has agreed to support the closure.

Recreation and tourism

Dispersed recreation is a designated use of all uplands in this unit. Commercial recreation leases and permits are preferable to land sales so that the state can protect the high habitat values along the coast and can meet the ever-changing requirements for public access as the river mouths, shoreline, dunes and floodplains change. The area plan's guidelines protect the natural setting of the coastal edge of timber by limiting logging and new surface uses.

Settlement

The area plan did not designate settlement lands in this area. There is a public interest in retaining these lands in state ownership as directed by AS 38.04.015, based on their habitat and recreation values, as well as their remoteness from essential services. Retention also avoids the potential liability to the state of selling land in unstable or hazardous areas.

Transportation

The plan has a guideline for setbacks from the airstrip to deter dune encroachment. The plan also directs DNR to designate a public access corridor between the Tsiu and Kaliakh Rivers.

Waterfront development

There is no likely waterfront development site along this exposed outer coast. The primary value of the waterfront to Unit 3A is fish and wildlife habitat and harvests.

Other resources

Ecosystem management. By emphasizing fish and wildlife habitat and harvest in Unit 3A this plan is compatible with the adjoining Yakataga State Game Refuge. Unit 3A is a vital component of the refuge ecosystem.

Subunit 3a-1 - Tsiu and Tsivat River mouth

■ Designation

Harvest and public use site recreation (HV1, RP1)

■ Management intent

Protect or enhance conditions for fish and wildlife harvest, particularly for the set net and sport fisheries at the mouth of Tsiu River, and access for moose and bear hunting and wildlife viewing in the state game refuge. Protect or enhance access and facilities for recreation, particularly for fishing, boating, camping, and access to the game refuge. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the harvest activities and recreation uses listed above.

This subunit will also be managed for public access for fishermen and recreation users along the shore of the river and immediately adjacent uplands.

Retain lands in this subunit in state ownership to protect the high habitat values and the need for access to the river and the refuge. DNR will not sell or convey land in this subunit for several reasons: 1) the coastal uplands have high value for public use and access, 2) access needs and constraints will shift with the dynamic natural changes in the land, and 3) natural forces pose unpredictable hazards to long-term development. Land sold in unstable areas may be lost to erosion or other natural events.

If a borough is formed that includes the Tsiu subunit, DNR will consider a Memorandum of Understanding for borough management of the subunit in accordance with this plan. Borough management may enable more monitoring and enforcement than the state can currently provide.

DNR supports a proposed initiative by DFG to seek legislative approval to close to new mineral entry the state-owned shorelands and tidelands of Tsiu River, as mapped in Appendix B, in order to protect anadromous fish habitat. If the legislature approves these closures, DNR will amend the Yakataga Area Plan to reflect the closures.

■ Guidelines

- | | |
|--|--|
| Access corridor between Tsiu & Kaliakh rivers | Land use authorizations should not block public trail access between the Tsiu and Kaliakh rivers. DNR should consider designating a public access corridor before issuing authorizations. The corridor should be routed to avoid the 500-foot-wide coastal fringe of timber. |
| Public access corridor along the river | Land within 500 feet of the Tsiu River's ordinary high water mark will be retained in state ownership and managed to allow public access. Within this zone, permits, leases, or other authorizations must not interfere with access to and along the river for all users. This public access zone will be ambulatory to reflect the changing shoreline. |
| Commercial recreation leasing under 38.05.073 | DNR may consider commercial recreation leasing by competitive bid under AS 38.05.073. |
| Hydrologic regime | To protect the natural hydrologic regime of the river, persons are prohibited from controlling erosion through structures or actions. This prohibition includes actions to protect facilities under state lease or permit: there is no right attached to a state authorization that allows interference with the hydrologic regime of the river. The intent is to avoid unnatural realignment of the river that may interfere with natural habitat evolution, or damage other authorized facilities. |

YAKATAGA AREA PLAN

- Airstrip setback zone** Each fall, leaseholders, permit holders, and other users will move away from the airstrip any structures and equipment that may form dunes over the winter and obstruct the airstrip. DNR will determine the distance of the seasonal setbacks from the airstrip case-by-case at the end of each fall fishing season.
- Mineral leasehold location** In the beds of the lower Tsiuat and Tsiu rivers that support anadromous fish, new mineral entry will be allowed only under leasehold in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's community, sport, and commercial harvest fisheries. See Appendix B for a map of the leasehold location area.

■ General information

The commercial set net fishery for cohos at Tsiu River runs from late August through September or October with an average of 34 permit holders participating. The set net harvest has an average annual value of \$296,000 (based on 1981-1991 data). In the 1992 season, the ex-vessel value of the set net harvest at the Tsiu River was approximately \$1 million. The sport fishery averaged 473 angler days. In the peak year for sport fishing on the Tsiu, 685 anglers came from Anchorage alone. The average annual value of the sport fishery is \$300,000 to \$500,000. The sport fishing guides in the area between Icy Cape and Cape Suckling employed approximately 34 employees in the early 1990s.

Unstable dunes and the frequent shifting of the river channels create hazards for settlement. The airstrip used by commercial fish buyers was moved from the east side of the Tsiu River to the west side in 1991 because of flooding. Local users report that sites for airstrips are limited by soft sands, dune incursion, and changing hydrology. Fish buyers need to locate their facilities near the airstrip for efficient shipment.

Gales frequently wrack this area during the fall. Abandoned or improperly anchored structures and materials are likely to be strewn about or partly buried by sand.

The river is relatively shallow. DFG is in the process of identifying fording sites that avoid or minimize damage to fish habitat, and will issue a general Title 16 permit to authorize the necessary crossings. DFG is also identifying trail routes and airboat use areas within the refuge. Fishermen have previously crossed the river with ATVs and trailers without the permission required under AS 16. Many fishermen operate without skiffs, picking their exposed nets at low tide.

Most of the 30 unauthorized set net cabins are located on east side of the Tsiu River. In 1991 and 1992, several cabins were built on the west side to avoid flooding and to be close to the new airstrip. Two sport camps are authorized on the west side near the refuge boundary.

Subunit 3a-2 - Chiuki and Kaliakh River mouths

■ Designation

Habitat and dispersed recreation (H1, RD1)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly for moose, trumpeter swans, eagles and seals. Protect or enhance conditions for dispersed recreation, particularly for camping, boating, and access to the game refuge. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat and recreation uses and resources listed above.

Retain lands in this subunit in state ownership to protect the high habitat values and the need for access to the river and refuge. DNR should retain the land in state ownership for several reasons: 1) the coastal uplands have high value for public use and access, 2) access needs and constraints will shift with the dynamic natural changes in the land, and 3) natural forces pose unpredictable hazards to long-term development.

■ Guidelines

Access corridor between Tsiu and Kaliakh rivers	Land use authorizations should not block public trail access between the Tsiu and Kaliakh rivers. DNR should consider designating a public access corridor before issuing authorizations. The corridor should be routed to avoid the 500-foot coastal fringe of timber.
Public access corridor along the river	Land within 500 feet of the Kaliakh River's ordinary high water mark will be retained in state ownership and managed to allow public access. Within this public access zone, permits, leases, or other authorizations must not interfere with access to and along the river for all users. This public access zone will be ambulatory to reflect the changing shoreline.
Commercial recreation leasing under 38.05.073	DNR may consider commercial recreation leasing by competitive bid under AS 38.05.073.
Commercial leases	Commercial leases for fish and wildlife harvest and recreation are allowed in this subunit consistent with the management intent for habitat and recreation.
Timber harvest	Timber harvest may occur if consistent with management intent for habitat and recreation.
Mineral leasehold location	In the beds of the lower Kaliakh River and its tributaries that support anadromous fish, new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the leasehold location area.

■ General information

Narrow stands of spruce ($\frac{1}{4}$ to $\frac{1}{2}$ mile wide) run parallel to the beach, flanked by low-lying willow stands, lagoons, and wetlands, and the river. This interface of forest, wetland, and coastal habitat supports high concentrations of swans and eagles, provides winter moose habitat, and provides shelter for recreational users.

The commercial set net fishery for cohos attracted an annual average of 20 permit holders from 1981-1991. Many of these set net fishermen are based at the Tsiu River. The average annual value of the set net harvest was \$95,000. The average sport fishing effort was 20 to 100 annual angler days.

The Kaliakh River mouth and channel are continually shifting. Set net sites shift accordingly.

Subunit 3a-3 - Duktoth River mouth

■ Designation

Habitat, harvest, and dispersed recreation (H1, HV1, RD2)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly for moose, bear, seals, and swans. Protect or enhance fish and wildlife harvest, particularly for guided and subsistence hunting of bear, moose, and waterfowl. All activities, to the extent feasible and prudent, will avoid significant adverse impacts to the habitat resources and harvest activities listed above.

Maintain conditions for dispersed recreation consistent with fish and wildlife habitat and harvest. All activities will minimize significant adverse impacts to recreation uses.

Retain lands in this subunit in state ownership to protect the high habitat values, and the need for access to the river and refuge. Reasons for retaining the land in state ownership include: 1) the coastal uplands have high value for public use and access, 2) access needs and constraints will shift with the dynamic natural changes in the land, and 3) natural forces pose unpredictable hazards to long-term development.

■ Guidelines

Public access corridor along the river	Land within 500 feet of the Duktoth River's ordinary high water mark will be retained in state ownership and managed to allow public access. Within this public access zone, permits, leases, or other authorizations must not interfere with access to and along the river for all users. This public access zone will be ambulatory to reflect the changing shoreline.
Commercial recreation leasing under 38.05.073	DNR may consider commercial recreation leasing by competitive bid under AS 38.05.073.
Mineral leasehold location	In the beds of the lower Duktoth River that support anadromous fish, new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map showing the area of leasehold location.

■ General information

A narrow stand of spruce (¼ mile wide) extends parallel to the coast, flanked by the river, dunes, and grasslands. This interface of forest, grassland, and coastal habitat supports concentrations of wildlife and provides shelter for recreational users.

The Duktoth River mouth is continually shifting.

Subunit 3a-4 - tidelands and submerged lands between Midtimber Lake and Duktoth River mouth - most areas

■ Designation

Habitat and harvest (H2, HV2)

■ Management Intent

Maintain conditions for fish and wildlife habitat and harvest. All activities will minimize significant adverse impacts to fish and wildlife habitat and harvest.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General Information

See the table at the end of this unit.

Subunit 3a-5 - tidelands and submerged lands at Tsiu and Tsivat rivers

■ Designation

Habitat and harvest (H1, HV1)

■ Management Intent

Protect or enhance fish and wildlife habitat, particularly areas for eagle feeding concentrations, trumpeter swan nesting and brood rearing, and seals. Protect or enhance conditions for fish and wildlife harvest, particularly sport fishing, commercial set net salmon fishing, commercial crab harvest, and community harvest of fish and waterfowl. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources and harvest uses listed above.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

The Tsiu and Tsivat river channels frequently shift. Set net sites shift accordingly.

Subunit 3a-6 - tidelands and submerged lands at Kaliakh River

■ Designation

Habitat and harvest (H1, HV1)

■ Management Intent

Protect or enhance fish and wildlife habitat and harvest, particularly commercial set net fishing, sport fishing, community harvest of waterfowl and fish; and commercial trolling offshore.

All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the harvest activities listed above.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

The Kaliakh River channel frequently shifts. Set net sites shift accordingly.

Unit 3A - Tsiu to Duktoth coastal strip

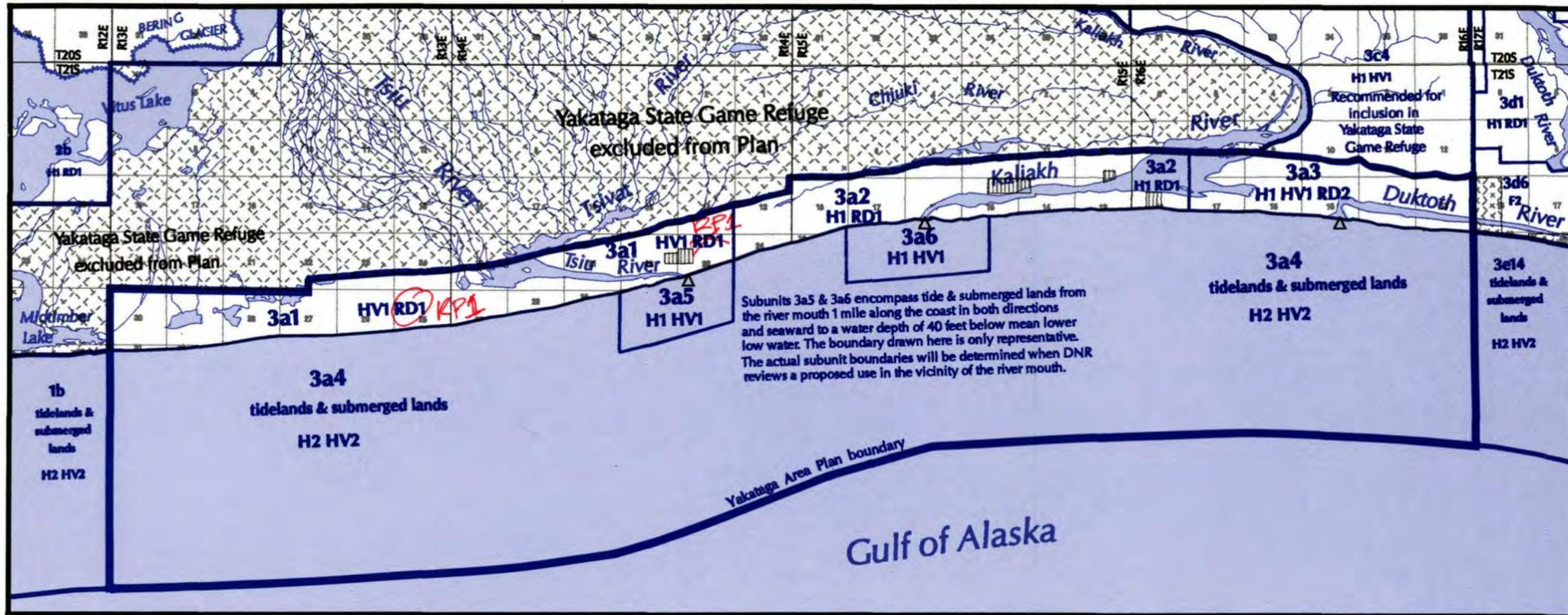
Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
3a-1 Tsiu & Tsvat river mouth	HV1 RP1	<ul style="list-style-type: none"> ■ anadromous fish habitat ■ eagle feeding concentration area ■ harbor seal haulout concentration area ■ trumpeter swan nesting and brood rearing in northern and western subunit ■ commercial set net fishery (approximately 30 cabins, currently unauthorized) ■ flat sand terraces above the beach are used by cargo planes for fish hauling ■ commercial sport fishing camps ■ access to subsistence and commercial moose and bear hunting in the Yakataga State Game Refuge (YSGR), recreational boating, camping, ATV use ■ sport fishing ■ non-forested 	<ul style="list-style-type: none"> ■ Structures and activities that damage dune vegetation may destabilize dunes. ■ The river channels may shift rapidly. ■ Fall winds are often gale force. ■ There are two Native allotments east of the Tsiu River mouth (10 and 40 acres). ■ An airstrip for fish-buying operations was relocated from the east to the west side of the river in 1992. Locations suitable for cargo plane operations are limited by dunes, soft soils, and flooding. ■ Yakataga State Game Refuge borders to the north, one mile inland from high water.
3a-2 Chiuki & Kaliakh river mouths	H1 RD1	<ul style="list-style-type: none"> ■ immature spruce and hemlock ■ anadromous fish habitat ■ moose winter habitat ■ eagle roosting and nesting ■ trumpeter swan nesting and rearing concentration area ■ A lake on the Chiuki River is reported to be the largest producer of trumpeter swans in the state (USFWS, 1991). ■ harbor seal haulout concentration area ■ commercial set net fishery ■ guided bear, moose & waterfowl hunting ■ community harvest: bear, moose, waterfowl, fish, trapping ■ camping ■ recreational and fishery-related ATV use ■ recreational boating ■ sport fishing ■ access to Yakataga State Game Refuge 	<ul style="list-style-type: none"> ■ Structures and activities that damage dune vegetation may destabilize dunes. ■ The river channels may shift rapidly. ■ Yakataga State Game Refuge borders to the north, one mile inland from high water. ■ There are three Native allotments near the mouth of the Kaliakh (adjoining parcels of 40, 40, and 80 acres)

Unit 3A - Tsiu to Duktoth coastal strip, continued

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
3a-3 Duktoth River mouth	H1 HV1 RD2	<ul style="list-style-type: none"> ■ anadromous fish habitat ■ moose winter habitat ■ bear summer concentration area ■ harbor seal haulout concentration area in both rivers ■ trumpeter swan nesting & brood rearing ■ guided bear, moose, and waterfowl harvest ■ community harvest: bear, moose, waterfowl ■ narrow strip of mature spruce and hemlock ■ recreation: beach combing, hiking, wheel plane access 	<ul style="list-style-type: none"> ■ The proposed addition to the refuge borders to the north, one mile inland from high water.
3a-4 tidelands & submerged lands between Midtimber Lake and Duktoth River mouth -most areas	H2 HV2	<ul style="list-style-type: none"> ■ commercial salmon trolling harvest ■ commercial tanner crab harvest ■ community harvest: waterfowl ■ bald eagle winter concentration area 	
3a-5 tidelands & submerged lands at Tsiu and Tsviat rivers	H1 HV1	<ul style="list-style-type: none"> ■ commercial set net concentration area at mouth of Tsiu-Tsviat River system ■ commercial trolling offshore ■ commercial tanner crab harvest ■ sport fishing: guided and unguided ■ eagle feeding concentration area ■ community harvest: fish and waterfowl 	
3a-6 tidelands & submerged lands at Kaliakh River	H1 HV1	<ul style="list-style-type: none"> ■ harbor seal haulout concentration area ■ commercial set net concentration at mouth of Kaliakh ■ sport fishing ■ community harvest: fish, waterfowl ■ commercial trolling offshore ■ commercial tanner crab harvest 	

YAKATAGA AREA PLAN

Unit 3A Tsiu to Duktoth coastal strip



YAKATAGA AREA PLAN

Unit 3A Tsiu to Duktoth coastal strip

PLANNING UNITS

- management unit boundary
- subunit boundary and number

LAND STATUS

STATE OWNED OR SELECTED: SUBJECT TO PLAN

- NO PATTERN state owned - patented or tentatively approved

STATE OWNED BUT EXCLUDED FROM PLAN

- Yakataga State Game Refuge
- university owned

OTHER LAND OWNERSHIP

- private, including Native Allotments

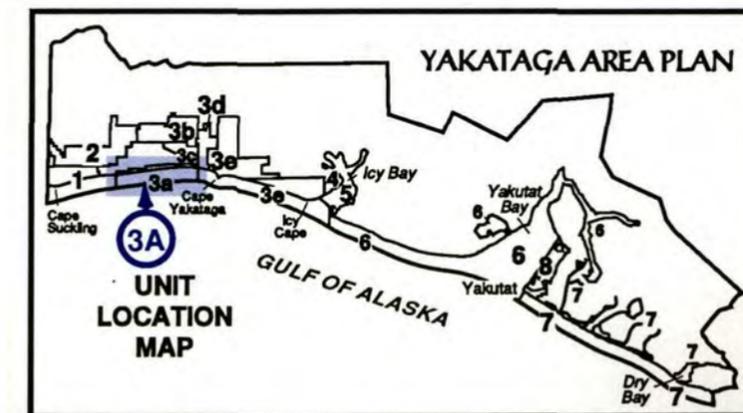
MAP FEATURES

- anadromous fish stream mouth
- glacier margin

Note: The Yakataga Area Plan's 3-mile offshore limit is measured in nautical miles rather than statute (land) miles. One nautical mile is equal to 1.151 statute miles.

0 1 2
SCALE IN MILES

April 1995



UNIT 3B**UPPER KALIAKH RIVER AND
TRIBUTARY DRAINAGES****Background**

Unit 3B is defined primarily by access considerations. It is a roadless inland unit, comprised of alpine areas and the upper reaches of several rivers.

Physical features

The upper Kulthieth River valley is extensively forested with mature spruce and hemlock. For several miles above the confluence with the Kaliakh River, the west side of the Kulthieth River is a mile-wide plain of wetlands and willow. Parts of the upper Kaliakh River are braided. The Kosakuts River is flanked by extensive stands of immature spruce and cottonwood.

The eastern-most township in Unit 3B is mostly rugged alpine terrain.

Access

The closest road to any part of this unit is over seven miles distant. Future road access would require extensive construction with major stream crossings or elevation gains. There are two airstrips of unknown condition at the southern edge of this unit (near Donald Ridge) and the northern edge (in the upper Kulthieth valley). Gravel bars on the Kaliakh and Kulthieth rivers provide landing areas for small aircraft.

Land status

The state has selected approximately 34,000 acres in the upper Kaliakh and Kulthieth drainages for conveyance from the federal Bureau of Land Management (BLM) under Alaska's statehood entitlement. The primary values are fish and wildlife habitat, with future value for timber, depending on access costs. Chugach Alaska Corporation holds prior selection rights to two-fifths of the state's selections. The state owns approximately 23,000 acres comprising the eastern part of Unit 3B.

All other lands in this unit are state-owned.

Adjoining lands

Unit 3B is bounded on the south by the Yakataga State Game Refuge and the proposed refuge addition. To the west lie Hanna Lake and the moraines of the Bering Glacier. To the north is steep alpine land managed by the BLM. The eastern boundary of Unit 3B extends downslope into the Duktoth River drainage approximately to treeline.

Resources and uses

The Kulthieth River, a clearwater tributary of the Kaliakh River, is the primary spawning and rearing area for coho salmon in the Kaliakh watershed. The coho run supports commercial set net and sport fisheries and a dense population of eagles in the lower Kaliakh River system. The Kulthieth River is presently used for hunting access and clearwater sport fishing. The upper Kaliakh River is noted as a potential float put-in for hunting, fishing, and recreational floating. The Kaliakh, Kulthieth, and Kosakuts rivers offer excellent tourism potential based on their scenery, pristine character, remoteness, and fish and wildlife resources.

Management considerations

Conveyance of the state selections in this unit would add substantial timber volumes to the state's timber base and allow state management of the habitat throughout the entire drainages that feed into the Yakataga State Game Refuge.

DNR will not make state timber available for sale or harvest within this management unit until at least December 2014, except for harvest incidental to development of a cabin and trail system.¹ In addition, before future state timber offerings, DNR must revise the Yakataga Area Plan, including re-examination of land classifications and land use designations. The annual allowable cut for state land must also be recalculated after the plan is revised.

Unit 3B - Upper Kaliakh River resource allocation summary

Forestry

Access. The plan directs DNR to request easements across lands to be conveyed to Chugach Alaska Corporation, to ensure opportunities for overland access for forestry on state lands.

Availability. All of the mature commercial timber as well as most pole timber in the Kaliakh and Kulthieth river drainages is designated forestry. One area of mature timber in upper Hope Creek is jointly designated forestry and habitat because of the heavy concentration of mountain goat winter habitat. An area of inoperable mature timber near the refuge is designated general uses, which leaves DNR the option of including it in the timber base.

Under the settlement agreement regarding the university timber litigation, there would be no state timber sales or harvests, except incidental to a cabin and trail system, until at least December 2014.

Fish and wildlife harvest

There are no designated harvest areas. However, future fishing and hunting along the main-stems of the Kiklukh and Kaliakh rivers will benefit from the joint designations for habitat and dispersed recreation along the rivers.

Access. The plan directs DNR to ensure public access through the FLUP process.

¹ See Appendix C for the history and terms of the December 1994 timber settlement.

Unit 3B - Upper Kaliakh River resource allocation summary

Fish and wildlife habitat

The plan endorses priority conveyance of selections in Unit 3B in part because State ownership would allow consistent habitat protection throughout the river drainage. From the confluence of the Kaliakh and Kulthieth Rivers, a joint habitat-forestry-recreation designation extends upstream approximately four miles along the Kaliakh River and to the upper tributaries of the Kulthieth River.

Tidelands and submerged lands near the Tsiu and Kiklukh river mouths are designated H1 HV1 for protection of anadromous fisheries and species that congregate because of the fish. Other tidelands and submerged lands within the three-mile limit are designated H2 HV2.

Minerals development

DNR will adopt a mineral leasehold location order that applies to the state-owned shorelands of the Kaliakh and Kulthieth Rivers and their anadromous tributaries.

Recreation and tourism

From the confluence of the Kaliakh and Kulthieth Rivers, a joint habitat-forestry-recreation designation extends upstream approximately four miles along Kaliakh River and six miles along Kulthieth River. The plan directs DNR to provide specific guidelines for recreation and tourism along Kaliakh River during the FLUP. The area plan also directs DNR to identify access sites and campsites for public use.

Settlement

The area plan did not designate settlement lands in this area. If the selections in Unit 3B are conveyed to the state, there is a public interest in retaining these lands in state ownership as directed by AS 38.04.015, based on their forestry, habitat, and recreation values, as well as their remoteness from essential services.

Transportation

The area plan directs DNR to reserve access under ANCSA Section 17(b) if lands are conveyed to Chugach Alaska Corporation.

Other resources

Several alpine areas are designated for general uses.

Subunit 3b-1 - Donald Ridge

■ Designation

General uses (G)

■ Management Intent

Allow general multiple uses.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General Information

See the table at the end of this subunit.

Subunit 3b-2 - Kosakuts and upper Kaliakh rivers

■ Designation

Forestry, habitat, and dispersed recreation (F2, H2, RD2)

■ Management intent

Maintain opportunities for forest management for timber production, and maintain conditions for fish and wildlife habitat and dispersed recreation, including boating, hunting and fishing. All activities will minimize significant adverse impacts on these activities and resources.

Maintain access and facilities for dispersed recreation. All activities will minimize significant adverse impacts to public use recreation, including boating, hunting and fishing.

■ Guidelines:

Other resources The Kaliakh River has been identified as important for floating and float-based hunting. Specific guidelines to maintain fish and wildlife habitat and harvest and recreation opportunities for the Kaliakh River corridor will be determined during the FLUP process. DNR will retain access sites; address the existing and potential for public uses through the FLUPs. DNR will consider the applicability of FLUP guidelines to uses other than forestry.

Conveyance priority State ownership of these selections remains a priority because it would allow single-owner management of habitat, recreation, and forestry resources for the entire Kaliakh and Kulthieth river systems. However, DNR should seek delay conveyance of selections in this subunit until Chugach Alaska Corporation selections have been conveyed or relinquished. DNR should then assess whether the remaining state selections have high habitat values and are still accessible.

Mineral leasehold location In the beds of the upper Tsivat River and Kaliakh River and their tributaries that support anadromous fish, new mineral entry will be allowed only under leasehold locations in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map showing the area of the leasehold location.

■ **General information**

See the table at the end of this unit.

Subunit 3b-3 - unnamed lone mountain

■ **Designation**

General uses (G)

■ **Management intent**

Allow general multiple uses.

■ **Guidelines:**

Mineral leasehold location	In the beds of the upper Tsivat River and their tributaries that support anadromous fish, new mineral entry will be allowed only under leasehold locations in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map showing the area of the leasehold location.
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■ **General information**

See the table at the end of this unit.

Subunit 3b-4 - Robinson Mountains east of Kosakuts River

■ **Designation**

General uses (G)

■ **Management intent**

Allow general multiple uses.

■ **Guidelines:**

Conveyance priority	DNR should seek priority conveyance of selections in this unit to augment the state timber base and to facilitate protection of habitat and recreation resources for the entire river system.
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■ **General information**

See the table at the end of this unit.

Subunit 3b-5 - above Kaliakh and Kulthieth rivers' confluence

■ **Designation**

Forestry, habitat, and dispersed recreation (F2, H2, RD2)

■ **Management intent**

Maintain opportunities for forest management for timber production, conditions for fish and wildlife habitat, and conditions for dispersed recreation. All activities will minimize significant adverse impacts to these resources and uses.



Kulthieth River valley

Road access will be allowed for use of state resources in the upper drainages.

■ **Guidelines:**

**Conveyance
priority**

State ownership of these selections remains a priority because it would allow single-owner management of habitat, recreation, and forestry resources for the entire Kaliakh and Kulthieth river systems. However, DNR should delay conveyance of selections in this subunit until Chugach Alaska Corporation selections have been conveyed or relinquished. DNR should then assess whether the remaining state selections have high habitat values and are still accessible.

**Mineral leasehold
location**

In the beds of the Kulthieth River and its tributaries that support anadromous fish, new mineral entry will be allowed only by leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map showing the areas of leasehold location.

■ **General information**

The Kulthieth River is the primary spawning and rearing area for coho salmon in the Kaliakh watershed.

Subunit 3b-6 - upper Kulthieth River valley

■ Designation

Forestry and habitat (F1, H1)²

■ Management intent

Promote forest management for sustained yield of timber. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to timber resources and production.

Protect or enhance conditions for fish and wildlife habitat, particularly for mountain goats, brown bears, and anadromous fish spawning and rearing. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to these resources and uses.

■ Guidelines:

Conveyance priority

State ownership of these selections remains a priority because it would allow single-owner management of habitat, recreation, and forestry resources for the entire Kaliakh and Kulthieth river systems. However, DNR should delay conveyance of selections in this subunit until Chugach Alaska Corporation selections have been conveyed or relinquished. DNR should then assess whether the remaining state selections have high habitat values and are still accessible.

Easements

DNR will request BLM to reserve easements across lands conveyed to Chugach Alaska Corp. conveyances under ANCSA Section 17(b) to ensure road access to resources on state land.

Mineral leasehold location

In the beds of the Kulthieth River and its tributaries that support anadromous fish, new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See the Appendix B for a map showing the areas of leasehold location.

■ General information

Land conveyances to Chugach Alaska Corporation in T19S R15E could block access to state-owned land in the upper Kulthieth River valley.

The Kulthieth River is the primary spawning and rearing area for coho salmon in the Kaliakh watershed.

² In accordance with the December 1994 settlement agreement, DNR will classify this unit for Forestry and Wildlife Habitat. This is a deviation from the general policy of this area plan not to designate and classify Level 1 uses that have inherent management conflicts. The conflicts between designated uses in this subunit may necessitate detailed site-specific planning. Before DNR may sell state timber between Cape Suckling and Icy Bay (other than the university's timber harvest or small sales incidental to construction and operation of a cabin and trail system), DNR must update the plan including re-examination of the forestry and other land classifications.

Subunit 3b-7 - Robinson Mountains northeast of Odor Creek

■ **Designation**

General uses (G)

■ **Management intent**

Allow general multiple uses.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ **General information**

See the table at the end of this unit.

Subunit 3b-8 - alpine slopes on north fork Kulthieth River

■ **Designation**

Habitat (H2)

■ **Management intent**

Maintain conditions for fish and wildlife habitat. All activities will minimize significant adverse impacts to fish and wildlife habitat.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ **General information**

See the table at the end of this unit.

Subunit 3b-9 - alpine slopes on south fork Kulthieth River

■ **Designation**

Habitat (H2)

■ **Management intent**

Maintain conditions for fish and wildlife habitat. All activities will minimize significant adverse impacts to habitat resources.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ **General information**

See the table at the end of this unit.

Subunit 3b-10 - Hope Creek headwaters

■ Designation

Forestry and habitat (F2, H2)

■ Management intent

Maintain opportunities for road access for timber management in adjoining units. Maintain conditions for fish and wildlife habitat. All activities will minimize significant adverse impacts to timber resources and production and to fish and wildlife habitat. Timber harvests may occur if the FLUP determines that mapped goat habitat does not exist. Also refer to Guideline B in the Fish and Wildlife Habitat Section of Chapter 2.

■ Guidelines:

Alternate road corridors

There are two possible road corridors to access timber in the Hope Creek drainage. One route would parallel the Duktoth River and access the Hope Creek drainage via Hope Pass. This route would cross Subunits 3b-10, 3c-2, 3c-3, and 3d-2. DNR prefers this Hope Pass route because it avoids areas with sensitive goat habitat that DNR recommends be added to the Refuge.

An alternative route is located south of Kulthieth Mountain through Subunits 3d-1 and 3c-4. This Kulthieth Mountain route passes near sensitive goat habitat and may result in greater disturbance and overhunting. DNR will authorize a road south of Kulthieth Mountain if the applicant demonstrates to the satisfaction of the department that it is not feasible and prudent to use the Hope Pass route. If this route is used, DNR may authorize timber harvest adjacent to the road to help fund the road construction, if the timber harvest is consistent with the purposes of the Refuge.

Timber harvest

Timber harvest may occur if the FLUP determines that mapped goat habitat does not exist.

■ General information

See the table at the end of this unit.

Subunit 3b-11 - northern Kulthieth Mountains

■ Designation

Harvest (HV1)

■ Management intent

Protect or enhance conditions for fish and wildlife harvest, particularly for hunting mountain goats. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to harvest activities.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

See the table at the end of this unit.

Unit 3B - upper Kaliakh River and tributary drainages

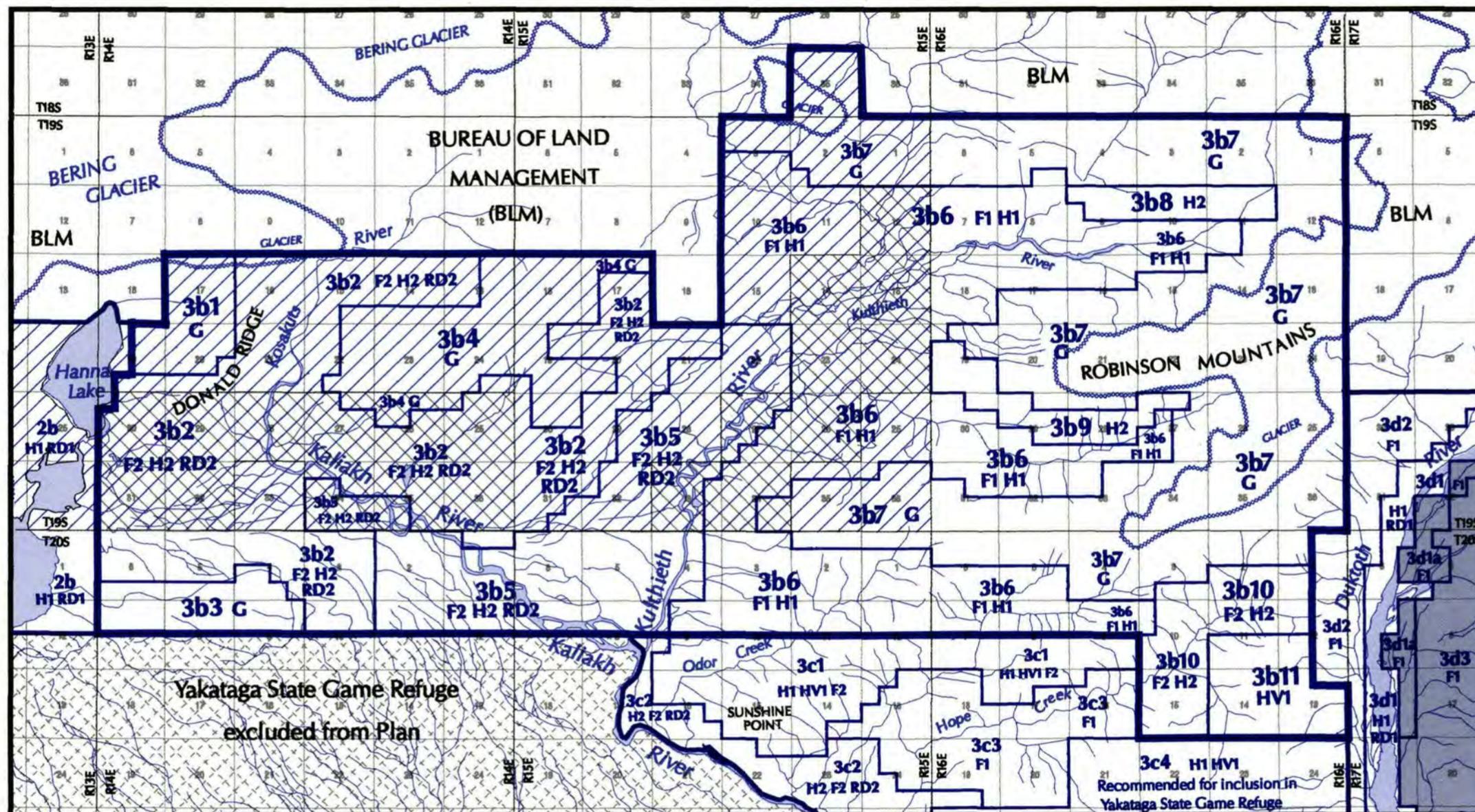
Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
3b-1 Donald Ridge	G	<ul style="list-style-type: none"> ■ alpine ■ guided goat hunting ■ goose molting 	<ul style="list-style-type: none"> ■ state selection
3b-2 Kosakuts & upper Kaliakh rivers	F2 H2 RD2	<ul style="list-style-type: none"> ■ immature spruce & hemlock at lower elevations; mature hemlock and spruce on slopes ■ mountain goat winter habitat on lower elevations on south and east slopes ■ anadromous fish spawning and rearing ■ bear summer/fall concentrations on Kaliakh River and west fork of Tsivat River ■ goose molting in northern subunit ■ eagle feeding concentration areas along upper Kosakuts and Kaliakh Rivers ■ recreational use of Kaliakh River; floating and float-based fishing and hunting 	<ul style="list-style-type: none"> ■ Mostly state and Native selection; one-fifth state-owned ■ Native selections may have been relinquished recently; final plan will confirm status of selections.
3b-3 unnamed lone mountain	G	<ul style="list-style-type: none"> ■ mature spruce and hemlock; rated inoperable for commercial harvest on Yakataga timber ratings map ■ moose habitat on west side ■ swan nesting & rearing concentration area ■ eagle feeding concentration area ■ anadromous fish spawning and rearing 	<ul style="list-style-type: none"> ■ Borders Yakataga State Game Refuge.
3b-4 Robinson Mtns east of Kosakuts River	G	<ul style="list-style-type: none"> ■ mostly alpine ■ sparse stands of immature cottonwood and spruce ■ swan nesting & rearing concentration areas ■ eagle feeding concentration area 	<ul style="list-style-type: none"> ■ State and Native selection. ■ Native selections may have been relinquished recently; final plan will confirm status of selections.
3b-5 above Kaliakh and Kulthieth rivers' confluence	F2 H2 RD2	<ul style="list-style-type: none"> ■ immature cottonwood and riparian willow and alder ■ extensive bear & moose concentration areas ■ moose rutting area between rivers above confluence ■ eagle feeding concentration area ■ eagle nesting concentration at Kaliakh and Kulthieth confluence ■ trumpeter swan nesting and rearing concentration area ■ recreation uses: sport fishing, camping ■ anadromous fish spawning and rearing: Kulthieth River is the primary coho spawning and rearing area for the Kaliakh River system ■ upper Kaliakh River is used for floating 	<ul style="list-style-type: none"> ■ Northern half is state- and Native-selected. ■ Native selections may have been relinquished recently; final plan will confirm status of selections.

Unit 3B - upper Kaliakh River and tributary drainages

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
3b-6 upper Kulthieth River valley	F1 H1	<ul style="list-style-type: none"> ■ mature hemlock and spruce ■ mountain goat winter habitat on south & east slopes north of Kulthieth River ■ marten habitat throughout ■ beaver & otter in lowland & riparian areas ■ brown bear summer and fall ■ Kulthieth River is primary coho spawning area for Kaliakh River system 	<ul style="list-style-type: none"> ■ Eastern headwaters are state-owned; western half of this subunit is state and Native selected.
3b-7 Robinson Mountains northeast of Odor Creek	G	<ul style="list-style-type: none"> ■ alpine ■ no identified resource values 	<ul style="list-style-type: none"> ■ Includes state and Native selection in eastern part of subunit
3b-8 alpine slopes on north fork Kulthieth River	H2	<ul style="list-style-type: none"> ■ bear spring feeding concentration area 	
3b-9 alpine slopes on south fork Kulthieth River	H2	<ul style="list-style-type: none"> ■ bear spring feeding concentration area 	
3b-10 Hope Creek headwaters	F2 H2	<ul style="list-style-type: none"> ■ mature hemlock and spruce ■ mountain goat winter habitat on most south facing slopes 	<ul style="list-style-type: none"> ■ Borders that portion of the former Yakataga Special Management Area (SMA) that is recommended for addition to the Yakataga State Game Refuge.
3b-11 northern Kulthieth Mountains	HV1	<ul style="list-style-type: none"> ■ mostly alpine ■ stands of immature spruce in 10% of unit ■ mature spruce and hemlock in 15% of unit ■ mountain goat winter habitat & harvest area 	<ul style="list-style-type: none"> ■ Borders that portion of the former Yakataga Special Management Area (SMA) that is recommended for addition to the Yakataga State Game Refuge.

YAKATAGA AREA PLAN

Unit 3B upper Kaliakh River & tributary drainages



YAKATAGA AREA PLAN

Unit 3B upper Kaliakh River & tributary drainages

PLANNING UNITS

- management unit boundary
- 1a1 subunit boundary and number

LAND STATUS

STATE OWNED OR SELECTED: SUBJECT TO PLAN

- NO PATTERN state owned - patented or tentatively approved
- diagonal lines state selected
- cross-hatch state and Native selection (dual selection)
- solid grey state owned - University Timber Rights, substitute tract

STATE OWNED BUT EXCLUDED FROM PLAN

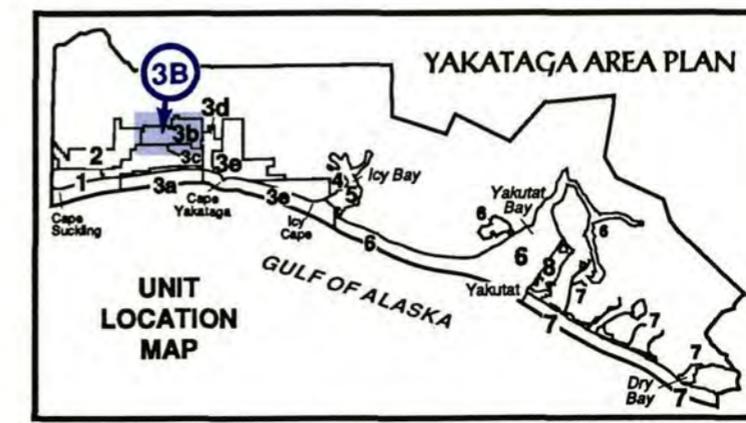
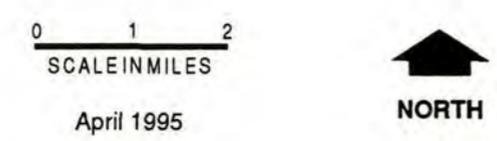
- cross-hatch Yakataga State Game Refuge

OTHER LAND OWNERSHIP

- Labeled federal (BLM)

MAP FEATURES

- glacier margin



UNIT 3C**LOWER KALIAKH RIVER AND
TRIBUTARY DRAINAGES****Background**

Unit 3C follows the boundaries of the Yakataga Special Management Area created by the state legislature in SLA 1990, Chapter 143. The Yakataga Special Management Area was a temporary management unit that expired when the area plan was adopted.

Physical features

Unit 3C encompasses the lower eastern drainage of the Kaliakh River. The mainstem of the Kaliakh River is flanked by a one-quarter to one-mile-wide bottomland of willow, alder, and cottonwood. Approximately half the unit has commercial forest.

Access

An unauthorized airstrip provides access near the confluence of the Kulthieth and Kaliakh rivers, at the northern boundary of the unit. Planes also land on gravel bars. The Kaliakh River is navigable in this unit: boating provides access for hunting, fishing, and recreation. There are no roads.

Land status

All lands within Unit 3C are state-owned. The commissioner of DNR recommends through the area plan that part of Unit 3C, the former Special Management Area, be included in the Yakataga State Game Refuge.¹

Adjoining lands

Unit 3C is bounded on all sides by state land. The western border is the Kaliakh River, which is in the Yakataga State Game Refuge. The southern edge of the unit parallels the Gulf coast, one mile inland from mean high water. The eastern edge follows the township line separating R16E and R17E (approximately ¼ mile from the west bank of the Duktotoh River). The northern edge of Unit 3C follows section lines across upper Hope Creek and the northern foothills of Kulthieth Mountain.



*Fishing camp near
mouth of Kaliakh River*

¹ See Chapter 4 - Yakataga State Game Refuge.

Resources and uses

The northwestern half of Subunit 3C is approximately 75 percent forested with mature hemlock and spruce forest. The southwestern half of the unit has approximately ten percent commercial forest in a strip along the flank of Kulthieth Mountain. The lower elevations are primarily covered with willow and muskeg meadows.

A band of riparian willow, cottonwood and alder up to one-and-one-half miles wide along the main stem of the Kaliakh River provides important moose habitat and eagle nesting sites. The number of eagle nests is high even by Alaska standards. The Kaliakh River system is one of the highest coho producing systems in the planning area, with a peak escapement of 37,500. The Kaliakh River corridor is an area of growing importance for guided and subsistence hunting and fishing and wildlife viewing.

Management considerations

The shorelands of the Kaliakh River are in the Yakataga State Game Refuge and are also subject to this area plan, in accordance with Chapter 143, Section 1, SLA 1990. These shorelands, which form the west boundary of Subunits 3C-1, -2, and -4, will be managed consistent with the purposes of the refuge.

Steep terrain east of the Kaliakh River presents potentially serious hazards from slope instability, particularly debris slides, debris avalanches, and snow avalanches. High geophysical relief, combined with heavy wet snowfall, cold temperatures, and erratic strong winds build potential for major avalanches. Avalanches and slope failures are highly localized, however, and can be mitigated by careful evaluation and avoidance of susceptible slopes.

DNR will not make state timber available for sale or harvest within this management unit until at least December 2014, except for harvest incidental to development of a cabin and trail system.² In addition, before future state timber offerings, DNR must revise the Yakataga Area Plan, including re-examination of land classifications and land use designations. The annual allowable cut for state land must also be re-calculated after the plan is revised.

Unit 3C - Lower Kaliakh River resource allocation summary

Forestry

Availability. Approximately 90 percent of the commercial timber land in this unit was designated for Forestry. A band of timber along the south flank of Kaliakh Mountain is recommended for inclusion in the Yakataga State Game Refuge, which will probably remove it from the timber base. In the Sunshine Point and Odor Creek drainage, forestry will be secondary to fish and wildlife habitat and harvest, in part because of extensive mountain goat habitat.

Under the settlement agreement regarding the university timber litigation, there would be no state timber sales or harvests, except incidental to a cabin and trail system, until at least December 2014.

Access. The plan allows transportation improvements through the proposed addition to the refuge.

² See Appendix C for the history and terms of the December 1994 settlement agreement.

Unit 3C - Lower Kaliakh River resource allocation summary, continued

Fish and wildlife harvest

Availability. Opportunities for community and sport harvest along Kaliakh River are preserved by several harvest designations. Records do not show intensive hunting in the forested tributary drainages.

Access. Road access to Hope Creek would allow easier hunting access. The area plan recommends road access via Hope Creek rather than Kaliakh River.

Character. Logging and road access would change the character of hunting and fishing which is currently mostly by fly-in or float access.

Fish and wildlife habitat

The recommendation to add Kulthieth Mountain to Yakataga State Game Refuge would fulfill the legislative intent to protect mountain goat winter habitat within the Refuge. Moose winter habitat and rutting areas, swan and bald eagle concentration areas, and spring bear feeding areas would also be protected.

Tidelands and submerged lands near the Tsiu and Kiklukh river mouths are designated H1 HV1 for protection of anadromous fishes, and other species that congregate because of the fishery. Other tidelands and submerged lands within the three-mile limit are designated H2 HV2.

Minerals development

There are no recorded mineral prospects or mineralized areas. DNR will adopt a mineral leasehold location order that applies to the state-owned shorelands and tidelands (lagoons) of the Kaliakh River and its anadromous tributaries.

Recreation and tourism

The area plan encourages management of the Kiklukh River corridor for recreation as well as habitat and harvest. Specific guidelines to protect or enhance dispersed recreation will be developed through Forest Land Use Plans. These guidelines will be considered for applicability to uses other than forestry.

Settlement

The area plan did not designate settlement lands in this area. There is a public interest in retaining these lands in state ownership as directed by AS 38.04.015, based on their forestry, habitat, and recreation values, as well as their remoteness from essential services.

Transportation

The plan expresses the intent that transportation improvements will be allowed through the lands to be added to the refuge. For access to timber in the Hope Creek drainage, the plan expresses DNR's preference for a road extension over Hope Pass rather than along Kulthieth Mountain.

Subunit 3c-1 - Sunshine Point and Odor Creek

■ Designation

Habitat, harvest, and forestry (H1, HV1, F2)

■ Management intent

Protect or enhance fish and wildlife habitat and harvest, particularly for mountain goats. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to mountain goat habitat and harvest.

Maintain opportunities for forest management for sustained yield of timber consistent with the management intent to protect mountain goat habitat and harvest. All activities will minimize significant adverse impacts to opportunities for forest management.

This subunit is not recommended for addition to the Yakataga State Game Refuge. Retaining DNR management allows DOF to include this timber in the timber base when determining sustained yield. Adding this subunit to the refuge would reduce the timber base, and consequently, reduce the annual allowable cut under sustained yield principles. DNR intends to maintain a large enough timber base in the Yakataga area to yield 15-20 million board feet annually, to ensure commercial profitability and management flexibility for harvest design and scheduling.

The segment of the main branch of the Kaliakh River that forms the west boundary of this subunit (but is not in this subunit) is part of the Yakataga State Game Refuge under SLA 1990, Ch 143, Section 1, and its shorelands will be managed as such.

■ Guidelines:

Timber harvest Timber harvest may occur if DFG determines during the Forest Land Use Plan that mapped goat habitat does not exist.

Mineral leasehold location In the beds of the eastern tributaries of the lower Kaliakh River that support anadromous fish (including Odor and Hope creeks), new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. A recommended mineral leasehold location order for the main bed of the Kaliakh River is described in Chapter 4 under *Mineral Closures*. See Appendix B for a map of the leasehold location areas.

■ General information

See the table at the end of this unit.

Subunit 3c-2 - middle Kaliakh River lowlands

■ Designation

Forestry, habitat, and dispersed recreation (F2, H2, RD2)

■ Management intent

Maintain opportunities for forest management for timber production, conditions for fish and wildlife habitat, and conditions for dispersed recreation. All activities will minimize significant adverse impacts to these activities and resources.

This subunit is not recommended for addition to Yakataga State Game Refuge. DNR prefers to retain management and to consider adding the timber to the timber base. Most of the timber in this unit is one mile from the river. Therefore, forest management can be conducted with minimal adverse impacts to habitat and recreation along the river.

The segment of the main branch of the Kaliakh River that forms the west boundary of this subunit (but is not in this subunit) is part of the Yakataga State Game Refuge under SLA 1990, Ch 143, Section 1, and its shorelands will be managed as such.

■ Guidelines:

River corridor management	Specific guidelines to protect fish and wildlife habitat and harvest and recreation opportunities within the Kaliakh River corridor will be developed through a Forest Land Use Plan that will precede state timber harvest. However, if other major development is proposed before state timber harvest, DNR will use the ACMP process to apply detailed guidelines to maintain habitat and recreation values as intended by this area plan.
Commercial recreation leasing	DNR may consider commercial recreation leasing by competitive bid under AS 38.05.073. DNR will identify locations and conditions for commercial recreation leasing under .073 or .070 that minimize disturbance to wildlife concentrations or migrations in the riparian corridor.
Alternate road corridors	See guideline addressing this issue under Subunits 3c-4 and 3d-1.
Mineral leasehold location	In the beds of the eastern tributaries of the lower Kaliakh River that support anadromous fish (including Hope Creek), new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that are essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. The recommended mineral leasehold location for the main bed of the Kaliakh River is described in Chapter 4 under <i>Mineral Closures and Leaseholds</i> . See Appendix B for a map of the leasehold location areas.

■ General information

This Kaliakh River is an established boat access corridor for recreation, fishing, and hunting. There is a mile-wide expanse of riparian willow, alder and cottonwood along the east side of the river; with scattered timber stands against the lower mountain slopes.

Subunit 3c-3 - Hope Creek

■ Designation

Forestry (F1)

■ Management intent

Promote forest management for sustained yield of timber. All activities will avoid significant adverse impacts to timber resources and production.

This subunit is not recommended for addition to the Yakataga State Game Refuge. Retaining DNR management allows DOF to include this timber in the timber base when determining sustained yield. Adding this subunit to the refuge would reduce the timber base, and consequently, reduce the annual allowable cut under sustained yield principles. DNR intends to maintain a large enough timber base in the Yakataga area to yield 15-20 million board feet annually, to ensure commercial profitability and management flexibility for harvest design and scheduling.

YAKATAGA AREA PLAN

The segment of the main branch of the Kaliakh River that forms the west boundary of this subunit (but is not in this subunit) is part of the Yakataga State Game Refuge under SLA 1990, Ch 143, Section 1, and its shorelands will be managed as such.

■ Guidelines:

Alternate road corridors	See guidelines addressing this issue under Subunits 3c-4 and 3d-1.
Mineral leasehold location	In the beds of the eastern tributaries of the lower Kaliakh River that support anadromous fish (including Hope Creek), new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that are essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. A recommended mineral leasehold location order for the main bed of the Kaliakh River is described in Chapter 4 under <i>Mineral Closures</i> . See Appendix B for a map of the leasehold location areas.

■ General information

There are two possible road corridors for access to timber in Hope Creek. One would pass through the upper Hope Creek drainage from the Duktoth River. The other would pass through the lower Hope Creek drainage from the Kaliakh River. DNR prefers the Hope Pass route because it avoids areas with sensitive goat habitat that DNR proposes to add to the Refuge.

Subunit 3c-4 - Kulthieth Mountain and lower Kaliakh River

■ Designation

Habitat and harvest (H1, HV1)

■ Management intent

Subunit 3c-4 is recommended for addition to the Yakataga State Game Refuge upon adoption of this plan. This subunit contains mountain goat winter habitat, which the current refuge lacks, even though the legislature listed protection of goat winter habitat as one of the express purposes of the refuge (Chapter 143, Section (1)(b)(1), SLA 1990). This subunit also contains bear spring feeding concentration areas and moose winter habitat and rutting areas. This subunit contains little commercial timber.

Until the subunit becomes part of the refuge, DNR will manage the subunit to protect or enhance conditions for fish and wildlife habitat and harvest, particularly mountain goat habitat and harvest, and habitat for bears, moose, and anadromous fish. All activities will, to the extent feasible and prudent, avoid significant impacts to these resources and uses.

The segment of the main branch of the Kaliakh River that forms the west boundary of this subunit (but is not in this subunit) is part of the Yakataga State Game Refuge under SLA 1990, Ch 143, Section 1, and its shorelands will be managed as such.

■ Guidelines:

Access	Transportation improvements will be allowed in the proposed addition to the refuge to provide access to resources north of the refuge. If there is a need to subsidize the cost of road construction across the refuge addition, the feasibility of timber harvest along the route (within the refuge addition) will be evaluated at the time the road is proposed. ³
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Alternate road corridors

There are two possible road corridors to access timber in the Hope Creek drainage. One route would parallel the Duktoth River and access the Hope Creek drainage via Hope pass. This route would cross subunits 3b-10, 3c-2, 3c-3, and 3d-2. DNR prefers this Hope Pass route because it avoids areas with sensitive goat habitat that DNR proposes to add to the Refuge.

An alternate route is located south of Kulthieth Mountain through subunits 3d-1 and 3c-4. This Kulthieth Mountain route passes near sensitive goat habitat and may result in greater disturbance and overhunting. DNR will authorize a road south of Kulthieth Mountain if the applicant demonstrates to the satisfaction of the department that it is not feasible and prudent to use the Hope Pass route. If this route is used, DNR may authorize timber harvest adjacent to the road to help fund the road construction, if the timber harvest is consistent with the purposes of the Refuge.

Additional information on fish and wildlife, recreation, and tourism may be needed to design the road corridor to have the greatest public benefit.

Mineral leasehold location

In the beds of the eastern tributaries of the lower Kaliakh River that support anadromous fish, new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. A recommended mineral leasehold location order for the main bed of the Kaliakh River is described in Chapter 4 under *Mineral Closures*. See Appendix B for a map of the leasehold location areas.

■ General information

The southern half of this subunit is covered by muskeg meadows, alders, and grasslands and contains no operable commercial timber. Kulthieth Mountain, in the northern half of the subunit, is mostly alpine with a band of mature spruce on the southern flank. This southern flank provides mountain goat winter habitat and hunting, and bear spring feeding concentration areas.

3 Under AS 16.20.033(c), DFG shall permit timber harvest activities in the portion of the refuge east of the Kaliakh River when the activities are not inconsistent with protection of fish and wildlife habitat and populations.

Unit 3C - lower Kaliakh River and tributary drainages⁴

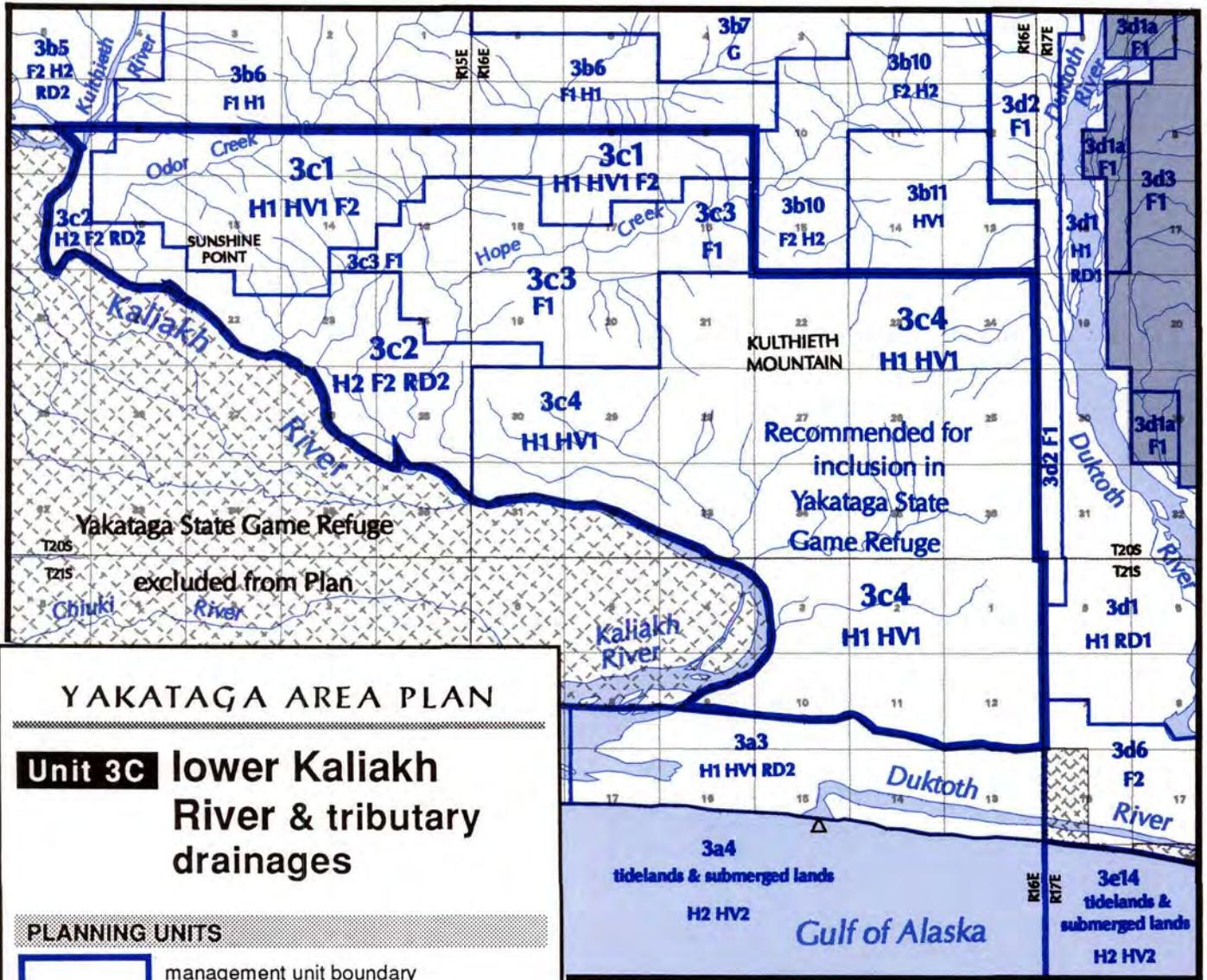
Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
3c-1 Sunshine Point & Odor Creek	H1 HV1 F2	<ul style="list-style-type: none"> ■ mature hemlock and some mature spruce on steep slopes ■ extensive areas of mountain goat winter habitat and harvest ■ bear spring feeding concentration areas north of Hope Creek ■ bear summer/fall feeding concentration areas on lower Odor Creek ■ marten habitat throughout ■ land otter on Odor Creek 	<ul style="list-style-type: none"> ■ This subunit has extensive conflicts between high timber values with goat winter habitat.
3c-2 middle Kaliakh River lowlands	H2 F2 RD2	<ul style="list-style-type: none"> ■ scattered stands of timber; mostly riparian and lowland willow, except for lower mountain slopes ■ brown and black bear summer/fall feeding areas along Hope Creek ■ moose winter habitat throughout unit ■ eagle feeding concentration area and nest sites along river ■ trumpeter swan nesting and brood rearing ■ anadromous fish production: second highest coho escapement in planning area (37,500) ■ guided bear & moose hunting ■ community harvest: waterfowl, bear, moose ■ recreational and guided float trips on Kaliakh River ■ Kaliakh River provides boat access for hunting 	<ul style="list-style-type: none"> ■ Eagle nesting density is high even by Alaska standards, according to U.S. Fish and Wildlife Service.
3c-3 Hope Creek	F1	<ul style="list-style-type: none"> ■ extensive areas of mature hemlock ■ extensive mountain goat winter habitat on south facing slopes and along southern tributary to Hope Creek ■ bear summer/fall feeding concentration (small area in southern unit) ■ extensive otter and marten habitat in forested lower elevations 	

4 This unit was formerly the Yakataga Special Management Area (SMA) which the Alaska Legislature established as a temporary management area under Chapter 143, SLA 1990. DNR was directed to analyze the resources in the SMA through this area plan and consider whether to add it to the Yakataga State Game Refuge through this area plan. The SMA expired when DNR adopted the area plan.

Unit 3C - lower Kaliakh River and tributary drainages, continued

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
3C-4 Kulthieth Mountain & lower Kaliakh River	H1 HV1	<ul style="list-style-type: none"> ■ mature spruce on south and east slopes cover approximately ten percent of unit ■ mountain goat winter habitat on south and east slopes ■ bear spring concentration areas on south slopes and on grasslands in southern unit ■ marten habitat in dense timber ■ guided goat hunting ■ community harvest; goats ■ moose winter habitat ■ moose rutting 	

Unit 3C lower Kaliakh River & tributary drainages



YAKATAGA AREA PLAN

Unit 3C lower Kaliakh River & tributary drainages

PLANNING UNITS

- management unit boundary
- subunit boundary and number

LAND STATUS

STATE OWNED OR SELECTED: SUBJECT TO PLAN

- NO PATTERN state owned - patented or tentatively approved
- state owned - University Timber Rights, substitute tract

STATE OWNED BUT EXCLUDED FROM PLAN

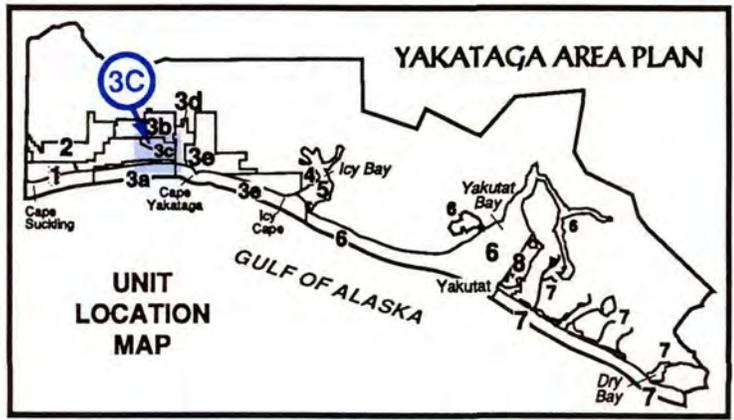
- Yakataga State Game Refuge
- University owned

MAP FEATURES

- anadromous fish stream mouth



April 1995



UNIT 3D**DUKTOH RIVER
CORRIDOR****Background**

This unit corresponds roughly to the Duktoth River drainage, encompassing most of the lower-elevation, forested lands.

Physical features

The bottomlands of the Duktoth valley are generally less than one mile wide, flanked by steep mountain walls rising over 3,000 feet. The long, enclosed valley profile creates a visual gateway to the inland glaciers and massifs, unique within the planning area. Near the coast, the valley opens onto a four-mile-wide plain with muskeg, grasslands, and riparian shrubs.

Mature hemlock/spruce stands cover the steep slopes of the valley and the lowlands at the Leeper River confluence. Approximately 40 percent of the total acreage of the unit is forested. Duktoth Mountain in the eastern part of the unit has alpine tundra, rock peaks, and glaciers.

Access

There are landing areas at the confluence of the Leeper and Duktoth rivers, and the lower Duktoth valley. The Duktoth is navigable below its confluence with Leeper River¹, and boat access offers potential for recreation, fishing and hunting. Alpinists reportedly gain access to the inland peaks from the Leeper Glacier.

A gravel road leads one mile from the Yakataga airstrip to the Duktoth River and bridge. The road and bridge do not receive regular maintenance and may pose a safety hazard and liability. Beyond the bridge, an abandoned roadbed heads west across the lowlands from Duktoth River to Kaliakh River.

Land status

Most of the land in this unit is state owned.

The university owns one-time timber harvest rights on certain lands east of Duktoth River within this unit as a result of the December 1994 settlement agreement. These lands are referred to as the substitute tract.

The university owns approximately 500 acres in sections 18 and 20, T21S R17E on the coast.

Adjoining lands

Unit 3D is bounded to the north by BLM lands, to the east and west by state lands, and to the south by the Gulf of Alaska. Chugach Alaska owns a tract that surrounds the Cape Yakataga airstrip, on the southeastern corner of Unit 3D.

¹ DNR has not assessed the navigability of Duktoth River upstream from its confluence with Leeper River.

Resources and uses

This unit has extensive areas of mature timber and diverse habitat, including moose and mountain goat winter habitat, bear feeding concentration areas, and furbearer habitat. Human use of this drainage appears light. Outfitters and guides use the southern half of the unit. The scenery and river accessibility give Unit 3D potential for recreation and tourism.

Management considerations

The narrow valley profile may create challenges in integrating competing uses.

The steep terrain in the Duktoth River drainage presents potentially serious hazards from slope instability; particularly debris slides, debris avalanches, and snow avalanches. High geophysical relief, combined with heavy wet snowfall, cold temperatures, and erratic strong winds build potential for major avalanches. Avalanches and slope failures are highly localized, however, and can be mitigated by careful evaluation and avoidance of susceptible slopes.

DNR will not make state timber available for sale or harvest west of the Duktoth River until at least December 2014², except for harvest incidental to development of a cabin and trail system. In addition, before future state timber offerings, DNR must revise the Yakataga Area Plan, including re-examination of land classifications and land use designations. The annual allowable cut for state land must also be re-calculated after the plan is revised.

Unit 3D - Duktoth River Corridor resource allocation summary

Forestry

The area plan designates over 95 percent of the commercial timber stands in this unit for forestry.

Under the settlement agreement regarding the university timber litigation, the university has one-time harvest rights to most of the commercial timber in this unit. Map 3.10 at the end of Unit 3E shows the extent of the university timber rights. The university is likely to harvest extensively along the east side of the Duktoth River valley in the next twenty years. There will be no state timber sales or harvests other than those initiated by the university until at least December 2014.

Fish and wildlife harvest

There are no designations or specific management unit guidelines for fish and wildlife harvest.

Access. Hunting and fishing use appeared to be relatively low when this plan was adopted.

There is some guided hunting along the river. The plan directs DNR to reserve public access points in the river corridor. Road construction for the harvest of university timber will greatly increase accessibility for hunting and fishing.

Availability. Road access is likely to increase hunting competition, and possibly disperse it. The number of sport hunters is likely to increase significantly, particularly hunters from the logging camp(s).

Character. Visual and noise impacts from roads and logging within the relatively narrow valley may diminish the value of trips to those seeking a primitive hunting or fishing experience. DNR will consider natural aesthetics when it reserves public recreation sites along the river.

2 See Appendix C for the history and terms of the December 1994 timber settlement.

Unit 3D - Duktoth River Corridor resource allocation summary, continued

Fish and wildlife habitat

Riparian habitat. The cottonwood forest in the valley bottom is designated for habitat. This area has high value habitat for numerous species: swans, eagles, moose, bears, anadromous fish, and furbearers. Because of the narrow profile of the valley, roads in the valley bottom and timber harvest on the bordering mountain-sides may affect sensitive species. The plan has guidelines to keep roads away from certain types of sensitive riparian habitat where feasible and prudent.

Minerals development

DNR has adopted a mineral leasehold location order that applies to the state-owned shorelands and tidelands (lagoons) of the Duktoth River and its anadromous tributaries. There are no recorded mineral prospects or known mineralized areas in this unit.

Recreation and tourism

The valley bottomlands along the middle Duktoth River are designated for dispersed recreation. Along the coast, the plan's areawide guidelines for the coastal fringe of timber will preserve the natural setting.

Access. Road-based recreation will become possible with the development of forestry roads. However, recreational use of the road system will be limited by the expense and logistics of hauling vehicles to the area, and possibly by the need to coordinate recreational use of roads with timber and mining operations. Extension of roads may create new opportunities to float the rivers. There may be an increase in local recreation use from people associated with the logging operation. The plan directs DNR to reserve public use sites along the river that have aesthetic and practical qualities for recreation and tourism.

Character. Because of the narrow profile of the valley, roads and logging may be visible or audible from the river and may therefore diminish the wild and primitive setting along the middle reaches of the Duktoth River. This will diminish existing commercial recreation values and wildlife viewing opportunities.

Settlement

The area plan did not designate settlement lands in this area. There is a public interest in retaining these lands in state ownership as directed by AS 38.04.015, based on their forestry, habitat, and recreation values, as well as their remoteness from essential services.

Transportation

The area plan directs DNR to identify and reserve access points, including boat launches and potential airstrips, along the Duktoth River.

For timber harvest, the area plan identifies a preferred access route to the Hope Creek drainage along Duktoth River rather than Kaliakh River.

Waterfront development

There is no likely waterfront development site along this exposed outer coast. The primary value of the waterfront in Unit 3D is fish and wildlife habitat and harvest.

Subunit 3d-1 - lower Duktoth River corridor

■ Designation

Habitat and dispersed recreation (H1, RD1)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly for mountain goats, anadromous fish, eagles, swan, bears, moose, and marten. Protect or enhance conditions for dispersed recreation, particularly for boating and camping. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to these habitat and recreation resources and uses.

Access will be allowed through this subunit and across the Duktoth River to facilitate resource use.

■ Guidelines:

- Access** Before issuing authorizations in the Duktoth River corridor, DNR will identify and reserve access points for boat launches and airstrips in order to ensure public access to the river for recreation. The reserved sites will be noted on DNR's status plats. A plan amendment is not required for DNR to designate these sites. The intent is to reserve a series of high-quality public recreation sites, so that public floating and camping opportunities remain excellent.
- Eventually, these public sites will be spaced at intervals of approximately two to four miles along the Duktoth River to ensure resting and camping opportunities for recreationists. Sites will be selected and managed to maintain firewood and fresh water sources for camping, shelter from prevailing winds, scenic qualities, natural vegetation, and opportunities for seclusion and privacy. These sites will be retained in public ownership and DNR will reserve access to and along the river.
- Alternate road corridors** There are two possible road corridors to access timber in the Hope Creek drainage. One route would parallel the Duktoth River and access the Hope Creek drainage via Hope Pass. This route would cross subunits 3b-10, 3c-2, 3c-3, and 3d-2. DNR prefers this Hope Pass route because it avoids areas with sensitive goat habitat that DNR proposes to add to the Refuge.
- An alternative route is located south of Kulthieth Mountain through subunits 3d-1 and 3c-4. This Kulthieth Mountain route passes near sensitive goat habitat and may result in greater disturbance and overhunting. DNR will authorize a road south of Kulthieth Mountain if the applicant demonstrates to the satisfaction of the department that it is not feasible and prudent to use the Hope Pass route. If this route is used, DNR may authorize timber harvest adjacent to the road to help fund the road construction, if the timber harvest is consistent with the purpose of the Refuge.
- Timber harvest** Timber harvest may occur if DFG determines during the FLUP that mapped habitat does not exist and if timber harvest does not significantly impact recreation resources or uses. Also refer to Guideline B in the Fish and Wildlife Habitat Section in Chapter 2.
- No-harvest riparian buffer on certain anadromous streams** Within this subunit, timber harvest is prohibited within 300 feet of each bank of Duktoth River pursuant to the December 1994 settlement agreement, in order to protect important bear or anadromous fish habitat. (See Map 3.12 at the end of Unit 3E.)

Habitat & recreation Specific guidelines to maintain or enhance fish and wildlife habitat and harvest and recreation opportunities for the Duktotoh River corridor will be determined during the FLUP process or during the adjudication of applications for other resource development proposals.

Mineral leasehold location In the bed of the lower Duktotoh River and its tributaries that support anadromous fish, new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the leasehold location areas.

■ General Information

See the table at the end of this unit.

3d-1a - timber tracts adjacent to middle Duktotoh River

■ Destination

Forestry (F1)³

■ Management intent

Promote forest management for sustained yield of timber. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to timber resources.

■ Guidelines:

Conditional harvest within 100-300 feet of mapped anadromous streams	On mapped anadromous streams within the substitute tract ⁴ , DNR, with due deference to DFG, will identify acreage within 100 to 300 feet of the streams where timber harvest does not jeopardize the maintenance of important fish and wildlife habitat. University timber harvest will be allowed on that acreage. DNR, with due deference to DFG, will limit buffers and special management areas on anadromous streams in the substitute tract to a maximum of 300 feet from each bank.
No-harvest riparian buffers on yet-to-be identified anadromous streams	On yet-to-be identified anadromous streams within the substitute tract, DNR, with due deference to DFG, will limit no-harvest buffers to 100 feet from each bank.
Timber harvest within mapped moose and bear habitat	Throughout the substitute tract, DNR, with due deference to DFG, will identify acreage within mapped moose and bear habitat (mapped in the Yakataga Area Plan Fish and Wildlife Resource Atlas) on which timber harvest does not jeopardize the maintenance of important habitat. University timber harvest will be allowed on that acreage.
No-harvest riparian buffer on certain anadromous streams	Within this subunit, timber harvest is prohibited within 300 feet of each bank of Duktotoh River and the banks of specified tributaries as mapped in the December 1994 settlement agreement in order to protect important bear or anadromous fish habitat. (See Map 3.12 at the end of Unit 3E.)

³ In accordance with December 1994 settlement agreement, DNR has classified this subunit for Forestry.

⁴ The substitute tract refers to land in Management Units 3D and 3E where DNR conveyed timber to the university as a substitute for timber at Cape Suckling. A map at the end of Management Unit 3E shows the substitute tract.

Mineral leasehold location In the bed of the lower Duktoth River and its tributaries that support anadromous fish, new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that are essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the leasehold location areas.

■ **General information**

These subunits were withdrawn from subunit 3d-1 and designated for Forestry (F1) in accordance with the December 1994 settlement agreement.

Subunit 3d-2 - western slopes of middle Duktoth River valley

■ **Designation**

Forestry (F1)

■ **Management intent**

Promote forest management for sustained yield of timber. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to timber resources and production.

■ **Guidelines:**

Access to goat habitat DNR will consider limiting public access along roads in this subunit if road access contributes to unmanageable disturbance of goats or illegal hunting.

Alternative road corridors See guidelines addressing this issue under the guidelines section for subunits 3c-4 and 3d-1.

■ **General information**

Mature timber and mountain goat winter habitat overlap in much of this unit. The road would create easy access to goat habitat because of the steep and narrow topography of the Duktoth Valley.

Subunit 3d-3 - eastern slopes of middle Duktoth River valley

■ **Designation**

Forestry (F1)

■ **Management intent**

Promote forest management for sustained yield of timber. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to timber resources and production.

■ **Guidelines:**

Conditional harvest within 100-300 feet of mapped anadromous streams On mapped anadromous streams in the substitute tract, DNR, with due deference to DFG, will identify acreage within 100 to 300 feet of the streams where timber harvest does not jeopardize the maintenance of important fish and wildlife habitat. University timber harvest will be allowed on that acreage. DNR, with due deference to DFG, will limit buffers and special management areas on anadromous streams in the substitute tract to a maximum of 300 feet from each bank.

No-harvest riparian buffers on yet-to-be identified anadromous streams

On yet-to-be identified anadromous streams within the substitute tract, DNR, with due deference to DFG, will limit no-harvest buffers to 100 feet from each bank.

Timber harvest within mapped moose and bear habitat

Throughout the substitute tract, DNR, with due deference to DFG, will identify acreage within mapped moose and bear habitat (mapped in the Yakataga Area Plan Fish and Wildlife Resource Atlas) on which timber harvest does not jeopardize the maintenance of important habitat. University timber harvest will be allowed on that acreage.

Mineral leasehold location

In the tributaries of the Duktotoh River that support anadromous fish (including Cottonwood Creek), new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the leasehold location areas.

■ **General information**

See the table at the end of this unit.

Subunit 3d-4 - Leeper River

■ **Designation**

General uses (G)

■ **Management intent**

Allow general multiple uses. DNR will make timber in this unit available for university timber harvest in accordance with the December 1994 settlement agreement.

■ **Guidelines:**

Application for easement

The Division of Land should seek an easement from BLM to allow overland access along the Leeper River valley to state-owned land in T19S R18E.

Conditional harvest within 100-300 feet of mapped anadromous streams

On mapped anadromous streams in the substitute tract, DNR, with due deference to DFG, will identify acreage within 100 to 300 feet of the streams where timber harvest does not jeopardize the maintenance of important fish and wildlife habitat. University timber harvest will be allowed on that acreage. DNR, with due deference to DFG will limit no-harvest buffers and special management areas on anadromous streams in the substitute tract to a maximum of 300 feet from each bank.

No-harvest riparian buffers on yet-to-be identified anadromous streams

On yet-to-be identified anadromous streams within the substitute tract, DNR, with due deference to DFG, will limit no-harvest buffers to 100 feet from each bank. Where additional anadromous streams are documented, any important mapped habitat will be considered under Forestry Guideline K of the Yakataga Area plan.

Timber harvest within mapped moose and bear habitat

Throughout the substitute tract, DNR, with due deference to DFG, will identify acreage within mapped moose and bear habitat (mapped in the Yakataga Area Plan Fish and Wildlife Resource Atlas) on which timber harvest does not jeopardize the maintenance of important habitat. University timber harvest will be allowed on that acreage.

■ **General information**

See the table at the end of this unit.

Subunit 3d-5 - upper elevations east of Duktoth River

■ **Designation**

General uses (G)

■ **Management intent**

Allow general multiple uses. DNR will make timber in this unit available for university timber harvest in accordance with the December 1994 settlement agreement.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ **General information**

Most of this subunit is above 2,000 feet in elevation. Duktoth Mountain is 4,030 feet. Approximately half the subunit is glaciated.

Subunit 3d-6 - Duktoth River coastal lowlands

■ **Designation**

Forestry (F2)

■ **Management intent**

Maintain opportunities for forest management for sustained yield of timber. All activities will minimize significant adverse impacts to timber resources and production.

■ **Guidelines:**

Access Before issuing leases for commercial uses in the Duktoth River corridor, DNR will assess the recreation values along the river within one mile of the proposed lease, and select and reserve a public recreation site(s). The reserved site(s) will be noted on DNR's status plats. A plan amendment is not required for DNR to designate these sites. The intent is to reserve a series of high-quality public recreation sites along the river equal to any lease sites, so that public floating and camping opportunities remain excellent. DNR should identify and reserve access points, boat launches, airstrips, and commercial and sport fishing sites in order to ensure access to the river for recreation and fish and wildlife harvest.

Mineral leasehold location In the bed of the lower Duktoth River, new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that are essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the leasehold location areas.

■ **General information**

See the table at the end of this unit.

Subunit 3D - Duktoth River Corridor

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
3d-1 lower Duktoth River corridor	H1 RD1	<ul style="list-style-type: none"> ■ primarily immature cottonwood; some mature spruce and hemlock along slopes on western edge of unit ■ mountain goat winter habitat on some spurs on western edge of unit ■ high anadromous fish production ■ eagle nest sites in southern section ■ trumpeter swan nesting and brood rearing in southern section ■ bear summer/fall feeding concentration along river ■ marten habitat in dense timber ■ beaver concentration area east of Kulthieth Mountain ■ extensive winter moose habitat in southwestern unit ■ guided bear hunting in southern unit ■ boating on river ■ 2 airstrips 	
3d-1a timber tracts adjacent to the middle Duktoth River	F1	<ul style="list-style-type: none"> ■ mature spruce in northern units; mostly mature cottonwood in southern unit ■ beaver concentration areas - middle two tracts ■ high quality marten habitat 	<ul style="list-style-type: none"> ■ The university has one-time timber harvest rights within this subunit⁵
3d-2 western slopes of middle Duktoth River valley	F1	<ul style="list-style-type: none"> ■ mature hemlock and spruce large on mostly-steep slopes ■ mountain goat winter habitat on east-facing slopes ■ bear spring feeding concentration areas in northern part of unit ■ marten habitat throughout dense timber 	
3d-3 eastern slopes of middle Duktoth River valley	F1	<ul style="list-style-type: none"> ■ mature hemlock and spruce on slopes ■ mountain goat winter habitat areas on south and east facing slopes ■ bear spring feeding concentration areas in section 28 in southern unit ■ moose winter habitat in lower timber adjoining cottonwood areas ■ marten habitat throughout ■ land otter 	<ul style="list-style-type: none"> ■ The university has one-time timber harvest rights within this subunit⁵

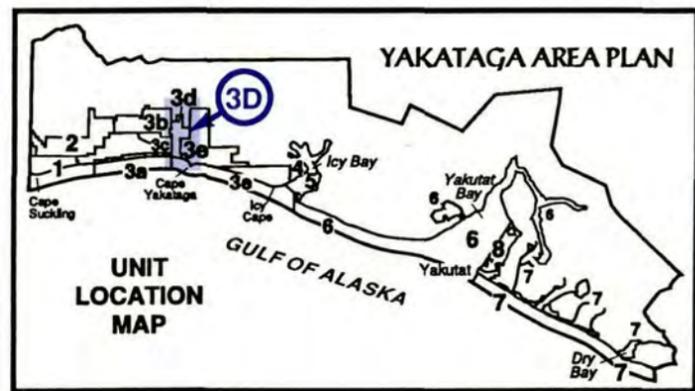
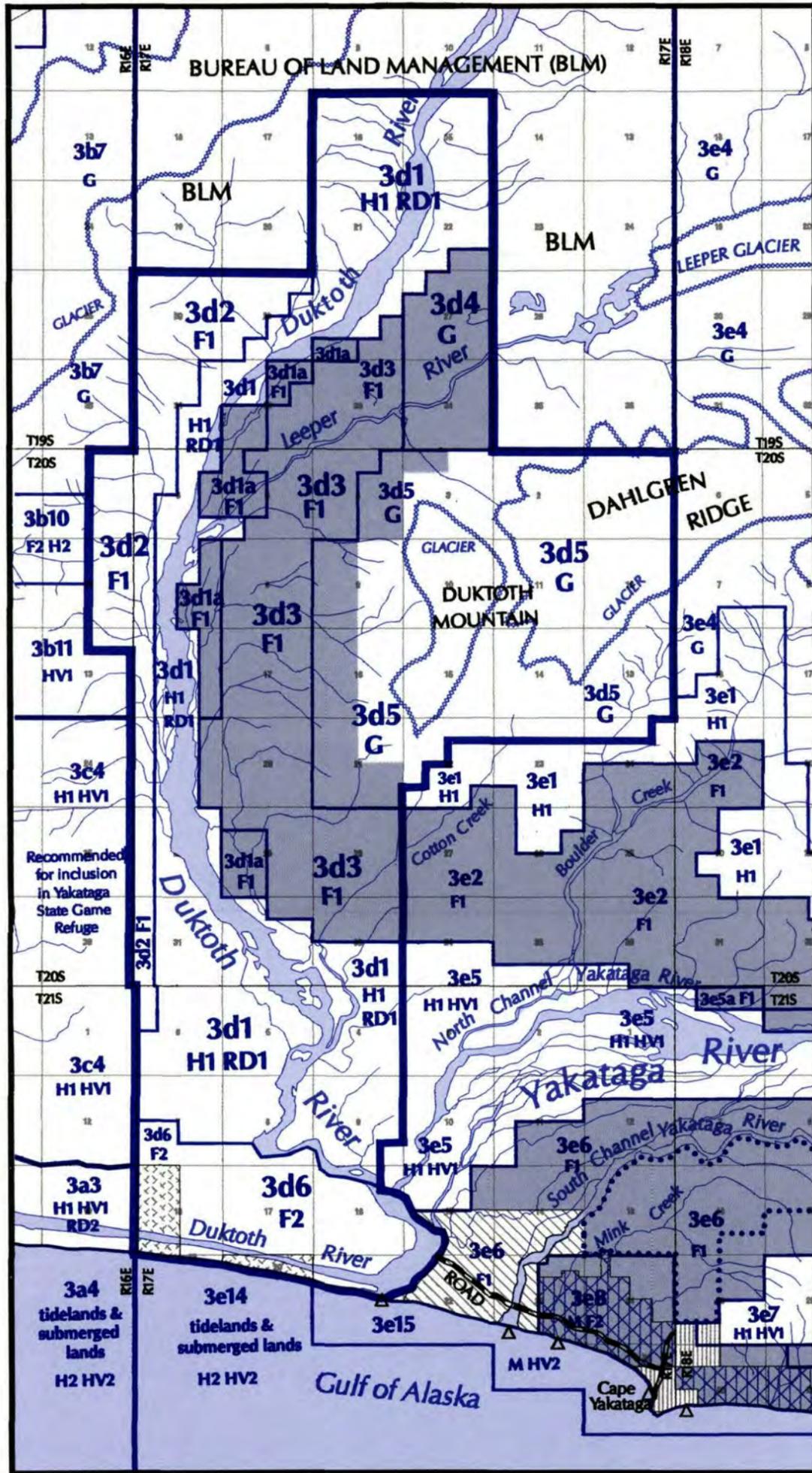
5 See Appendix C for history and terms of university timber rights under ADL 223456.

Subunit 3D - Duktoth River corridor, continued

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
3d-4 Leeper River	G	<ul style="list-style-type: none"> ■ mature cottonwood ■ anadromous fish stream ■ land otter ■ bear summer/fall feeding area along stream ■ recreation: climbers use Leeper Glacier as a route to mountains 	<ul style="list-style-type: none"> ■ The university has one-time timber harvest rights within this subunit.⁶
3d-5 upper elevations east of Duktoth River	G	<ul style="list-style-type: none"> ■ alpine area; fifty percent glaciated 	
3d-6 Duktoth River coastal lowlands	F2	<ul style="list-style-type: none"> ■ mature and immature spruce cover approx. half the acreage in this unit ■ bear spring feeding concentration areas, primarily along several small lakes ■ bear summer/fall concentrations within 1 mile of coast and along river ■ high anadromous fish productivity ■ guided hunting along river ■ harbor seal haulout concentration area ■ trumpeter swan nesting and brood rearing ■ eagle nest sites ■ trail access along coast 	<ul style="list-style-type: none"> ■ University owns approximately 500 acres in sections 18 and 20, T21S R17E on the coast.

⁶ See Appendix C for history and terms of university timber rights under ADL 223456.

Unit 3D Duktoth River corridor



April 1995



Unit 3D Duktototh River corridor

PLANNING UNITS

- management unit boundary
- subunit boundary and number

LAND STATUS

STATE OWNED: SUBJECT TO PLAN

- state owned - patented or tentatively approved
- state owned - University Timber Rights, substitute tract
- state owned - University Timber Rights, tract 20
- state selected & Federal mining claims

STATE OWNED BUT EXCLUDED FROM PLAN

- University owned

OTHER LAND OWNERSHIP

- Native owned - patented or interim conveyed
- LABELED federal (BLM)
- private, including Native Allotments

MAP FEATURES

- anadromous fish stream mouth
- road
- glacier margin

Unit 3D Duktototh River
Corridor

YAKATAGA AREA PLAN

Map 3.9

UNIT 3E**YAKATAGA AND
WHITE RIVERS****Background**

This unit encompasses the Yakataga and White River drainages. These drainages have the most accessible forest land from the existing road system.

Physical features

The dominant features near the coast are the reef at Cape Yakataga, which is the only promontory along sixty miles of coastline; and Brower Ridge, which rises over 2,000 feet less than one-half mile from the coast.

White River runs through a narrow valley. By contrast, the two main branches of Yakataga River and their tributaries fan out across bottomlands several miles wide.

South Channel Yakataga River and White River have extensive mature hemlock/spruce forests along their lengths. Between the North and South Channels of Yakataga River, mature hemlock and spruce stands are interspersed among muskeg meadows, riparian willow, and cottonwood stands.

Dahlgren Ridge and Leeper Glacier dominate the northern half of this unit. These are tundra or barren alpine areas over 1,000 feet in elevation. Cotton and Porcupine creeks, which drain south from Dahlgren Ridge, have extensive mature hemlock forest.

Access

The one-lane gravel haul road from Icy Bay currently ends six miles west of White River. From the end of the road, people drive the beach for several miles to reach Cape Yakataga. Chugach Alaska Corporation has applied to BLM for a right-of-way to extend the main haul road west to Cape Yakataga. Chugach Alaska Corporation and the university are also seeking rights-of-way on the existing roadway east across Mental Health Trust land and DNR land to the log transfer facility [ADL 105614 and 106064].

A road along the west bank of White River was upgraded in 1993-94 for the University's timber harvest. Historically, miners have used this road to reach claims along White River.

There is a limited road network in the vicinity of Cape Yakataga. Narrow lanes head west from the Cape to the unmaintained bridge at Duktoth River and east to mining claims and private residences.

The largest airstrip in the planning area is located one-quarter mile west of Cape Yakataga, between South Channel Yakataga River and Duktoth River. FAA built it in the 1960s as part of the now-closed White Alice communications site. Chugach Alaska Corporation owns the airstrip but BLM has retained the right to public access. There is another airstrip at White River. It was constructed by oil companies in the 1950s and is now used by miners and hunters.

Boaters on Duktoth River take out along the eastern shore near the mouth. The conditions for navigating the Yakataga and White rivers are unknown.

Land status

Chugach Alaska Corporation owns land between Mink Creek and Duktoth River. Along the White and Yakataga rivers and the nearby coastline there are about 185 state and 72 federal mining claims. Claims are concentrated in a narrow corridor along White River (T21S R19E) and along the beach between the mouth of Duktoth River (T21S R17E) and Munday Creek (T22S R20E). The state has selected the lands with federal claims, but will not gain title unless the federal claims are relinquished, abandoned, rejected, or converted to state claims.

YAKATAGA AREA PLAN

Under ADL 223456, the university has one-time timber cutting rights to White River Tract A-154 (approximately 3,300 acres north and west of White River), Yakataga Tract 20 (2,065 acres south of the South Channel Yakataga River), and the substitute tract (59,919 acres east of Duktoth River as mapped in the December 1994 settlement agreement). See Appendix C for history and terms of ADL 223456 and the 1994 settlement agreement.

Adjoining lands

The Bureau of Land Management manages the alpine and glaciated areas to the north and west. To the south and east, the Mental Health Trust owns 45,312 acres.

Resources and uses

Timber has been harvested near the coast in this unit. Approximately 40 percent of the unit's acreage is forested with mature hemlock and spruce, primarily in the White and Yakataga river drainages, and on the south-facing slopes of the coastal ridges and the Duktoth Mountain massif.

Since the turn of the century intermittent placer mining has yielded at least 15,000 ounces of gold from onshore and offshore strandline beach deposits. Most of that production occurred before World War II. In 1985-86 and 1988, two companies operated experimental spiral concentration plants and recovered gold and industrial grade garnet near Cape Yakataga and Icy Bay. An Australian company conducted a pilot project to extract placer gold with a centrifugal separation method on 120 upland acres of pre-existing claims just east of White River in 1993. Currently, small-scale placer miners are working the sands at the Cape and along White River.

The Division of Mining notes that there may be recoverable offshore placer deposits of fine gold, platinum, garnet and other industrial minerals from Duktoth River east toward Icy Cape. If the industry expresses interest, the Division may propose an offshore mineral lease sale.

The steep slopes within this unit historically supported a sizeable mountain goat population, which in turn supported guided hunting. Overhunting of goats led to closure of Brower Ridge to goat hunting in the early 1990s.

Approximately five to ten persons live at Cape Yakataga year-round. Cash employment is limited. Residents earn modest incomes from placer mining, caretaking federal facilities and mining claims, a bed-and-board enterprise, and crafts. Subsistence hunting and fishing are important food sources.

Management considerations

The mountain goat population from White River east to Icy Bay has declined by 80 percent (from approximately 398-410 in 1977 to 85 in 1992). West of White River to the Yakataga rivers, the goat population has declined nearly 70 percent. There are no local studies to confirm the causes of the declines. Possible causes include: timber harvest within goat habitat, disturbance from human and vehicle presence associated with logging, hunting (both illegal hunting and excessive harvest under state regulations), climatic cycles, predator cycles, parasites, or disease.

The steep mountains along the shore funnel migratory birds following the Pacific flyway. Important resting and feeding areas for various migratory species are not well-documented in this area.

Other than the university timber harvest under ADL 223456, DNR will not make state timber available for sale or harvest within this management unit until at least December 2014.¹ In addition, before future state timber offerings, DNR must revise the Yakataga Area Plan, including re-examination of land classifications and land use designations. The annual allowable cut for state land must also be re-calculated after the plan is revised.

¹ See Appendix C for the history and terms of the December 1994 settlement.

Unit 3E - Yakataga and White Rivers resource allocation summary

Forestry

Availability. This plan designates nearly all the forested lands in Unit 3E for forestry because this timber has some of the highest commercial potential in the area. A few timber stands on Brower Ridge and the braided North Channel of Yakataga River are not within forestry designations.

Under the 1994 settlement agreement regarding the university timber litigation, the university has rights to most of the commercial timber in this unit. The university is likely to harvest extensively in the next twenty years. There will be no state timber sales or harvests other than those authorized by the 1994 settlement until at least December 2014.

Access. The mature forest forms contiguous tracts and is relatively accessible from the current road system and LTF.

Fish and wildlife harvest

Availability. Road construction and timber operations may increase the number of hunters and disperse them into areas currently used only for guided bear, moose, and goat hunting. Availability of game may be affected by habitat alteration (logging) or increased human presence.

Access. Logging roads and bridges will increase overland access, and may create new opportunities to float the rivers.

Character. Guided hunting may decline in value due to competition for game and changes in the overall trip experience. Vehicle access may replace the tradition of flying or boating into a wild area. The landscape will have more human alterations.

Tidelands and submerged lands. There are several commercial set net sites near Icy Cape. The tidelands at these sites are designated for fish and wildlife harvest (HV1). There is no record of intensive fishing in the nearshore area from Cape Yakataga to White River that is designated for minerals development.

Fish and wildlife habitat

Diverse habitat. Habitat designations and guidelines in this unit provide protection for three distinct types of habitat: riparian cottonwood valley along the North Channel Yakataga River; alpine areas and high-elevation forested slopes; and mature spruce-hemlock forest in the Clear Creek drainage. Some of the valley and alpine habitat is designated to remain habitat. The Clear Creek Valley will be the last area that the university harvests, so that some inland valley habitat will remain undisturbed. These three primary habitat areas will balance the forestry designations in adjoining units.

Goat habitat. The primary protection for mountain goat habitat in this unit will be this plan's areawide guidelines. On the substitute tract, the university is exempt from certain area plan restrictions within ¼ mile of goat winter habitat, under terms of the settlement agreement.

Tidelands and submerged lands. Tidelands and submerged lands near the Big Sandy and Priest river mouths are designated H1 HV1 for protection of anadromous fishes and other species that congregate because of the fishery. Most other tidelands and submerged lands within the three-mile limit are designated H2 HV2 because there is no data to indicate critical habitat. There is little information on marine habitat (and no known critical habitat) in the nearshore area that is designated for minerals development (subunit 3e-15).

Unit 3E - Yakataga and White Rivers resource allocation summary

Minerals development

The coastal area east of Duktoth River has been designated for minerals development. This includes the nearshore tidelands, and the uplifted beach terraces parallel to shore that have federal mining claims. The uplands are jointly designated for forestry and mining because both uses involve timber harvest.

Access. DNR intends to ensure that there is a responsible party to maintain the roads in order to avoid state maintenance costs.

Recreation and tourism

Availability. Road-based recreation will become possible with the development of forestry and mining roads. However, recreational use of the road system will probably be low. Road-based recreation will be limited by the expense and logistics of hauling vehicles to the area. Timber and mining operations may limit the recreation use also. Extension of roads may create new opportunities to float the rivers. Recreation and tourism in the area is currently low: mostly beachcombing, wildlife viewing, and hiking along the beaches near the settlement.

Character. The emphasis on forestry and mining in this unit will probably impact current back-country primitive recreation opportunities. Truck traffic, timber harvest, and mining may diminish aesthetic values for recreation.

Settlement

The area plan did not designate settlement lands in this unit for several reasons:

- if a demand for land sales materializes, the best settlement lands are owned by the University, Chugach Alaska Corporation, and other private landowners;
- settlement of such a remote area may incur high per capita service costs to the state, and;
- retaining lands in state ownership serves DNR's priority for forestry management in this unit. A large contiguous timber base is more efficient to manage than a patchwork timber holding, and it avoids the conflicts that occur between settlement and forestry.

Transportation

Road right-of-way. The area plan commits DNR to reserve and/or obtain a public right-of-way parallel to the coast on all non-DNR lands between the Icy Cape LTF and Duktoth River. On Mental Health Trust Lands, DNR must obtain right-of-way approval from the Trust Authority. This would establish a primary overland transportation link for resource transfer.

Airstrip. The Cape Yakataga airstrip is owned by Chugach Alaska Corporation with an easement for public use.

Waterfront development

The area plan does not identify this exposed high energy coast for waterfront development for several reasons:

- hazards from winds, ocean waves, and storm surges;
- dynamic shoreline processes such as erosion, deposition, and tectonic avulsion; and
- the greater efficiency of using existing roads and the Icy Bay resource transfer facility.

Other resources

DNR selected part of subunit 3e-12 and subunit 3e-13 for oil and gas potential. These units are designated for general uses.

Subunit 3e-1 - Boulder and Porcupine creeks mid-elevation slopes

■ Designation

Habitat (H1)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly bear and mountain goat habitat. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to these habitat resources.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

See the table at the end of this unit.

Subunit 3e-2 - Boulder and Porcupine creeks

■ Designation

Forestry (F1)

■ Management intent

Promote forest management for sustained yield of timber. All activities, to the extent feasible and prudent, will avoid significant adverse impacts to timber resources and production.

■ Guidelines:

Conditional harvest within 100-300 feet of mapped anadromous streams

On mapped anadromous streams in the substitute and Yakataga tracts, DNR, with due deference to DFG, will identify acreage within 100 to 300 feet of the streams where timber harvest does not jeopardize the maintenance of important fish and wildlife habitat. University timber harvest will be allowed on that acreage. DNR, with due deference to DFG, will limit buffers and special management areas on anadromous streams in the substitute and Yakataga tracts to a maximum of 300 feet from each bank.

No-harvest riparian buffers on yet-to-be identified anadromous streams

On yet-to-be identified anadromous streams within the substitute tract, DNR, with due deference to DFG, will limit no-harvest buffers to 100 feet from each bank.

No-harvest riparian buffer on certain anadromous streams

Within this subunit, timber harvest is prohibited within 300 feet of each bank of North Channel Yakataga River pursuant to the December 1994 settlement agreement, in order to protect important bear or anadromous fish habitat. (See Map 3.12 at the end of Unit 3E.)

Timber harvest within mapped moose and bear habitat

Throughout the substitute tract, DNR, with due deference to DFG, will identify acreage within mapped moose and bear habitat (mapped in the Yakataga Area Plan Fish and Wildlife Resources atlas) on which timber harvest does not jeopardize the maintenance of important habitat. University timber harvest will be allowed on that acreage.

Mineral leasehold location

In the bed of Cotton Creek along reaches that support anadromous fish, new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that are essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the leasehold location areas.

■ **General information**

Approximately 80 percent of this unit has mature spruce or hemlock/spruce. Moose winter in the lower reaches of Boulder Creek and Porcupine Creeks, which have immature cottonwood and riparian willow.

The university has one-time timber harvest rights within this subunit under ADL 223456 and the December 1994 settlement agreement.

Subunit 3e-3 - unnamed saddle east of Porcupine Creek

■ **Designation**

Habitat (H1)

■ **Management intent**

Protect or enhance fish and wildlife habitat, particularly bear spring feeding habitat. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to spring feeding habitat.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ **General information**

See the table at the end of this unit.

Subunit 3e-4 - Dahlgren Ridge high alpine areas

■ **Designation**

General uses (G)

■ **Management intent**

Allow general multiple uses. DNR will make timber in this unit available for university timber harvest in accordance with the December 1994 settlement agreement.

■ **Guidelines:**

Conditional harvest within 100-300 feet of mapped anadromous streams

On mapped anadromous streams in the substitute and Yakataga tracts, DNR, with due deference to DFG, will identify acreage within 100 to 300 feet of the streams where timber harvest does not jeopardize the maintenance of important fish and wildlife habitat. University timber harvest will be allowed on that acreage. DNR, with due deference to DFG, will limit buffers and special management areas on anadromous streams in the substitute and Yakataga tracts to a maximum of 300 feet from each bank.

No-harvest riparian buffers on yet-to-be identified anadromous streams

On yet-to-be identified anadromous streams within the substitute tract, DNR, with due deference to DFG, will limit no-harvest buffers to 100 feet from each bank.

Timber harvest within mapped moose and bear habitat

Throughout the substitute tract, DNR, with due deference to DFG, will identify acreage within mapped moose and bear habitat (mapped in the Yakataga Area Plan Fish and Wildlife Resources atlas) on which timber harvest does not jeopardize the maintenance of important habitat. University timber harvest will be allowed on that acreage.

■ General information

This subunit is mostly above 2,000 feet in elevation, with glaciers covering nearly half the acreage.

The university has one-timber harvest rights within this subunit under ADL 223456 and the December 1994 settlement agreement.

Subunit 3e-5 - North Channel Yakataga River

■ Designation

Habitat and harvest (H1, HV1)

■ Management intent

Protect or enhance fish and wildlife habitat and harvest, particularly bear, moose, and anadromous fish habitat, and bear harvest. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources and harvest activities listed above.

■ Guidelines:

- | | |
|---|---|
| Access | Access, including road construction, is specifically allowed in this unit to provide access to state, federal, and private lands. |
| No-harvest riparian buffer on certain anadromous streams | Within this subunit, timber harvest is prohibited within 300 feet of each bank of North Channel Yakataga River pursuant to the December 1994 settlement agreement, in order to protect important bear or anadromous fish habitat. (See Map 3.12 at the end of Unit 3E.) |
| Applicability of forestry guidelines to other uses | Specific guidelines to protect or enhance fish and wildlife habitat and harvest and recreation opportunities for the Yakataga River corridor will be determined during the FLUP process on ACMP review of the university's Annual Operating Plan. ² DNR will consider applying AOP or FLUP guidelines and Chapter 2 Forestry guidelines to uses <i>other than forestry</i> , for protection of habitat and recreation. |
| Glacial outburst flooding | DNR should advise applicants of the potential for glacial-outburst flooding along all channels of Yakataga River. Avoid construction or storage in potential flood areas where practical. Structures placed along the river should be engineered to withstand stream erosion, deposition, and severe flooding. |

■ General information

The lowlands of the North Channel Yakataga River have numerous braided stream channels among mature and immature cottonwood and willow stands. Camping occurs near the confluence of Porcupine and Boulder creeks.

² The university's Annual Operating Plan may include access through this subunit even though the university does not own timber here.

The Yakataga Glacier impounds a lake which has the potential to burst free as the glacier moves or changes. Outburst floods have not been documented in this area, so the frequency and severity of outburst flooding is unknown.

Subunit 3e-5a - timber tracts adjacent to North Channel Yakataga River

■ Designation

Forestry (F1)³

■ Management Intent

Promote forest management for sustained yield of timber. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to timber resources.

■ Guidelines:

- | | |
|---|--|
| Conditional harvest within 100-300 feet of mapped anadromous streams | On mapped anadromous streams in the substitute and Yakataga tracts, DNR, with due deference to DFG, will identify acreage within 100 to 300 feet of the streams where timber harvest does not jeopardize the maintenance of important fish and wildlife habitat. University timber harvest will be allowed on that acreage. DNR, with due deference to DFG, will limit buffers and special management areas on anadromous streams in the substitute and Yakataga tracts to a maximum of 300 feet from each bank. |
| No-harvest riparian buffers on yet-to-be identified anadromous streams | On yet-to-be identified anadromous streams within the substitute tract, DNR, with due deference to DFG, will limit no-harvest buffers to 100 feet from each bank. |
| Timber harvest within mapped moose and bear habitat | Throughout the substitute tract, DNR, with due deference to DFG, will identify acreage within mapped moose and bear habitat (mapped in the Yakataga Area Plan Fish and Wildlife Resources atlas) on which timber harvest does not jeopardize the maintenance of important habitat. University timber harvest will be allowed on that acreage. |
| No-harvest riparian buffer on certain anadromous streams | Within this subunit, timber harvest is prohibited within 300 feet of each bank of North Channel Yakataga River and specified tributaries as mapped in the December 1994 settlement agreement in order to protect important bear or anadromous fish habitat. (See Map 3.12 at the end of Unit 3E.) |

■ General Information

These subunits were withdrawn from subunit 3e-5 and designated for Forestry (F1) in accordance with the December 1994 settlement agreement.

The university has one-time timber harvest rights within this subunit under ADL 223456 and the December 1994 settlement agreement.

The Yakataga Glacier impounds a lake which has the potential to burst free as the glacier moves or changes. Outburst floods have not been documented in this area, so the frequency and severity of outburst flooding is unknown.

³ In accordance with December 1994 Settlement Agreement, DNR will classify this subunit for forestry.

Subunit 3e-6 - South Channel Yakataga River

■ Designation

Forestry (F1)

■ Management intent

Promote forest management for sustained yield of timber. All activities will avoid significant adverse impacts to timber resources and production.

■ Guidelines:

- | | |
|---|--|
| Applicability of forestry guidelines to other uses | Specific forestry guidelines to maintain fish and wildlife habitat and harvest and recreation opportunities for Yakataga River corridor will be determined during the FLUP or AOP process. DNR will consider applying AOP or FLUP guidelines and Chapter 2 forestry guidelines to uses <i>other than forestry</i> , for protection of habitat and recreation. |
| Conditional harvest within 100-300 feet of mapped anadromous streams | On mapped anadromous streams in the substitute and Yakataga tracts, DNR, with due deference to DFG, will identify acreage within 100 to 300 feet of the streams where timber harvest does not jeopardize the maintenance of important fish and wildlife habitat. University timber harvest will be allowed on that acreage. DNR, with due deference to DFG, will limit buffers and special management areas on anadromous streams in the substitute and Yakataga tracts to a maximum of 300 feet from each bank. |
| No-harvest riparian buffers on yet-to-be identified anadromous streams | On yet-to-be identified anadromous streams within the substitute tract, DNR, with due deference to DFG, will limit no-harvest buffers to 100 feet from each bank. |
| No-harvest riparian buffer on certain anadromous streams | Within this subunit, timber harvest is prohibited within 300 feet of each bank of North Channel Yakataga River pursuant to the December 1994 settlement agreement, in order to protect important bear or anadromous fish habitat. (See Map 3.12 at the end of Unit 3E.) |
| Timber harvest within mapped moose and bear habitat | Throughout the substitute tract, DNR, with due deference to DFG, will identify acreage within mapped moose and bear habitat (mapped in the Yakataga Area Plan Fish and Wildlife Resources atlas) on which timber harvest does not jeopardize the maintenance of important habitat. University timber harvest will be allowed on that acreage. |
| Glacial outburst flooding | DNR should advise applicants of the potential for glacial-outburst flooding along all channels of Yakataga River. Avoid construction or storage in potential flood areas where practical. Structures placed along the river should be engineered to withstand stream erosion, deposition, and severe flooding. |

■ General information

The Yakataga Glacier impounds a lake which has the potential to burst free as the glacier moves or changes. Outburst floods have not been documented in this area, so the frequency and severity of outburst flooding is unknown.

The University has one-time timber harvest rights within this subunit under Amendment 4 of ADL 223456 signed by the DNR Commissioner on June 6, 1995.

Subunit 3e-7 - upper Brower Ridge

■ Designation

Habitat and harvest (H1, HV1)

■ Management Intent

Protect or enhance conditions for fish and wildlife habitat and harvest, particularly bear and mountain goat habitat and hunting. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources and harvest activities listed above. The method for restoring and enhancing goat hunting opportunities will be to protect and enhance habitat conditions, thereby producing a larger population that can sustain hunting.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

West of White River, over-harvest of mountain goats occurred in six of fifteen years from 1975 to 1990. Brower Ridge has been closed to goat hunting since 1992 so that depleted goat populations can rebuild.

Subunit 3e-8 - Cape Yakataga; beach terraces between Cape Yakataga and White River

■ Designation

Minerals development and forestry (M, F2)

■ Management intent

Promote minerals exploration and development.

Maintain opportunities for forest management for timber production for sustained yield consistent with minerals exploration and development. All activities will minimize significant adverse impacts to timber resources and production.

DNR will reserve a public road right-of-way across state lands in this unit to connect the Cape Yakataga road and trail system with the main haul road to Icy Bay.

■ Guidelines:

Classifying reverted mining claims	If mining tracts become state-owned, DNR may classify them for minerals or forestry without amendment of this plan.
Commercial recreation leasing	Commercial recreation leasing under 38.05.073 will not be allowed because large-scale or long-term recreation development may compete with minerals and forestry development.
Glacier outburst flooding	DNR should advise applicants of the potential for glacial-outburst flooding along all channels of Yakataga River. Avoid construction or storage in potential flood areas where practical. Structures placed along the river should be engineered to withstand stream erosion, deposition, and severe flooding.

Conditional harvest within 100-300 feet of mapped anadromous streams

On mapped anadromous streams in the substitute and Yakataga tracts, DNR, with due deference to DFG, will identify acreage within 100 to 300 feet of the streams where timber harvest does not jeopardize the maintenance of important fish and wildlife habitat. University timber harvest will be allowed on that acreage. DNR, with due deference to DFG, will limit buffers and special management areas on anadromous streams in the substitute and Yakataga tracts to a maximum of 300 feet from each bank.

No-harvest riparian buffers on yet-to-be identified anadromous streams

On yet-to-be identified anadromous streams within the substitute tract, DNR, with due deference to DFG, will limit no-harvest buffers to 100 feet from each bank.

Timber harvest within mapped moose and bear habitat

Throughout the substitute tract, DNR, with due deference to DFG, will identify acreage within mapped moose and bear habitat (mapped in the Yakataga Area Plan Fish and Wildlife Resources Atlas) on which timber harvest does not jeopardize the maintenance of important habitat. University timber harvest will be allowed on that acreage.

■ General information

Timber is interspersed with dunes and muskeg throughout this subunit. The ocean is eroding a beach-front terrace with immature timber (80- to 100-years-old). On the inland side of the terrace, a band of wetlands and muskeg extends parallel to the shoreline. Farther inland, where former beach terraces have been uplifted by 40 to 50 feet above current sea level, there is mature timber (120-to 300-years old).

Approximately one-third of the commercial timber in Unit 3e-8 was harvested under the Icy Cape 2 Extension sale. Approximately 60 percent (361 acres) of the extension area was selectively harvested in an informal experiment to study the effects of selective harvesting. Uncut areas larger than one-quarter mile were left between the cutting units. Cutting units ranged from 11 to 120 acres in size. A buffer at least ¼ mile wide was designed for the west side of White River and a 600-foot buffer was designed for the east side. Portions of the east buffer were cut because of improper or non-existent flagging. Portions of the west buffer were cut during the university's harvest operations in return for timber leave areas along tributary drainages to serve as wildlife travel corridors to the alpine areas.

The University has one-time timber harvest rights within this subunit under ADL 223456 and the December 1994 settlement agreement.

The Yakataga Glacier impounds a lake which has the potential to burst free as the glacier moves or changes. Outburst floods have not been documented in this area, so the frequency and severity of outburst flooding is unknown.

Placer gold has been concentrated by onshore coastal currents. The gold is believed to be from ancient marine-glacial deposits that may in turn be partly derived from mineralized rock from the St. Elias Range. Forested ridges at the foot of the mountains (uplifted former beach terraces) may contain placer gold and other heavy minerals such as magnetite, ilmenite, and zircon. Zircon drew new interest in 1992 when an Australian company analyzed samples and found them to be non-radioactive, unlike most zircon.

Most of the mining claims along the coast are federal claims. There are several state claims just west of Cape Yakataga that were being converted to leasehold in 1994.

Local residents have expressed interest in state land for settlement. However, the best settlement lands (near the airstrip, roads, and closed communications facilities) are private or have federal mining claims. University land, Chugach Alaska land, and other private holdings are better located for settlement than state land, if demand for land materializes. Settlement of such a remote area will incur high per capita service costs to the state and is therefore not in the state's best interest.

There are several structures on state land, some of which are occupied without authorization.

The local residents rely on subsistence hunting to supplement the limited opportunities in the cash economy.

Recreation and tourism includes beachcombing and wildlife viewing. There is extensive mountain goat winter habitat on slopes east of White River. Previous timber harvests have retained timber above the 400-foot elevation for mountain goat winter habitat. There are bear feeding concentration areas in the western unit in the roaded areas.

Subunit 3e-9 - lower south side of Brower Ridge, and White River

■ Designation

Forestry (F1)

■ Management Intent

Promote forest management for sustained yield of timber. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to timber resources and production.

■ Guidelines:

Glacial outburst flooding

DNR should advise applicants of the potential for glacial-outburst flooding along all channels of Yakataga River. Avoid construction or storage in potential flood areas where practical. Structures placed along the river should be engineered to withstand stream erosion, deposition, and severe flooding.

Conditional harvest within 100-300 feet of mapped anadromous streams

On mapped anadromous streams in the substitute and Yakataga tracts, DNR, with due deference to DFG, will identify acreage within 100 to 300 feet of the streams where timber harvest does not jeopardize the maintenance of important fish and wildlife habitat. University timber harvest will be allowed on that acreage. DNR, with due deference to DFG, will limit buffers and special management areas on anadromous streams in the substitute and Yakataga tracts to a maximum of 300 feet from each bank.

No-harvest riparian buffers on yet-to-be identified anadromous streams

On yet-to-be identified anadromous streams within the substitute tract, DNR, with due deference to DFG, will limit no-harvest buffers to 100 feet from each bank.

Timber harvest within mapped moose and bear habitat

Throughout the substitute tract, DNR, with due deference to DFG, will identify acreage within mapped moose and bear habitat (mapped in the Yakataga Area Plan Fish and Wildlife Resources Atlas) on which timber harvest does not jeopardize the maintenance of important habitat. University timber harvest will be allowed on that acreage.

■ General information

The Yakataga Glacier impounds a lake which has the potential to burst free as the glacier moves or changes. Outburst floods have not been documented in this area, so the frequency and severity of outburst flooding is unknown.



Log picker on road west of Icy Cape log transfer facility

Timber was harvested along the main haul road between White River and Two-mile Creek under the Icy Cape 2 Extension Sale (1989-1993). Both clearcut and selective harvest were used to promote natural regeneration and biodiversity. Harvest units are separated by leave areas. Average harvest unit size was 88 acres, and approximately 50 percent of the available timber was left as habitat until a later entry.

The university has one-time timber harvest rights within this subunit under ADL 223456 and the December 1994 settlement agreement.

The university's timber harvest plan must meet the sustained yield mandate of the Alaska Constitution and must receive a coastal consistency determination under the Alaska Coastal Management Program. In lieu of a Forest Land Use Plan (FLUP), DOF will provide appropriate stipulations and guidelines during ACMP review of the university's Annual Operating Plans for White River.

Under their initial Annual Operating Plan (1994), the University will leave several no-cut corridors for wildlife habitat extending uphill along tributary creeks from White River to the unharvested higher slopes. Numerous areas will be partially cut using shovel logging. This includes the ¼-mile-wide conditional harvest buffer along White River.

Subunit 3e-10 - Crooked Creek headwall ridge

■ Designation

Habitat (H1)

■ Management intent

Protect or enhance wildlife habitat, particularly mountain goat winter habitat. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to goat winter habitat.

■ Guidelines: None. There are no guidelines specific to this subunit.

■ General information

See the table at the end of this unit.

Subunit 3e-11 - Clear Creek and Yakataga Ridge

■ Designation

Forestry (F1)

■ Management intent

Promote forest management for sustained yield of timber. All activities will avoid significant adverse impacts to timber resources and production.

The university may harvest timber in subunit 3e-11 only after it has completed harvest in all other subunits and only if it has not yet reached a threshold volume of timber set by the December 1994 settlement agreement.⁴

The delay in timber harvest is intended to allow DFG and DNR to determine the importance of interior watersheds as wildlife refugia, and to improve their understanding of the interaction of timber harvest and wildlife habitat in the Yakataga area.

Studies of the impacts of timber harvest on fish and wildlife habitat will help to determine management of remaining state timber lands in the planning area after the university's harvest.

■ Guidelines:

Commercial recreation leasing not allowed

DNR will not issue commercial recreation leases in this subunit in order to preserve an undisturbed ecosystem for the study of fish and wildlife and their habitat. DNR may authorize commercial recreation permits (for less than one year) if the permitted activities would not interfere with the potential to study fish and wildlife and their habitat in an undisturbed condition.

Conditional harvest within 100-300 feet of mapped anadromous streams

On mapped anadromous streams in the substitute and Yakataga tracts, DNR, with due deference to DFG, will identify acreage within 100 to 300 feet of the streams where timber harvest does not jeopardize the maintenance of important fish and wildlife habitat. University timber harvest will be allowed on that acreage. DNR, with due deference to DFG, will limit buffers and special management areas on anadromous streams in the substitute and Yakataga tracts to a maximum of 300 feet from each bank.

No-harvest riparian buffers on yet-to-be identified anadromous streams

On yet-to-be identified anadromous streams within the substitute tract, DNR, with due deference to DFG, will limit no-harvest buffers to 100 feet from each bank.

Timber harvest within mapped moose and bear habitat

Throughout the substitute tract, DNR, with due deference to DFG, will identify acreage within mapped moose and bear habitat (mapped in the Yakataga Area Plan Fish and Wildlife Resources atlas) on which timber harvest does not jeopardize the maintenance of important habitat. University timber harvest will be allowed on that acreage.

⁴ Provided the University has harvested 230 million board feet by conventional methods from the substitute tract, the university may harvest timber within subunit 3e-11 only if *the combined volume* of the substitute timber *made available* to the university for harvest by conventional methods under Section 12(a) of the settlement agreement, plus the timber *actually harvested* by *non-conventional methods* such as helicopter logging, is *less than 265 million board feet*. In this instance, the University may harvest within subunit 3e-11 until it has harvested a combined total of 265 million board feet from all methods from the substitute tract.

Avoid timber harvest and roads within 300 feet of Clear Creek

If harvest in Unit 3e-11 is required to meet the university timber rights under the settlement agreement, it is the intent of the university to avoid harvest within 300 feet of Clear Creek except where DNR, with due deference to DFG, determines that timber harvest does not jeopardize the maintenance of important fish and wildlife habitat, or where topographical constraints require roads to be constructed within 100 to 300 feet of the stream. This guideline is in accordance with the December 1994 settlement agreement.

■ **General information**

Sections 18 and 19 in the eastern-most part of the unit are state-selected.

Future wildlife studies in this unharvested watershed are recommended to allow DNR and DFG to compare habitat productivity in logged and unlogged areas (see Chapter 4, Recommendations).

The university has one-time timber harvest rights within this subunit under ADL 223456 and the December 1994 settlement agreement.

Subunit 3e-12 - lower Yakataga Glacier

■ **Designation**

General uses (G)

■ **Management intent**

Allow general multiple uses. DNR will make timber in this unit available for university timber harvest in accordance with the December 1994 settlement agreement.

■ **Guidelines:**

Conditional harvest within 100-300 feet of mapped anadromous streams

On mapped anadromous streams in the substitute and Yakataga tracts, DNR, with due deference to DFG, will identify acreage within 100 to 300 feet of the streams where timber harvest does not jeopardize the maintenance of important fish and wildlife habitat. University timber harvest will be allowed on that acreage. DNR, with due deference to DFG, will limit buffers and special management areas on anadromous streams in the substitute and Yakataga tracts to a maximum of 300 feet from each bank.

No-harvest riparian buffers on yet-to-be identified anadromous streams

On yet-to-be identified anadromous streams within the substitute tract, DNR, with due deference to DFG, will limit no-harvest buffers to 100 feet from each bank.

Timber harvest within mapped moose and bear habitat

Throughout the substitute tract, DNR, with due deference to DFG, will identify acreage within mapped moose and bear habitat (mapped in the Yakataga Area Plan Fish and Wildlife Resources atlas) on which timber harvest does not jeopardize the maintenance of important habitat. University timber harvest will be allowed on that acreage.

■ **General information**

Sections 4-9 of Township 21 South, Range 20 East were selected for oil and gas potential.

The university has one-time timber harvest rights within this subunit under ADL 223456 and the December 1994 settlement agreement.

Subunit 3e-13 - White River Glacier and nameless ridges

■ Designation

General uses (G)

■ Management intent

Allow general multiple uses. DNR will make timber in this unit available for university timber harvest in accordance with the December 1994 settlement agreement.

■ Guidelines:

Conditional harvest within 100-300 feet of mapped anadromous streams

On mapped anadromous streams in the substitute and Yakataga tracts, DNR, with due deference to DFG, will identify acreage within 100 to 300 feet of the streams where timber harvest does not jeopardize the maintenance of important fish and wildlife habitat. University timber harvest will be allowed on that acreage. DNR, with due deference to DFG, will limit buffers and special management areas on anadromous streams in the substitute and Yakataga tracts to a maximum of 300 feet from each bank.

No-harvest riparian buffers on yet-to-be identified anadromous streams

On yet-to-be identified anadromous streams within the substitute tract, DNR, with due deference to DFG, will limit no-harvest buffers to 100 feet from each bank.

Timber harvest within mapped moose and bear habitat

Throughout the substitute tract, DNR, with due deference to DFG, will identify acreage within mapped moose and bear habitat (mapped in the Yakataga Area Plan Fish and Wildlife Resources atlas) on which timber harvest does not jeopardize the maintenance of important habitat. University timber harvest will be allowed on that acreage.

■ General Information

Sections 32-36 of Township 21 South, Range 20 East were selected for oil and gas potential.

The university has one-time timber harvest rights within this subunit under ADL 223456 and the December 1994 settlement agreement.

This area lies outside DOF's previous timber inventory area so there is no field information on vegetation or habitat types. Elevations and contours indicate this subunit is probably alpine and alder slopes.

Subunit 3e-14 - tidelands and submerged lands between Duktoth River and Icy Cape - most areas

■ Designation

Habitat and harvest (H2, HV2)

■ Management intent

Maintain fish and wildlife habitat. Maintain conditions for fish and wildlife harvest. All activities will minimize significant adverse impacts to habitat resources and harvest activities.

■ Guidelines: None. There are no guidelines specific to this subunit.

■ General information

See the table at the end of this unit.

Subunit 3e-15 - tidelands and submerged lands in Cape Yakataga vicinity

■ Designation

Minerals development (M)

■ Management Intent

Promote minerals exploration and development.

Because the mountain topography and the reef appear to draw wildlife into concentrated areas at the Cape, DNR may need to acquire more specific information about habitat conditions, particularly for marine mammals and migrating birds, to consider when authorizing uses.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

State mining claims may extend 1/4 mile seaward from mean high water. Where the beach has eroded since the time of staking, claims may extend farther seaward.

Much of the placer gold on the beaches in Subunit 3e-14 is derived from the Yakataga Formation which also underlies much of the adjacent continental shelf. The potential for finding auriferous submarine beach or relict nearshore deposits is high. Evidence suggests that gold is being lost from beaches to the offshore area. Therefore, gold may be concentrated in favorable nearshore locations. Sand concentrates of heavy minerals (often referred to as "ruby sand" because of their reddish color) occur as relatively thin layers on the modern beach near the high-tide line and behind storm berms. They commonly have a high garnet, magnetite (iron oxide) and ilmenite (ore of titanium) content and generally contain trace amounts of rutile, zircon, and chromite, as well as fine gold. Minor amounts of platinum have been recovered from beach placers. The highest-value mineralized area for gold beach placers extends 18 miles from just west of Cape Yakataga to Independence Creek on the west side of Icy Bay.

DNR currently does not issue offshore prospecting permits. However, DNR has retained previous applications that were filed before January 1983 when the offshore prospecting regulations (11 AAC 86.500-575) were amended. These pending applications have a preference right to any future offshore prospecting permits that DNR might issue.

The exact location of seabird nesting colonies at Cape Yakataga is unknown. The proximity of steep mountain ridges to the shore in this region may funnel migratory birds into a narrow migration route.

Sea otters seek the shelter of the reef at Cape Yakataga as this is the only promontory along a 75-mile stretch of beach. Sea lions haul out at Cape Yakataga during seasonal migrations.

Subunit 3e-16 - tidelands and submerged lands at Big River

■ Designation

Harvest (HV1)

■ Management Intent

Protect or enhance conditions for fish and wildlife harvest, particularly for set net salmon fishing and community waterfowl harvest. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the harvest activities listed above.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ **General information**

See the table at the end of this unit.

Subunit 3e-17 - tidelands and submerged lands at Priest River

■ **Designation**

Habitat and harvest (H1, HV1)

■ **Management intent**

Protect or enhance conditions for fish and wildlife habitat and harvest, particularly for sea otter habitat, set net salmon fishing, and waterfowl hunting. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources and harvest activities listed above.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ **General Information**

Surfers are discovering the good breakers and scenery along this coastline.

Unit 3E - Yakataga and White Rivers

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
3e-1 Boulder & Porcupine creeks mid- elevation slopes	H1	<ul style="list-style-type: none"> ■ mostly alpine: non-forest ■ bear spring feeding concentration areas (alders and avalanche slopes) ■ mountain goat winter habitat on lower southeastern slopes 	
3e-2 Boulder & Porcupine creeks	F1	<ul style="list-style-type: none"> ■ mature spruce in lowlands; mature hemlock/spruce on steep slopes ■ marten habitat throughout ■ mountain goat winter habitat ■ bear feeding concentration area in lower Porcupine Creek ■ moose wintering in lower Porcupine Creek 	<ul style="list-style-type: none"> ■ The university has one-time timber harvest rights within this subunit.⁵
3e-3 unnamed saddle east of Porcupine Creek	H1	<ul style="list-style-type: none"> ■ alpine: non-forested ■ bear spring feeding concentration areas (alders and avalanche slopes) 	<ul style="list-style-type: none"> ■ The university has one-time timber harvest rights within this subunit.⁵
3e-4 Dahlgren Ridge high alpine areas	G	<ul style="list-style-type: none"> ■ alpine tundra and rock ■ icefields cover approximately half the unit. 	<ul style="list-style-type: none"> ■ The university has one-time timber harvest rights within this subunit.⁵
3e-5 North channel Yakataga River	H1 HV1	<ul style="list-style-type: none"> ■ mature and immature cottonwood; small stands of mature spruce and hemlock in upper reaches ■ bear feeding concentration areas ■ anadromous fish productivity ■ moose winter habitat throughout ■ river otter and beaver throughout, along river channels ■ guided bear hunting in western 2/3 of subunit 	

⁵ See Appendix C for history and terms of university timber rights under ADL 223456.

Unit 3E - Yakataga and White Rivers

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
3e-5a timber tracts adjacent to North Channel Yakataga River	F1	<ul style="list-style-type: none"> ■ mature spruce and hemlock; cottonwood dominates the timber closest to the river ■ moose winter habitat ■ anadromous fish productivity ■ bear summer/fall feeding concentration area ■ river otter and beaver 	<ul style="list-style-type: none"> ■ The university has one-time timber harvest rights within this subunit.⁶
3e-6 South Channel Yakataga River	F1	<ul style="list-style-type: none"> ■ mature spruce and hemlock ■ cottonwood stands with willow and alder at confluence with north channel ■ marten habitat throughout ■ beaver and otter habitat along riparian areas ■ guided bear hunting in western half of unit ■ brown & black bear feeding concentration areas on larger streams ■ anadromous fish rearing 	<ul style="list-style-type: none"> ■ The university has one-time timber harvest rights within this subunit.⁶
3e-7 upper Brower Ridge	H1 HV1	<ul style="list-style-type: none"> ■ mostly alpine, with some mature spruce and hemlock on slopes below 2,000 to 1,500-foot elevation; most timber is inoperable or is within goat winter habitat ■ bear spring feeding areas on south slopes ■ mountain goat winter habitat on south slopes ■ sport bear and goat hunting ■ community harvest: bear and goat 	

⁶ See Appendix C for history and terms of university timber rights under ADL 223456.

Unit 3E - Yakataga and White Rivers

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
3e-8 Cape Yakataga beach terraces from Cape Yakataga to White River	M F2	<ul style="list-style-type: none"> ■ approx. 1/2 forested: mature and immature hemlock and spruce ■ timber is interspersed with dunes and muskeg between the Cape and White River; approx. 1/3 of the forested acreage has been harvested ■ mineral potential on uplifted beach terraces; placer deposits ■ bear spring feeding concentration areas in western half of unit ■ bear summer/fall feeding within 1/4 mile of coast and along White River ■ moose winter habitat within one mile of coast near White River ■ Mink Creek is anadromous and provides beaver habitat ■ recreation: beach combing, wildlife viewing (resident and tourist) ■ mountain goat winter habitat on upper slopes; extensive goat habitat east of White River ■ guided and subsistence bear & goat hunting ■ beaver habitat on White River ■ marten habitat throughout dense timber ■ seabird nesting colony west of Cape Yakataga 	<ul style="list-style-type: none"> ■ Road accessible from Cape Yakataga airstrip (approx. 1 mile). ■ Ten (or fewer) residents live here year-round. ■ Most of the uplands and tidelands have federal or state mining claims. ■ Most of the land in this subunit is state selected. It cannot be conveyed to the state until federal mining claims are relinquished or rejected. Chugach Alaska Corporation owns land between this subunit and the Duktoth River. Chugach Alaska Corporation owns the Cape Yakataga airstrip; however, the U.S. Bureau of Land Management has retained an easement for public use of the airstrip. ■ The eastern half of this unit is state-owned and mostly staked with state mining claims. ■ Mountain goat populations east of White River declined 80 percent from 1977 to 1995 (dropping from approx. 400 to 85). ■ The shoreline immediately down drift (west) of Cape Yakataga is relatively stable due to the protection and sheltering of the Cape from southeast storm waves. ■ The university has one-time timber harvest rights within this subunit.⁷
3e-9 lower south side of Brower Ridge, & White River	F1	<ul style="list-style-type: none"> ■ mature hemlock and spruce ■ mountain goat winter habitat on most slopes ■ marten habitat throughout dense timber ■ beaver habitat in White River lowlands ■ existing state mining claims on White River: mostly in river corridor 	<ul style="list-style-type: none"> ■ The University began its timber harvest in 1994 with plans to finish in 1996. ■ Mountain goat populations have recently declined between White River and the Yakataga Rivers (1989 to 1992). ■ The university has one-time timber harvest rights within this subunit.⁷

⁷ See Appendix C for history and terms of university timber rights under ADL 223456.

Unit 3E - Yakataga and White Rivers

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
3e-10 Crooked Creek headwall ridge	H1	<ul style="list-style-type: none"> ■ alpine and alder slopes ■ mountain goat winter habitat ■ bear spring feeding concentration area 	<ul style="list-style-type: none"> ■ The university has one-time timber harvest rights within this subunit.⁸
3e-11 Clear Creek & Yakataga Ridge	F1	<ul style="list-style-type: none"> ■ approx. 40 percent of the acreage is large hemlock and spruce; cottonwood and riparian stands along lower Clear Creek ■ moose winter habitat ■ otter and beaver habitat ■ mountain goat winter habitat ■ bear summer feeding concentrations on Clear Creek ■ bear spring feeding on upper slopes ■ anadromous fish rearing: chinook salmon and Dolly Varden 	
3e-12 lower Yakataga Glacier	G	<ul style="list-style-type: none"> ■ alpine ■ no identified high or moderate resource values 	<ul style="list-style-type: none"> ■ Selected for oil, gas, or mineral potential. ■ The university has one-time timber harvest rights within this subunit.⁸
3e-13 White River glacier	G	<ul style="list-style-type: none"> ■ no identified resource values ■ shrub vegetation along the southern edge of unit in sections 31-36 ■ mature spruce covering 10 percent of the unit (at the headwaters of Lawrence and Munday Creek) ■ unit is mostly steep alpine or glaciers, above 2,000 feet elevation 	<ul style="list-style-type: none"> ■ Selected for oil and gas potential ■ Adjoins Mental Health Trust Land (to south) ■ The university has one-time timber harvest rights within this subunit.⁸

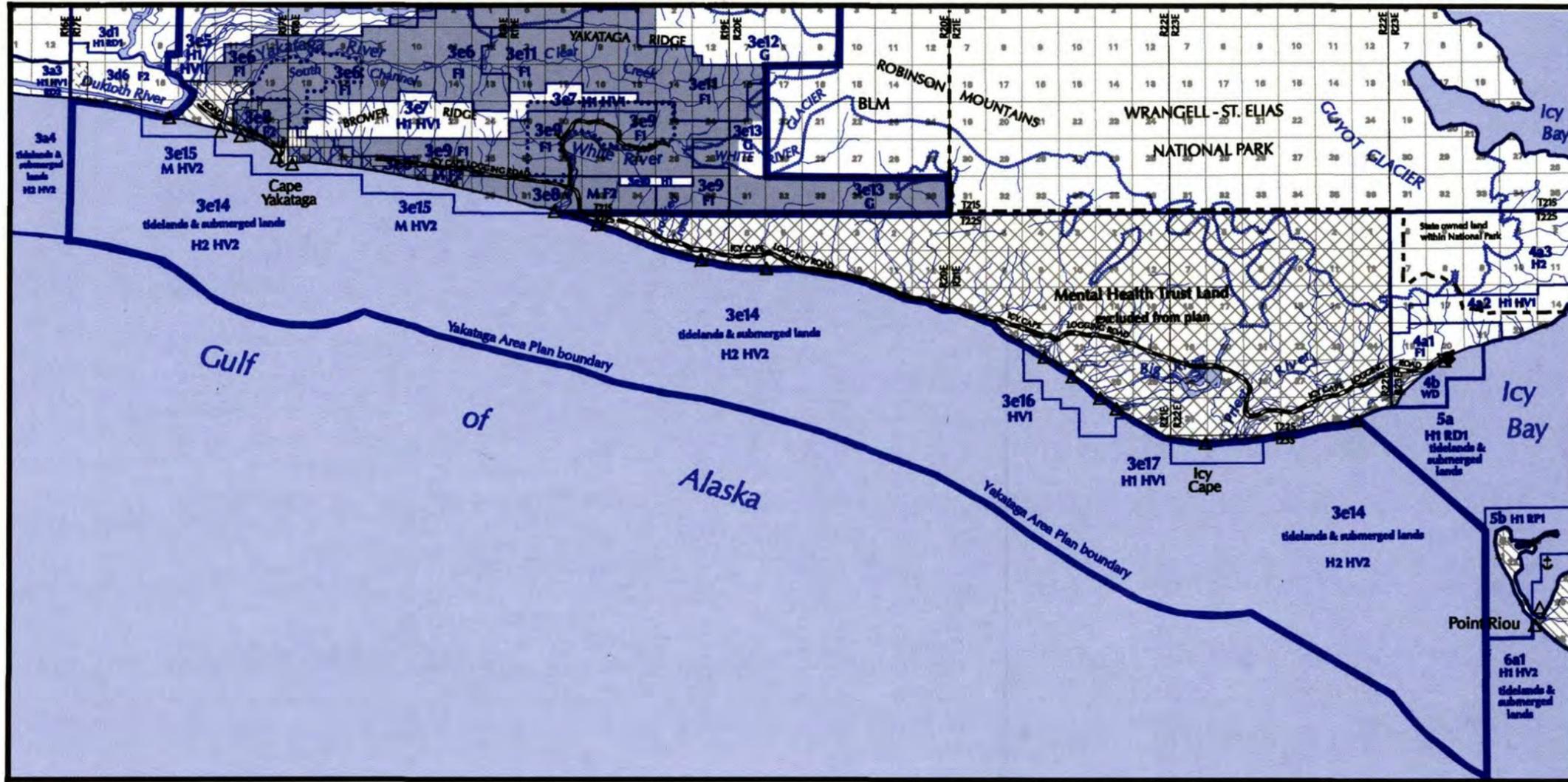
⁸ See Appendix C for history and terms of university timber rights under ADL 223456.

Unit 3E - Yakataga and White Rivers

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information)	Background
3e-14 tidelands & submerged lands between Duktath River & Icy Cape - most areas	H2 HV2	<ul style="list-style-type: none"> ■ commercial Tanner and Dungeness crab harvest ■ commercial shrimp - harvest ■ commercial salmon trolling harvest ■ community waterfowl harvest ■ sea otter concentration area ■ beachcombing 	
3e-15 tidelands & submerged lands in Cape Yakataga vicinity	M HV2	<ul style="list-style-type: none"> ■ potential offshore resources: placer gold, ilmenite, zircon and other minerals ■ Aleutian tern nesting colony at Cape Yakataga ■ sea otter concentration area ■ community harvest: fish ■ commercial salmon trolling harvest ■ surfing 	<ul style="list-style-type: none"> ■ Some state mining claims. ■ The shoreline immediately down-drift (west) of Cape Yakataga is relatively stable due to the protection and sheltering of the Cape from southeast storm waves.
3e-16 tidelands & submerged lands at Big River	HV1	<ul style="list-style-type: none"> ■ commercial salmon set net fishing area at the mouth of Big River ■ community waterfowl harvest ■ surfing 	
3e-17 tidelands & submerged lands at Priest River	H1 HV1	<ul style="list-style-type: none"> ■ commercial salmon set net fishery at the mouth of Priest River ■ sea otter established population ■ community waterfowl harvest ■ surfing 	

YAKATAGA AREA PLAN

Unit 3E southern part of Yakataga & White rivers - tidelands & submerged lands



Note: The Yakataga Area Plan's 3-mile offshore limit is measured in nautical miles rather than statute (land) miles. One nautical mile is equal to 1.151 statute miles.



April 1995

YAKATAGA AREA PLAN

Unit 3E southern part of Yakataga & White rivers- tidelands & submerged lands

PLANNING UNITS

- management unit boundary
- subunit boundary and number

LAND STATUS

STATE OWNED OR SELECTED: SUBJECT TO PLAN

- NO PATTERN state owned - patented or tentatively approved
- state owned - University Timber Rights, substitute tract
- state owned - University Timber Rights, tracts 20 and 154
- state selected & Federal mining claims

STATE OWNED BUT EXCLUDED FROM PLAN

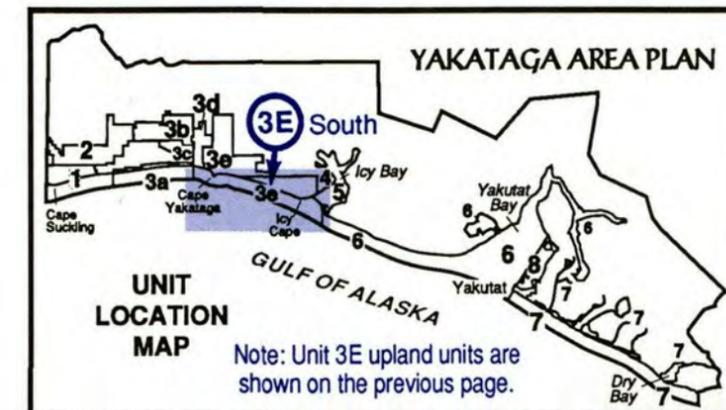
- University owned
- Mental Health Trust land

OTHER LAND OWNERSHIP

- Native owned - patented or interim conveyed
- LABELED federal (BLM, National Park)
- federal conservation system unit boundary
- private, including Native Allotments

MAP FEATURES

- anadromous fish stream mouth
- road
- glacier margin



UNIT 4**WESTERN
ICY BAY****Background**

This unit at Icy Bay on the eastern end of the Yakataga forelands is isolated from other state uplands by the Mental Health Trust lands.

Physical features

This unit has forested lowlands from Claybluff Point for several miles north along Icy Bay. The northern two-thirds of the unit has glacially-scoured bedrock hills with alders and alpine vegetation at lower elevations.

Shoreline erosion at the mouth of Icy Bay is extreme. The maximum erosion rate is 37 meters per year at Point Riou. Sediment transported westward by coastal currents infills the Claybluff shoreline, posing maintenance problems at the log transfer facility (LTF).

Access

The LTF at Claybluff Point is the only developed tidewater transfer facility serving the Yakataga forelands. Repeated dredging is necessary to allow deep-draft ships to approach the LTF because there is a high rate of siltation. In recent years, timber operators have floated logs from the Claybluff LTF across Icy Bay for loading at the Moraine Bay LTF. Compared to other parts of Icy Bay, the western shoreline is exposed to high wave energy and south/southeasterly winds from the dominant storm track.

The main haul road extends 36 miles west from the LTF across Mental Health Trust Land to approximately six miles west of White River. The main haul road is 16-foot-wide and built with three feet of fill. It requires regular maintenance because of the region's high rainfall, numerous small creeks, and wetlands. A road spur, passable by all-terrain vehicles, heads north from the LTF to Independence Creek.

The nearest airstrip is approximately four miles away at the logging camp on Mental Health Trust lands near Priest River.

There is an anchorage at Kichyatt Point.

Land status

There is a 40-acre Native allotment at Kichyatt Point. All other lands in the unit are state owned. However, the boundary of Wrangell-St. Elias National Park and Preserve encompasses the northern half of this unit, including most of Independence Creek. State lands within that boundary constitute an inholding in the national park.

Adjoining lands

Unit 4 is bounded to the north by Wrangell-St. Elias National Park and Preserve. This part of the park is designated wilderness. Icy Bay lies to the east and south. The Mental Health Trust owns 45,312 acres to the west.



Log transfer facility near Icy Cape

Resources and uses

The LTF has operated for over 20 years. Prior to timber transfer, the site was used as the beach-head for oil and gas exploration in the Yakataga area. In addition to log loading, the site has been used to unload machinery for minerals exploration near Cape Yakataga.

Small-scale mineral exploration has been a permitted activity at Independence and Jetty creeks. Currently, there are no valid mining claims.

Several anadromous creeks fish support guided and unguided sport fishing. The relatively easy access has also fostered goat viewing, and guided and sport hunting for goat and bear.

Management considerations

Rapid siltation at the log transfer site and the shifting of Jetty Creek brought a halt to direct loading of barges from shore. Dredge and fill operations from 1978 to approximately 1988 could not keep pace with siltation from creeks and ocean currents. Despite these challenges, this site offers perhaps the best loading conditions along the forelands: somewhat protected waters relatively free from ice, level up-land acreage for storage and support operations, and a road connection to the Yakataga forelands.

DNR will not make state timber available for sale or harvest within this management unit until at least December 2014.¹ Prior to future state timber offerings, DNR must revise the Yakataga Area Plan, including re-examination of land classifications and land use designations. The annual allowable cut for state land must also be recalculated after the revised plan.

¹ See Appendix C for the history and terms of the December 1994 timber settlement.

Unit 4 - Western Icy Bay resource allocation summary

Forestry

The plan designates all the commercial forest lands in Unit 4 for forestry to capitalize on timber values and the existing roads and LTF. The uplands at the log transfer facility will be reserved in state ownership to serve multiple resource transfer needs.

Under the settlement agreement regarding the university timber litigation, there will be no state timber sales or harvests until at least December 2014.

Fish and wildlife harvest

Availability. One non-forested subunit is designated for fish and wildlife harvest to recognize existing hunting use.

Access. Fishing and hunting access will be relatively easy via the logging road system. Harvest pressure may increase after the road connects to Cape Yakataga and the airstrip.

Fish and wildlife habitat

The plan has guidelines for mountain goat habitat to offset the effects of timber harvest and increased hunting access. DNR may apply further habitat guideline through the FLUPs. The plan designates non-forested areas for habitat.

Minerals development

All lands will be open to mineral entry.

Recreation and tourism

The plan does not recommend commercial recreation leasing under the .073 process because the potential appears low relative to other areas. Other types of commercial recreation leasing are allowed provided it does not interfere with forestry operations. No lands in Unit 4B were designated for recreation because there is scant current use for recreation and tourism; and the impacts from development are likely to divert future visitors to the roadless, undeveloped areas of Icy Bay.

Settlement

The state will retain these lands to include them in the timber base. The plan does not recommend settlement at Icy Cape: the log camp and Cape Yakataga already require essential services and are more efficient locations for settlement.

Transportation

The plan supports state retention of the log transfer facility to ensure on-going opportunities for multiple resource transfer.

Waterfront development

The tidelands at the log transfer facility are designated waterfront development. This will give DNR latitude to ensure that a landing site remains viable as nearshore conditions change.

Other resources

The plan advises DNR to ask the National Park Service to exclude state land in Unit 4a-3 from Wrangell-St. Elias National Park by moving the park boundary.

Subunit 4a-1 - Icy Bay log transfer facility vicinity

■ Designation

Forestry (F1)

■ Management Intent

Promote forest management for sustained yield of timber. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to timber resources and production. This subunit should be managed to ensure access by a variety of users in order to promote multiple use development of lands

in the Yakataga area. This site will be reserved in state ownership for resource transfer for multiple users and uses.

DNR will reserve a public right-of-way across this unit to the log transfer facility. DNR Division of Land will apply for a public right-of-way across adjoining lands between Icy Bay and White River.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General Information

The upland facilities include an eight-acre sort yard on the east side of Carson Creek and 20 acres on the west side of Carson Creek.

In 1989, Jetty Creek shifted course and began discharging in front of this facility. Log transfer reverted to the sack-raft float-off system to reduce conflicts with salmon returning to Jetty Creek, to eliminate constant dredging and filling of wetlands, and to avoid a major rerouting of Jetty Creek. Presently log storage is not permitted on the west side of Carson Creek.

Subunit 4a-2 - upper Carson Creek

■ Designation

Habitat and Harvest (H1, HV1)

■ Management Intent

Protect or enhance fish and wildlife habitat and harvest, particularly for mountain goats and bears. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources and harvest activities listed above.

DNR will ask the National Park Service to exclude the Independence Creek drainage from Wrangell-St. Elias National Park and Preserve because Independence Creek may have mineral values.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General Information

Unit 4a-2 lies within the boundary of Wrangell-St. Elias National Park and Preserve.

Guided goat and bear hunting are facilitated by the relatively easy access. This subunit has moderate terrain, road access to an airstrip, an anchorage, and ice-free areas for float plane landing.

Subunit 4a-3 - Kichyatt Point

■ Designation

Habitat (H2)

■ Management intent

Maintain fish and wildlife habitat. All activities will minimize significant adverse impacts to habitat resources, particularly for mountain goats.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General Information

This subunit lies mostly within Wrangell-St. Elias National Park and Preserve. Drifting icebergs sometimes bring seals into the nearshore waters during pupping season. There is good access for goat viewing.

Subunit 4b - tidelands and submerged lands at log transfer facility

■ Designation

Waterfront development (WD)

■ Management intent

Promote use of tidelands, submerged lands, and shorelands for water-dependent or water-related facilities for industrial or commercial purposes, particularly for resource transfer. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to opportunities to develop these facilities. This subunit should also be managed to ensure access by a variety of users in order to promote multiple use development of lands in the Yakataga area.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

Two methods have been used to load log barges. In the early years, logs were placed on the beach in sack rafts that floated with the tide. These rafts were then towed to Moraine Bay on the east side of Icy Bay for storage and loading to barges or ships. In 1978 a barge was sunk on state tidelands to act as a platform to facilitate direct loading of barges. This transfer method was abandoned in 1989 because Jetty Creek shifted course and began discharging in front of this facility. Constant dredging and filling and the prospect of rerouting Jetty Creek caused a return to the sack raft loading system.

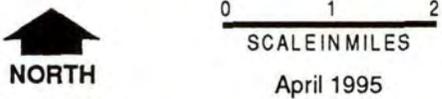
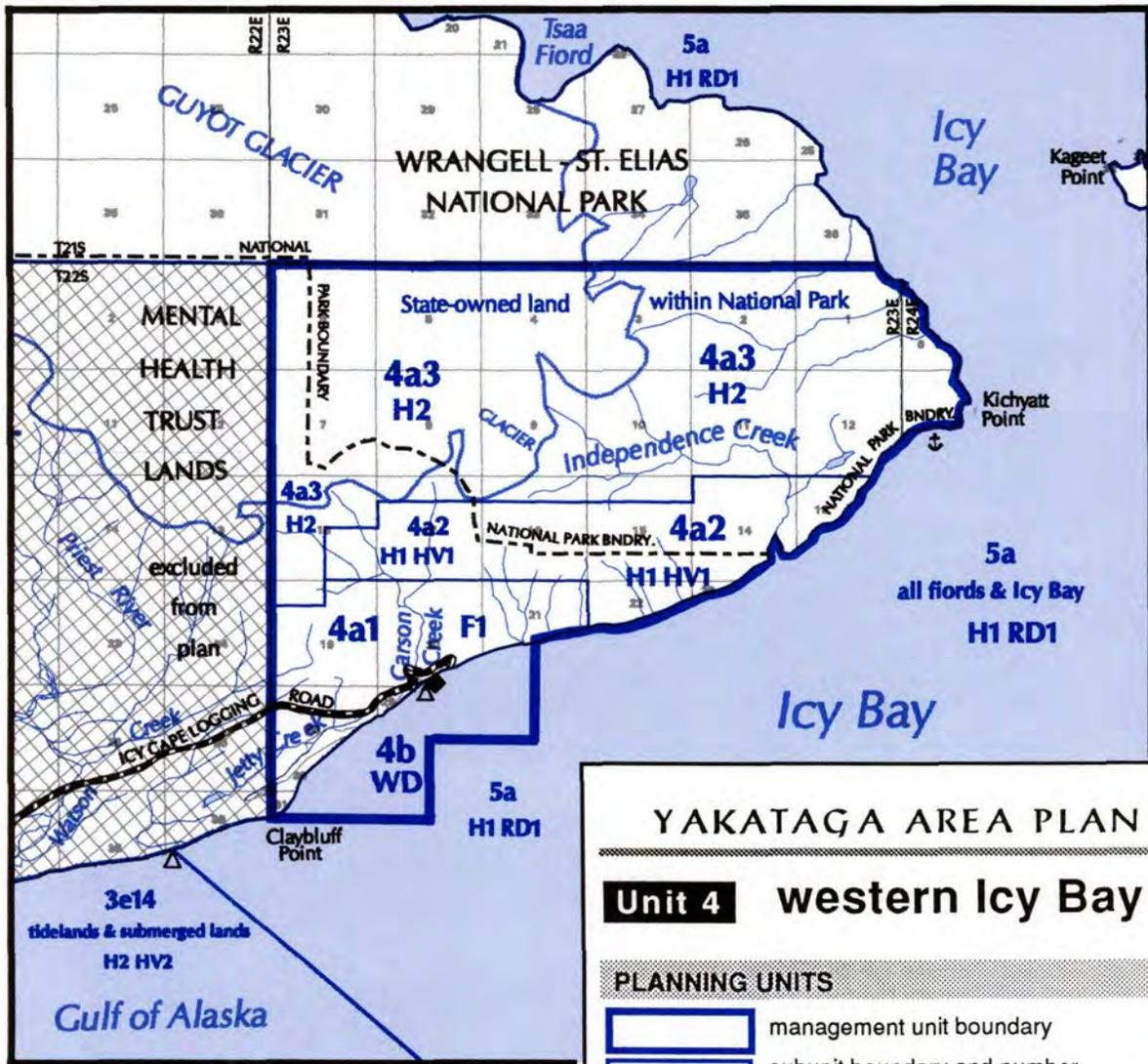
Marine log transport operations from Icy Bay are currently limited to the summer months because of the unavailability of marine insurance in other seasons.

Icebergs occasionally drift into the area from Icy Bay. Seals rely on floating ice for pupping and molting and are easily disturbed during these periods. See explanation in Unit 5 background.

Unit 4 - western Icy Bay

Area # & name	Designation	Resource or Use (See resource reports and maps for more complete information)	Background
4a-1 Icy Bay log transfer facility vicinity	F1	<ul style="list-style-type: none"> ■ Existing log storage area & transfer site. Used for offloading heavy machinery for mining and other development. ■ young spruce and hemlock ■ anadromous streams ■ bear spring feeding areas near coast ■ mountain goat winter areas on south & east slopes ■ past mineral exploration ■ trapping ■ sport fishing, guided and unguided 	<ul style="list-style-type: none"> ■ Although tidal deposition has reduced the nearshore water depths, this site is the only practical transfer site for access to the entire Yakataga uplands.
4a-2 Upper Carson Creek	H1 HV1	<ul style="list-style-type: none"> ■ mountain goat winter habitat on south slopes ■ bear spring feeding area ■ guided goat and bear hunting ■ camping ■ wildlife viewing ■ young spruce in 5 percent of unit ■ cottonwood stands at mouth of Independence Creek 	<ul style="list-style-type: none"> ■ State owned but lies within Wrangell-St. Elias National Park and Preserve. ■ Formerly a guided goat hunting area. Goat hunting prohibited in early 1990s because of an 80 percent decline in goat populations from Icy Cape to White River ■ Previous mineral exploration along tidelands.
4a-3 Kichyatt Point	H2	<ul style="list-style-type: none"> ■ alpine area with alder slopes in eastern half of unit ■ no commercial forest ■ mountain goat winter habitat ■ bear habitat (concentration areas unknown) ■ camping ■ wildlife viewing 	<ul style="list-style-type: none"> ■ State owned but lies within Wrangell-St. Elias National Park and Preserve. There is a Native allotment at Kichyatt Point. ■ Seal pupping near shore on drifting ice. ■ Previous mineral exploration at Independence Creek and tidelands (small-scale placer).
4b tidelands & submerged lands at log transfer facility	WD	<ul style="list-style-type: none"> ■ only developed marine access for timber transfer from Yakataga forelands ■ occasional seal pupping and molting area if ice floes are carried into this area ■ sea otter established population (in outer bay) 	<ul style="list-style-type: none"> ■ Sedimentation has reduced the water depth nearshore, despite dredging. ■ In recent years, logs have been loaded from floating rafts which are assembled on tidelands and then towed to awaiting barges in deeper waters.

Unit 4 western Icy Bay



YAKATAGA AREA PLAN

Unit 4 western Icy Bay

PLANNING UNITS

- management unit boundary
- subunit boundary and number

LAND STATUS

STATE OWNED OR SELECTED: SUBJECT TO PLAN

- state owned - patented or tentatively approved

STATE OWNED BUT EXCLUDED FROM PLAN

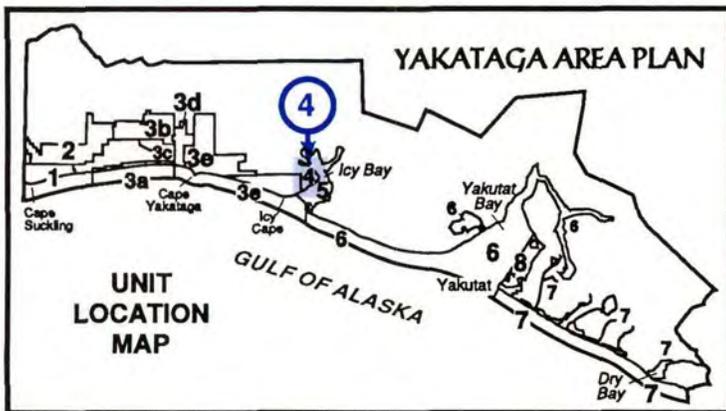
- Mental Health Trust land

OTHER LAND OWNERSHIP

- federal (National Park)
- federal conservation system unit boundary

MAP FEATURES

- anadromous fish stream mouth
- road
- log transfer facility (LTF)
- anchorage
- glacier margin



UNIT 5**ICY BAY -
TIDELANDS & SUBMERGED LANDS****Background**

Unit 5 is comprised of state-owned tidelands, submerged lands, and navigable waters in upper Icy Bay. This unit is defined by topography and by the limited access.

Physical features

Icy Bay is an iceberg-studded fiord with a stunning glacier and mountain backdrop. Mount St. Elias (18,008 feet) towers on the horizon only four miles from tidewater at the head of the bay. At the entrance to Icy Bay, an encircling sand spit (Riou Spit) shelters several anchorages. The entrance is underlain by the terminal moraine of a glacier that once filled Icy Bay. Water depths in the lower bay probably do not exceed 300 feet. At the head of Icy Bay, recent glacial retreat over bedrock has created many waterfalls.

The upper bay is choked with icebergs in summer from the retreating tidewater glaciers. The icebergs provide a haven for seal pupping and molting, while the newly-deglaciated moraines and ponds attract nesting shorebirds. The scenery and wildlife viewing opportunities rival those in better-known Glacier Bay, one of the top tourist destinations in southeast Alaska.

The Karr Hills are extremely steep, with early successional vegetation.

Uplands along the eastern shore of Unit 5 are low-lying moraines with immature cottonwood, spruce, and alders.

Access

Wheeled aircraft land at Kageet Point. A former beach landing area at Karr Hills has become overgrown. The relatively protected waters and a general absence of ice make Kageet Point the only reliable anchorage and airstrip for recreation access.

Other airstrips on non-state land in the Icy Bay area include: an alpine bowl on the southeast side of Tyndall Glacier (used for hiking access to Mount St. Elias), two airstrips at Caetani River, one each at Moraine and Riou bays, and two on the Yahtse River.

Moraine and Riou bays are the only safe anchorages along the open coast between Yakutat Bay and Controller Bay (west of the planning area). These anchorages are frequent havens for commercial fishing boats, fish processors, barges, freighters, and recreation boats. Riou Bay is reportedly better protected from prevailing winds and waves than Moraine Bay.

Moraine Bay has served as a log transfer site for state timber from the Yakataga forelands. The log storage facility permitted by the U.S. Army Corps of Engineers (COE) to Wasser and Winter Corporation at Moraine Bay was extended to 1994. Wasser and Winter holds a COE permit for two mooring buoys just south of Moraine Bay. DNR approved a tideland permit application from Chugach Alaska Corporation for a log transfer and storage facility in Moraine Bay that would cover 12 acres of tidelands and submerged lands. This would be the second log storage area in Moraine Bay. The U.S. Army Corps of Engineers has determined that if a new LTF is authorized, 140 acres of water 25-50 feet deep will still be available for anchorage, with a 1,500-foot wide entrance to Icy Bay.

Land status

In Unit 5 the state owns only tidelands, submerged lands, and navigable waters.

Adjoining lands

The uplands around northern Icy Bay are within designated wilderness in Wrangell-St. Elias National Park and Preserve. Most of the eastern uplands around Taan Fiord and eastern Icy Bay are owned or selected by Chugach Alaska Corporation. There are five or six Native allotments in this area.

Resources and uses

Recreation and tourism are growing rapidly in Icy Bay. Since the first known commercial kayak trip in 1984, there are now at least seven commercial trips per year. Camping and hiking are occurring at Karr Hills and Kageet Point. Karr Hills is an important wildlife viewing area. Kageet Point is the most common staging area, although both commercial and independent recreationists use Riou or Moraine bays as staging areas. Flightseeing is popular over Icy Bay, and several cruise ship companies currently visit Icy Bay.

The population of harbor seals in Icy Bay has been estimated to be as high as 3,500. Several hundred seals give birth to their pups on the floating ice in upper Icy Bay, generally between late May and mid-July. Seals with newborn or young pups are particularly sensitive to human disturbance. Disturbances that separate mothers and young pups may result in permanent separation and the death of the pup. Seals are also sensitive to disturbance during the molt, which occurs between June and early October, with the highest proportion of animals molting in late July. Seals may drift with the ice as far south as Claybluff Point.

There is a relatively-high concentration of fish and wildlife habitat and harvest in the lower bay: waterfowl and shorebirds, seabird and eagle nesting, sea otters, commercial and community harvest of fish and shellfish, and waterfowl hunting. Icy Bay has a high concentration of shorebirds and seabirds, including marbled and Kittlitz's murrelets, and gull and tern nesting colonies on Riou Spit, Gull Island, and adjacent to Karr Hills and Taan Fiord. Other nesting sites and migratory staging areas are likely to exist but have not yet been documented.

Chugach Alaska Corporation plans to harvest timber on the eastern shore.

The log transfer facilities and anchorage at Moraine and Riou bays are described under *Access*, above.

Management considerations

Use of Moraine Bay and Riou Bay as an anchorage and resource transfer facility is likely to increase.

Use of Kageet Point for tourism and recreation is also likely to increase. The economic value of Icy Bay for tourism and recreation lies in the natural scenery and wildland characteristics.

Other

The Kageet Point airstrip, anchorage, and camping areas are very important for public access for recreation and tourism in the upper bay. Kageet Point is currently selected by Chugach Alaska Corporation. The area has no known potential for mineral resources.

The United Nations Environmental, Scientific and Cultural Organization (UNESCO) has designated this coastal region as a World Heritage Site. This United Nations' designation encompasses Wrangell-St. Elias National Park & Preserve, Glacier Bay National Park & Preserve, Kluane National Park (Canada), and Tatshenshini-Alsek Provincial Park (Canada).

Unit 5 - Icy Bay - tidelands & submerged lands resource allocation summary

Forestry

The state owns no forest land in Unit 5.

Access. The plan promotes continued use of log transfer facilities on state tidelands at Moraine Bay and Riou Bay which will support forestry on state and MHT lands in the western planning area.

Fish and wildlife habitat

The plan applies the H1 designation to three of four subunits (all tidelands and submerged lands). The plan commits DNR to consider specific protection for harbor seals during pupping and molting. Commercial recreation leasing on Gull Island tidelands is not allowed in order to protect seabird nesting. Several guidelines for Unit 5 will minimize recreation impacts to wildlife.

Fish and wildlife harvest

The plan designates most tidelands and submerged lands in Unit 5 for harvest to protect commercial fishing and community harvest.

Access. The plan ensures storm shelter for fishing boats by protecting anchorage capacity in Riou and Moraine Bays. Vessel maneuvering room for harvest of fish and shellfish may be reduced in Riou and Moraine Bays if the demand for anchorage, resource transfer, and waterfront development increases.

Minerals development

All of the Unit 5 is open to mineral entry. There are no recorded mineral prospects.

Recreation and tourism

Dispersed recreation is a designated use in the upper bay. Commercial recreation leasing (of the tidelands and submerged lands) in the upper bay is prohibited to protect the natural setting for dispersed, primitive recreation.

Access. In the lower bay, recreation access is protected by guidelines to maintain the anchorage capacity. Commercial recreation leasing is allowed on most tidelands in the lower bay if it does not reduce use of the anchorage.

Settlement

There are no state uplands in this unit.

Transportation

The plan has guidelines to ensure the coexistence of resource transfer facilities and anchorage capacity at Riou and Moraine Bays.

Waterfront development

Riou and Moraine Bays are designated for waterfront development. This is the most sheltered and most suitable site for resource transfer along a ninety-mile stretch of coast. The site serves the development needs of the private landowner in Unit 5 (Chugach Alaska Corporation) as well as development on state lands.

Subunit 5a - tidelands and submerged lands in Icy Bay - most areas

■ Designation

Habitat and dispersed recreation (H1, RD1)

■ Management Intent

Protect or enhance fish and wildlife habitat particularly for seals, tern nesting, otters, shorebirds, and waterfowl. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to these habitat resources. To avoid disturbance to seals, stipulations may be required for activities near areas of floating ice during pupping and molting.

Protect or enhance conditions for dispersed recreation, particularly kayaking, camping, boating, hiking, and wildlife viewing. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the recreation uses.

■ Guidelines:

Commercial recreation leasing	Commercial recreation leasing is prohibited north of Township 22 South to avoid disturbance to seal pupping and molting on nearshore ice floes, to maintain natural viewsheds, and to maintain a primitive recreation setting consistent with the surrounding National Park Service wilderness areas.
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■ General information

See information on seal pupping and molting at the beginning of this unit. Hikers follow unimproved trails along the base of Karr Hills to the edge of the Yahtse Glacier. This is one of the few level hiking areas. The uplands overlook areas of floating ice where seals haul out during pupping and molting. During these stages seals are particularly sensitive to human disturbance.

Dense floating ice limits navigation at the head of Icy Bay and drifts in dwindling concentrations to the mouth of the bay.

Kageet Point is an important public access site for recreation and tourism. The waters are generally ice-free (enabling float plane access and boat anchorage) and the uplands are suitable for wheel plane access and camping.

Subunit 5b - tidelands and submerged lands at Point Riou Spit

■ Designation

Habitat and public use site recreation (H1, RP1)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly for otters, seabird nesting, waterfowl, and shorebirds. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to these habitat resources.

Protect or promote public access to the anchorage and to the tidelands for recreation, particularly beachcombing and wildlife viewing. All activities will avoid significant adverse impacts to opportunities for access and the recreation activities listed above.

■ Guidelines:

Maintain natural siltation conditions	Activities which may disrupt natural siltation or accelerate erosion at Riou Spit will not be allowed. The intent is to maintain the marine deposition that replenishes the spit and provides a breakwater.
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■ General Information

Riou Spit is a natural breakwater against prevailing seas from the Gulf of Alaska. Foul rocks and reefs limit Riou Bay as a desirable anchorage.

Riou Spit is a prime site for scavengers and beachcombers seeking flotsam from the Gulf.

Subunit 5c - tidelands and submerged lands at Riou Bay and Moraine bays

■ Designation

Waterfront development and public use site recreation (WD, RP2)

■ Management Intent

Promote use of tidelands and submerged lands for water-dependent or water-related facilities, particularly for industrial or commercial purposes. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to opportunities for waterfront development for the above purposes.

Maintain the capacity of the anchorage and access for multiple users, including recreation uses, consistent with waterfront development. All activities will minimize significant adverse impacts to the use and capacity of the anchorage.

■ Guidelines:

Consolidation of resource transfer facilities

Consider stipulations for resource transfer facilities that allow joint use of a site and promote maximum use of the site through design and scheduling in order to minimize the total number of sites needed. Before DNR will authorize additional resource transfer facilities (RTFs), the applicant should demonstrate to the satisfaction of DNR that it is not feasible and prudent to consolidate uses at existing RTFs.

Maintain anchorage capacity and access

Uses authorized by DNR must be sited and designed to maintain or enhance anchorage capacity and public access to the anchorage. DNR will not allow uses that reduce the anchorage capacity in Riou and Moraine Bay below 1994 levels.

Commercial recreation leasing

Commercial recreation leasing is allowed provided it is consistent with DNR's intent to promote resource transfer and public access to the anchorage.

■ General information

There are limited sites within this bay that offer the shoreline, water depths, and wind protection desired for log transfer.

There are few alternate anchorages between Yakutat Bay and Prince William Sound. Gale conditions in the northern Gulf of Alaska often force commercial fishing boats, fish processors, freighters, and recreational boats to the nearest sheltered waters. The best anchorage is east of Moraine Island (US Coast Pilot). Moving icebergs limit anchorage between Moraine Island and Gull Island. There is a good anchorage northeast of Moraine Reef.

Chugach Alaska Corporation has been issued tideland permits for a log transfer facility (small log slide) and log storage area at Moraine Bay.

Subunit 5d - tidelands and submerged lands at Gull Island

■ Designation

Habitat (H1)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly seabird nesting habitat. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to seabird nesting.

■ Guidelines:

Seabird habitat More information on the timing of the nesting season and the sensitivity of seabirds to disturbance should be gathered prior to authorization of uses of tidelands and submerged lands adjacent to Gull Island.

Commercial recreation leasing Commercial recreation leasing is prohibited in order to protect seabird habitat.

■ General information

The tidelands have shoals and reefs that create poor anchorage conditions.

Gull Island is low-lying, treeless, and relatively small, and seabirds are reported to use most available nesting space.

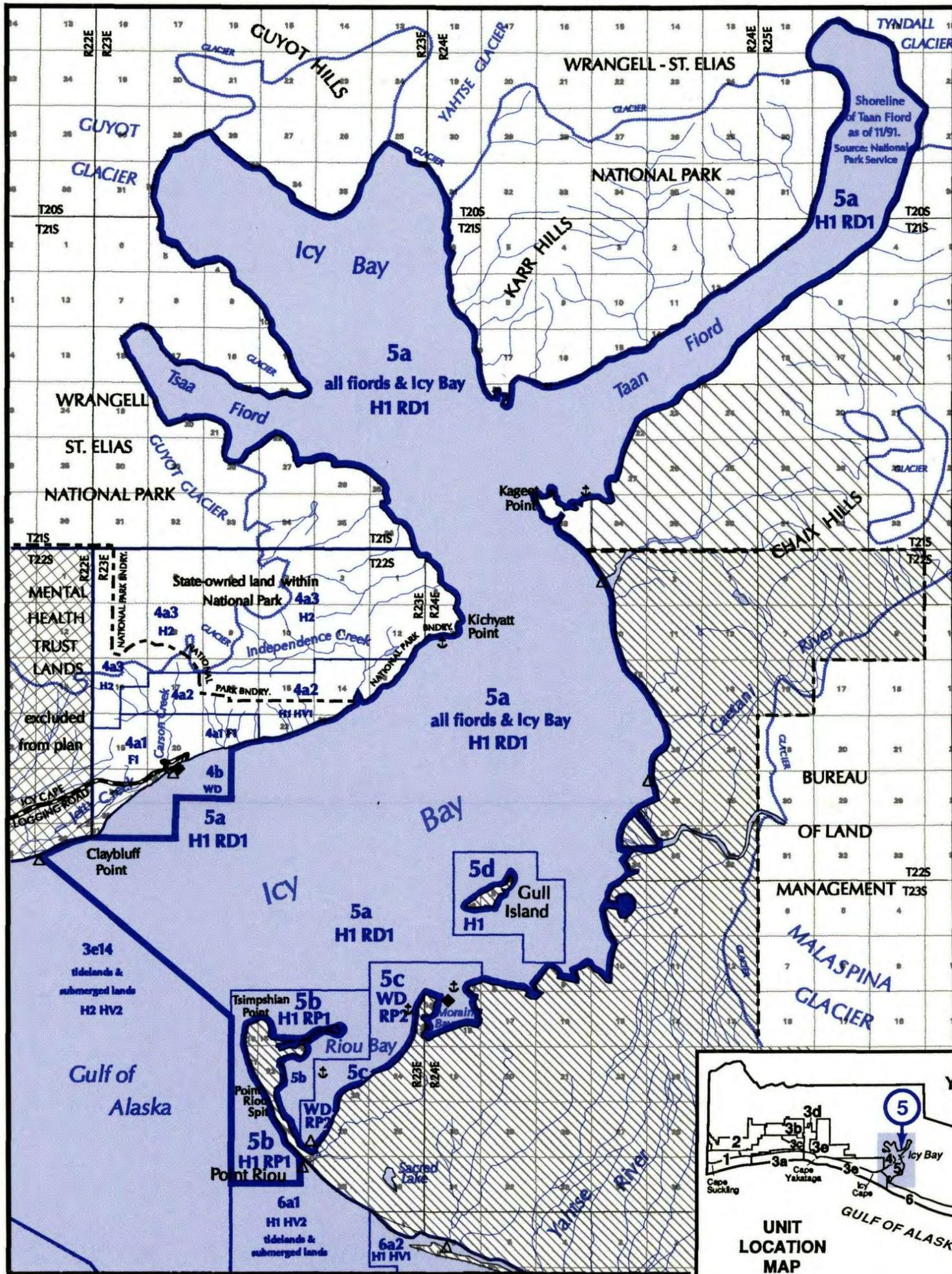
Unit 5 - Icy Bay - tidelands & submerged lands

Unit # & name	Designation	Resource or Use (See the resource maps and reports or more complete information)	Background
5a tidelands & submerged lands in Icy Bay - most areas	H1 RD1	<ul style="list-style-type: none"> ■ guided and recreational kayaking, camping, hiking, sailboat destination ■ commercial shrimping and crabbing south of Independence Point ■ icebergs provide important harbor seal pupping and molting from May - July and molting from June - October ■ subsistence seal hunting in upper and eastern Icy Bay ■ anchorage at Kageet Point ■ major migratory route for waterfowl and shorebirds (Pacific flyway) ■ arctic tern nesting colony ■ sea otter established population ■ marbled and Kittlitz's murrelet feeding areas ■ eagle nesting on adjoining uplands ■ seabird nesting colony along Taan Fiord: <ul style="list-style-type: none"> arctic terns ■ access via boat for community harvest ■ goat hunting ■ community harvest: waterfowl, fish, goose molting ■ commercial salmon set nets along eastern shore ■ The entire bay is used for dispersed recreation. Use is limited by the area's remote location, but is increasing. 	<ul style="list-style-type: none"> ■ Uplands in the upper bay are within Wrangell-St. Elias National Park. ■ Chugach Alaska Corporation owns the forelands along lower eastern Icy Bay. ■ The glaciers that flow into Icy Bay and its tributary fiords are rapidly receding. The large amount of floating ice in the upper reaches of the bay creates a hazard to navigation and limits the use of these upper reaches.
5b tidelands & submerged lands at Point Riou Spit	H1 RP1	<ul style="list-style-type: none"> ■ sea otter habitat ■ seabird nesting colonies ■ black and brown bear summer/fall concentration area ■ seabird nesting colony: Aleutian and arctic terns; (1974 pop. est. at 1,000) ■ murrelets near shore along Pt. Riou ■ existing log ship loading facility ■ protected anchorage ■ waterfowl and shorebirds spring and fall concentration area ■ community harvest: fish, waterfowl, and seals ■ commercial salmon set nets at south end of Riou Bay ■ commercial tanner crab harvest ■ commercial shrimp trawl harvest ■ recreation: kayaking, beachcombing, wildlife viewing 	<ul style="list-style-type: none"> ■ Uplands are owned by Chugach Alaska Corporation.

Unit 5 - Icy Bay - tidelands & submerged lands

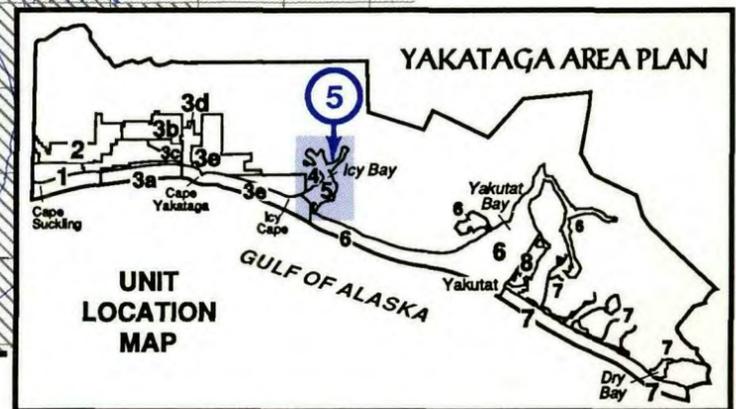
Unit # & name	Designation	Resource or Use (See the resource maps and reports or more complete information)	Background
<p>5c tidelands & submerged lands at Riou & Moraine bays</p>	<p>WD RP2</p>	<ul style="list-style-type: none"> ■ log transfer facility at Moraine Bay ■ protected anchorages at Moraine and Riou bays are important haven for commercial fishing boats, processors, and recreation boats. ■ commercial set nets at south end of Riou and Moraine bays ■ in-water log storage ■ waterfowl and shorebirds spring and fall concentration area ■ sea otter established populations ■ marbled and Kittlitz's murrelet feeding areas ■ brown bear summer/fall concentration area ■ community harvest: fish, waterfowl, and seals ■ recreation: kayaking, wildlife viewing 	<ul style="list-style-type: none"> ■ Uplands owned by Chugach Alaska Corporation ■ There are few alternate anchorages between Yakutat Bay and Prince William Sound.
<p>5d tidelands & submerged lands at Gull Island</p>	<p>H1</p>	<ul style="list-style-type: none"> ■ seabird nesting colony on low-lying treeless island ■ commercial tanner crab and shrimp-trawl harvest ■ community waterfowl and seal harvest 	<ul style="list-style-type: none"> ■ Island owned by Chugach Alaska Corporation.

Unit 5 Icy Bay - tidelands & submerged lands



0 1 2
SCALE IN MILES

April 1995



YAKATAGA AREA PLAN

Unit 5 Icy Bay - tidelands & submerged lands

PLANNING UNITS

- management unit boundary
- subunit boundary and number

LAND STATUS

STATE OWNED: SUBJECT TO PLAN

- state owned - patented or tentatively approved

STATE OWNED BUT EXCLUDED FROM PLAN

- Mental Health Trust land

OTHER LAND OWNERSHIP

- Native owned - patented or interim conveyed
- Native selected
- federal (BLM, National Park)
- federal conservation system unit boundary

MAP FEATURES

- anadromous fish stream mouth
- road
- log transfer facility
- anchorage
- glacier margin

Unit 5 Icy Bay - tidelands & submerged lands

YAKATAGA AREA PLAN

Map 3.14

UNIT 6**POINT RIOU TO
YAKUTAT BAY -****TIDELANDS, SUBMERGED LANDS,
AND SHORELANDS****Background**

Unit 6 is characterized by its remoteness and glacially-influenced topography.

Physical features

Yakutat Bay and Russell Fiord were formed by the scouring forces of glacier advance and subsequent retreat. Russell and Nunatak Fiords are deep marine canyons cut between rock walls. The western shore of Russell Fiord is a mountainous peninsula with peaks rising 3,000 to 4,500 feet and laden with hanging glaciers. The eastern shore rises to still greater heights, reaching 5,000 to 6,000 feet over a few miles, and backed by taller peaks up to 10,000 feet. Malaspina Glacier, the largest glacier in North America, drains through several braided rivers into the Gulf of Alaska and Yakutat Bay. Other prominent features include Turner and Hubbard glaciers, Malaspina Lake, and Sitkagi Bluffs.

The vegetation is in various successional stages depending on the time elapsed since glacial retreat. Recently exposed areas are covered with shrubs such as alder and willow. The forested area in the western part of the unit is the first generation of mature Sitka spruce and hemlock trees since the glaciers retreated. The forest around Russell Fiord is somewhat older.

Land status

State lands in this unit are limited to tidelands, submerged lands, and shorelands beneath navigable rivers and lakes.

The adjoining lands are owned or managed as follows:

Chugach Alaska Corporation (CAC) owns land along the southeast shore of Icy Bay. The National Park Service manages lands from the northeastern shore of Icy Bay to the western shore of Disenchantment Bay, which are within Wrangell-St. Elias National Park and Preserve. The national park includes designated wilderness along the shore of Sitkagi Bluffs and Disenchantment Bay. The U.S. Forest Service manages most lands on the eastern shore of Yakutat Bay and adjacent to Russell Fiord, which are part of Tongass National Forest. Russell Fiord is a designated wilderness area. Yak-Tat Kwaan owns, and Sealaska Corp. has selected, lands near Eleanor Cove.

Access

Access to Unit 6 is primarily limited to wheel plane landings along sandy beaches or at three semi-developed inland landing strips. There are scattered anchorages for boats within Yakutat Bay and Russell Fiord. A foot path connects the head of Russell Fiord to Forest Highway 10. An old seismic line, now overgrown and impassable, connects Grand Wash and Manby Stream.

Marine access from Yakutat Bay to Russell and Nunatak fiords is difficult because of icebergs and glacial calving at the Hubbard Glacier terminus, which can create sudden waves.

Resources and uses

Important fish and wildlife habitat and harvest in Unit 6 include: harbor seal pupping and seal harvest near Disenchantment Bay; a sea lion haulout at Sitkagi Bluffs, and moose, bear, and furbearer harvest on the Malaspina forelands. Commercial set net fishing occurs at many stream mouths on the Malaspina Forelands, including Manby Stream, Spoon River, Sudden Stream, Esker Stream, Yana Stream and Yahtse River. The combined commercial set net harvest on these streams had an average annual value of \$384,000 in the late 1980s - early 1990s. Sixty (60) troll permit holders fish commercially in Yakutat Bay and Russell fiord (annual 10-year average effort). The average annual ex-vessel value of this fishery was \$330,000 from 1982 to 1991.

Predominant recreational activities include wildlife viewing of puffins, other shorebirds, and seals at Disenchantment Bay, kayaking in Russell Fiord, and flightseeing over the glaciers and shoreline. Cruise ships occasionally enter Yakutat Bay to view Hubbard Glacier. Tourism and scientific research are likely to increase when Hubbard Glacier again blocks Russell Fiord.

Chugach Alaska Corporation plans to harvest timber on its forested lands.

Management considerations

The advance of Hubbard Glacier has drawn national and international attention from the scientific community. Scientists predict the Hubbard Glacier will advance to form a dam at the mouth of Russell Fiord by the year 2000. Freshwater draining into the newly formed Russell Lake behind the dam will eventually overflow into the Situk River, increasing its volume of flow by at least tenfold. A series of temporary glacial dams and subsequent failures is expected before a stable ice dam forms. From that point, the ice dam may last hundreds of years. Overflow into the Situk River is expected between seven and fourteen months after damming. The short-term and long-term physical, social, and economic impacts of this event are not known.

The United Nations Environmental, Scientific and Cultural Organization (UNESCO) has designated this coastal region as a World Heritage Site. This U.N. designation encompasses Wrangell-St. Elias National Park & Preserve, Glacier Bay National Park & Preserve, Kluane National Park (Canada), and Tatshenshini-Atsek Provincial Park (Canada).

Unit 6 - tidelands, submerged lands, and shorelands from Point Riou to Yakutat Bay resource allocation summary

Forestry

The state owns no forest land in this unit.

Fish and wildlife harvest

All of Unit 6 (consisting of tidelands and submerged lands) is designated for fish and wildlife harvest. The HV1 designation applies to sites used for shore fisheries, while HV2 protects commercial fisheries and community harvest over extensive areas.

Fish and wildlife habitat

All of Unit 6 (consisting of tidelands and submerged lands) is designated for fish and wildlife habitat. Several subunits within Yakutat Bay, Russell Fiord and Nunatak Fiord are H2 because DNR intends to manage for both habitat protection and potential demand for dispersed recreation and tourism. Other subunits are H1 to give higher protection to habitat. The plan prohibits commercial recreation leasing at the sea lion haul out along Sitkagi Bluffs.

Minerals development

All state lands in this unit are open to mineral entry.

Recreation and tourism

Yakutat Bay and its fiords are designated for dispersed recreation and tourism (RD1). The plan prohibits commercial recreation leasing on state tidelands at Russell and Nunatak Fiords to protect the natural setting for dispersed recreation. This appears compatible with the federal management of the uplands as wilderness.

Settlement

There are no state uplands in this unit.

Transportation

Tideland access for hunting, fishing, and recreation is protected by HV and RD designations.

Waterfront development

Waterfront development was judged unlikely and therefore is not a designated use. Along the exposed outer coast and the west shore of Yakutat Bay, physical conditions inhibit tideland development. On inland waters, the adjoining federal uplands are managed primarily for habitat or primitive recreation.

Subunit 6a-1 - tidelands and submerged lands between Point Riou and Alder Stream - most areas

■ Designation

Habitat and harvest (H1, HV2)

■ Management intent

Protect or enhance conditions for fish and wildlife habitat, particularly for fish and shellfish. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to these habitat resources.

Maintain conditions for fish and wildlife harvest consistent with the habitat resources listed above. All activities will minimize significant adverse impacts to harvest activities.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

The set net effort is concentrated along Manby shore and at Manby Stream, which attracted an annual average of 25 permit holders between 1981 and 1991. The average annual value of the Manby shore fishery in that 11-year period was \$89,000 for sockeyes and \$46,000 for cohos, for a total value of \$135,000 per year. The Manby Stream fishery was based primarily on coho (53,000 annually), valued at \$58,000.

Subunit 6a-2 - tidelands and submerged lands at Yahtse River

■ Designation

Habitat and harvest (H1, HV1)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly anadromous fish, waterfowl, shorebird spring and fall concentration areas, and seabird nesting colonies.

Protect or enhance conditions for fish and wildlife harvest, particularly for set net salmon harvest, commercial Dungeness crab harvest, and community harvest of fish and waterfowl.

All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources and harvest activities listed above.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

The mouth of the Yahtse River has shifted nearly one mile in the past decade. Set net harvest areas shift accordingly. The location of the river mouth may need to be confirmed when applications for use of state tidelands and submerged lands are submitted.

The set net fishing effort averages ten permit holders per year (based on 1981-1991 data). The average catch in that period was 54,000 coho, with a commercial value of \$58,000.

The tidelands provide access for moose hunting along the Yahtse River.

Subunit 6a-3 - tidelands and submerged lands at Yana Stream

■ Designation

Habitat and harvest (H1, HV1)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly waterfowl and shorebird spring and fall concentration areas. Protect or enhance conditions for fish and wildlife harvest, particularly for set net salmon harvest, commercial Dungeness crab harvest, and community harvest of waterfowl.

All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources and harvest activities listed above.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

See the table at the end of this subunit.

Subunit 6a-4 - tidelands and submerged lands at Sitkagi Bluffs

■ Designation

Habitat and harvest (H1, HV2)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly for sea lions, waterfowl, and shorebirds. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to these habitat resources.

Maintain conditions for fish and wildlife harvest consistent with the habitat resources listed above. All activities will minimize significant adverse impacts to the habitat resources listed above.

■ Guidelines:

Commercial recreation leasing Commercial recreation leasing is prohibited to avoid disturbance of sea lions at the haul out.

■ General information

The boulder-strewn shore at Sitkagi Bluffs is a sea lion haul out.

Subunit 6b - tidelands and submerged lands at Yakutat Bay

■ Designation

Dispersed recreation, habitat and harvest (RD1, H1, HV2)

■ Management intent

Protect or enhance conditions for dispersed recreation, particularly for sport fishing, recreational boating, wildlife viewing, and scenic enjoyment. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to these recreation activities.

Protect or enhance fish and wildlife habitat, particularly for murrelets, nesting seabirds, and migratory waterfowl; and bears (along tidelands); crab molting, mating and rearing areas; seal and otter concentration areas; and herring spawning areas. All uses will, to the extent feasible and prudent, avoid significant adverse impacts to these habitat resources.

Maintain conditions for fish and wildlife harvest. All activities will minimize significant adverse impacts to habitat and harvest.

■ Guidelines:

Access Maintain the capacity of, and public access to, anchorages at Kame Stream, Grand Wash River, Sudden Stream, and Haenke Island.

■ General information

Fish and wildlife habitat and harvest areas are widespread south of Disenchantment Bay. Marine access to upper Disenchantment Bay is sometimes constrained by icebergs and the dangers of calving ice.

Subunit 6c - shorelands and tidelands at Malaspina Lake and outlet streams

■ Designation

Dispersed recreation, habitat, and harvest (RD1, H1, HV1)

■ Management intent

Protect or enhance conditions for dispersed recreation, particularly recreation access to Malaspina Lake, Glacier, and forelands. All activities will, to the extent feasible and prudent, avoid significant adverse impacts on the recreation uses listed above.

Protect or enhance fish and wildlife habitat, particularly for murrelets, nesting seabirds, and migratory waterfowl; and bears (along tidelands). All uses will, to the extent feasible and prudent, avoid significant adverse impacts to these habitat resources.

Protect or enhance conditions for fish and wildlife harvest, particularly for community harvest of fish and waterfowl.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

See the table at the end of this unit.

Subunit 6d - tidelands and submerged lands at Russell and Nunatak fiords

■ Designation

Dispersed recreation, habitat, and harvest (RD1, H2, HV2)

■ Management Intent

Protect or enhance conditions for dispersed recreation, particularly kayaking, wildlife viewing, wilderness recreation, access, natural scenic values, scientific study, and natural history interpretation. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the recreation uses and values listed above.

Maintain fish and wildlife habitat and harvest consistent with conditions for dispersed recreation uses and values listed above. All activities will minimize significant adverse impacts to habitat resources and harvest activities.

■ Guidelines:

Commercial recreation leasing	Prohibit commercial recreation leasing on state tidelands to protect opportunities for dispersed recreation in a natural setting, consistent with the federal wilderness designation.
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■ General information

Approximately 50 kayakers on commercial tours and an unknown number of independent travelers visit Russell Fiord each year. The unique characteristics of the fiords include evidence of the water level fluctuations from 1986 when Hubbard Glacier created an ice dam and temporary lake in Russell Fiord. Fresh water and salt water form layers in the bay because the bay receives a high volume of fresh water run-off and there is limited marine flushing through the constricted opening of the bay.

There is commercial fishing for king crab in Russell Fiord.

Prior to the federal wilderness designation of adjoining uplands, the U.S. Geological Survey found no indications of economically important mineralization.

The dynamic activity of the Hubbard Glacier is described under *Management Considerations* at the beginning of this unit.

Unit 6 - Point Riou to Yakutat Bay - tidelands, submerged lands & shorelands

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information.)	Background
6a-1 tidelands & submerged lands between Point Riou & Alder Stream -most areas	H1 HV2	<ul style="list-style-type: none"> ■ marbled and Kittlitz's murrelets from Point Riou to Yahtse River ■ brown bear spring feeding area ■ bear summer/fall feeding area adjoining the tidelands ■ Dungeness crab molting, mating, and juvenile rearing areas in water more than 5 fathoms deep ■ commercial Dungeness and tanner crab harvest ■ commercial salmon troll fishery ■ commercial herring harvest ■ community harvest: waterfowl 	<ul style="list-style-type: none"> ■ Uplands from Pt. Riou to Yana Stream are owned primarily by Chugach Alaska Corporation. There are also a few Native allotments. ■ Uplands from Yana Stream to Alder Stream are mostly designated wilderness within Wrangell-St. Elias National Park and Preserve.
6a-2 tidelands & submerged lands at Yahtse River	H1 HV1	<ul style="list-style-type: none"> ■ marbled and Kittlitz's murrelets from Point Riou to Yahtse River ■ bear spring/summer/fall feeding area adjoining the tidelands ■ commercial Dungeness crab fishery ■ commercial set net fishery ■ waterfowl and shorebirds spring and fall concentration area ■ seabird nesting colony ■ community harvest: fish, waterfowl 	<ul style="list-style-type: none"> ■ Adjacent uplands are owned by Chugach Alaska Corporation.
6a-3 tidelands & submerged lands at Yana Stream	H1 HV1	<ul style="list-style-type: none"> ■ harbor seal concentration (Sudden Stream) ■ commercial set net fishery (Sudden Stream) ■ bear spring feeding adjacent to tidelands ■ commercial Dungeness crab harvest ■ commercial set net fishery at mouth of Yana Stream ■ waterfowl and shorebirds spring and fall concentration area ■ community harvest: waterfowl 	<ul style="list-style-type: none"> ■ Adjacent uplands are owned by Chugach Alaska Corporation.
6a-4 tidelands & submerged lands at Sitkagi Bluffs	H1 HV2	<ul style="list-style-type: none"> ■ sea lion haul-out ■ waterfowl and shorebirds spring and fall concentration area ■ commercial Dungeness and tanner crab harvest ■ commercial salmon trolling ■ commercial herring harvest 	<ul style="list-style-type: none"> ■ Adjacent uplands are within Wrangell-St. Elias National Park designated wilderness.

Unit 6 - Point Riou to Yakutat Bay - tidelands, submerged lands, & shorelands

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information.)	Background
6b tidelands & submerged lands at Yakutat Bay	RD1 H1 HV2	<ul style="list-style-type: none"> ■ murrelet concentration area near shore near outlets of Alder Stream, Manby Stream, and Osar Stream ■ waterfowl migratory staging/stopover area ■ bear spring/summer/fall feeding adjoining the tidelands ■ Dungeness crab molting, mating, and juvenile rearing beyond 5 fathoms deep and in intertidal zone in estuarine areas ■ king crab molting, mating, and juvenile rearing ■ herring spawning in vicinity of Point Manby along western shore ■ shrimp rearing in middle of bay ■ harbor seals concentration in Disenchantment Bay ■ recreation: <ul style="list-style-type: none"> boating, cruise ships, & kayaking wildlife viewing photography scenic enjoyment sea otter concentration areas guided and sport fishing seabird nesting colonies ■ community harvest: seals, fish, waterfowl, intertidal gathering ■ commercial shrimp, Dungeness and king crab, salmon trolling, herring fishing 	<ul style="list-style-type: none"> ■ Note: the tidelands and submerged lands near the City of Yakutat and nearby islands are part of Unit 8. ■ Placer mining on beaches in the early 1900s; fine-grained gold was difficult to recover. ■ Cruise ships sail into Yakutat Bay occasionally. ■ Docking facilities at the town aren't designed to handle cruise ship stops.
6c shorelands & tidelands at Malaspina Lake & outlet streams	RD1 H1 HV1	<ul style="list-style-type: none"> ■ moose winter habitat near lake ■ bear summer/fall feeding near lake ■ hunting and fishing access ■ seabird nesting colonies ■ trumpeter swan nesting and brooding ■ goose molting ■ community harvest: waterfowl 	<ul style="list-style-type: none"> ■ Adjacent uplands are within Wrangell-St. Elias National Preserve.

Unit 6 - Point Riou to Yakutat Bay - tidelands, submerged lands, & shorelands

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information.)	Background
<p>6d tidelands & submerged lands at Russell & Nunatak fiords</p>	<p>RD1 H2 HV2</p>	<ul style="list-style-type: none"> ■ bear spring/summer/fall feeding adjacent to tidelands ■ herring schooling concentration areas ■ king crab molting, mating, and juvenile rearing ■ king crab spawning/molting ■ waterfowl and shorebirds spring and fall concentrations ■ seabird nesting colonies ■ harbor seal concentrations ■ herring ■ commercial king crab harvest ■ Sea kayaking - kayak put-in at trailhead in southwest Russell Fiord. Commercial outfitters run guided trips. ■ wildlife viewing ■ scenic viewing of geologic and hydrologic features ■ community harvest: seals, intertidal gathering ■ anchorages at southwest end of Russell Fiord, Seal Bay, and the upper end of Nunatak Fiord 	<ul style="list-style-type: none"> ■ Uplands are designated wilderness within Tongass National Forest. ■ Unique geological area. Hubbard Glacier has, and may again, block outlet to Russell Fiord, creating an inland sea and causing massive flooding. ■ Gold and copper prospecting occurred on adjoining uplands in the early 1900s. Prior to the federal wilderness designation of the uplands, the U.S. Geological Survey indicated there were no signs of mineralization with economic importance.

Unit 6 Point Riou to Yakutat Bay - tidelands, submerged lands, & shorelands

Unit 6 Point Riou to Yakutat Bay - tidelands, submerged lands, & shorelands

PLANNING UNITS

management unit boundary

subunit boundary and number

LAND STATUS

STATE OWNED OR SELECTED: SUBJECT TO PLAN

NO PATTERN state owned - patented or tentatively approved

STATE OWNED BUT EXCLUDED FROM PLAN

Mental Health Trust land

OTHER LAND OWNERSHIP

Native owned - patented or interim conveyed

Native selected

OTHER LAND OWNERSHIP

LABELLED federal (National Forest, National Park)

--- federal conservation system unit boundary

Yakutat Airport land (DOT&PF)

Note: municipal and private lands occur near the southern boundary of Unit 6, in the Yakutat area, but are too small to be depicted at this scale. See Unit 8 map on page 3-201 for municipal and private lands at Yakutat.

MAP FEATURES

△ anadromous fish stream mouth

— road

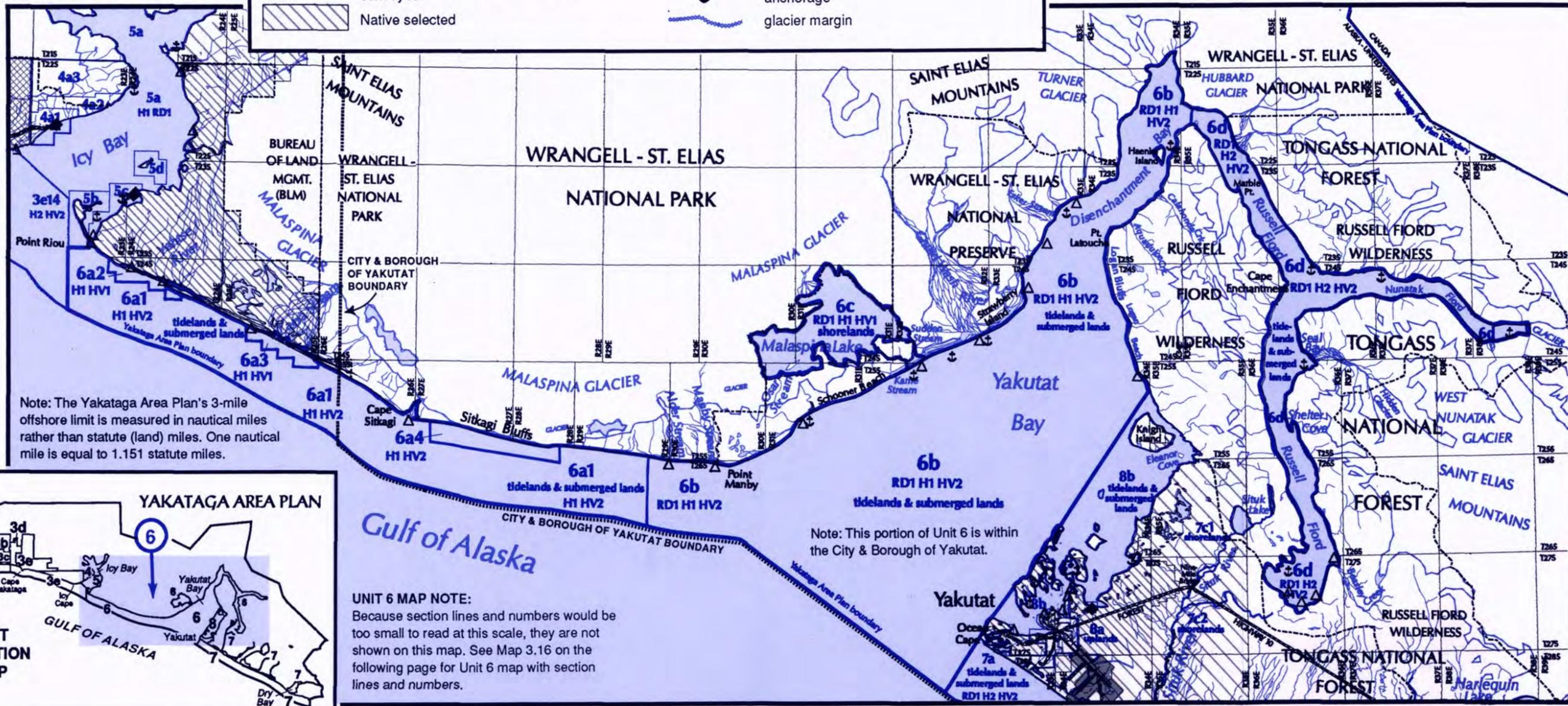
◆ log transfer facility

⚓ anchorage

~ glacier margin

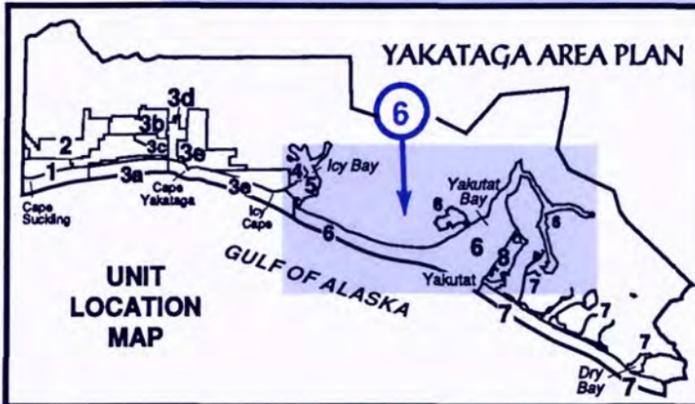


April 1995



Note: The Yakataga Area Plan's 3-mile offshore limit is measured in nautical miles rather than statute (land) miles. One nautical mile is equal to 1.151 statute miles.

UNIT 6 MAP NOTE:
Because section lines and numbers would be too small to read at this scale, they are not shown on this map. See Map 3.16 on the following page for Unit 6 map with section lines and numbers.



YAKATAGA AREA PLAN

Unit 6 Point Riou to Yakutat Bay - tidelands, submerged lands, & shorelands (with section lines and numbers)

PLANNING UNITS

- management unit boundary
- subunit boundary and number

LAND STATUS

STATE OWNED OR SELECTED: SUBJECT TO PLAN

- state owned - patented or tentatively approved

STATE OWNED BUT EXCLUDED FROM PLAN

- Mental Health Trust land

OTHER LAND OWNERSHIP

- Native owned - patented or interim conveyed

OTHER LAND OWNERSHIP

- Native selected
- federal (National Forest, National Park)
- federal conservation system unit boundary
- Yakutat Airport land (DOT&PF)

Note: municipal and private lands occur near the southern boundary of Unit 6, in the Yakutat area, but are too small to be depicted at this scale. See Unit 8 map on page 3-201 for municipal and private lands at Yakutat.

MAP FEATURES

- road



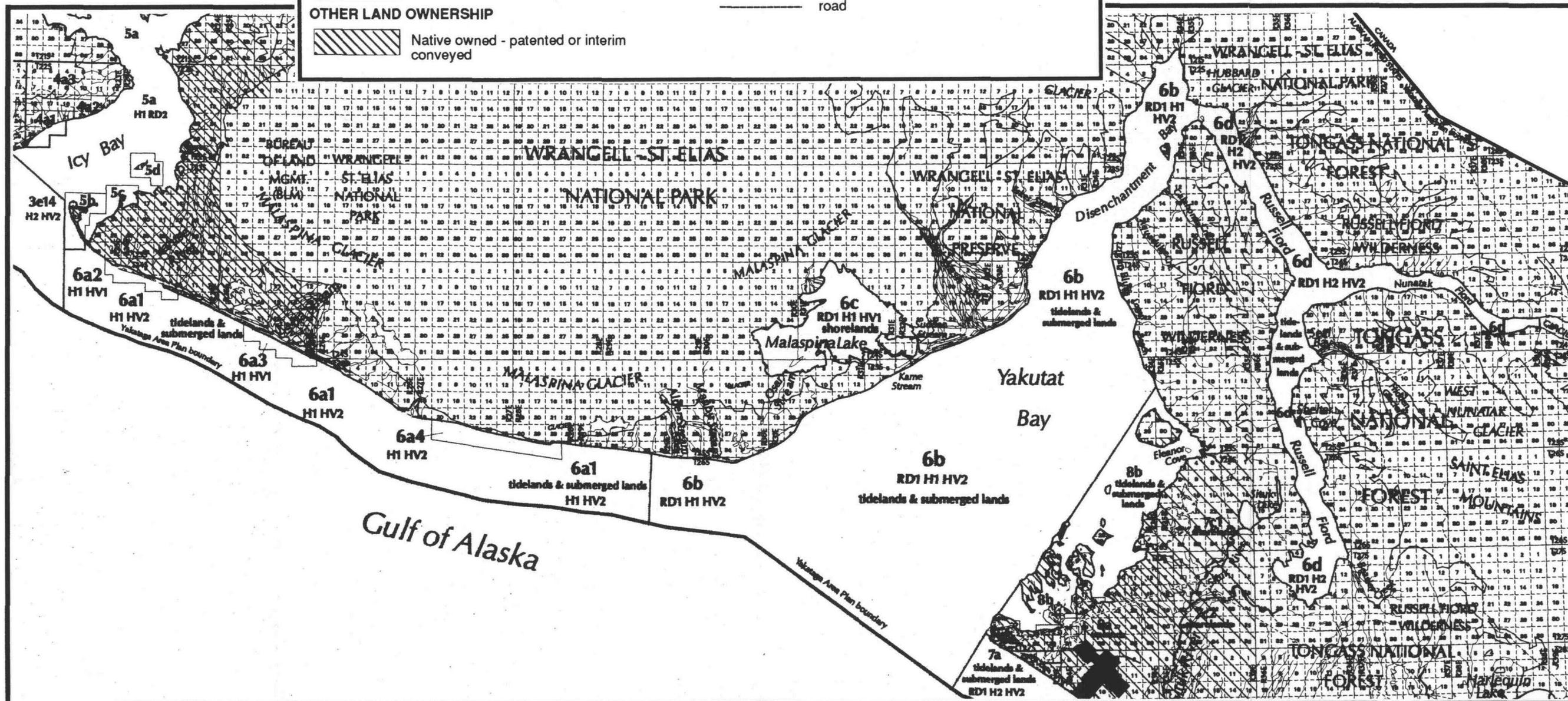
NORTH

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SCALE IN MILES

April 1995

Unit 6 Point Riou to Yakutat Bay - tidelands, submerged lands, & shorelands (with section lines and numbers)

See Unit 6 - Map 3.15 on page 3-155 for more complete information.



UNIT 7**OCEAN CAPE TO
ALSEK RIVER -****TIDELANDS, SUBMERGED LANDS,
AND SHORELANDS****Background**

Unit 7 extends south and east of Yakutat along the Gulf of Alaska to Glacier Bay National Park.

Physical features

The shoreline is an exposed high energy coastline interspersed with meandering river mouths. The upland vegetation is predominately muskeg and brush interspersed with Sitka spruce and hemlock forest. The topography is relatively flat except for the Brabazon Range near the Alsek River. The Yakutat Forelands, Situk River, Alsek River, and Harlequin Lake are preponderant features.

Land status

State lands in Unit 7 are limited to the tidelands, submerged lands, and shorelands beneath navigable rivers and lakes. Nearly all the uplands are part of Tongass National Forest, managed by the U.S. Forest Service. Lands surrounding the Situk River have been selected by Sealaska Corporation. Several Native allotments are also scattered along the Situk River and coastline. The easternmost part of Unit 7 (east of the Alsek River) is within Glacier Bay National Preserve, managed by the National Park Service.



Akwe Spit

Adjoining lands

The unit is bounded by the town of Yakutat and Yakutat Bay to the east, Tongass National Forest and Canada to the north and northeast, and Glacier Bay National Park to the east. The national forest and park include designated wilderness areas.

Access

Set net fishermen use skiffs and ATVs for access to fishing sites near river mouths. Wheel planes land on the beach and at remote airstrips within Tongass National Forest. Several rivers are navigable by shallow-draft boats, including the Alsek and Situk rivers. The main road in the unit, Forest Highway 10, begins in Yakutat and terminates at Harlequin Lake. Most commercial guide camps and U.S. Forest Service (USFS) public use cabins are approached by plane or boat.

Resources and uses

Several rivers in Unit 7 support commercial, sport, and community harvest fisheries, totalling an annual average return of \$1,963,000 (based on 1981-1991 data). The Alsek (including Dry Bay) and Situk rivers provide 35 and 25 percent of the commercial set net fishing income in the planning area, respectively. The offshore waters support commercial salmon trolling and crabbing. The Situk River receives over 7,000 angler-days of sport fishing annually.

The largest known Aleutian tern colony in the world is located on Blacksand Island. The wetlands, muskegs, and forests provide important habitat for the large numbers of migrating birds that follow the Pacific flyway each spring and fall. Sport and subsistence hunting for moose, goat, bear, waterfowl, and trapping of furbearers occurs throughout the unit.

The Alsek River supports world-class raft trips that include mountain scenery, wildlife viewing, photography, hiking, and climbing. The trips originate in Canada and terminate in Dry Bay. The National Park Service has placed limits on camping along the river in order to preserve the wilderness quality of the experience.

An historic canoe route extends between the Ankau Saltchuck and Dry Bay, following the barrier beaches that force rivers to run parallel to shore. Ocean Cape is one of a few places in Alaska with ideal waves for surfing.

Management considerations

The commercial and sport fisheries at the Situk River are threatened by flooding predicted to occur when Hubbard Glacier advances and closes Russell Fiord (see Unit 6). The volume of flow in the Situk River is expected to increase at least tenfold, probably altering salmon spawning and rearing habitat. The short-term and long-term impacts on the Situk fishery are unknown.

Federal land managers have tried to manage perceived public use problems along the Situk and Alsek rivers by restricting use of the rivers. DNR claims ownership and management authority over the beds of navigable waters and, therefore, control over river use.

The navigable rivers in this unit continually shift and meander. The location of state shorelands (the river beds) may require confirmation before DNR authorizes uses.

The high energy tidelands, shifting river mouths, and high earthquake hazard pose challenges for construction on tidelands. Stipulations may be necessary to ensure that authorized structures are properly located and engineered to withstand natural hazards.

Unit 7 - Ocean Cape to Alsek River - tidelands, submerged lands, & shorelands resource allocation summary

Forestry

The state owns no forest land in this unit.

Fish and wildlife harvest

All of this unit (consisting of tidelands, submerged lands, and shorelands) is designated for fish and wildlife harvest. The HV1 designation applies to sites used for shore fisheries. HV2 protects commercial fishing and community harvest over extensive areas as well as the recreation destination of Harlequin Lake.

Fish and wildlife habitat

All ten subunits are designated for fish and wildlife habitat. The streambeds of highly productive anadromous fish streams (as defined by the planning team) are protected by mineral leasehold.

Minerals development

All state-owned submerged lands and most tidelands are open to mineral entry. State-owned shorelands and tidelands of the most productive anadromous lakes, streams, and lagoons are open to entry under mineral leasehold location. DNR temporarily closed to new mineral entry the state-owned shorelands and tidelands of anadromous navigable reaches of the Situk River. Permanent closure requires legislative approval.

Recreation and tourism

The plan designates all of Unit 7 for dispersed recreation. The plan endorses borough and federal efforts to restore the historic canoe route along Tawah Creek. The plan does not recommend commercial recreation leasing under the .073 process: the planning team deemed it unlikely on the outer beach, and unnecessary or undesirable on the shorelands, which the USFS manages for dispersed or primitive recreation.

Settlement

There are no state uplands in this unit. A guideline for the lower Situk River states that access to Native allotments will be allowed consistent with protection of habitat and harvest.

Transportation

The plan notes the use of Unit 7A (the outer beach) for aircraft landings, hiking and ATV use. The plan notes that several rivers are access routes for hunting and fishing.

Waterfront development

There are no designated waterfront development sites. Waterfront development was judged unlikely along the outer coast because of exposure to storm surges, winds, erosion, and tsunamis; and because most adjoining federal uplands are managed for primitive recreation.

Subunit 7a - tidelands and submerged lands along Gulf Coast - between Ocean Cape and Doame River

■ **Designation**

Habitat and harvest (RD1, H2, HV2)

■ **Management intent**

Protect or enhance conditions for dispersed recreation, particularly for hiking, wildlife viewing, surfing, and beachcombing. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to recreation users.

Maintain conditions for fish and wildlife habitat and harvest. All activities will minimize significant adverse impacts to the habitat and harvest.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ **General information**

A broad sand beach, backed by vegetated dunes or low-lying coastal forest, extends for approximately 65 miles from Ocean Cape to Doame River.

Commercial Dungeness crab fishing occurs from just outside the surf line to deeper waters all along the coast. Concentration areas generally occur to the west of river mouths, where crabs gather to feed on detritus discharged from the rivers and carried along the coast by prevailing currents.

Sea otters feed on crabs and clams along the outer shore but return to sheltered waters to rest.

Recreation along the beach includes hiking, wildlife viewing, and floating along the traditional canoe trail through sloughs parallel to the beach. The beach and the tidelands along the river mouths also are used for vehicular transportation, aircraft landings, and commercial set net activities.

Subunit 7b - shorelands at Tawah Creek

■ **Designation**

Habitat, harvest, and dispersed recreation (H1, HV1, RD1)

■ **Management intent**

Protect or enhance fish and wildlife habitat, particularly for anadromous fish, and swan and eagle wintering areas, sport fishing and community harvest of fish and waterfowl. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat and harvest resources listed above.

Protect or enhance conditions and opportunities for dispersed recreation, particularly for recreational floating and wildlife viewing. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to recreation uses.

DNR encourages the efforts of the U.S. Forest Service and City and Borough of Yakutat to designate and develop the historic canoe route parallel to the coast as a recreation and cultural attraction. DNR will avoid significant adverse impacts from activities in Unit 7B to the scenic, cultural, and recreational values of the canoe route.

■ Guidelines:

Mineral leasehold location In the bed of Tawah Creek and its tributaries that support anadromous fish, new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the leasehold location areas.

■ General information

Tawah Creek is part of an historic canoe route parallel to the coast used by local Natives to travel between Yakutat and Dry Bay.

Tawah Creek is an important sport fishery for coho because it is road accessible and close to Yakutat. In 1989, the Lost River-Tawah Creek system had 10,339 angler hours, with 4,388 coho caught.

Subunit 7c-1 - shorelands at Situk Lake, Mountain Lake, and Situk River upstream from Nine-mile Bridge

■ Designation

Habitat, harvest, and dispersed recreation (H1, HV2, RD2)

■ Management Intent

Protect or enhance fish and wildlife habitat, particularly for anadromous fish (including steelhead), waterfowl and shorebird concentrations, and swan rearing.

All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources listed above.

Maintain conditions for fish and wildlife harvest, particularly for sport fishing and community harvest of fish and waterfowl. Maintain conditions for dispersed recreation, particularly for floating and scenic enjoyment. All activities will minimize significant adverse impacts to harvest activities and recreation resources.

■ Guidelines:

Mineral closure DNR adopted Mineral Order No. 711 to close the beds of Mountain Lake, Situk Lake, and the Situk River upstream from Nine-mile Bridge to new mineral entry in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga planning area's commercial, sport, and community harvest fisheries.

Mineral Order 711 is an interim closure that must be approved by the legislature. If not approved, it will expire on the 90th day of the next legislative session, or when the legislature adjourns, whichever comes first. See Appendix B for a map of the area closed to new mineral entry.

Access to private lands Access to private lands (Native allotments) will be allowed consistent with management intent to protect habitat and harvest.

■ **General Information**

The upper watershed has important fish spawning and rearing habitat, particularly for chinook salmon. Adequate chinook escapement is important to prevent closures of the commercial set net fishery, which provides 25 percent of the total return from set net fishing by Yakutat residents. The Situk River is internationally known among sport fishermen.

Sport fishermen gain access to this reach of the Situk by floating from the lakes to Nine-mile Bridge. Floaters must portage around log jams. The U.S. Forest Service (USFS) maintains a hiking trail from Forest Highway 10 to the lakes. Additional trails extend from the bridge to the USFS's Situk River Cabin on the northeast corner of the lake.

Float planes occasionally land on Situk Lake. The lake is a trumpeter swan rearing area.

Subunit 7c-2 - shorelands at Situk River downstream from Nine-mile Bridge to tidewater

■ **Designation**

Habitat, harvest, and dispersed recreation (H1, HV1, RD2)

■ **Management Intent**

Protect or enhance fish and wildlife habitat, particularly for anadromous fish, waterfowl and shorebird concentrations, and swan rearing.

Protect or enhance conditions for fish and wildlife habitat, particularly for commercial fishing, sport fishing, and community harvest of fish and waterfowl.

All activities will, to the extent feasible and prudent, avoid significant impacts to the habitat resources and harvest activities listed above.

Maintain conditions for dispersed recreation, particularly for floating and scenic enjoyment. All activities will minimize significant adverse impacts to the recreation resources.

■ **Guidelines:**

Mineral closure DNR adopted Mineral Order No. 711 to close the bed of Situk River to new mineral entry from Nine-mile Bridge downstream to (and including) Situk lagoon, in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga planning area's commercial, sport, and community harvest fisheries.

Mineral Order No. 711 is an interim closure that must be approved by the legislature. If not approved, it will expire on the 90th day of the next legislative session, or when the legislative adjourns, whichever comes first. See Appendix B for a map of the areas closed to new mineral entry.

Access to private lands Access to private lands (Native allotments) will be allowed consistent with management intent to protect habitat and harvest.

■ **General information**

The commercial fishery at the Situk River runs from June to September. It produces 25 percent of the total return from set net fishing in the Yakutat area. The annual average value of the set net salmon harvest on the Situk and Ahrnklin Rivers from 1981-1991 was \$787,000. More than 80 set

net permit holders fish on the Situk or Ahrnklin Rivers (annual average effort). Near the river mouth, there are commercial fish camps on USFS lands and Native allotments.

The sport fishery runs from April to September. The Situk River is a significant regional wild fishery for king, sockeye, coho, and pink salmon, and Dolly Varden/char and steelhead. It is the third most important steelhead fishery in southeast Alaska with a mean sport catch (1989-90) of 3,532 fish and with mean annual angler-hours totalling 13,193. The late summer-fall coho fishery has a mean catch of 2,758 and 11,787 mean angler hours (1985-89). The sport fishing attract anglers from across the country and abroad. In the Yakutat area, 53 percent of freshwater sport fishermen were not Alaskans (based on 1985-89 data).

Roads from Yakutat connect boat launches at Nine-mile Bridge and the mouth of the Situk. Power boats can navigate between the two launch sites. Boat launch improvements are planned at Nine-mile Bridge. Several USFS public use cabins on the river are in high demand by sport fishermen and hunters. The USFS maintains a hiking trail from the lower boat landing to the Weir Cabin, while the Middle Cabin is usually reached by an adjacent airstrip or by boat.

Subunit 7d - tidelands at Blacksand Island and Ahrnklin River lagoon

■ Designation

Habitat, harvest, and dispersed recreation (H1, HV1, RD2)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly for Aleutian tern nesting, waterfowl and shore-bird concentrations, and swan wintering.

Protect conditions for fish and wildlife harvest, particularly community harvest of fish, waterfowl, and seal, and commercial fish harvest.

All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources and harvest activities listed above.

Maintain conditions for dispersed recreation consistent with fish and wildlife habitat and harvest. All activities will minimize significant adverse impacts to recreation uses.

■ Guidelines:

Mineral leasehold location On tidelands in the Ahrnklin River lagoon that support anadromous fish, new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga planning area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the leasehold location areas.

Tern colony Activities that disturb nesting birds will not be allowed.

■ General information

Commercial set net statistics for the Ahrnklin River are combined with the Situk River figures. The commercial set net effort in the two river systems produced an average annual value of \$787,000 from 1981-1991.

Blacksand Island has the largest Aleutian tern nesting colony in the world.

Subunit 7e - shorelands at Ahrnklin and Antlen rivers

■ Designation

Habitat, harvest, dispersed recreation (H1, HV1, RD2)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly for anadromous fish, eulachon, swans, and waterfowl and shorebird concentrations. Protect or enhance conditions for fish and wildlife harvest, particularly community harvest of fish, waterfowl, and furbearers; and commercial set net fishing. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to habitat resources and harvest activities listed above.

Maintain conditions for dispersed recreation, consistent with the fish and wildlife habitat resources and harvest activities listed above. All activities will minimize significant adverse impacts to the recreation uses and resources.

■ Guidelines:

Mineral leasehold location	In the beds of the Ahrnklin and Antlen rivers that support anadromous fish, new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga planning area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the leasehold location areas.
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■ General information

See the table at the end of this unit.

Subunit 7f - shorelands at Dangerous River

■ Designation

Habitat, harvest, and dispersed recreation (H1, HV1, RD1)

■ Management intent

Protect or enhance conditions for fish and wildlife habitat particularly for harbor seals, swans, sea birds, shore birds, and waterfowl. Protect or enhance conditions for fish and wildlife harvest, particularly community harvest of fish and waterfowl, and moose harvest. Protect and enhance conditions for dispersed recreation particularly for floating, scenic qualities, and wildlife viewing.

All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources, harvest activities, and recreation uses listed above.

■ Guidelines: None. There are no guidelines specific to this subunit.

■ General information

The shallow protected waters at the river mouth attract large numbers of migratory waterfowl, including concentrations of up to 6,000 swans at one time.

Commercial set net activity is low relative to other rivers on the Yakutat forelands. Glacial turbidity of the river may be a factor in lower fish production. An average of four set net permit holders fish the Dangerous River (1981-1991), targeting sockeye (9,000) and chinook (4,000). Average value from 1981-1991 was \$14,580.

The USFS evaluated the Dangerous River for potential addition to the Wild and Scenic River system, but decided against the idea due to local opposition. The USFS has developed hiking trails from Dangerous River bridge to Harlequin Lake and a public use cabin on the middle reaches of the river. Another USFS cabin on the lower river has an airstrip for access.

Subunit 7g - shorelands at Harlequin Lake

■ **Designation**

Dispersed recreation, habitat and harvest (RD1, H2, HV2)

■ **Management intent**

Protect or enhance conditions for water-related dispersed recreation on Harlequin Lake, particularly for boating. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to recreation uses.

Maintain fish and wildlife habitat and harvest consistent with conditions for dispersed recreation. All activities will minimize significant adverse impacts to habitat and harvest.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ **General information**

The Brabazon Range encircles Harlequin Lake on three sides, displaying numerous mountain peaks, hanging glaciers and cliffs. The six-mile long lake is frequently choked by icebergs from Yakutat Glacier, adding drama to boating and other recreation.

Harlequin Lake is a recreation destination for both locals and tourists. There is access by road, float plane, or wheel plane. Boat launching is possible but there is no developed launch site. There is a USFS public use cabin. Two hunting camps operate in the Harlequin Lake area.

Subunit 7h - shorelands at Italo River, Lakes, and Lagoons

■ **Designation**

Habitat, harvest, and dispersed recreation (H1, HV1, RD1)

■ **Management intent**

Protect or enhance fish and wildlife habitat, particularly for anadromous fish, swans, waterfowl, and shorebirds.

Protect or enhance conditions for fish and wildlife harvest, particularly for sport fishing at the river mouth and community harvest of fish and waterfowl.

Protect or enhance conditions for river-related dispersed recreation, particularly floating and camping.

All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources, harvest activities, and recreation uses listed above.

DNR supports a proposed initiative by DFG to seek legislative approval to close to new mineral entry, the state-owned shorelands and tidelands of the Italo River (old and new channels), lakes, and lagoons as mapped in the draft area plan, in order to protect anadromous fish habitat and the productivity of valuable commercial, sport, and community harvest fisheries. If the legislature approves these closures, DNR will amend the Yakataga Area Plan to reflect the closures.

■ **Guidelines:**

**Mineral
leasehold
location**

In the beds of the Italo River (old and new channels), lakes, and lagoons that support anadromous fish, new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the leasehold location areas.

■ **General information**

The commercial set net effort is low relative to most rivers on the Yakutat forelands. An average of at least five set net permit holders fish the Italo River and the Old Italo River from 1981-1991, targeting coho (28,000) and sockeye (13,000). The average annual value was \$55,000 per year.

The USFS manages a public use cabin and airstrip near the mouth of the Italo River. There is a nearby sport camp with its own airstrip. Sport fishing effort averages 200 angler days per year.

Subunit 7i - tidelands, submerged lands, and shorelands at Akwe River, Lake, and Lagoon

■ **Designation**

Habitat, harvest, and public access site recreation (H1, HV1, RD1)

■ **Management intent**

Protect or enhance fish and wildlife habitat, particularly for anadromous fish, swans, waterfowl, shorebirds, and seals. Protect or enhance conditions for fish and wildlife harvest, particularly for sport fishing and commercial fishing. Protect or enhance conditions for dispersed recreation, particularly for wildlife viewing and camping.

All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources, harvest activities, and recreation uses listed above.

DNR supports a proposed initiative by DFG to seek legislative approval to close to new mineral entry, the state-owned shorelands and tidelands of Akwe River, lake and lagoon as mapped in the draft area plan, in order to protect anadromous fish habitat and the productivity of valuable commercial, sport, and community harvest fisheries. If the legislature approves these closures, DNR will amend the Yakataga Area Plan to reflect the closures.

■ **Guidelines:**

**Mineral
leasehold
location**

The beds of the Akwe River, lake, and lagoon that support anadromous fish, new mineral entry will be allowed under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the leasehold location areas.

■ **General information**

An average of 15 set net permit holders fish the Akwe River (1981-1991), targeting sockeye (90,000) and coho (57,000). Average annual value of the commercial fishery is \$153,000.

Subunit 7j - shorelands at Dry Bay and Alsek River

■ Designation

Habitat, harvest, and dispersed recreation (H1, HV1, RD1)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly for seals, sea lions, waterfowl, shorebirds, swans, anadromous fish, and seabirds.

Protect or enhance conditions for fish and wildlife particularly for commercial set net fishing, waterfowl hunting, and community harvest of fish. Protect or enhance conditions for dispersed recreation, particularly for wilderness float trips, scenic values, and wildlife viewing on the Alsek River and Dry Bay.

All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources, harvest activities, and recreation uses listed above.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

The commercial fishery at Dry Bay runs from June to September. There are over 75 fish camps on USFS and National Park Service lands. The Alsek River draws an average of 32 permit holders annually and the East River draws 79 (1981-1991). Sockeye is the most important catch (889,000 fish annually) with the coho catch averaging 68,000. The average annual value of the commercial fishery is \$1,006,000 (late 1980s).

Three glaciers in British Columbia can potentially dam the Alsek River: Tweedsmuir, Lowell, and Konamox (Post and Mayo, 1971). The most recent glacially-dammed lake on the Alsek is estimated to have formed around 1945. A large lake dammed by Konamox Glacier poses a moderate flood hazard on the Alsek River floodplain.

The Alsek forms a series of sand bars at every major river bend. At Dry Bay, the Alsek unloads tons of glacial silt and sand, forming extensive bars and shallow mudflats.

The Alsek River offers spectacular vistas in several locations. In front of Alsek Glacier, the river forms a 5-mile-wide iceberg-laden bay encircled by rugged mountains. At the river's debouchment into Dry Bay, the forested plain opens up to reveal a ring of mountains.

The Alsek River is a national and international tourist attraction for wilderness float trips. The National Park Service has established a quota system for both commercial and private float trips, to preserve the wilderness experience. Recreationists use the east shore of Dry Bay for access to the airstrip.

The United Nations Environmental, Scientific and Cultural Organization (UNESCO) has designated this coastal region as a World Heritage Site. This U.N. designation encompasses Wrangell-St. Elias National Park & Preserve, Glacier Bay National Park & Preserve, Kluane National Park (Canada), and Tatshenshini-Alsek Provincial Park (British Columbia, Canada).

Unit 7 - Ocean Cape to Alsek River - tidelands, submerged lands, & shorelands

Area # & name	Designation	Resource or Use (See resource reports and maps for more complete information)	Background
<p>7a tidelands & submerged lands along Gulf Coast -between Ocean Cape & Doame River</p>	<p>RD1 H2 HV2</p>	<ul style="list-style-type: none"> ■ recreation: surfing from Cannon Beach & Pt. Carew hiking wildlife viewing beachcombing ■ whale migration ■ sea otter established populations ■ moose winter habitat adjoins the tidelands ■ bear spring/summer/fall habitat adjoins the tidelands ■ razor clam concentration areas ■ eulachon spawning concentration areas ■ Dungeness crab molting, mating, and juvenile rearing in water more than 5 fathoms deep ■ community harvest: fish ■ commercial set net fisheries at major rivers and lagoons ■ commercial Dungeness crab and salmon trolling ■ anchorages between Summit Lakes and the mouth of Situk River, the mouth of Dangerous River, east Alsek River, and in Dry Bay 	<ul style="list-style-type: none"> ■ Airplanes and ATVs use the beach or the dunes for access to commercial set net camps at several river mouths.
<p>7b shorelands at Tawah Creek</p>	<p>H1 HV1 RD1</p>	<ul style="list-style-type: none"> ■ anadromous fish ■ recreational floating ■ wildlife viewing ■ sport fishing ■ community harvest: waterfowl and fish ■ trumpeter swan wintering area ■ eagle winter concentration area ■ moose winter habitat adjacent to shorelands ■ bear summer/fall feeding adjacent to shorelands ■ eulachon spawning concentration ■ capelin spawning 	<ul style="list-style-type: none"> ■ The float put-in and take-out are road accessible

Unit 7 - Ocean Cape to Alsek River - tidelands, submerged lands, & shorelands

Area # & name	Designation	Resource or Use (See resource reports and maps for more complete information)	Background
7c-1 shorelands at Situk Lake, Mountain Lake & Situk River upstream from Nine-mile Bridge	H1 HV2 RD2	<ul style="list-style-type: none"> ■ anadromous fish spawning and rearing ■ trout overwintering in Situk Lake and Situk Creek ■ moose winter habitat adjoining shorelands ■ bear summer/fall feeding ■ waterfowl and shorebird spring and fall concentration areas ■ swan rearing - Situk Lake ■ community harvest: fish, waterfowl, and trapping ■ sport fishery ■ floating for sport fish access 	<ul style="list-style-type: none"> ■ Situk River is road-accessible at Nine-mile Bridge and at mouth for float put-in and take-out.
7c-2 shorelands at Situk River downstream from Nine-mile Bridge to tidewater	H1 HV1 RD2	<ul style="list-style-type: none"> ■ anadromous fish spawning and rearing ■ eulachon spawning concentration areas ■ waterfowl and shorebird spring and fall concentration areas ■ sport fishery, including internationally-known steelhead fishery ■ community harvest: fish, waterfowl, and trapping ■ motorized boat access for fishing access ■ commercial set net camps at river mouth 	<ul style="list-style-type: none"> ■ Situk River is road-accessible at Nine-mile Bridge and at mouth for float put-in and take-out. ■ USFS public cabins receive heavy use. ■ Set net camps on USFS lands and Native allotments (near river mouth).
7d tidelands at Blacksand Island & Ahrnklin River lagoon	H1 HV1 RD2	<ul style="list-style-type: none"> ■ largest Aleutian tern colony in the world ■ waterfowl and shorebird spring and fall concentration areas ■ trumpeter swan wintering area ■ eulachon spawning concentration areas in western estuary ■ brown bear spring feeding concentration area adjoining the tidelands ■ community harvest: waterfowl, seal ■ commercial set net fishery ■ iron and gold reported on Blacksand beach 	

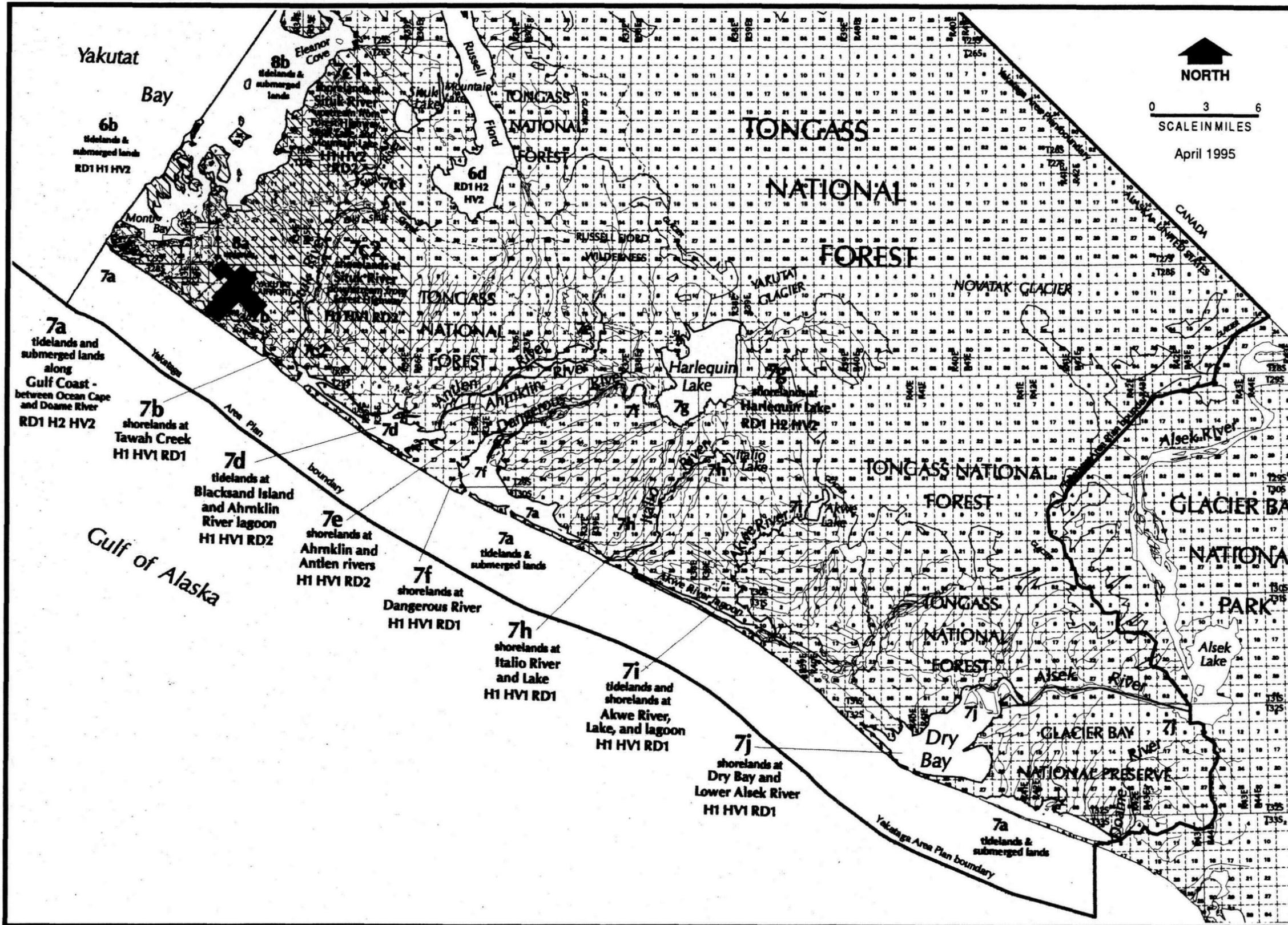
Unit 7 - Ocean Cape to Asek River - tidelands, submerged lands, & shorelands

Area # & name	Designation	Resource or Use (See resource reports and maps for more complete information)	Background
7e shorelands at Ahrnklin & Antlen rivers	H1 HV1 RD2	<ul style="list-style-type: none"> ■ anadromous fish ■ eulachon spawning concentration areas in Ahrnklin mainstem ■ trumpeter swans on Ahrnklin River - nesting, brooding & wintering ■ waterfowl and shorebird spring and fall concentration areas ■ community harvest: commercial and non-commercial fish and waterfowl, trapping ■ commercial set net fishery ■ recreation: float trips 	
7f shorelands at Dangerous River	H1 HV1 RD1	<ul style="list-style-type: none"> ■ recreation floating ■ waterfowl and shorebird spring and fall concentration area ■ harbor seal haulout concentration area ■ trumpeter swan wintering area ■ sea bird nesting colony ■ bear spring feeding adjacent to the shorelands ■ eulachon spawning concentration areas ■ community harvest: fish and waterfowl ■ moose hunting ■ commercial set net fishery 	<ul style="list-style-type: none"> ■ USFS considered river for Wild and Scenic River designation. ■ The float put-in is road-accessible from Forest Highway 10. ■ USFS trails and public use cabins on uplands
7g shorelands at Harlequin Lake	RD1 H2 HV2	<ul style="list-style-type: none"> ■ goose molting -Harlequin Lake ■ tent camps at Harlequin Lake ■ local glacier ice harvest ■ boat launch from road ■ scenic boating and glacier viewing ■ bear spring feeding adjacent to shorelands ■ trout over-wintering in upper section 	<ul style="list-style-type: none"> ■ Two hunting camps and a USFS public use cabin at Harlequin Lake ■ Accessible by road, float plane or wheeled plane
7h shorelands at Italo River & Lake	H1 HV1 RD1	<ul style="list-style-type: none"> ■ anadromous fish ■ eulachon spawning concentration areas and capelin spawning in lower section ■ trout overwintering in upper section ■ intensive sport fishing at mouth ■ commercial set net fishery ■ floating ■ trumpeter swan nesting, brooding & wintering area ■ waterfowl and shorebirds spring and fall concentration area ■ community harvest: fish and waterfowl 	<ul style="list-style-type: none"> ■ USFS public use cabin on airstrip near the mouth of the river. ■ Sport fish camp and airstrip near the mouth.

Unit 7 - Ocean Cape to Alsek River - tidelands, submerged lands, & shorelands

Area # & name	Designation	Resource or Use (See resource reports and maps for more complete information)	Background
7i tidelands, submerged lands, & shorelands at Akwe River, Lake, & lagoon	H1 HV1 RD1	<ul style="list-style-type: none"> ■ anadromous fish ■ bear spring/summer/fall feeding adjacent to tidelands ■ eulachon spawning and capelin spawning in lower section ■ trout over-wintering in upper sections ■ intensive sport fishing at mouth ■ trumpeter swan nesting, brooding & wintering area ■ waterfowl and shorebirds spring and fall concentration area ■ harbor seal haulout concentration area ■ commercial set net fishery ■ community harvest: fish and waterfowl, trapping 	<ul style="list-style-type: none"> ■ USFS public use cabin and an airstrip at Square Lake. ■ Former chromium prospect at Akwe Beach.
7j shorelands at Dry Bay & Lower Alsek River	H1 HV1 RD1	<ul style="list-style-type: none"> ■ estuarine habitat - seal, sea lions, waterfowl, and shorebirds ■ anadromous fish ■ eulachon spawning concentration areas in Dry Bay ■ swan overwintering ■ seabird colonies ■ commercial set net fishery ■ community harvest: fish and waterfowl ■ sport waterfowl hunting ■ commercial and private float trips on Alsek River 	<ul style="list-style-type: none"> ■ Approximately 75 fish camps on adjacent uplands (managed by USFS and National Park Service) ■ Small road system and airstrip on east side of Dry Bay

Unit 7 Ocean Cape to Alsek River -
 tidelands, submerged lands, and shorelands
 (with section lines and numbers)



Unit 7 Ocean Cape to Alsek River -
 tidelands, submerged lands, & shorelands
 (with section lines and numbers)

PLANNING UNITS

- management unit boundary
- 1a1 subunit boundary and number

LAND STATUS

STATE OWNED OR SELECTED: SUBJECT TO PLAN

- NO PATTERN state owned - patented or tentatively approved

OTHER LAND OWNERSHIP

- Native owned - patented or interim conveyed
- Native selected
- LABELED federal (National Forest, National Park)
- federal conservation system unit boundary
- Yakutat Airport land (DOT&PF)

Note: municipal and private lands occur near the western boundary of Unit 7, in the Yakutat area, but are too small to be depicted at this scale. See Unit 8 map on page 3-201 for municipal and private lands at Yakutat.

MAP FEATURES

- road

See Unit 7 - Map 3.17 on page 3-175 for more complete information.

UNIT 8A**YAKUTAT -****UPLANDS & SHORELANDS;****UNIT 8B****SOUTHEASTERN YAKUTAT BAY -****TIDELANDS & SUBMERGED LANDS**

The uplands and tidelands within Unit 8 are described separately to allow more detailed description of local and state land ownership and developed areas around Yakutat. Discussion of upland and shoreland subunits begins here and continues to page 3-187; tideland and submerged land subunits are discussed on pages 3-188 to 3-199.

■ Unit 8A - uplands and shorelands

Background

Unit 8A includes the community of Yakutat and the uplands and shorelands within approximately five miles of the town center. This unit is the social, cultural, and economic heart of the planning area and is home to more than 75 percent of the residents in the planning area. In September 1992, the City of Yakutat reorganized and expanded its boundaries to become the City and Borough of Yakutat, which extends from Cape Fairweather to the 44th meridian near Icy Bay. The 1990 census counted 534 residents within the City of Yakutat, and an additional 171 residents in the rest of the area incorporated as a Borough.

Yakutat is the primary service center for most of the planning area. Over 60 percent of the local economy is derived from commercial fishing and seafood processing. Tourism and government spending comprise most of the rest of Yakutat's economic base.

Physical features

Yakutat was originally settled for its strategic location for trade between the Athapaskan and Tlingit Indians. At least 14 historic or prehistoric sites, primarily camp sites and old settlements, have been identified within Unit 8. This unit presents majestic views of the Malaspina Glacier and St. Elias Mountains. Other significant features include the old-growth forest along Ophir Creek, the rich estuaries of the Ankau Saltchuck and the beaches along the coast and islands.

Land status

The Department of Natural Resources owns approximately 2,550 acres of uplands in Unit 8A. DNR land encircles the developed part of the community and stretches down Ophir Creek to the Gulf of Alaska. Approximately 1,000 acres of DNR land were harvested for timber in the 1960s and 1970s. The DNR Division of Parks and Outdoor Recreation (DPOR) has applied for management authority of DNR land near Kardy Lake that includes the New Russia historical site.

The Yakutat airport is managed by the Department of Transportation and Public Facilities. The airport lands are excluded from this area plan.

Yak-tat Kwaan, the largest local landholder, owns 23,040 acres of uplands in Unit 8, including the nearshore islands, Phipps Peninsula/Ankau Saltchuck, industrial zoned land in Monti Bay, and larger tracts surrounding DNR land to the east and south. The City and Borough of Yakutat currently owns approximately 500 acres near the city center, with a pending conveyance of 138 acres. The Mental Health Trust owns 501 acres along Airport Road. Approximately 550 acres are in other private ownership.

Access

Yakutat receives daily jet service from Anchorage and Juneau. Several air charter operators are based in Yakutat. There is a float plane dock at the small boat harbor. Wheel planes are the predominant form of small aircraft used in the Yakutat vicinity.

A road system of approximately 30 miles connects the town to the airport, the boat harbor, the Ankau Saltchuck, the upper Situk River, and Harlequin Lake (Forest Highway 10). However, the road system does not connect to other regions. Travel outside the Yakutat forelands is by boat or airplane. Most residential areas within the community are accessible by road. The abandoned Yakutat and Southern Railroad formerly provided transportation between the Situk River commercial fishery and the cannery in Yakutat.

Resources and uses

Residential areas are concentrated near the head of Monti Bay, with other sites scattered along parts of the road system. Commercial and industrial activities are centered near the Monti Bay waterfront.

Sitka spruce is the predominant forest species. Most of the high value state and Native forested lands have been harvested except lower Ophir Creek, the Phipps Peninsula, and the nearshore islands.

Important upland habitat in this unit includes: several small anadromous fish streams, including Ophir Creek; eagle and trumpeter swan wintering areas; and waterfowl and shorebird migration areas on Phipps Peninsula. The upland vegetation provides habitat for moose, deer, and bear. Waterfowl, deer, and moose are hunted primarily by local residents. Community harvest is an important element of the local lifestyle and culture.

Management considerations

The demand for land for residential and commercial uses is high in the Yakutat vicinity. The major landowners who own land with the potential to support settlement include the City and Borough of Yakutat, DNR, Yak-tat Kwaan, the Mental Health Trust, and the Evangelical Covenant Church. Considerations for local land sales and development include: local zoning ordinances; a relatively high water table; location of roads and utilities; potential amenities such as views; and coordination with other landowners.

The newly-incorporated City and Borough of Yakutat will prepare a Borough Comprehensive Plan and local Alaska Coastal District Management Plan. Zoning and other land use guidelines adopted through these local plans may impact state lands within the Borough.

The newly-incorporated City and Borough of Yakutat is entitled to select ten percent of the vacant, unappropriated, and unreserved (VUU)¹ state land within its boundaries. This entitlement is 138 acres.² No state land sales are currently planned.

Water volumes in Ophir Creek have significantly declined in recent years, causing a reduction in fish production. CBY and DFG are attempting to enhance spawning habitat. The effects of nearby land management activities, such as timber harvest, on water flows are unclear.

CBY has identified Ophir Creek, Ankau Saltchuck, and Shipyard Cove as Special Management Areas in the 1995 draft Yakutat District Coastal Management Program. CBY has proposed guidelines for these Special Management Areas.

¹ See Glossary in Appendix A.

² Under the December 1994 settlement agreement, DNR agreed to convey 103.54 acres under AS 38.05.810, without any revisionary interest, based on public interest finding required by AS 38.05.810(g). The remaining acreage under the 138 entitlement (34.46 acres) will be conveyed under AS 29.65.

Unit 8A - Yakutat - uplands & shorelands resource allocation summary

Forestry

Availability. Timber harvest at Ophir Creek will be limited to selective cutting for local use under small commercial or private timber sales. This will meet the local demand for timber and enable the state to realize an economic return while protecting other primary values.

In other subunits suited for forestry, DNR has logged 50 to 90 percent of the timber. Some of these units will be designated for other uses to meet community development needs. This reduction in the state's timber base should not affect sustained yield calculations for other state timber harvests because Yakutat timber is separate from Yakataga, and because the volume at Yakutat is too small for sustained commercial yield.

Fish and wildlife harvest

The three subunits with the most concentrated community and sport harvest were designated HV. The beds of Ophir Creek and Summit Lake are closed to new mineral entry to protect fish productivity, thereby protecting opportunities for fishing and other food-gathering. Retention of uplands at Aka and Kardy Lakes will ensure overland public access for sport and community harvest in the Ankaou saltchucks.

Fish and wildlife habitat

The two subunits with most concentrated habitat values are designated H. The beds of Ophir Creek and Summit Lake will be closed to new mineral entry to protect fish productivity. Mineral leasehold location will be applied to the shorelands and tidelands of the Ankaou saltchucks, Aka Lake, and Kardy Lake to protect fish productivity. The plan prohibits commercial recreation leasing at Ophir Creek in part to preserve old growth habitat.

Minerals development

All state uplands in Unit 8 will remain open to mineral entry until and unless proposed for disposal. The state-owned shorelands of Ophir Creek and Summit Lake are closed to mineral entry in order to protect anadromous fish habitat. The shorelands of Aka Lake, Kardy Lake, and Ankaou Saltchucks are open to mineral entry only under leasehold location, in order to protect productive anadromous fish habitats.

Recreation and tourism

The plan assigns a recreation designation to the three subunits with relatively high recreation and tourism values and use. The plan states DNR's intent to retain Puget Cove waterfront and uplands to ensure public recreation access to Yakutat Bay. A guideline protects scenic qualities at Puget Cove. DNR has encouraged the USFS's and CBY's efforts to recreate a former canoe route parallel to the coast, and DNR will minimize impacts to the scenic, cultural, and recreational values along the route. The plan supports small-scale commercial recreation leasing that is consistent with public use at Puget Cove and Aka Lake. At Ophir Creek commercial recreation leasing is prohibited to protect high fish and wildlife habitat and community harvest.

Unit 8A - Yakutat - uplands & shorelands resource allocation summary

Settlement

To meet the community and state interest in balanced private and public ownership, six subunits are designated for settlement or general uses for potential residential and commercial expansion. These subunits adjoin developed areas and are road-accessible, thus meeting the state's goal of efficient community expansion. Under the MHT settlement DNR will convey ownership of Subunit 8a-4 to the Mental Health Trust.

Transportation

The area plan has guidelines for retaining access corridors in public ownership before disposing of lands.

Waterfront development

The plan designates uplands near the docks along Monti Bay for general uses in order to meet future development needs along the industrial waterfront.

Other resources

General uses. Two tracts with no dominant resource values are designated for general uses to allow a mix of appropriate uses on a first come, first served basis.

Heritage resources. The New Russia site is designated heritage resources (HR). Other cultural sites will be protected under existing DNR regulations through the oversight of the State Historic Preservation Office.

Aquatic farming. DNR did not designate uplands for support of aquatic farming because operators of potential farming sites can commute from town or use floating facilities.

Subunit 8a-1 - Puget Cove uplands

■ Designation

Settlement and dispersed recreation (S, RD1)

■ Management intent

Promote sale, leasing, or permitting of state lands or transfer to the Borough to allow private commercial, or residential uses, or community uses, to the extent consistent with management for dispersed recreation.

Protect or enhance conditions for dispersed recreation, particularly boating, camping, fishing, day use, and scenic values both from the water and the uplands, and access. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to these recreation activities and values.

Recreation development at Puget Cove should maintain or enhance public recreation access to Yakutat Bay because these are the only state uplands along the bay. Small-scale commercial recreation may be compatible with the public recreation potential of the site.

To ensure maximum public benefits, DNR will retain in state ownership appropriate lands within this unit to protect scenic values and public access to and along the waterfront for recreation, including camping and fishing. Retention of some state lands for public recreation is important because (a) these are the only state lands along Yakutat Bay, (b) these lands have high scenic values and easy access by water or overland from town, and (c) most of the waterfront in the vicinity of town is unavailable or less desirable for public recreation because it is privately owned, or zoned for development, or has been logged.

■ Guidelines:

Scenic protection Screening for upland development, including disposals, should be provided in order to minimize impacts to the natural scenic qualities from the water and shore of Puget Cove. Retention of natural terrain and vegetation for screening is desirable.

■ General information

The current boundary of Subunit 8a-1, the designation, and the classification for Settlement and Public recreation, are in accordance with the December 1994 settlement agreement.

The rolling terrain affords spectacular westward views, with the barrier islands as foreground and Malaspina Glacier and Mount St. Elias as a backdrop. Forested hills at the water's edge conceal the clearcut areas on the bench south and east of Puget Cove.

Easy access via a short boat ride in sheltered waters, or via a short walk from the road system, heightens the recreation and harvest opportunities at Puget Cove. Community harvest of fish and crabs is relatively heavy: this cove rates with the Ankau as the two top marine harvest areas for local residents. Current recreation uses include shore casting and trolling. Puget Cove receives heavy boat traffic offshore to water depths of about 35 feet.

There are a few small coho spawning streams, moderate herring spawning, and eel grass at the head of Puget Cove.

This parcel is zoned "conservation" in the 1983 *Yakutat Comprehensive Development Plan*.

See also the table at the end of this unit and Appendix F.

Subunit 8a-2 - north Forest Highway

■ Designation

Settlement (S)

■ Management Intent

Promote sale, leasing, or permitting of state lands to allow private commercial, industrial, or residential uses, or community uses.

Commercial recreation leasing is allowed in this subunit.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

The portion of this subunit within Section 19 (Township 27 South, Range 34 East) (south of Puget Cove) was formerly in Subunit 8a-1. DNR has designated and classified this portion for Settlement in accordance with the December 1994 settlement agreement.

This parcel is near existing residential subdivisions and has highway access to town.

Subunit 8a-3 - south Forest Highway, Glacier Bear area

■ Designation

Settlement (S)

■ Management intent

Promote sale, leasing, or permitting of state lands to allow private commercial, industrial, or residential uses, or community uses.

Commercial recreation leasing is allowed in this subunit.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

This area adjoins the Glacier Bear Lodge and Restaurant. The land is road accessible and level. There is a visual buffer of mature trees between the clear-cut areas and the highway.

Subunit 8a-4 - Airport Road

Note: This parcel is no longer managed by DNR. It is being [or has been] conveyed to the Mental Health Trust. Lands held by the MHT are not subject to the land use designations or guidelines in this plan.

■ General information

This parcel is near existing residential subdivisions and has highway access to town. DNR had previously designated and classified it for settlement, which was consistent with subsequent transfer to the MHT.

DNR surveyed approximately 500 acres for a residential subdivision in 1984 (ASLS 84-89). The sale was halted by opposition from the City of Yakutat. Local residents expressed mixed opposition and support.

Subunit 8a-5 - road junction

■ Designation

Settlement (S)

■ Management intent

Promote sale, leasing, or permitting of state lands to allow private commercial, industrial, or residential uses, or community uses.

■ Guidelines:

Mineral closure The bed of Ophir Creek is closed to new mineral entry in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the areas closed to new mineral entry.

■ General information

This parcel is hilly and mostly forested.

State land east of the airport road is zoned Residential Reserve in the *Yakutat Comprehensive Development Plan* (1983). State land east of the airport road is zoned Conservation.

Subunit 8a-6 - Ophir Creek uplands & shorelands, and Summit Lake shorelands

■ Designation

Habitat, harvest, dispersed recreation, and forestry (H1, HV1, RD1, F2)

■ Management intent

Protect or enhance fish and wildlife habitat and harvest, particularly anadromous fish habitat, swan and eagle wintering habitat, and community harvest. Protect or enhance conditions for dispersed recreation, particularly scenic characteristics and public day use opportunities.

All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the fish and wildlife habitat and harvest and dispersed recreation. DNR encourages efforts of the USFS and the City and Borough of Yakutat to designate and develop the historic canoe route parallel to the coast. Because uplands in Unit 8a-6 are important to the natural setting for the canoe route, DNR will ensure that activities in Unit 8a-6 avoid significant adverse impacts to the scenic, cultural, and recreational values of the canoe route.

Maintain opportunities for forest management.³ Limit timber harvest to selective cutting for local use under small commercial or personal use timber sales in order to protect the character of the old growth forest habitat, community fish and wildlife harvest, and recreation opportunities.

³ Local residents have demonstrated an ongoing need for personal use timber harvest near the town. Illegal harvest of state timber is recurrent in this subunit. The secondary designation for Forestry (F2) is intended to allow DNR to manage this use eventually.

YAKATAGA AREA PLAN

DNR will manage this subunit consistent with the Yakutat Coastal District's guidelines for the proposed Ophir Creek special management area (printed in the *Yakutat District Coastal Management Program*).

■ Guidelines:

Mineral closure DNR adopted Mineral Order No. 712 to close to new mineral entry the state-owned shorelands and tidelands of anadromous portions of Ophir Creek and the shorelands of Summit Lake in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga planning area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the areas closed to new mineral entry.

■ General information

Historically, Ophir Creek has been an important community harvest area, particularly for late-running coho salmon. The creek's water volumes have dwindled in recent years and coho production has dropped sharply. The cause of the hydrological and biological change remains undetermined. Possible causes include: clear cut timber harvest in the upper drainages; isostatic rebound and resultant changes to the water table; and materials sales. DFG and CBY are undertaking a fisheries enhancement program to restore the salmon run in Ophir Creek.

Several gravel roads wind through the logged areas. The parcel has potential to support small-scale local timber needs.

Subunit 8a-7 - west Yakutat

■ Designation

General uses (G)

■ Management intent

Allow general multiple uses.

Commercial recreation leasing is allowed in this subunit.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

This subunit is hilly and forested, with numerous poorly-drained vales and swales. It adjoins CBY land and Yak-tat Kwaan land zoned for industrial uses (petroleum facility development).

Subunit 8a-8 - Aka Lake uplands and submerged lands

■ Designation

Habitat, harvest, heritage resources, and dispersed recreation (H1, HV1, HR, RD1)

■ Management intent

Protect or enhance fish and wildlife habitat and harvest, particularly waterfowl habitat and intensive community fishing and sport fishing. Protect or enhance heritage resources, particularly the Russian site. Protect or enhance conditions for dispersed recreation, including day use, camping, access and scenic values of the coastal fringe for hiking, ATVs, and beachcombing.

All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the fish and wildlife habitat and harvest uses, heritage resources, and dispersed recreation.

Small-scale commercial recreation may be compatible with protecting and enhancing the public recreation potential and heritage values of this site.

DNR encourages the efforts of the USFS and City and Borough of Yakutat to designate and develop the historic canoe route parallel to the coast as a recreation and cultural attraction. DNR will ensure that activities in Unit 8a-8 avoid significant adverse impacts to the scenic, cultural, and recreational values of the canoe route.

Lands in this subunit will be retained in state ownership to protect public access and the historical value of heritage resources.

■ Guidelines:

Mineral leasehold location In the bed of Aka Lake, new mineral entry will be allowed only by leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga planning area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the leasehold location areas.

■ General information

Locals and visitors drive to Aka Lake for shore-based sport fishing. This parcel is the only state-owned land on the outer coast near Yakutat. The combined access to the beach and the lake offer high recreation potential.

The area contains the site of the first Russian settlement on the coast: a garrison, stockade, and farming site dating back to 1796. In 1805, Tlingits attacked and burned the New Russia settlement, killing all but a few of the settlers. Today, there is little physical evidence of the site of the ill-fated colony. The site is a National Historic Land mark. The Division of Parks and Outdoor Recreation has applied for an Interagency Land Management Agreement to protect the historic site.

Subunit 8a-8 has the habitat characteristics for waterfowl migratory staging and/or nesting and/or overwintering. The Ankau and nearby lakes support a high concentration of eagles. US Forest Service studies have documented trumpeter swans overwintering in this area. DNR may need more detailed information on habitat values before authorizing uses.

A DPOR inventory (*Recreation, Scenic and Heritage Areas of Particular Concern*) noted that the area's wildlife includes nesting waterfowl, moose, Sitka black-tailed deer, brown bear, black bear, eagles, wolf, beaver, marten, weasel, land otter and marmot. The rich variety of wildlife amidst a changing landscape makes this area significant for wildlife viewing.

Subunit 8a-9 - eastern airport tract

■ Designation

Settlement (S)

■ Management intent

Promote sale, leasing or permitting of state lands to allow commercial or industrial uses, consistent with the use and development of the Yakutat airport.

■ Guidelines:

Commercial recreation leasing Commercial recreation leasing is allowed in this unit.

■ General Information

These relatively small, isolated parcels were selected from Tongass National Forest under National Forest Community Grant #209. They are bordered by the airport and by Native selections.

■ Unit 8B - tidelands & submerged lands

Background

Unit 8B encompasses the heavily-used tidelands and submerged lands within a few miles of Yakutat including Monti Bay, and parts of Yakutat Bay and the Gulf of Alaska.

Physical features

This unit includes the only deep-water anchorage protected from storms between Cordova (225 miles north) and Cross Sound (150 miles south). The relatively sheltered waters provide rich habitat for an abundance of marine life. Several bays, coves, passages, and lagoons provide protected waters for fishermen, subsistence harvesters, and recreationists. Monti Bay is adjacent to the industrial and main population center of Yakutat.

Land status

State land in Unit 8B is limited to the tidelands and submerged lands near Yakutat. The City and Borough of Yakutat owns approximately 258 acres of tidelands and submerged lands along the eastern shore of Monti Bay adjacent to the dock and several waterfront residences. DNR owns all other tidelands and submerged lands in the unit. Leases for commercial and industrial uses have been issued in south Monti Bay.

Adjoining lands

Adjacent upland owners include the City and Borough of Yakutat, DNR, Yak-tat Kwaan, and a few other private parties.

Access

The docks and anchorage in Monti Bay provide a marine transportation link between Yakutat and other Pacific ports. State ferry service is limited to a few times per year but barge and freight service is more frequent. Besides Monti Bay, several bays and coves provide protected anchorage for fishing boats and other smaller craft. The boat harbor in Shipyard Cove is managed by the Department of Transportation & Public Facilities (DOTPF). It provides docking facilities for boats and float planes and has a launch ramp connected to the local road system. The timber transfer facility at Broken Oar Cove is another marine access point.

Resources and uses

Local residents, commercial fishermen, and an increasing number of visitors harvest and or observe the diverse and abundant marine life in Unit 8B. Harbor seals, sea otters, and a variety of waterfowl, salmon, crab, clams, and seaweeds are commonly harvested and observed. The Ankau Saltchucks have exceptional habitat and harvest values for waterfowl, shellfish, and salmon. They are highly popular for community harvest and, increasingly, sport harvest. Puget Cove is intensively used for community crab and salmon harvest. Knight Island and Chicago Harbor are popular destinations for weekend boating, particularly for fishing and community harvest. Khantaak Island is a favorite day-trip destination for boating and for community harvest of a variety of seafood.



Ankau Saltchucks

Where forested, the coastal fringe serves as a high density winter range for a remnant population of Sitka blacktail deer.

The nutrient-rich protected waters provide ideal habitat for aquatic farming. Yak-tat Kwaan is raising Pacific oysters in Gonakadetseat Bay and is experimenting with scallops and other species on the west side of Ahduck Bay (Square Bay).

Management considerations

Although the waters have productive habitat for aquatic farming, further development of the industry will require careful siting and operating guidelines to minimize impacts on the intensive existing uses in Unit 8. Consult the *Aquatic Farming Resources Report* for this plan to identify areas of particular concern and possible mitigating measures. Applicable ordinances of the City and Borough of Yakutat will also need to be considered.

The City of Yakutat recently commissioned a study to determine the need for additional docking and harbor facilities in Monti Bay for fish processing and cruise ship docking. This study, the *Shoreline Use Survey and Analysis*, identified several potential sites including the big city dock and cold storage dock (tidelands owned by the City and Borough of Yakutat) and the Kwaan dock (leased tidelands from DNR). The Yakutat *Comprehensive Development Plan* (1983) recommended fish processing be separated from other marine activities.

Oil and Gas Lease Sale 79 could create the need for additional docking facilities for exploration or development. Tidelands on the south shore of Monti Bay near the Yak-tat Kwaan dock have been identified in previous studies as a favorable site.

In its *Yakutat Comprehensive Development Plan*, the city recommended the state and Yak-tat Kwaan help control the increasing use of the Ankau for sport fishing and recreation.

Authorizations for aquatic farms should include stipulations to maintain the existing community uses listed in the *Aquatic Farming Resources Report* for this area plan.

Blacksand deposits on the west coast of Khantaak Island have been worked intermittently since the 1880s for gold and platinum. The U.S. Bureau of Mines reported erratic but possibly significant concentrates of magnetite.

Unit 8B - southeastern Yakutat Bay - tidelands & submerged lands resource allocation summary

Forestry

DNR will manage the log transfer facility in Broken Oar Cove for continued availability for resource transfer.

Fish and wildlife harvest

Most tidelands and submerged lands near Yakutat are designated HV1 to protect the high level of harvest of fish, shellfish, marine invertebrates and sea vegetables in the coves and saltchucks. The only exceptions are the tidelands with access and infrastructure that favor commercial and transportation development. The area plan includes a community-generated inventory of marine resources and uses to help DNR avoid or minimize conflicts between harvest and future uses.

Fish and wildlife habitat

The high biological productivity of Yakutat Bay is protected by H1 designations for most tidelands and submerged lands. The area plan includes a community-generated inventory of marine resources and uses to help DNR avoid or minimize conflicts between habitat and future uses.

Minerals development

All state-owned submerged lands and most tidelands are open to mineral entry. State-owned shorelands and tidelands of the most productive anadromous lakes, streams, and lagoons are open only under mineral leasehold location. These include the Ankau Saltchucks, Tawah Creek, Aka Lake, and Kardy Lake. There are no recorded mineral prospects.

Unit 8B - southeastern Yakutat Bay - tidelands & submerged lands resource allocation summary

Recreation and tourism

The most scenic state tidelands and submerged lands in the vicinity are designated for dispersed recreation: Puget Cove, Ophir Creek, and the outer coast from Kardy to Aka Lakes. Settlement at Puget Cove will be designed to protect public recreation values and scenic qualities. The RP (recreation-public use) designation for the small boat harbor at Shipyard Cove is intended to protect and enhance recreation access to marine waters. The plan does not recommend commercial recreation leasing of the tidelands under the .073 process. Other forms of recreation leasing are feasible except on the Ankau Saltchucks tidelands. The plan has a guideline to allow public recreation use of tidelands in the Ankau, but prohibits commercial recreation leasing.

Settlement

The City and Borough of Yakutat owns the tidelands along eastern Monti Bay at and near the current docks and seafood processing plant.

Transportation

The waterfront development designation ensures continued availability of Broken Oar Cove for a resource transfer facility; continued and expanded use of Shipyard Cove for public transportation; and future expansion of marine transfer facilities and other industrial uses at Monti Bay.

Waterfront development

The two existing marine industrial areas have been designated for waterfront development to allow expansion.

Other resources

Aquatic farming. Aquatic farm siting and mitigation will be decided case-by-case. Appendix F presents a table of site-specific resource information on existing marine resources and uses near Yakutat. The table rates the sensitivity to development of existing uses in various coves and bays.

Subunit 8b-1 - tidelands and submerged lands at Monti Bay, Yakutat Roads, and around Yakutat Islands - most areas

■ Designation

Habitat, harvest, dispersed recreation (H1, HV1, RD1)

■ Management intent

Protect or enhance fish and wildlife habitat, particularly for seals, seabirds, and otters.

Protect conditions for fish and wildlife harvest, particularly for commercial fish and shellfish harvest, aquatic farming, and community harvest of salmon, crab, clams, waterfowl, and seals.

Protect or enhance conditions for dispersed recreation, particularly boating, fishing, gathering, and anchorages.

All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources, harvest activities, and recreation uses listed above.

■ Guidelines:

- | | |
|---|---|
| Maintain stability of barrier island | Activities which may disrupt natural sedimentation or accelerate erosion along the shore of Khantaak Island will not be allowed. Maintaining the stability of the shoreline on Khantaak Island is important because the island breaks the force of winds and waves from the Gulf, sheltering the harbor at Yakutat. |
| Maintain existing community uses | Authorizations for aquatic farms should include stipulations to maintain the existing community uses listed in Appendix F and the <i>Aquatic Farming Resource Report</i> for this area plan. |

■ General information

Numerous upland areas have cultural sites or are used for community harvest, with access by small boat from Yakutat. Anchorages and access across the tidelands are important to the use of these upland sites. Cultural sites include: a historic village site on Port Mulgrave, abandoned in 1893 and now covered by a graveyard; and various camping places on the north end of Crab Island. Yak-tat Kwaan hosts a Tlingit culture camp for youth every summer in the Ankau. Community harvest occurs in most of the bays, coves, and passages in this subunit. Intensity of use varies. More information is available in the *Aquatic Farming Resources Report* prepared for this plan. Harvest directly from tidelands and shorelands includes digging for cockles and clams, gathering of gumboots, seaweed, sea urchins, and sea cucumbers, pot fishing for shrimp and crab, salmon trolling, and waterfowl and seal hunting. The set net fishery at Humpie Creek attracts an annual average of 12 permit holders, primarily for pink salmon and a small number of coho, with an annual average value of \$7,600 from 1981-1991.

Sport fishing and hunting and recreation uses occur throughout this subunit. The lees of the islands are favored for kayaking and other small boat use because strong swells and winds from Yakutat Bay are common.

Khantaak Island serves as a barrier island, sheltering the City of Yakutat from the brunt of storm swells and winds from Yakutat Bay and the Gulf.

Large boats, particularly non-Yakutat fishing boats, anchor in Rurik Harbor and Deep Bay as an alternative to the boat harbor. Rurik Harbor is 20 fathoms at the mouth, with an open channel, and a mud bottom that allows anchors to drag somewhat. Deep Bay is 30 fathoms deep at the mouth; ten fathoms deep at the end, and free from the westerly winds common in summer.

The *Aquatic Farming Resources Report* provides specific resource information for discrete sites within Unit 8B. Potential conflicts between aquatic farming and existing uses are noted. See also the table at the end of this unit and Appendix F.

Subunit 8b-2 - tidelands and submerged lands in the Ankau saltchucks

■ Designation

Habitat, harvest, dispersed recreation (H1, HV1, RD1)

■ Management Intent

Protect or enhance conditions for fish and wildlife habitat, particularly for waterfowl, shorebirds, swans, and salmon rearing.

Protect fish and wildlife harvest activities, particularly community harvest for fish, clams, waterfowl, and furbearers; and sport fishing.

Protect or enhance conditions for dispersed recreation, particularly boating, wildlife viewing, and scenic values.

All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the habitat resources, harvest activities, and recreation uses listed above.

DNR will cooperate with the efforts of the USFS and City and Borough of Yakutat to designate and develop the historic canoe route parallel to the coast as a recreation and cultural attraction. DNR will ensure that activities in Unit 8b-2 avoid significant adverse impacts to the scenic, cultural, and recreational values of the canoe route.

■ Guidelines:

Mineral leasehold location	In the beds of the Ankau Saltchucks and Kardy Lake that support anadromous fish, new mineral entry will be allowed only under leasehold location in order to protect high quality anadromous fish habitat and to avoid impacts to water quality that are essential for sustaining the productivity of the Yakataga planning area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the leasehold location areas.
Commercial recreation leasing	Commercial recreation leasing is prohibited in order to protect high fish and wildlife habitat values and community harvest. This intent does not preclude public recreational use of tidelands adjacent to a proposed community park on ANCSA 14(c)3 lands adjacent to the Ankau bridge.

■ General Information

Several of the elders of Yakutat expressed during the planning process that they want the highest available protection for community harvest in the Ankau Saltchucks.

Waterfowl and seal hunting occur throughout the saltchucks. The northern saltchucks are used for harvest of clams, cockles, and waterfowl. A Tlingit culture camp for youth is held in this area for two to three weeks sometime between May and July. The entrance to the Ankau is narrow and shallow with strong currents and whirling eddies.

The southwestern and central-eastern saltchucks have less harvest activity than Kardy Lake and the northern saltchucks. Storms have occasionally breached the coastal barrier to the southwest lagoons. The central-eastern saltchucks have narrow passages and drain nearly dry at low tide.

The *Aquatic Farming Resources Report* provides specific resource information for sites within this subunit. See also the table at the end of Unit 8, and Appendix F.



Monti Bay

Subunit 8b-3 - tidelands and submerged lands in Monti Bay

■ **Designation**

Waterfront development (WD)

■ **Management intent**

Promote use of tidelands and submerged lands for water-dependent or water-related facilities for industrial or commercial purposes. All activities will minimize significant adverse impacts to opportunities to develop these facilities.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ **General information**

DNR has patented some of the tidelands in this subunit to the City and Borough of Yakutat (Tracts A and B, or ATS 1407 and ATS 787).

Subunit 8b-4 - embayment and tidal marsh southwest of Shipyard Cove tidelands and submerged lands

■ **Designation**

Habitat (H1)

■ **Management intent**

Promote and enhance fish and wildlife habitat, particularly eel grass beds. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the eelgrass beds.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ **General information**

This saltchuck is easily accessible from a paved road and is an important harvest area for less-mobile residents, who gather sea cucumbers and sea urchins here.

The *Aquatic Farming Resources Report* provides specific resource information for sites within each subunit. See also the table at the end of this unit and Appendix F.

Subunit 8b-5 - tidelands and submerged lands in Shipyard Cove

■ Designation

Public use site recreation and transportation (RP1, T)

■ Management intent

Protect or enhance access and facilities for public recreation, particularly small boats and float planes. All activities will, to the extent feasible and prudent, avoid significant adverse impacts to the access and recreation uses.

Promote access through opportunities for expanding and upgrading the small boat harbor in response to the needs of inter-regional and intra-regional marine transportation. All activities will avoid significant adverse impacts to opportunities for access and facilities related to the small boat harbor and float plane dock.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

The small boat harbor and float plane dock are managed by the Alaska Department of Transportation and Public Facilities.

There are a few unauthorized float homes in this cove.

Subunit 8b-6 tidelands and submerged lands in Broken Oar Cove

■ Designation

Waterfront development (WD)

■ Management intent

Promote use of tidelands and submerged lands for water-dependent or water-related facilities for industrial or commercial purposes.

All activities will, to the extent feasible and prudent, avoid significant adverse impacts to opportunities for waterfront development for the above purposes.

This unit will be managed to ensure continued availability for log transfer and other resource transfer.

■ **Guidelines:** None. There are no guidelines specific to this subunit.

■ General information

Log ships are loaded from in-water log storage areas. Use of the log transfer is expected to be low in future decades because most state and privately-owned timber on the Yakutat forelands has already been harvested, and the U.S. Forest Service has no plans for large timber sales.

Recreationists, including kayakers, are attracted by road access and a beach suitable for boat launching. There is sport trolling and moderate community harvest (shrimp, crab, and seals).

There is low to moderate herring spawning on the south shore and tip of the cove.

The *Aquatic Farming Resources Report* provides specific resource information for sites within each subunit. See also the table at the end of Unit 8, and Appendix F.

**Unit 8A - Yakutat - uplands & shorelands;
Unit 8B - southeastern Yakutat Bay - tidelands & submerged lands**

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information.)	Background
8a-1 Puget Cove uplands	S RD1	<ul style="list-style-type: none"> ■ recreation: easy boat access from Yakutat, close to road ■ community harvest: fish and shellfish ■ high scenic values from shore and from water ■ anadromous fish spawning streams 	<ul style="list-style-type: none"> ■ Only state-owned uplands on Yakutat Bay ■ Easy access contributes to recreation potential ■ There is a limited forested shoreline along the bay east of town because of past logging near the shore.
8a-2 north Forest Highway	S	<ul style="list-style-type: none"> ■ Future timber potential. 90 percent of the timber was harvested in the 1980s. ■ road access ■ high scenic values ■ anadromous fish spawning streams 	<ul style="list-style-type: none"> ■ Previously proposed for state land sale
8a-3 south Forest Highway, Glacier Bear area	S	<ul style="list-style-type: none"> ■ Future timber potential. 50 percent of the timber was harvested in the 1980s. ■ materials site ■ road access 	
8a-4 Airport Road	Conveyed to MHT	<ul style="list-style-type: none"> ■ Future timber potential. 50 percent of the timber was harvested in the 1980s. ■ road access 	<ul style="list-style-type: none"> ■ DNR conveyed this parcel to the Mental Health Trust after the Yakataga Area Plan was signed. It is no longer subject to the guidelines and policies of the area plan. ■ In 1984, DNR surveyed 500 acres for a residential subdivision, but did not hold a sale.
8a-5 road junction	S	<ul style="list-style-type: none"> ■ timber values ■ anadromous and resident fish spawning/rearing stream 	<ul style="list-style-type: none"> ■ Previously proposed for land sale
8a-6 Ophir Creek uplands & shorelands and Summit Lake shorelands	H1 HV1 RD1 F2	<ul style="list-style-type: none"> ■ Has commercial timber. Partly harvested. ■ community harvest: salmon, moose, trapping ■ trumpeter swan wintering area ■ eagle wintering concentration area ■ waterfowl/shorebird concentration area ■ anadromous and resident fish spawning/rearing stream ■ trout over-wintering ■ fishery enhancement project ■ public recreation: scenic old-growth forest, hiking, day use ■ Unmaintained dirt road provides seasonal vehicle access for 4WD and ATVs. 	<ul style="list-style-type: none"> ■ A drop in the water level in Ophir Creek has diminished fish productivity. DFG and CBY are attempting fishery enhancement.

**Unit 8A - Yakutat - uplands & shorelands;
Unit 8B - southeastern Yakutat Bay - tidelands & submerged lands**

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information.)	Background
8a-7 west Yakutat	G	<ul style="list-style-type: none"> ■ road access ■ rugged terrain and wetlands 	<ul style="list-style-type: none"> ■ Adjoins existing settled area and Yak-tat Kwaan land
8a-8 Aka Lake uplands and submerged lands	H1 HV1 HR RD1	<ul style="list-style-type: none"> ■ timber values; difficult access ■ important habitat for migrating and overwintering waterfowl, shorebirds, and trumpeter swans ■ general site of New Russia settlement (historic site) ■ intensive community and sport fishing (from shore) ■ beaches popular for hiking, ATV driving, beachcombing and surfing ■ uplands used for wildlife viewing, berry picking, mushroom gathering ■ anadromous & resident fish spawning/rearing ■ trout over-wintering 	<ul style="list-style-type: none"> ■ Adjoins Yak-tat Kwaan lands. ■ Development along the beach would be subject to flooding from severe storms, seiches, or tsunamis.
8a-9 east airport tract	S	<ul style="list-style-type: none"> ■ road access ■ moose winter habitat 	<ul style="list-style-type: none"> ■ State selection under National Forest Community Grant #209 ■ Adjoins mapped wetland area of several square miles to the east ■ Adjoins Yak-tat Kwaan lands ■ Adjoins state land managed by DOT/PF for the Yakutat Airport
8b-1 tidelands and submerged lands in Monti Bay, Yakutat Roads, and Yakutat Islands	H1 HV1 RD1	<ul style="list-style-type: none"> ■ deer feed along the intertidal zone of all islands during the winter and spring ■ bear spring feeding on tidelands north of Redfield Cove ■ herring spawning, schooling, & over-wintering ■ capelin spawning ■ Dungeness and king crab molting, mating, and juvenile rearing ■ shrimp rearing ■ kelp and eelgrass beds ■ harvestable concentrations of bivalves ■ several harbor seal concentration areas ■ seabird nesting colonies ■ several sea otter concentration areas ■ extensive community harvest (salmon, crab, clams, waterfowl, seals, gathering, etc.) ■ recreation & tourism, kayaking, boating, fishing ■ several sites have characteristics for aquatic farm development ■ commercial fish and shellfish harvest ■ deep-draft anchorage in several bays on Khantaak Island (used by fishing vessels) 	<ul style="list-style-type: none"> ■ Blacksand deposits on the west coast of Khantaak Island have been worked intermittently since the 1880s for gold and platinum. ■ The U.S. Bureau of Mines reported erratic but possibly significant concentrates of magnetite.

**Unit 8A - Yakutat - uplands & shorelands;
Unit 8B - southeastern Yakutat Bay - tidelands & submerged lands**

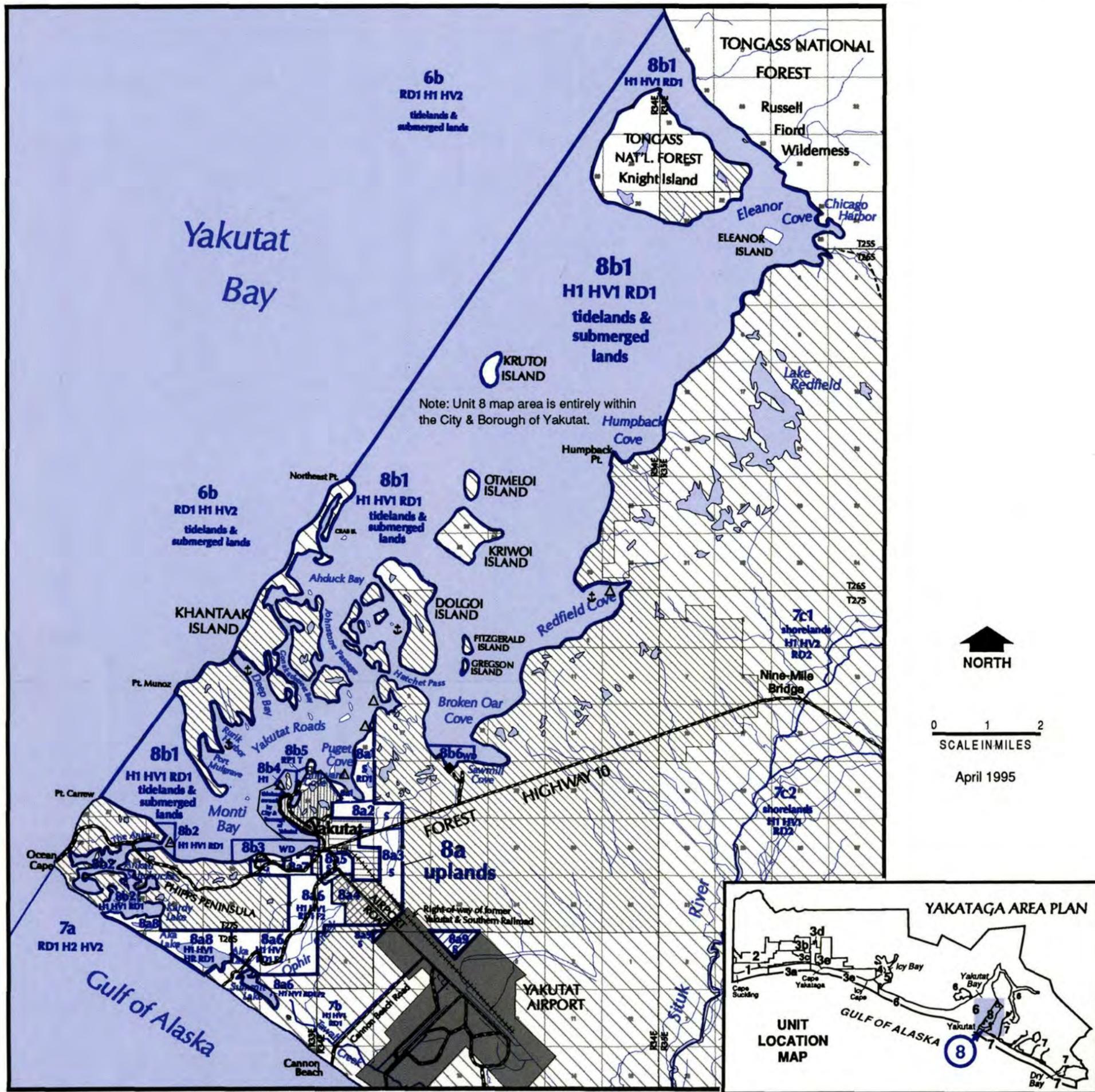
Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information.)	Background
<p>8b-2 tidelands and submerged lands in Ankau Saltchucks</p>	<p>H1 HV1 RD1</p>	<ul style="list-style-type: none"> ■ extremely productive community harvest area (fish, clams, waterfowl, trapping); road accessible ■ waterfowl/shorebirds spring and fall concentration area ■ trumpeter swan wintering ■ important salmon-rearing area and marine habitat ■ seabird nesting colony at mouth of Ankau ■ annual Tlingit culture camp held in northern Ankau ■ anadromous and resident fish spawning and rearing ■ herring spawning ■ Dungeness crab molting, mating, and juvenile rearing ■ eulachon spawning concentration ■ eelgrass beds ■ harvestable concentration of bivalves ■ recreation: sport fishing, boating, wildlife viewing, scenic values 	<ul style="list-style-type: none"> ■ Refer to the <i>Aquatic Farming Resources Report</i> for this area plan for a list of existing uses and values. ■ Blacksand deposits on the west coast of Khantaak Island have been worked intermittently since the 1880s for gold and platinum. ■ The U.S. Bureau of Mines reported erratic but possibly significant concentrates of magnetite.
<p>8b-3 tidelands and submerged lands in Monti Bay</p>	<p>WD</p>	<ul style="list-style-type: none"> ■ docks for fuel, freight, and seafood off-loading ■ anchorage: occasional lengthy anchorage by seafood processing ships ■ Dungeness crab molting, mating, and juvenile rearing 	<ul style="list-style-type: none"> ■ The City and Borough of Yakutat own several tideland areas along Monti Bay, including the tidelands at the seafood processing dock.
<p>8b-4 embayment and tidal marsh southwest of Shipyard Cove tide-lands and submerged lands</p>	<p>H1</p>	<ul style="list-style-type: none"> ■ eelgrass beds ■ community harvest: invertebrate gathering ■ Dungeness carb molting, mating, and juvenile rearing ■ shrimp rearing ■ harvestable concentrations of bivalves 	
<p>8b-5 tidelands and submerged lands in Shipyard Cove</p>	<p>RP1 T</p>	<ul style="list-style-type: none"> ■ small boat harbor (managed by DOT/PF) ■ sea plane float (managed by DOT/PF) ■ several float homes (unauthorized by DNR) ■ herring spawning and over-wintering ■ Dungeness crab molting, mating, and juvenile rearing ■ shrimp rearing 	

**Unit 8A - Yakutat - uplands & shorelands;
Unit 8B - southeastern Yakutat Bay - tidelands & submerged lands**

Area # & name	Designation	Resource or Use (See the resource reports and maps for more complete information.)	Background
8b-6 tidelands and submerged lands in Broken Oar Cove	WD	<ul style="list-style-type: none"> ■ herring spawning, schooling, and over-wintering ■ eelgrass beds ■ Dungeness crab molting, mating, and juvenile rearing ■ shrimp rearing ■ log transfer facility ■ road access from town ■ ramp suitable for boat launching ■ recreation: boat launching, kayaking ■ community harvest: trolling, crab, shrimp, seals 	<ul style="list-style-type: none"> ■ Road accessible ■ Uplands are Native-owned and have been clear cut.

Unit 8A Yakutat - uplands & shorelands

Unit 8B southeastern Yakutat Bay - tidelands & submerged lands



3-201 Chapter 3 - Unit 8 - Yakutat uplands & tidelands

YAKATAGA AREA PLAN

Unit 8A Yakutat - uplands & shorelands

Unit 8B southeastern Yakutat Bay - tidelands & submerged lands

PLANNING UNITS		OTHER LAND OWNERSHIP	
	management unit boundary		Native owned - patented or interim conveyed
	subunit boundary and number		Native selected
LAND STATUS			federal (National Forest)
STATE OWNED OR SELECTED: SUBJECT TO PLAN			federal conservation system unit boundary
	state owned - patented or tentatively approved		municipal
	state selected		private, including Native Allotments
MAP FEATURES			Yakutat Airport land (DOT&PF)
	anadromous fish stream mouth		Mental Health Trust land
	road		log transfer facility
			anchorage

YAKATAGA AREA PLAN

Map 3.19

Unit 8A Yakutat - uplands & shorelands

Unit 8B southeastern Yakutat Bay - tidelands & submerged lands

CHAPTER 4

IMPLEMENTATION AND RECOMMENDATIONS

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CHAPTER 4

IMPLEMENTATION AND RECOMMENDATIONS

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

- land classifications
- coordination with the City and Borough of Yakutat
- mineral closures
- state land conveyance proposals
- Yakataga State Game Refuge
- potential state park at Bering Glacier
- additional fish and wildlife data
- hydrologic evaluation recommendations
- field staff and enforcement
- procedures for plan review and modification.

State land classification

To implement the plan on state lands, DNR must *classify* state lands to reflect the intent of land use designations made by the plan. Land classification is the formal record of uses and resources for which state lands will be managed. Classifications will be recorded on state land status plats, with a reference to this plan.

State law requires that classification precede most leasing of state uplands, tidelands, or submerged lands and most conveyances of state uplands and tidelands.

All classifications are intended for multiple use. The classifications are more general than the land use designations of this plan. There might be several land use designations within any given classification. The relation of land use designations to classifications is shown in Tables 4.1 and 4.2.

DNR managers will use the plan's goals land use designations, management intent, and guidelines, to make decisions on proposed activities.

Table 4.1		
Upland designations conversion to classifications		
Map Symbol	Designation	Classification
F	Forestry (timber production)	Forest land
G	General use	Resource management land
H	Fish and wildlife habitat	Wildlife habitat land
HR	Heritage resources	Heritage resources land
HV	Fish and wildlife harvest	Wildlife habitat land
M	Minerals development	Mineral land
RD	Recreation & tourism - dispersed use	Public recreation land
RP	Recreation & tourism - public use site	Public recreation land
S	Settlement	Settlement land

Table 4.2		
Tideland, submerged land, and shoreland designations conversion to classifications		
Map Symbol	Designation	Classification
H	Fish and wildlife habitat	Wildlife habitat land
HV	Fish and wildlife harvest	Wildlife habitat land
M	Minerals development	Mineral land
RD	Recreation & tourism - dispersed use	Public recreation land
RP	Recreation & tourism - public use site	Public recreation land
T	Transportation	Transportation corridor land
WD	Waterfront development	Waterfront development land

Coordination with the City and Borough of Yakutat

Land classifications and municipal entitlements

A new borough is entitled to select ten (10) percent of the maximum total acreage of vacant, unappropriated, and unreserved (VUU) state land located in its boundaries between the time the borough is incorporated and two years thereafter. VUU land is defined as general grant land, excluding tidelands or submerged lands, that is not set aside by statute; **and** is classified agricultural, grazing, mineral, public recreation, settlement or resource management **or** is unclassified. University Grant lands and Mental Health Trust lands do not qualify as VUU land.

In December 1990, the City of Yakutat filed a petition to incorporate the City and Borough of Yakutat (CBY). The borough was proposed to extend from Cape Suckling to Cape Spencer, which includes the entire planning area. The state Local Boundary Commission (LBC) reduced the boundary to include only the area from the 141st Meridian (which is east of Icy Bay) to Cape Spencer, which excludes the large area of state uplands between Icy Bay and Cape Suckling. In 1992, borough residents approved formation of this smaller version of the CBY (the area from the 141st meridian to Cape Spencer). CBY lost a subsequent appeal to the courts to establish the borough's western boundary at Cape Suckling.¹

In March 1995, DNR certified the City and Borough of Yakutat's general grant land entitlement as 138 acres pursuant to AS 29.65.030.

The City and Borough of Yakutat may select the amount of this entitlement and an additional 10 percent of this amount. The purpose of this overselection acreage is to ensure that adequate land of interest to the borough is available to fulfill the entitlement. As an alternative to selecting new acreage, the City and Borough of Yakutat may use some or all of this entitlement to have DNR remove the reverter clause or waive purchase requirements (as-yet-unpaid) on lands DNR previously conveyed to the City and Borough of Yakutat under AS 38.05.810.

Coastal management coordination

State actions within the coastal zone must be consistent with the provisions of the Alaska Coastal Management Plan and the Yakutat District Coastal Management Program. The City and Borough of Yakutat reviews activities within the borough boundaries to determine consistency with the Yakutat District Coastal Management Program.

Mineral closures and leasehold locations

Yakataga State Game Refuge

On the shorelands of the segments of the Tsiu, Tsiwat, and Kaliakh rivers that are located in the Yakataga State Game Refuge and support anadromous fish DNR will apply leasehold location to new mineral entry. Each of the three rivers has a peak escapement count of at least: a) 500 pink salmon and 500 chum salmon; or b) 1,000 pink salmon; or c) 1,000 chum salmon; or d) 500 coho salmon; or e) 500 sockeye salmon. The purpose of the leasehold policy is to protect high quality anadromous fish habitat and to avoid impacts to water quality that is essential for sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries. See Appendix B for a map of the areas of the game refuge where leasehold location applies.

¹ [*Petitioners for Incorporation of City and Borough of Yakutat v. Local Boundary Commission*, Alaska Supreme Court No. 5-5760 (Superior Court No. 1JU-92-C1) issued April 28, 1995].

Mineral orders

The Commissioner of DNR may close areas smaller than 640 contiguous acres to mineral entry based on a determination that mineral entry and location is incompatible with significant surface uses (AS 38.05.185). This plan and mineral closing orders in Appendix B close certain land to mineral location and apply leasehold location to other lands. Mineral closures are summarized in Chapter 2 in the *Sub-surface Resources* section and are also described within respective subunits in Chapter 3.

Closure of more than 640 contiguous acres requires a legislative act, except when the closure is necessary for land disposal, land exchange, or development of infrastructure (AS 38.05.300(a)). The Commissioner may make interim closures larger than 640 acres which the legislature must approve if they are to become permanent. If not approved by the legislature, interim closures expired on the 90th day of the legislative session, or final adjournment of the session, whichever comes first.

DNR will support an initiative by DFG to seek legislative approval to close to new mineral entry the state-owned shorelands and tidelands of the Itallo, Tsiu, and Akwe rivers, as mapped in the draft area plan, in order to protect anadromous fish habitat. If the legislature approves these closures, DNR will amend the Yakataga Area Plan to reflect the closures.

State land conveyance proposals

Potential state land disposals

The demand for land for residential and commercial uses is high in the Yakutat vicinity. The major landowners with land suitable to support settlement uses are the City and Borough of Yakutat, Yak-tat Kwaan, the Evangelical Covenant church, DNR, and the Mental Health Trust.

The plan designates the following subunits for potential settlement: 8a-1, 8a-2, 8a-3, and 8a-5. DNR will manage these lands to promote sale, leasing, or permitting to allow private commercial, industrial, or residential uses, or community uses. Note: parts of 8a-1, including waterfront, are to be retained in state ownership and managed for public recreation.

The settlement designation does not imply that DNR will immediately initiate land sales. DNR is unlikely to initiate land sales in the Yakataga area in the next five years. DNR land sales depend on funding. There is greater demand for state land sales in other parts of the state. Any sale would require two or more years of planning by DNR.

The City and Borough of Yakutat is entitled to acquire 138 acres of additional land under the Municipal Entitlement Act (AS 29.65). See explanation of municipal entitlements on page 4-3.

After adopting this area plan, DNR issued a decision to convey to the university limited one-time timber cutting rights on Yakataga Tract 20, in accordance with the December 1994 settlement agreement.

Conveyances to DNR

DNR will work with the Bureau of Land Management for conveyance of the 79,062 acres of state-selected lands.

Chapter 3 provides priorities for conveyance of state selections.

Inter-agency Land Management Transfer

The Division of Parks and Outdoor Recreation has applied for management transfer of lands near Kardy Lake that include the New Russia historical sites. This site is the location of the first Russian settlement on the coast, dating back to 1796. The site is a National Historic Land mark. There is an existing Native allotment on some of these lands, and a portion of the state lands is therefore likely to be relinquished.

Yakataga State Game Refuge

In 1990, the Alaska Legislature passed an act (SCS CSHB 346) establishing the Yakataga State Game Refuge. The Refuge was established to protect fish and wildlife habitat and populations (including salmon spawning and rearing habitat and critical goat and moose winter habitat), and provide for continued commercial, sport, and subsistence fishing and hunting, and public recreation opportunities in a high quality environment. The Act directed DNR to prepare an area plan for the Yakataga area that considers, among other things, reducing or expanding the boundaries of the Yakataga State Game Refuge. It further established the area east of the Kaliakh River as a temporary Special Management Area and directed the area plan process to evaluate the area for inclusion in the Yakataga State Game Refuge.

Recommended additions to the State Game Refuge

Following the direction of the Legislature, the plan process evaluated the boundaries of the Refuge. The plan recommends that the Legislature add Subunit 3c-4 (Kulthieth Mountain and lower Kaliakh River) to the Yakataga State Game Refuge. The subunit contains mountain goat winter habitat and hunting areas, and bear spring feeding concentration areas. Adding this subunit to the Refuge helps meet the legislative intent for creating the Refuge.

There are two possible road corridors to access timber in the Hope Creek drainage. One route would parallel the Duktoth River and access the Hope Creek drainage via Hope Pass. This route would cross Subunits 3b-10, 3c-2, 3c-3, and 3d-2. DNR prefers this Hope Pass route because it avoids areas with sensitive goat habitat that DNR proposes to add to the Refuge.

An alternative route is located south of Kulthieth Mountain and passes through Subunits 3d-1 and 3c-4. This Kulthieth Mountain route passes near sensitive goat habitat and may result in higher levels of disturbance and hunting which will diminish wildlife viewing opportunities. DNR will authorize a road south of Kulthieth Mountain if the applicant demonstrates to the satisfaction of the department that it is not feasible and prudent to use the Hope Pass route. If this route is used, DNR may authorize timber harvest adjacent to the road to help fund the road construction, if the timber harvest is consistent with the purpose of the Refuge.

Potential state park at Bering Glacier

State selections at Bering Glacier

The state has selected portions of Bering Glacier (Management Unit 2) because geologists predict Bering Glacier will continue its rapid retreat and will form a spectacular and unique lake or fiord. The fiord has the potential to rival Glacier Bay as a scenic, geologic and tourist attraction. The purpose of the state selection is to acquire the uplands adjacent to, and islands within, this lake or fiord.

The plan strongly supports this selection. However, because the shoreline of this lake or fiord cannot be identified with certainty at this time, this selection should remain a low priority for conveyance and patent to the state. The reason for delayed conveyance is to avoid conveyance of shorelands and submerged lands that would automatically become state-owned as they were exposed by the retreating glacier.² Because the values this area is selected for may not be fully realized for several decades,

² If the land is surveyed and patented as uplands before the glacier retreats, the acreage patented to the state would be counted as part of the state's 102.5 million acre land grant. If the land becomes submerged lands or shorelands prior to patent, the state acquires these lands through an act of nature and can use its entitlement elsewhere.

the state does not need patent to this land in the near term. More information on the Bering Glacier can be found in the *Recreation and Tourism Resources Report* compiled for the Yakataga Area Plan.

DOL, DPOR, and DGGs should continue to evaluate this area with a view toward the potential for scientific study, and scenic, recreation, and tourism values.

Additional fish and wildlife data

Before timber sales or other disposals, DFG should identify which fish and wildlife species require management provisions, based on the information contained in the Yakataga Area Plan, the area plan's accompanying resource reports and maps, and any additional field surveys needed to more accurately identify the important fish and wildlife habitat areas.

Additional field data is especially needed to further delineate and maintain the following types of habitat:

- moose winter habitat,
- movement corridors between goat winter concentration areas,
- bear denning areas,
- marten populations and habitat requirements,
- trumpeter swan wintering areas,
- bald eagle roosting areas and perch trees,
- staging areas for neotropical migratory birds flying along the Pacific coast,
- ducks, geese and swan nesting, feeding, molting and staging areas, and
- anadromous and high-value resident fish streams.

In accordance with the December 1994 settlement agreement, the university will fund up to \$250,000 in research and data collection regarding wildlife biology, fisheries, and forestry. The university will consult DNR and DFG in designing the research plan, and will provide these agencies with research findings for consideration in future Yakataga Area Plan updates and for DFG planning for the Yakataga State Game Refuge.

Hydrologic evaluation recommendations

Monitor impacts of timber harvest on hydrology within watersheds. Avoid cumulative watershed effects.

In watersheds with mapped important fish and wildlife habitat, timber harvest should avoid impacts to the natural hydrology in order to protect habitat productivity. DOF, in coordination with DGGs and DFG, will monitor the effects of timber harvest on stream flows and stream channel equilibrium in watersheds with important mapped fish and wildlife values. If timber harvest is destabilizing natural hydrologic regimes, DOF will schedule future timber harvest within a watershed in phases that avoid cumulative watershed effects.

Instream flow reservation criteria

The Alaska Department of Fish and Game relies on an interdepartmental team of DFG biologists and resource specialists to initiate and prioritize instream flow reservation applications. The Division of Sport Fish makes final selections by evaluating the importance of nominated streams to the sport fishery, the likelihood of competing out-of-stream or diversionary water appropriations, and whether existing hydrologic and biotic data for a stream reach are adequate for performing an instream flow analysis.

Supplemental instream flow evaluations can also be requested and performed for sites not included in the above process if adequate funding to collect, analyze, and report the data are provided.

Field staff and enforcement

The plan relies on existing laws and regulations as well as new guidelines to make multiple uses compatible. DNR must enforce guidelines and regulations to make sure they are effective, and to develop public confidence in the state's ability to manage for multiple use. Fieldwork, monitoring and enforcement are likely to be needed for commercial recreation facilities, commercial timber harvest activities, mining permits and leases, and set net cabin sites.

DNR's ability to enforce guidelines and regulations will depend on its budget. The plan recommends that additional funds be dedicated to enforcement activities to support implementation of the new and continuing land management programs in the Yakataga Area Plan. DNR puts a high priority on monitoring and enforcing compliance with stipulations on leases and permits. DNR also puts a high priority on taking action against unauthorized activities that have a high probability of creating significant adverse impacts to other important resources or uses. Field staffing and funding are currently inadequate to enforce the laws and guidelines on all uplands, tidelands, and submerged lands in the planning area. DNR will continue to reflect the priority for monitoring and enforcement in its budget requests.

Procedures for plan review and modifications

This plan may be changed if conditions warrant. The plan may be updated if new resource data becomes available, or as changing technology or social or economic conditions place different demands on state lands.

DNR will revise and amend this area plan prior to additional sale or harvest of state timber between Icy Bay and Cape Suckling.³ The revisions will be in accordance with AS 38.04.065 and 11 AAC 55 or the appropriate statutes and regulations in place at the time and will include re-examination of forestry and other land classifications. DNR's intent is to ensure a thorough agency and public review of the management intent of the area before any additional harvest takes place. DNR must also recalculate the annual allowable cut for state land under revised plan provisions.

If any party to the December 1994 settlement agreement withdraws for causes specified in section 16 (a) of the agreement, all parties return to the full rights they possessed before the agreement. If this happens, DNR would not require area plan modifications to allow the university to harvest timber under ADL 223456 from Cape Suckling tract and the Yakataga tract. This version of the area plan would apply to the university timber harvest. The university would have the same rights it had before the agreement, minus whatever volume of timber it had already harvested under the agreement.

Plan review

An interagency planning team should review this plan every five to ten years to determine if conditions warrant updating the plan. During this review, the planning team will consider the Yakutat Comprehensive Plan and Yakutat District Coastal Management Program.

³ Prior to sale or harvest other than the university harvest and harvest incidental to development of a cabin and trail system.

Plan changes

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 technology 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 Procedures Manual of the Division of Land. The relevant section of 11 AAC 55 is given below. For further information, see the Procedures Manual.

The current version of 11 AAC 55.030(f) provides:

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.

Request for changes

Requests for changes to the plan should be submitted to the Southeast Regional Office of DNR Division of Land, located in Juneau.

How the area plan implements the December 1994 settlement agreement

This area plan implements provisions of the December 1994 Memorandum of Agreement (referred to as the settlement agreement) as follows:

Chapter 2 - Areawide guidelines

Preface to area-wide guidelines	The University timber harvest will remain subject to and must be consistent with the Yakataga Area Plan [Section 3 of the agreement].
Preface & Forestry guideline A	The plan identifies the university's Annual Operating Plans as the means to implement certain area plan guidelines which require site-specific planning through the Forest Land Use Plan (FLUP) process [Section 3 of the agreement].
Forestry guidelines	Deferral of state timber harvest. There is a new guideline stating that DNR will not hold timber sales or harvest on state lands between Cape Suckling and Icy Bay before December 2014 (no sooner than 20 years from the date of the settlement). This does not apply to the university harvest or harvest incidental to development of a cabin and trail system [Section 4(c) of the agreement].
Forestry guideline F	The mountain goat winter habitat guideline was revised [Section 4(g) of the agreement].
Recreation guideline J	The plan will accommodate a cabin and trail system west of the Duktoth River [See Section 4(c) of the agreement].
Upland guideline T	The plan will accommodate other non-forestry development west of the Duktoth River [Section 4(d) of the agreement].

Chapter 3 - Management Units

Unit 1	The land status section of Unit 1 states that the University has relinquished all rights to timber in the Suckling tract, and DNR will manage the tract as general state land [Section 1 of the agreement].
Units 1-4	The management consideration sections for Units 1 through 4 note the 20-year timber harvest moratorium except for university timber and timber related to the cabin and trail system [Section 4(c) of the agreement].
Unit 3B	Redesignation of subunit 3b-6 for forestry and habitat (F1 H1) [Section 4(b) of the agreement].
Unit 3D	Creation of a new subunit 3d-1a, designated for forestry (F1) [Section 4(b)]. Subunit guidelines for riparian buffers and for harvest within moose and bear habitat [Sections 4(e) and (f) of the agreement].

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Unit 3E Creation of a new subunit 3e-5a, designated F1 [Section 4(e) of the agreement]. Subunit guidelines for riparian buffers and for harvest within moose and bear habitat [Sections 4(e) and (f) of the agreement].

Delete timber moratorium on subunit 3e-11 (Clear Creek) and state new conditions for university timber harvest in this unit [Section 5 of the agreement].

DNR's intent to convey timber rights on Yakataga Tract 20 [Section 3 of the agreement].

Unit 8 Redesignation of part of subunit 8a-1 for settlement (by combining part of subunit 8a-1 with 8a-2). Redesignation of the remainder of subunit 8a-1 for settlement and dispersed recreation [Section 4(a) of the agreement].

Chapter 4 - Implementation

Chapter 4 DNR's participation in university-funded fish and wildlife and forestry research [Section 8 of the agreement].

DNR's commitment to amend/revise the plan and recalculate annual allowable cut prior to future state timber harvest [Section 4(c) of the agreement].

Further modification of this plan not needed to allow university timber harvest under previous ADL 223456 (as amended June 1, 1989) if parties to the settlement withdraw from the agreement.

APPENDICES

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APPENDIX A

GLOSSARY

AAC. Alaska Administrative Code.

ACMP. Alaska Coastal Management Plan.

Access. A way or means of approach. Includes transportation, trail, easements, rights of way, and public use sites.

ADL 223456. The Alaska Division of Land's (ADL) Final Finding and Decision that conveyed to the University various lands at sites across Alaska, and one-time timber harvest rights in the Yakataga area. This ADL finding was signed by DNR Commissioner Judith M. Brady on December 4, 1988. The conveyance replaced original University trust lands which the state had allowed the Municipality of Anchorage to select as part of its municipal entitlement. The conveyance sparked several lawsuits against DNR regarding the conveyances of timber rights (in the Yakataga planning area). On December 2, 1994, litigants reached a settlement agreement. This settlement constituted Amendment #3 to the original ADL 223456. See also *settlement agreement*.

Allow, allow(ed), allow(able) use. A use that may be authorized in a unit or subunit as long as the use is consistent with: the definitions of the designation(s) that apply to the unit or subunit; management intent for the unit or subunit; plan guidelines; and statutes and regulations. The use of this term does not in itself mandate DNR to approve an application, or to approve an existing use that requires prior authorization. The decision to authorize uses is made during the application review process.

Amendment. 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 location 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. [11 AAC 55.030(f)(1)(A)]

AMSA. See *area meriting special attention*.

Anchorage. A location commonly used by private, recreation, or commercial vessels for anchoring.

ANCSA. Alaska Native Claims Settlement Act (1971).

Anadromous fish stream. Anadromous fish streams are shown in "The Atlas to the Catalog of Waters Important for Spawning, Rearing, or Migration of Salmon" (referred to as the Anadromous Fish Stream Catalog) compiled by DFG. For the purposes of this plan, the term anadromous fish stream applies to a river, lake, or stream from its mouth to its uppermost reach including all sloughs and backwaters adjoining the listed water, and that portion of the stream bed or lake bed covered by ordinary high water.

Annual Operating Plan (AOP). An Annual Operating Plan for timber harvest, providing details such as harvest unit boundaries, leave areas, harvest techniques, and road location. The University will submit AOPs to the DNR Division of Forestry for review and approval. The AOPs must be consistent with the area plan.

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Aquaculture. Fish enhancement or hatchery development by DFG, a private non-profit corporation, or another group. Does not include aquatic farming.

Aquatic farming. The saltwater cultivation and culture of marine aquatic organisms, including but not limited to fish, shellfish, mollusks, crustaceans, kelp, and other algae. This does not include fish hatcheries. At this time, selling salmon eggs or pen-reared salmon is not legal in Alaska. (Aquatic farming includes any activities that meet the definition of aquatic farming given in AS 6.40.199.)

Area meriting special attention (AMSA). A delineated geographic area within the coastal area which is sensitive to change or alteration and which, because of plans or commitments or because a claim on the resources within the area delineated would preclude subsequent use of the resources by a conflicting or incompatible use, warrants special management attention; or which, because of its value to the general public, should be identified for current or future planning, protection, or acquisition. [AS 46.40.210(1)]

Authorized use. A use allowed by DNR by permit or lease (See also Generally Allowed Use).

AS. Alaska Statute.

ATV. All-terrain vehicle.

Avoid. To keep from happening or to keep away from.

BLM. The federal Bureau of Land Management within the U.S. Department of the Interior. Nearest field office to the planning area is at Glennallen.

Buffer. An area of land between two activities or resources used to reduce the effect of one activity upon another.

Caretaker facilities. Single or multi-family residential facilities used as housing or that are necessary to contain equipment or processing facilities for economic development activities, such as commercial timber harvest, mineral exploration, or aquatic farming, or associated with public activities. Caretaker facilities may be floating facilities or may be located on uplands.

CBY. City and Borough of Yakutat.

Classification. Land classification is a formal record on DNR's land status plats of the purposes for which state land will be managed. Classifications are defined by statute and regulation [AS 38.05.300 and 11AAC 55.020 to .277]. All classification categories allow multiple use, but the classified uses may be considered primary. Land may be given a total of three classifications in combination. Alaska statutes require DNR to classify lands before most types of leasing or disposal. Classification decisions are made through a DNR area plan or a site-specific land use plan. See also page 4-2.

Closed to mineral location. Areas where the staking of new mineral locations is prohibited because DNR or the state legislature has determined mining to conflict with significant surface uses. Existing mineral locations that are valid at the time the mineral orders are signed are not affected by mineral closures.

Coastal area. All land and water within the boundaries of the Coastal Zone as defined by the Yakutat District Coastal Management Program.

Coastal edge of timber. The seaward boundary of the 500-foot-wide coastal fringe of timber. Sometimes used interchangeably with *coastal fringe of timber*.

Coastal fringe of timber. The coastal fringe of timber is a buffer of timber that maintains the integrity of the coastal ecosystem by providing these functions: a) wildlife habitat, in particular natural wildlife travel corridors, thermal shelter, escape cover, and food adjacent to the dunes, estuaries, and coastal wetlands that are heavily used feeding areas for brown and black bears, river otters, mink, wolves, and bald eagles; b) recreation and tourism values, primarily visual aesthetics from the beach and dunes, visual and audio screening from major development activities occurring on the uplands,

and shelter for travel, camping, and resting, and; c) windfirmness. The seaward boundary of the 500-foot-wide coastal fringe will be determined by the presence of trees growing in sufficient density and size to provide the above functions.

DNR will apply the above definition in the field, case-by-case, to identify the 500-foot-wide coastal fringe to be retained. The specific timber stands to be retained will be determined in the field by DNR and DFG at the time of FLUP review or ACMP review of proposed projects.

Commercial fishing. The taking, fishing for, or possession of fish, shellfish, or other fishery resources with the intent of disposing of them for profit, or by sale, barter, trade, or in commercial channels [AS 16.05.940 (5)].

Commercial forest land. Forest land that produces more than 8,000 board feet per acre (net international ¼ inch rule) or is capable of producing 20 cubic feet or more of commercial wood per year (adapted from US Forest Service *Tongass Land Management Plan*).

Commercial recreation leasing. The plan identifies certain state lands as suitable or unsuitable for commercial recreation facilities and services. DNR has two distinct commercial recreation leasing processes. If the .073 leasing process is used, facilities may include overnight accommodations (such as destination resorts, lodges, camps, or cabins); facilities that provide food service, wildlife viewing, and education; and facilities that provide associated access (such as boat floats and docks).

Commissioner. The Commissioner of the Alaska Department of Natural Resources. [11 AAC 69.900]

Community harvest. The non-commercial taking of fish, wildlife, or plants by residents of nearby communities for direct personal or family consumption. See definition of subsistence use under AS 16.04.940(31).

Community harvest area. An area used by local community residents for harvest of selected species of fish, wildlife, or plants for personal consumption. This term is used to cover both sport fishing and subsistence activities for local household consumption.

Concurrence. Under existing statutes, regulations, and procedures, the Department of Natural Resources is required to obtain the approval of other groups before taking a specific action. Concurrence binds all parties to conduct their activities consistent with the approved course of action.

Conservation system units (CSU). Congressionally-designated areas of federal land, such as national parks, preserves, etc.

Consultation. Process followed by the Department of Natural Resources under existing statutes, regulations and procedures to inform other groups of the intent to take some action, and seek their advice or assistance in deciding what to do. Consultation is not intended to bind DNR to a decision. It is a means of informing affected organizations and individuals about forthcoming decisions and getting the benefit of their expertise.

CRL. See *commercial recreation leasing*.

DEC. Alaska Department of Environmental Conservation.

December 1994 settlement agreement. See *settlement agreement*.

Department. The Department of Natural Resources. [11 AAC 69.900]

Designated use. An allowed use of primary importance in a particular management subunit. Activities in the subunit will be managed to encourage, develop, or protect this use. Where a subunit has two or more designated uses, the resource manager and users will avoid or minimize conflicts between designated uses by following the management intent statement and guidelines for the subunit, Chapter 2 areawide guidelines, and existing statutes, regulations, and procedures.

Designation. A category of land allocation defined and determined by a DNR land use plan. Designations identify the primary and co-primary uses for state land. Designations are the basis for land

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classification (see *classification*). Designations give more specific intent to land managers than the classification. (For example, a plan may apply three types of forestry designations to differentiate uses such as commercial forest, personal use harvest area, and forest reserve. There is one single classification, Forest Land, defined by statute, that will be entered on an DNR status plats for all three of these types of forestry areas.) See pages 3-3 to 3-7 for detailed definitions of the designations in this area plan. See also *designated use* in this glossary.

Developed recreational facility. Any structure or facility that serves either public or private recreational needs.

DFG. Alaska Department of Fish and Game.

DGGS. The Division of Geological and Geophysical Surveys, within the Alaska Department of Natural Resources.

Dispersed recreation. Recreational pursuits that are generally not concentrated at a specific site, but rather where the activity covers many acres, such as hiking or boating.

Division. The Division of Land, within the Alaska Department of Natural Resources. [11 AAC 54.510].

DNR. Alaska Department of Natural Resources.

Dock. A dock is a platform or landing pier that extends over, or onto water, and is usually used for receiving boats.

DOF. The Division of Forestry, within the Alaska Department of Natural Resources.

DOL. The Division of Land, within the Alaska Department of Natural Resources.

DOM or DOMWM. The Division of Mining, within the Alaska Department of Natural Resources. The Division was merged to become the Division of Mining and Water Management in 1994.

DPOR. The Division of Parks and Outdoor Recreation, within the Alaska Department of Natural Resources.

DOT/PF, DOTPF. Alaska Department of Transportation and Public Facilities.

DOW. The former Division of Water, within the Alaska Department of Natural Resources. This was merged to become the Division of Mining and Water Management in 1994.

Due deference. Deference which is appropriate in the context of the commenter's expertise and area of responsibility, and all the evidence available to support any factual assertions. (6 AAC 50.120)

Easement. An interest in land owned by another, that entitles its holder to a specific limited use.

17(b) easement. Easement across Native corporation land reserved through the Alaska Native Claims Settlement Act (ANCSA). Uses of the easements are limited to transportation purposes and other uses specified in the act and in conveyance documents.

Enhance. To convey an increased value, however caused or arising. For example, authorizing DFG to improve fish or moose habitat would be consistent with the intent for an area designated "H1".

Estuary. A semi-closed coastal body of water which has a free connection with the sea and within which seawater is measurably diluted with fresh water derived from land drainage. [6 AAC 80.900(6)]

F. Forestry designation as defined on page 3-6. See also *designation* in this glossary.

FAA. Federal Aviation Administration, within the U.S. Department of Transportation.

Feasible. As defined in the FPA: means 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." [6 AAC 80.900.20] A written decision by the regional manager is necessary for justifying a variation from a guideline modified by this term.

Floating caretaker facility, float camp, or floating camp. Single or multi-family floating residential facilities used as housing or that are necessary to contain equipment or processing facilities associated with economic development activities such as commercial timber harvest, mineral exploration, commercial fishing, or aquatic farming operations. In general, the term *floating caretaker facility* is usually associated with aquatic farming activities; the terms *float camp* or *floating camp* are usually associated with commercial timber harvest or other upland resource development activities.

Float home (also residential float home). Float houses, house boats, barges, and boats, powered or not, that are intended for private residential use. A float home is generally for single family use and not associated with economic development activities.

Floating residential facilities. A general phrase used to encompass the types of floating facilities including float homes, float lodges, floating caretaker facilities, and float camps that are defined elsewhere in this glossary. Any floating structure or watercraft intended for anchored or moored residential use. These structures require a DNR authorization if anchored or moored on state-owned tidelands or submerged lands for more than 14 days. These facility types do not include commercial fishing vessels, including tenders and processors, engaged in commercial fishing activities.

Float lodge. A floating facility providing overnight accommodations or other recreation services to the public. The term "float lodge" is usually associated with commercial recreation activities.

FLUP. Forest Land Use Plan, prepared by DNR's Division of Forestry before a commercial timber sale or harvest may occur (AS 38.05.112).

Forest land. Land stocked or having been stocked with forest trees of any size and not currently developed for non-forest use, regardless of whether presently available or accessible for commercial purposes, and includes any such land under state, municipal, or private ownership (AS 41.17.950(5)). (See difference from *commercial forest land*).

Forest management activities. As listed in 11 AAC under applicability: harvesting including felling, bucking, yarding, decking, hauling, log dumping, log transfer, log rafting; road construction, reconstruction, or improvement and maintenance; material source development, and maintenance of an existing road or bridge not within the operation area but connected with the harvesting operation; site preparation; precommercial thinning; slash treatment; any other activity leading to or connected with commercial timber harvest.

FPA. Forest Practices Act (officially called the Revised Forest Resources and Practices Act of 1990: AS 41.17). Promulgated by regulations under 11 AAC 95 (adopted by DNR in 1993).

G. General use designation, as defined on page 3-6. See also *designation* in this glossary.

Generally allowed use. An activity conducted on state land managed by the Division of Land, that does not fall into any special management category or status. For the most part these uses are allowed for 14 days or less, and a permit is not required. Examples of generally allowed uses are: picking berries for personal, non-commercial use; hiking, skiing, climbing and other foot travel; and camping for less than 14 days for personal, non-commercial recreation.

Goal. A statement of basic intent or general condition desired in the long term. Goals usually are not quantifiable and do not have specified dates for achievement.

Guideline. A course of action that must be followed by DNR resource managers or which is 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.

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Some guidelines state the intent that the DNR resource manager must follow and allow flexibility in achieving it.

H. Fish and wildlife habitat designation, as defined on page 3-6. See also *designation* in this glossary.

Haulouts. Locations where concentrations of seals or sea lions have been observed hauled out on shore, during more than one year, to breed, pup, rest, or molt.

Habitat: Highest value "A" habitat. The most valuable fish and wildlife habitat defined as: limited, concentrated use areas for fish and wildlife species during a sensitive life history stage where alteration of the habitat and or human disturbance could result in a permanent loss of a population or species' sustained yield.

Habitat: Moderate value "B" habitat. The second most valuable fish and wildlife habitat (compared to "A" habitat), defined as: highly productive components of the ecosystem where alteration of the habitat or human disturbance would reduce the yield of fish and wildlife populations either indirectly or cumulatively.

High value harvest area. Traditional fish and wildlife harvest area, of historic importance to the local community, and of limited size, where alteration of habitat could permanently limit sustained yield to traditional users; or areas of intense harvest where the level of harvest has or is projected to reach the harvestable surplus for the resource.

HR. Heritage resources designation, as defined on page 3-7. See also *designation* in this glossary.

HV. Fish and wildlife harvest designation, as defined on page 3-7. See also *designation* in this glossary.

ILMA. See *Interagency Land Management Agreement/Transfer*.

ILMT. See *Interagency Land Management Agreement/Transfer*.

Immature timber. Trees with a diameter at breast height (DBH) of 0 to 10.9 inches.

Improvements. Buildings, wharves, piers, dry docks, and other similar types of structures permanently fixed to the uplands, tidelands, or submerged lands that were constructed and/or maintained by the applicant for business, commercial, recreation, residential, or other beneficial uses or purposes. In no event shall fill be considered a permanent improvement when placed on the tidelands solely for the purposes of disposing of waste or spoils. However, fill material actually utilized for beneficial purposes by the applicant shall be considered a permanent improvement. [11 AAC 62.840]

Instream flow. Volume of water flowing past a given point during one second. [11 AAC 93.970(19)]

Instream flow reservation. The legal water reservation for instream uses such as fish, wildlife, recreation, navigation, and water quality.

Interagency land management agreement/transfer (ILMA/ILMT). An agreement between DNR and other state agencies that transfers some land management responsibility to these other agencies.

Land. See *state land*.

Land manager. A representative of the state agency or division responsible for managing state land.

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

Land sale. Same as *land offering* as defined above.

Land use designation. See *designation*.

LBC. Local Boundary Commission, an appointed state commission connected to the Alaska Department of Community and Regional Affairs.

Lease. A Department of Natural Resources authorization for the use of state land according to terms set forth in AS 38.05.070-105.

Leave area. A non-permanent timber retention area intended to serve primarily as a corridor for wild-life movement, including travel, feeding resting, escape or avoidance of predators. Leave areas may be harvested when second-generation vegetation on adjoining harvested units matures sufficiently to provide the functions for which the leave areas were designed. Does not include special management zones (in RFPA), the coastal fringe, or timber retention areas established through designations and intended for the life of the area plan. DNR will consider leave areas to be natural features when applying the Revised Forest Practices Act.

Legislative designation. An action by the state legislature that sets aside a specific area for special management actions and ensures the area is kept in public ownership.

Locatable mineral. Locatable minerals include both metallic (gold, silver, lead, etc.) and non-metallic (fluorspar, asbestos, mica, etc.) minerals.

Log transfer facility (LTF). Any facility or mechanism necessary to transfer timber from uplands to marine waters.

Log transfer site (LTS). A site for all facilities necessary for transfer of timber from uplands to marine waters, including associated components such as log rafting and sorting areas, floating camps, access ramps, etc. A single site (LTS) may contain more than one facility (LTF).

LTF. See *log transfer facility*.

LTS. See *log transfer site*.

M. Minerals development designation, as defined on page 3-7.

Maintain. Minimize significant adverse impacts to, or keep in a condition of, good repair and good order.

Management intent statements. The statements that define the department's near- and long-term management objectives and the methods to achieve those objectives. See details on page 3-9.

Mapped habitat, mapped important wildlife habitat. Wildlife habitat that DFG has identified and mapped for this area plan. DFG used one of two criteria to create the maps:

Highest value "A" habitat areas. Limited, concentrated use area for fish and wildlife species during a sensitive life history stage where alteration of the habitat and or human disturbance could result in a permanent loss of a population or species' sustained yield.

Moderate value "B" habitat areas. Limited areas that contain components of ecosystems where alteration of the habitat and or human disturbance would reduce the yield of fish and wildlife populations either indirectly or cumulatively.

The criteria used to map the habitat of individual species, such as mountain goat winter habitat or sea lion haul outs, are presented in Appendix E.

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

Mature timber. Trees with a diameter at breast height (DBH) of 21 inches and greater.

Mean high water. The tidal datum plane of the average of all the high tides, as would be established by the National Geodetic Survey at any place subject to tidal influence [from 11 AAC 53.900(14)]. Mean high water is the dividing line between uplands and tidelands.

MCO. See *mineral closing order*.

Mean low water. The tidal datum plane of the average of all the low tides, as would be established by the National Geodetic Survey at any place subject to tidal influence [from 11 AAC 53.900(16)].

Mineral closing order (MCO). A decision by the commissioner of the Department of Natural Resources or the legislature to close lands to mineral entry if a finding has been made that mining would be incompatible with significant surface use on state land [AS 38.05.205]. A significant surface use of the land has been interpreted by DNR to include certain residential and commercial structures, fish and wild-life habitat, recreation, and scenic values. Otherwise state lands are open for the prospecting and production of locatable minerals unless the lands are specifically closed to mineral entry.

Mineral leasehold location order. A decision by the Commissioner of the Department of Natural Resources or the legislature to limit new mineral entry to leasehold rather than claims, in order to apply conditions or stipulations necessary to manage or avoid conflicts with significant surface uses [AS 38.05.205].

Mineral entry. Acquiring exploration and mining rights under AS 38.05.185 - 38.05.275.

Minimize. To reduce to the smallest possible amount, size, extent, or degree.

Mining. Any structure or activity for commercial exploration and recovery of minerals, including, but not limited to resource transfer facilities, camps, and other support facilities necessary for mineral development. The term "mining" does not refer to offshore prospecting.

Mining claim. Rights to deposits of minerals subject to AS 38.05.185 - 38.05.275 in or on state land that is open to claim staking may be acquired by discovery, location and recording as prescribed in AS 38.05.185 - 38.05.275. The locator has the exclusive right of possession and extraction of the minerals subject to AS 38.05.185 - 38.05.275 lying within the boundaries of the claim (AS 38.05.185).

Minor change. 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. [11 AAC 55.030]

Multiple use. Management of state land and its various resource values so that the land is used in the combination that will best meet the present and future needs of the people of Alaska, making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions. Multiple use may include:

- a) the use of some land for less than all of the resources, and
- b) a combination of balanced and diverse resource uses that takes into account the short-term and long-term needs of present and future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific, and historic values. [AS 38.04.910]

Native owned. Land that is patented or will be patented to a Native Corporation.

Native selected. Land selected from the federal government by a Native Corporation but not yet patented.

Navigable. Waterbodies that are capable of transporting people or goods. "Navigable water" means any waters of the state forming a river, stream, or lake. The land beneath these waters is owned by the state. These waterbodies extend to the ordinary high water mark (usually the vegetation line). The adjacent uplands may be in private ownership and not available for use without permission. Federally determined navigable waterbodies are those administratively determined navigable by the federal Bureau of Land Management (BLM). State determined navigable waterbodies are those determined navigable by the state (usually these are waterbodies BLM has not yet determined navigable, or are waterbodies previously determined non-navigable, but where the state disagreed with BLM criteria).

NMFS. National Marine Fisheries Service, within the U.S. Department of Commerce.

Non-forest land. Any land not naturally stocked with forest trees. Does not include land that has been harvested.

NPS. National Park Service, within the U.S. Department of the Interior. A field office is located within the planning area, at Yakutat. The field staff has responsibilities for both Wrangell-St. Elias and Glacier Bay National Parks.

OPP or offshore prospecting permit. A permit issued by DNR giving the permittee exclusive right to explore for locatable minerals in the state's tidelands and submerged lands, and to develop them if commercial quantities are discovered.

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 [11 AAC 53.900(23)].

Permanent fuel storage. Fuel storage for longer than one field season; or for non-seasonal activities, fuel storage longer than three months.

Permit. A Department of Natural Resources authorization for use of state land according to terms set forth in 11 AAC 96.

Personal use. The harvest of fish and wildlife for general consumption, including but not limited to subsistence and recreational harvest. Commercial harvest is not included.

Personal use timber harvest. Timber harvest for use by the harvester. Wood harvested for personal use may not be sold, bartered, or used for commercial purposes (11 AAC 71.050). Personal use wood may not be used to build lodges or other commercial facilities, or to heat these facilities during the period of commercial operation.

Policy. An intended course of action or a principle for guiding actions. Department policies for land and resource management in this plan include goals, management intent statements, management guidelines, land use designations, implementation plans and procedures, and various other statements of the Department's intentions.

Primary use. See *designated use*.

Primitive recreation. A description used by the U.S. Forest Service for a type of recreation experience. Primitive recreation areas generally include those areas out of sight and sound of human activities and greater than three miles from roads open to public travel. The areas are larger than 5,000 acres with opportunities for a high degree of interaction with the natural environment, challenge, risk, and the use of outdoor skills. Because of the areas' remoteness, users are normally required to stay overnight.

Prohibited use. A use not allowed in a management unit or subunit because of conflicts with the management intent, designated uses, or management guidelines. Uses not specifically prohibited (or designated) in a management unit or subunit are allowed if compatible with the primary use management intent statements for the unit or subunit and plan guidelines. Changing a prohibited use to an allowable use requires a plan amendment.

Promote. To contribute toward or further the progress or growth of an activity or resource.

Protect. Avoid significant adverse impacts.

Public use. Any human use of state land, including commercial and non-commercial uses.

Public use cabin. A cabin owned or built by the state on state land that is managed by DNR for the benefit of the residents of the state and visitors to the state. Note: this plan also refers to public use cabins managed by the U.S. Forest Service on federal lands.

Public trust. A common law doctrine that requires the state to manage tidelands, shorelands, and submerged lands for the benefit of the people so that they can engage in beneficial uses such as navigation, commerce, fishing, and other uses.

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RD. Recreation and tourism - dispersed use designation, as defined on page 3-8. See also *designation* and *designated use* in this glossary.

R##E. Range number based on the USGS geographic survey grid. Provides the distance east (E) of the Copper River Meridian (CRM).

Recreation. Any activity or structure for recreational purposes, including but not limited to, hiking, camping, boating, anchorage, access points to hunting and fishing areas, and sightseeing. In this plan, "recreation" does not refer to subsistence or sport hunting and fishing.

Retained land. Uplands, shorelands, tidelands, submerged lands, and water that are to remain in state ownership.

Resource transfer facility (RTF). Any facility or mechanism necessary to transfer timber, minerals, or other resources from uplands to marine waters, including all necessary components such as log rafting and sorting areas, floating camps, etc.

Resource transfer site. A site for all facilities necessary to transfer timber, minerals, or other resources from uplands to marine waters, including all necessary components such as log rafting and sorting areas, floating camps, access ramps, etc. A single resource transfer site may contain more than one resource transfer facility.

ROW or right-of-way. The legal right to cross the land of another.

RFPA. Revised Forest Resources and Practices Act (1990). See *FPA*.

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.

RP. Recreation and tourism - public use site designation, as defined on page 3-8. See also *designation* in this glossary.

RTF. See *resource transfer facility*.

S. Settlement designation, as defined on page 3-8. See also *designation* in this glossary.

Settlement. Year-round or seasonal residential or private recreational use, or commercial or industrial development. Also, an area that is, by reason of its physical qualities and location, suitable for these uses.

Settlement agreement (December 1994). The Memorandum of Agreement to settle litigation regarding the university timber rights under ADL 223456. This agreement was signed December 2, 1994 by litigants in *Yakutat Fishermen's Association v. Brady* 1 JU-88-271 Civ. The agreement substituted timber cutting rights east of the Duktoth River for the University's previous timber rights at Cape Suckling. The agreement also set annual allowable cut and sustained yield for Yakataga area. It results in amendment #3 of ADL 223456 and certain provisions in this area plan.

Shall. Same as *will*.

Shorelands. Land belonging to the state which is covered by nontidal water that is navigable under the laws of the United States up to the ordinary high water mark as modified by accretion, erosion, or reliction [AS 38.05.965]

Should. Statement of 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. (See Chapter 4 procedures for plan review, modification, and amendment: Discretion within Guidelines).

Significant impact, significant effect, significant conflict, or significant loss (adapted from the ACMP statutes, AS 46.40.210). A use, or an activity associated with that use, which proximately contributes to a material change or alteration in the natural or social characteristic of the land and in which:

- a) the use, or activity associated with it, would have a net adverse effect on the quality of the resources;
- b) the use, or activity associated with it, would limit the range of alternative uses of the resources; or
- c) the use would, of itself, constitute a tolerable change or alteration of the resources but which, cumulatively, would have an adverse effect.

SLA. Session laws of the Alaska Legislature.

SMA. Special management area. The Alaska Legislature in 1990 designated a temporary special management area east of the Kaliakh River: that SMA expired when this plan was adopted. The City and Borough of Yakutat designated several SMAs in its District Coastal Management Program (pending approval in 1996).

Sport fishing. The taking of or attempting to take for personal use and not for sale or barter any fresh water, marine, or anadromous fish... [AS 16.05.940 (5)].

State land. All land including shorelands, tidelands and submerged lands or resources belonging to or acquired by the state. Also includes land selected by the state and any interest owned by the state in land. From AS 38.05.965(19) and AS 38.05.230(9)(A)(B)(C). Note: this plan applies only to state land *managed by DNR*, not by other state agencies.

State-owned land. See *State Land*.

State-selected land. Federally owned land that is selected by the State of Alaska, but not yet tentatively approved.

Submerged land. Land covered by tidal water between the line of mean lower low water and seaward to a distance of three geographical miles or further as may hereafter be properly claimed by the state and lands under inland waters landward of the closing line below mean lower low water.

Substitute tract. The state lands east of the Duktoth River to which the university received one-time timber harvest rights through the December 1994 settlement agreement. The substitute tract does not overlap with Yakataga Tract 20 and White River Tract A-154, to which the university also has timber rights under a separate conveyance in 1995 and the original ADL 223456 in 1986, respectively. See map in Appendix C of this plan.

Suitable. Land that is physically capable of supporting a particular type of resource development.

Sustained yield. The achievement and maintenance in perpetuity of a high level annual or regular periodic output of the various renewable resources of the state land consistent with multiple use. [AS 38.04.910]

T. Transportation designation, as defined on page 3-8. See also *designation* in this glossary.

T##S. Township number, based on the USGS geographic survey grid. Provides the distance south (S) of the Copper River Meridian (CRM).

Temporary facilities. Temporary facilities are easily removable within 48 hours of notice because they are constructed in such a fashion that they can be disassembled and transported from the site, or destroyed and the site restored, without appreciable loss to the owner.

Temporary fuel storage. Fuel storage for shorter than one field season; or for non-seasonal activities, fuel storage shorter than three months.

YAKATAGA AREA PLAN

Tideland. Land that is periodically covered by the ebb and flow of tidal water between the elevation of mean high water and mean lower low water [AS 38.05.965].

University. University of Alaska. The university's land trust is managed by their Statewide Office of Land Management.

University timber rights. See Appendix C.

Unsuitable. Land that is physically incapable of supporting a particular type of resource development. Also land that is not appropriate for a particular type of development because of conflicts with resources or uses with higher priorities at that site.

Upland. Land above the mean high water line or the ordinary high water mark.

USFS. United States Forest Service, within the U.S. Department of Agriculture. A field office is located within the planning area, at Yakutat, to manage the Yakutat District of Tongass National Forest.

USFWS. United States Fish and Wildlife Service, within the U.S. Department of the Interior. Nearest field office to the planning area is located in Juneau.

USGS. United States Geologic Survey within the U.S. Department of the Interior. Offices located in Anchorage.

Viewshed. Viewsheds are surfaces visible from a viewpoint where people travel, stop, or stay, usually for recreation or tourism, or near settlement. This includes viewpoints along road corridors or from marine waters. Viewsheds may be determined in the field by marking them on U.S. Geological Survey topographic quadrangles.

VUU. Vacant, unappropriated and unreserved state land. Specifically, general grant land, excluding tidelands or submerged lands, that is not set aside for specific purposes by statute; **and** is unclassified or is classified for agriculture, grazing, minerals, public recreation, or resource management.

Water-dependent. From 6 AAC 80.900(17): a use or activity which can be carried out only on, in, or adjacent to water areas because the use requires access to the water body.

Water-related. From 6 AAC 80.900(18): a use or activity which is not directly dependent upon access to a water body, but which provides goods or services that are directly associated with water-dependence and which, if not located adjacent to water, would result in a public loss of quality in the goods or services offered.

WD. Waterfront development designation, as defined on page 3-8. See also *designation* in this glossary.

Wetlands. Includes both fresh water and salt water wetlands. *Fresh water wetlands* means those environments characterized by rooted vegetation which is partially submerged either continuously or periodically by surface fresh water with less than 0.5 parts per thousand salt content and not exceeding three meters in depth. *Salt water wetlands* means those coastal areas along sheltered shorelines characterized by salt tolerant, marshy plants and large algae extending from extreme low tide to an area above extreme high tide which is influenced by sea spray or tidally induced water table changes.

Will. Requires a course of action or a set of conditions to be achieved. A guideline modified by the word *will* must be followed by land managers and users. If such a guideline is not complied with, a written decision justifying the noncompliance is required. (See Chapter 4, Procedures for Plan Review, Modification, and Amendment: Special Exceptions).

YAP. Yakataga Area Plan (this plan), adopted by DNR April 3, 1995.

Young timber. Trees with a diameter at breast height (DBH) of 11 to 20.9 inches.

APPENDIX B

MINERAL ORDERS

The decision to apply mineral location closures was made by the DNR commissioner within the parameters set by the Alaska Statutes. AS 38.05.185(a) states, "State land may not be closed to mining or mineral location unless the commissioner makes a finding that mining would be incompatible with significant surface uses on state land."

In the Yakataga Area Plan planning area, the Commissioner has determined mining to be incompatible with the following significant surface uses: spawning and rearing of anadromous fish in waterbodies with relatively high fish productivity, and; commercial, sport, and community harvest of fish that is concentrated on the most productive waterbodies. Approximately 2,797 acres are closed to new mineral entry. Approximately 21,459 acres are open to mineral entry only under leasehold location. The fact that an area is closed to new mineral location will not be cause for denying access across state land. **Mineral closures do not affect valid existing claims.**

Maps of mineral closures are included in this appendix.

On the following page is a list of the waterbodies where mineral closures or leaseholds will apply. In fresh water areas, these include the beds of waterbodies below ordinary high water. In tidal areas, these include tidelands and submerged lands.

Each of the waterbodies listed on the next page had a peak escapement count that meets one of the criteria below:

- a) 500 pink salmon *and* 500 chum salmon; *or*
- b) 1,000 pink salmon; *or*
- c) 1,000 chum salmon; *or*
- d) 500 coho salmon; *or*
- e) 500 sockeye salmon.

Maintaining the high quality anadromous fish habitat in these streams and avoiding impacts to water quality is essential to sustaining the productivity of the Yakataga area's commercial, sport, and community harvest fisheries.

Concomitant with adoption of this area plan, DNR adopted:

Mineral Closing Order No. 711 for the anadromous portions of the state-owned shorelands and tidelands of Situk River, including Situk River, headwaters lakes, and lagoon. This is an interim closure. Because it exceeds 640 acres, it requires legislative approval to become permanent [AS 38.05.300(a)].

Mineral Closing Order 712 for the state-owned shorelands and tidelands of Ophir Creek, including the shorelands of Summit Lake.

Mineral Leasehold Location Order No. 17 for the state-owned shorelands and tidelands of ten waterbodies listed on pages B-3 and B-4.

Table B.1

Areas Closed to New Mineral Entry or Subject to Leasehold Location to Protect Anadromous Fish Habitat¹

Waterbody	Subunits	Acreage (subtotal)	Total Acreage	Escapement
Kikluh River	1a-4, 1a-5, 2a-1	—	327	14,000 CO; P
Tashalich River	1a-7, 1a-8	—	187	800 CO
Tsiu-Tsivat River	2a-2, 3a-1, 3b-3, Game Refuge	Tsiu2,672 Tsivat761	3,433	67,450 CO; 2,300 S; P
Kaliakh River below & including the Kulthieth River	3a-2, 3a-3, 3b-5, 3b-6, 3c-1, 3c-2, 3c-3, 3c-4	Kulthieth533 Kaliakh.....2,411 Chiuki.....355	3,299	37,500 CO; S
Duktoth (excluding Leeper Glacier Creek)	3a-3, 3d-1, 3d-3, 3d-6, 3e-2	—	2,844	>10,000 CO; KS; DV
Akwe River, Lake & Lagoon	7i	River542 Lake598 Lagoon.....1,179	2,319	200 KS; 6,000 CO; 9,000 S; >1,000 SH; >1,000 CT; >3,000 DV

¹ Acreages are approximate. CO = coho salmon; C = chum salmon; CT = cutthroat trout; DV = Dolly Varden char; KS = king salmon; P= pink salmon; RB = rainbow trout; S = sockeye salmon; SH = steelhead trout

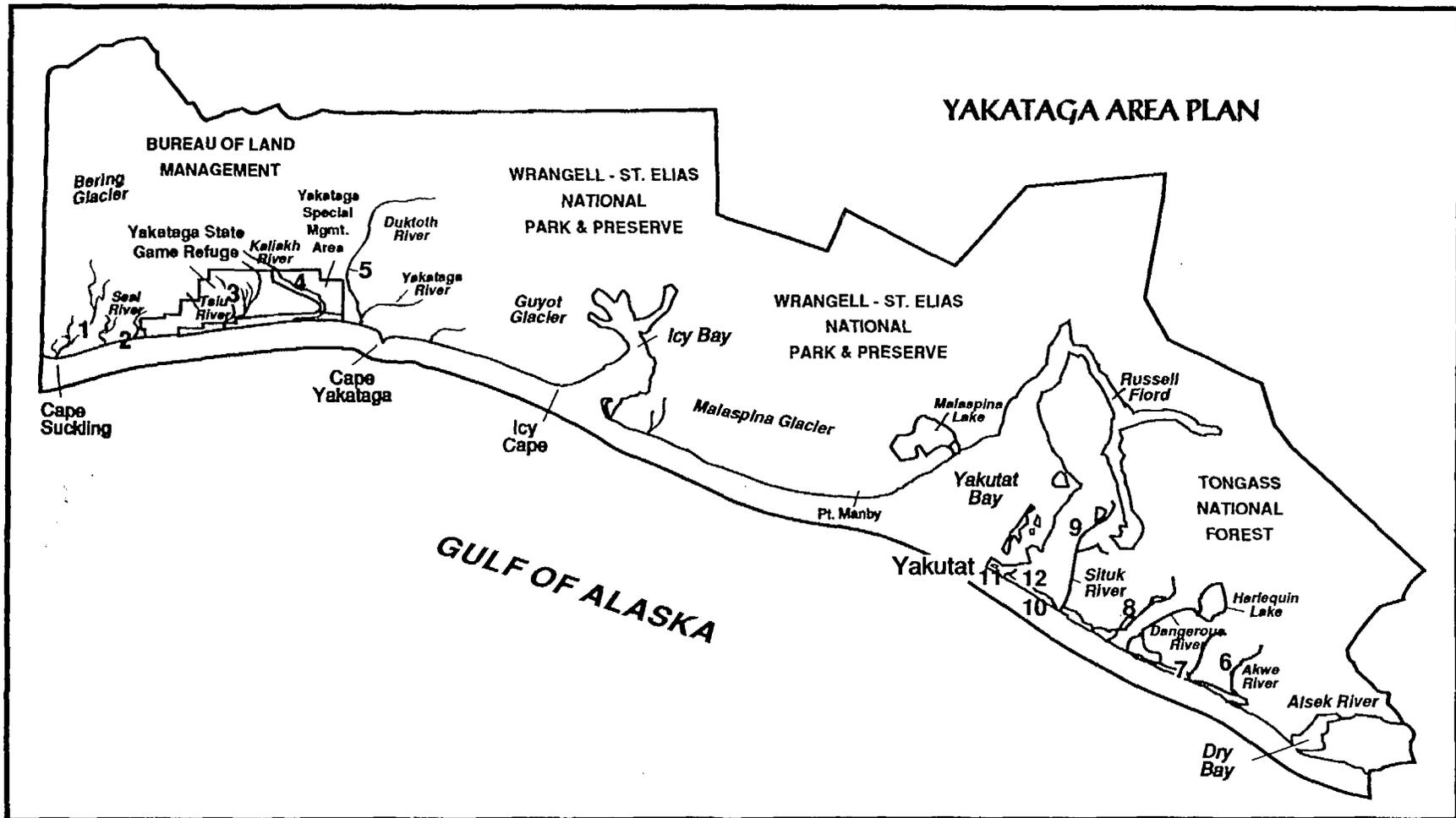
Table B.1**Areas Closed to New Mineral Entry or Subject to
Leasehold Location to Protect Anadromous Fish Habitat²**

Waterbody	Subunits	Acreage (subtotal)	Total Acreage	Escapement
Italo River (old & new channels), Lakes & Lagoons	7h	River871 Lake 100 Lagoon.....2,400	3,371	50,000 P; 15,000 S; 37,500 CO; 5,000 CH; CT; SH; RB; DV; KS
Ahrnklin & Antlen Rivers, Lakes & Lagoons	7d, 7e	Rivers & lakes935 Lagoon.....3,884	4,819	20,000 P; 11,000 S; 5,500 CO; 1,000 CH; 100 KS; CT; SH; DV
Situk River, Lake & lagoons	7c, 7d	Rivers & lakes765 Lagoon.....827 Mountain Lake.....205 Situk Lake.....1,000	2,797	654,000 P; 192,000 S; 14,000 CO; 5,000 CT; 50,000 DV; spring & fall SH
Tawah Creek	7b, 8a-9	—	178	9,460 CO; 2,700 P; 3,000 S
Ankau Saltchuck, Kardy Lake & Aka Lake	8a-8, 8b-2	Saltchuck & Kardy Lake.....553 Aka Lake 129	682	5,000 CO; 3,000 S
Ophir Creek & Summit Lake	8a-5, 8a-6	Ophir Creek.....41 Summit Lake76	117	4,000 CO; >3,000 S; DV
TOTAL			24,373	ACRES

² Acreages are approximate. CO = coho salmon; C = chum salmon; CT = cutthroat trout; DV = Dolly Varden char;
KS = king salmon; P= pink salmon; RB = rainbow trout; S = sockeye salmon; SH = steelhead trout

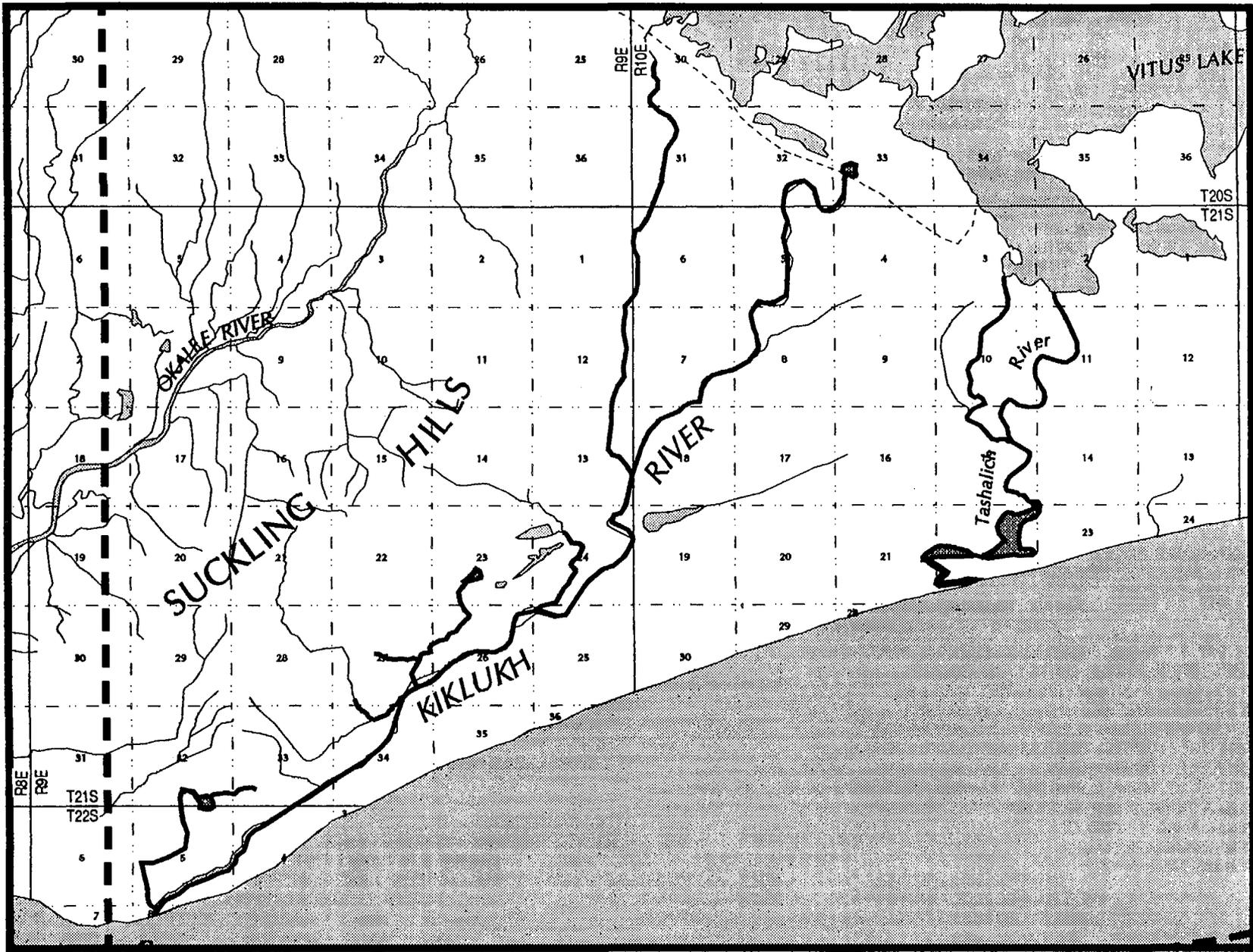
Map B.1

General location of lands with mineral closures or leasehold location



General location of lands with mineral closures or leasehold location:

- | | |
|--|--|
| 1. Kiklukh River | 7. Itatio River (old and new channels), Lakes, and Lagoons |
| 2. Tashalich River | 8. Ahrnklin and Antlen Rivers, Lakes, and Lagoons |
| 3. Tsiu-Tsivat River | 9. Situk River, Lake, and Lagoon |
| 4. Kaliakh River below and including the Kulthieth River | 10. Tawah Creek |
| 5. Duktath River (excluding Leeper Glacier Creek) | 11. Ankau Saltchuck, Kardy Lake, and Aka Lake |
| 6. Akwe River, Lake, and Lagoon | 12. Ophir Creek and Summit Lake |



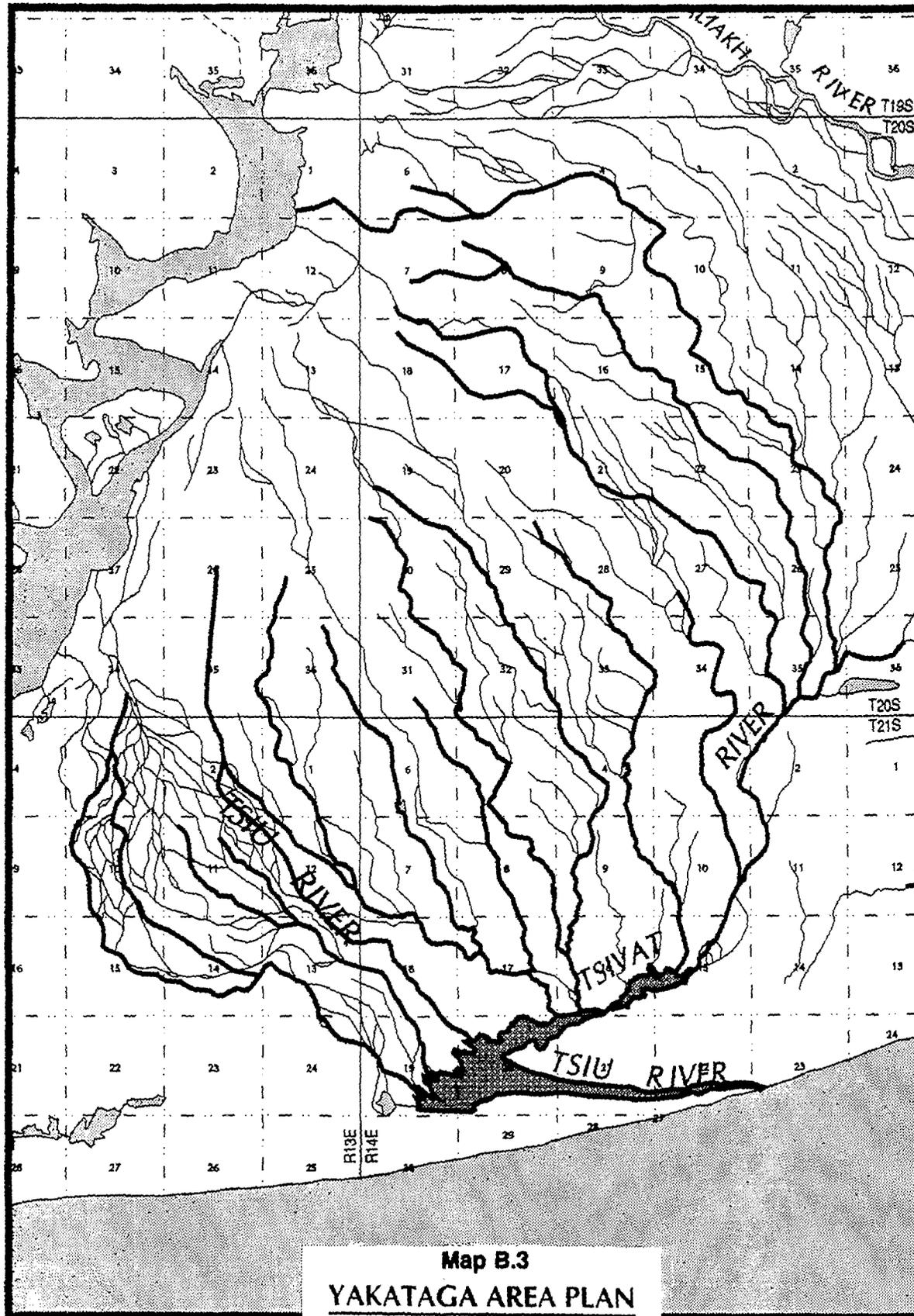
B-5

Appendix B - Mineral orders

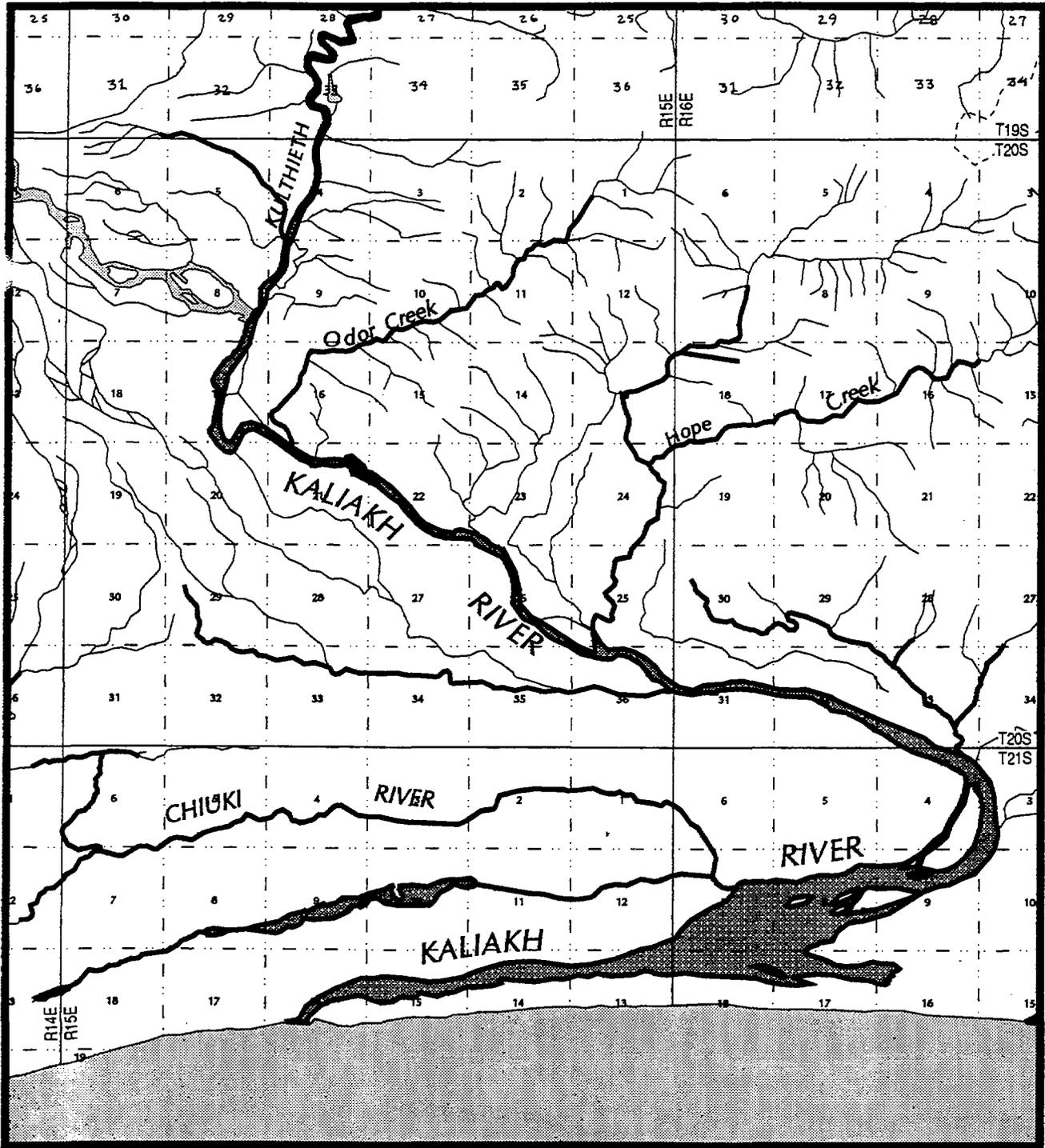
Map B.2
YAKATAGA AREA PLAN
KIKLUKH & TASHALICH RIVERS
Mineral Leasehold (LLO 17)

YAKATAGA AREA PLAN

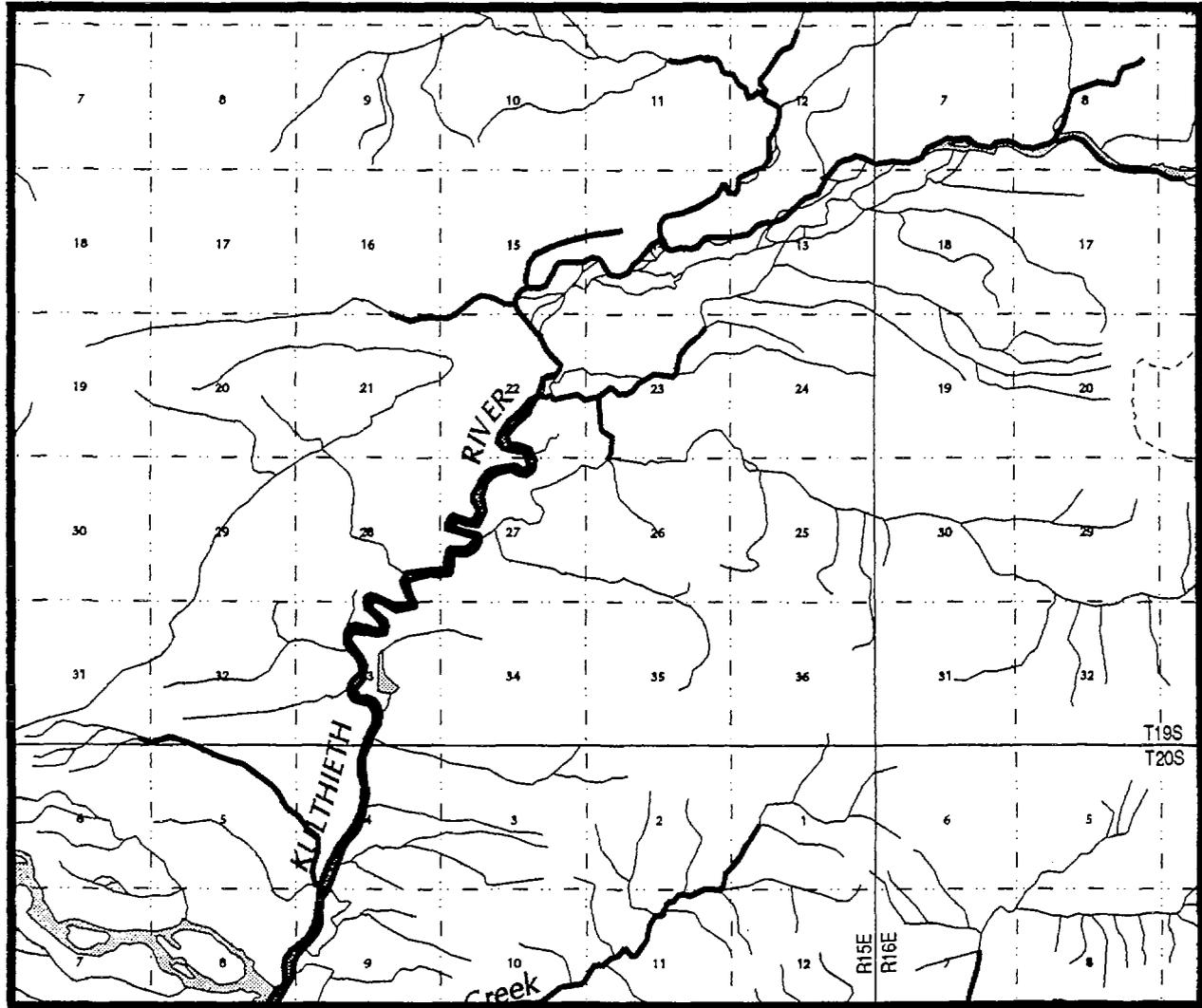
YAKATAGA AREA PLAN



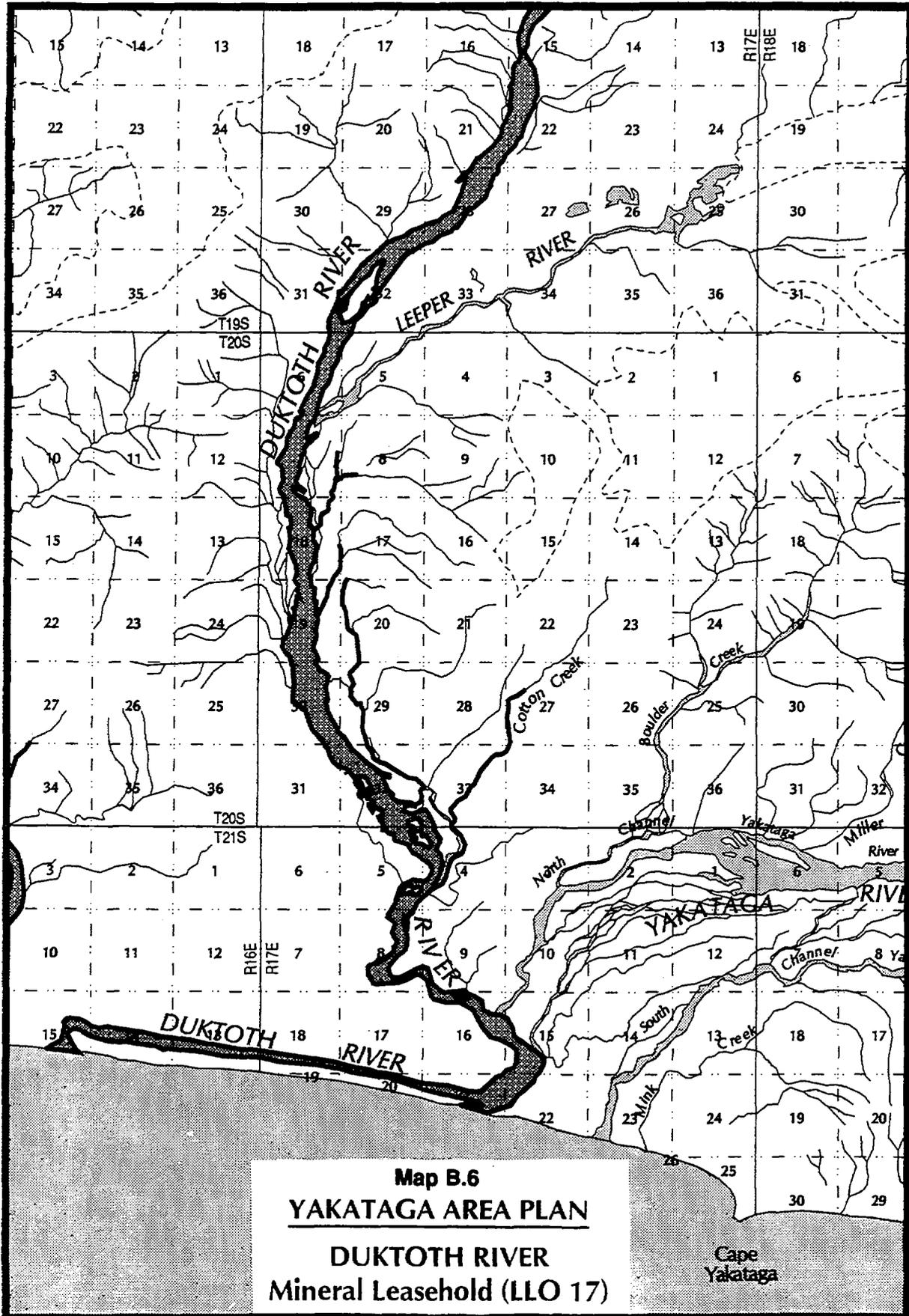
Map B.3
YAKATAGA AREA PLAN
TSUI & TSIVAT RIVERS
Mineral Leasehold (LLO 17)



Map B.4
YAKATAGA AREA PLAN
KALIAKH & CHIUKI RIVERS
Mineral Leasehold (LLO 17)

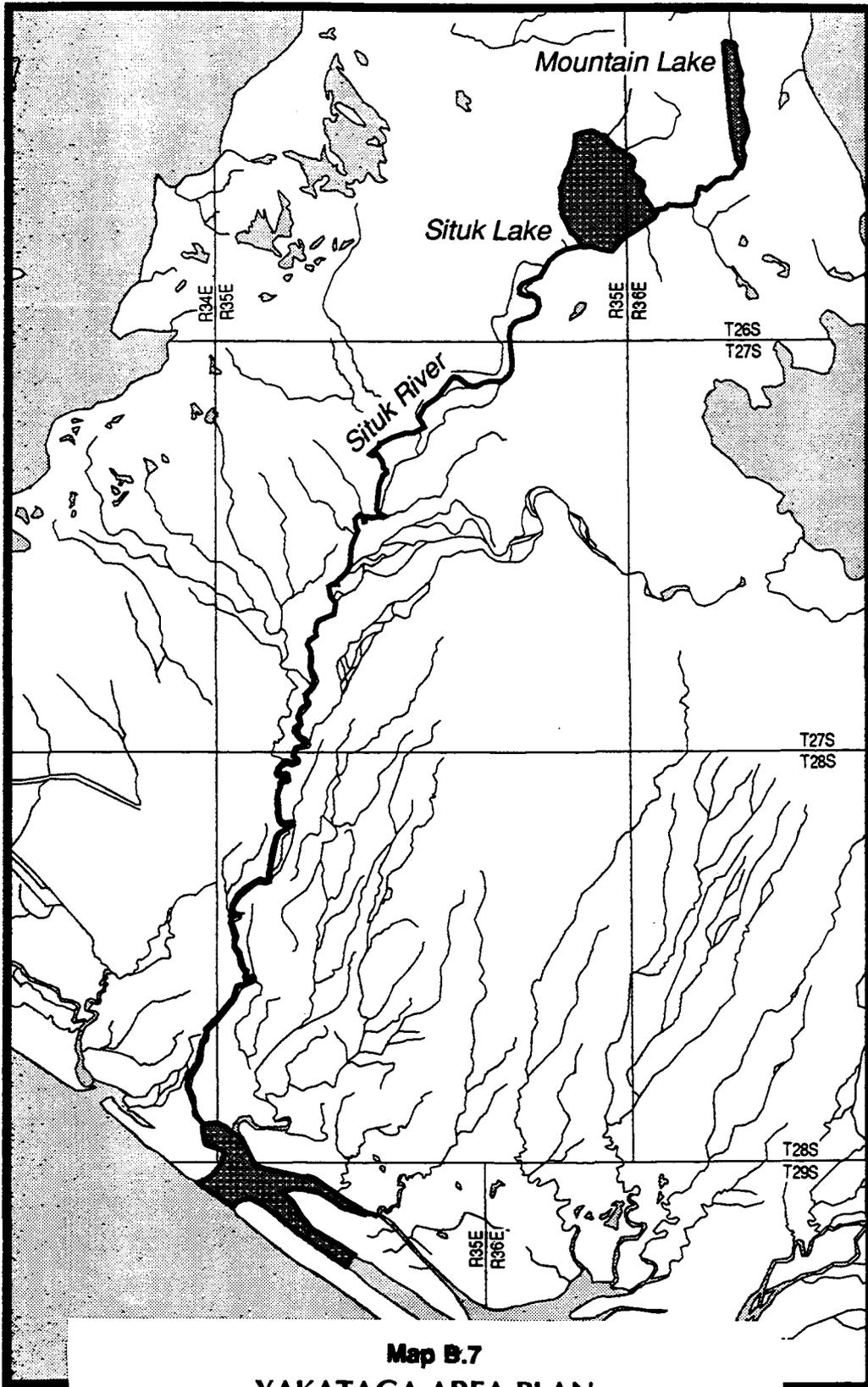


Map B.5
YAKATAGA AREA PLAN
KULTHIETH RIVER
Mineral Leasehold LLO 17)

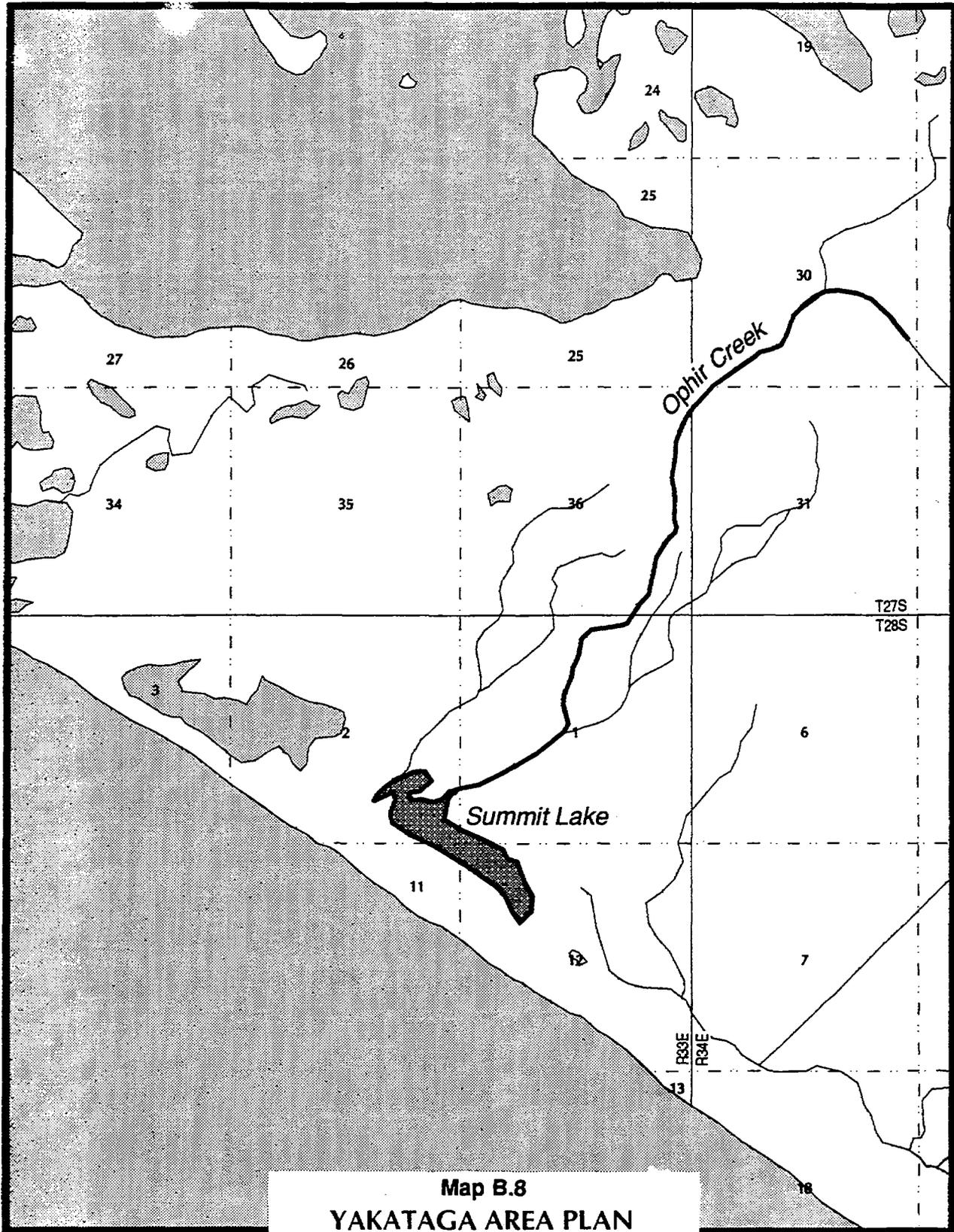


Map B.6
YAKATAGA AREA PLAN
DUKTOTH RIVER
Mineral Leasehold (LLO 17)

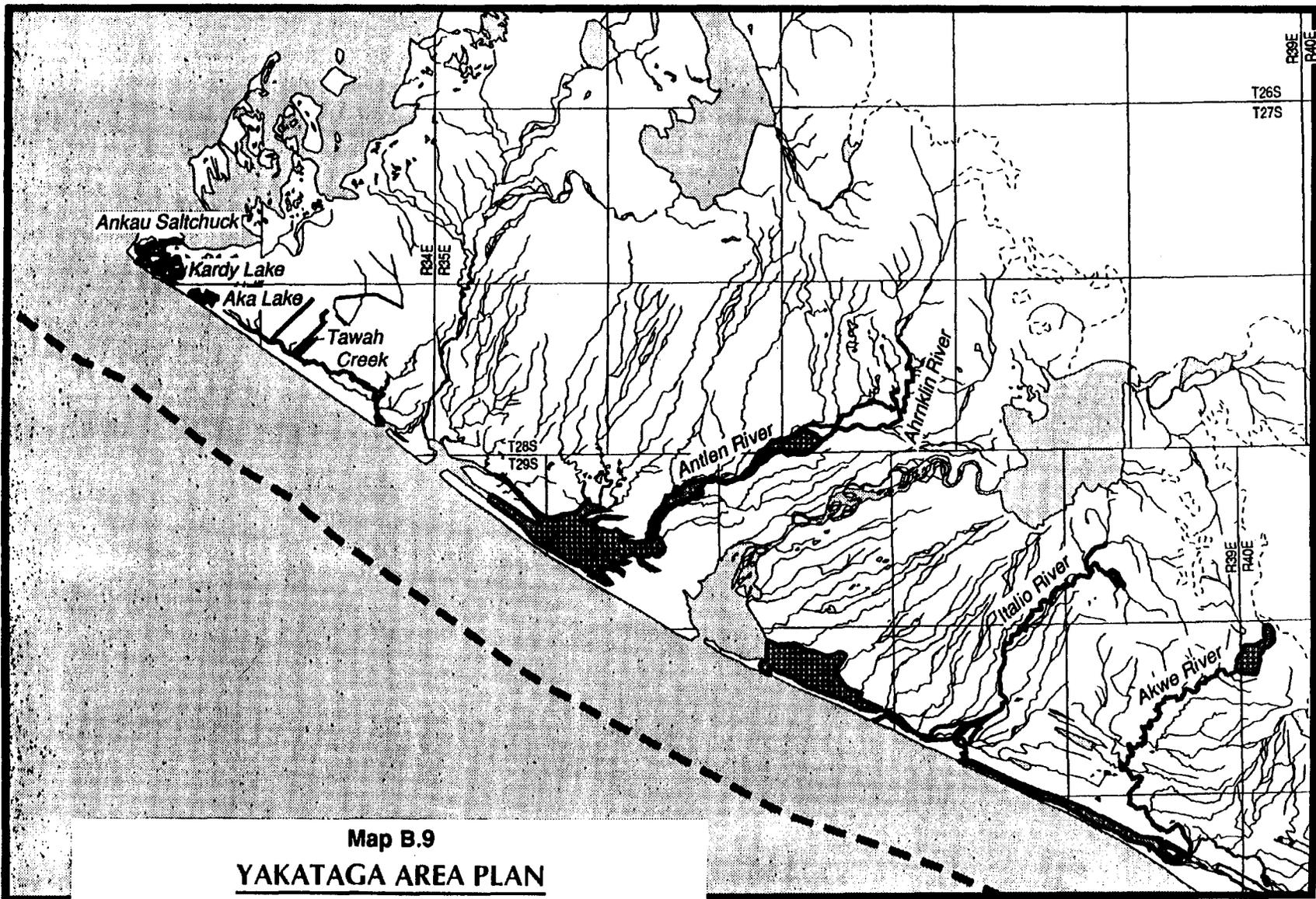
Cape
Yakataga



Map B.7
YAKATAGA AREA PLAN
SITUK RIVER, SITUK LAKE, & MOUNTAIN LAKE
Mineral Closure (MCO 711)



Map B.8
YAKATAGA AREA PLAN
OPHIR CREEK & SUMMIT LAKE
Mineral Closure (MCO 712)



Map B.9
YAKATAGA AREA PLAN

UNIT 7 AND UNIT 8B MINERAL LEASEHOLDS:
Ankau Saltchuck, Kardy Lake, Aka Lake, Tawah Creek,
Antlen & Ahrnklin Rivers, Itallo River, and Akwe River

Mineral Leasehold (LLO 17)

APPENDIX C

ISSUES THAT INFLUENCED THE PLAN

Access and the Public Trust Doctrine

The Alaska Constitution (Article VIII, Sections 1, 2, 3, 6, 13, and 14) and Alaska Statutes (38.05.127 and 38.05.128) are the legal basis for applying the public trust doctrine in Alaska. This doctrine guarantees the public access to navigable or public waterways to engage in such things as navigation, commerce, fishing, and other uses.

The Alaska Constitution provides that "free access to the navigable or public waters of the state, as defined by the legislature, shall not be denied any citizen of the United States or resident of the state, except that the legislature may by general law regulate and limit such access for other beneficial uses or public purposes." Eliminating private upland owners' reasonable access to navigable waters may require compensation.

Both federal and state laws regarding the transfer of land to private parties provide for public access to navigable waters. The state constitution guarantees access to navigable waters (Article VIII, Section 14). AS 38.05.127 requires the state commissioner of natural resources to "provide for the specific easements or rights-of-way necessary to ensure free access to and along the body of water, unless the commissioner finds that regulating or eliminating access is necessary for other beneficial uses or public purposes."

It has never been held that any lands normally subject to the public trust doctrine in Alaska are exempt from it, including lands occupied and developed.

These statutes and concepts are considered and used throughout this plan. DNR management actions will be consistent with the public trust doctrine as defined by the Alaska Constitution, statutes, court decisions, and public involvement.

The University Settlement

In August 1995, Alaska Superior Court Judge Larry Zervos approved a settlement to a seven-year lawsuit¹ regarding timber rights held by the University of Alaska for harvest of state timber in the Yakataga area. The settlement had been signed by the litigants on December 2, 1994 and is referred to in this plan as the December 1994 settlement agreement. It resulted in several eleventh-hour changes to the Draft Yakataga Area Plan, and set the pattern for timber harvest on state lands in the area for the next twenty years. Following is a history of events leading to the settlement.

In December 1987, the DNR Director of the Division of Land made a best interest finding and decision to convey to the University of Alaska one-time timber rights to three parcels in the planning area: at Yakataga (approximately 2,065 acres), Cape Suckling (approximately 32,300 acres), and White River (approximately 3,411 acres).² Maps on page C-3 show the locations of these parcels.

The timber rights were part of a settlement to compensate the University for trust lands that the state had conveyed to the Municipality of Anchorage under the Municipal Entitlement Act. The timber rights, valued at \$3 million in 1987, were a part of the \$25 million settlement.

-
- 1 *Yakutat Fishermen's Association v. Brady*, Consolidated Case 1 JU-88-271 Civil. The appellants were: the City and Borough of Yakutat, Yakutat Fishermen's Association, Cordova District Fishermen United, Steven Ranney, Alaska Center for the Environment, Inc., and Southeast Alaska Conservation Council, Inc. The appellees were Alaska DNR and the University of Alaska.
 - 2 The University of Alaska also owns fee simple title to approximately 500 acres located near Cape Yakataga. This land is not subject to the Yakataga Area Plan.

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This was a transfer of limited rights to cut up to a specific volume of timber within a defined area. The state retained ownership of the land and reserved the authority to approve the University's harvest plans and to hold the university to existing and subsequent laws and regulations applicable to timber harvest and operations on state-owned land [ADL 223456, Sec VI(C)]. All risk of loss to the timber rights conveyed due to any cause was to be borne by the university [ADL 223456 Appendix I].

DNR and the Department of Fish and Game (DFG) worked together to establish appropriate habitat mitigation for these parcels. Additional review by DFG and the Department of Environmental Conservation will occur when the harvest plans are submitted to DNR for approval. The harvest plans must comply with the Alaska Forest Resources and Practices Act and the Alaska Coastal Management Program, and now, the Yakataga Area Plan.

The decision to convey the timber rights precipitated two lawsuits against the state and the university. Both lawsuits sought to overturn the decision to convey the timber. The two cases were combined under the heading of Yakutat Fishermen's Association v. Brady 1 JU-88-271 Civil (consolidated).

In 1989, the case was remanded to DNR to consider additional information provided by the appellants and the University. DNR added some additional mitigation requirements (e.g. harvest plans would be approved annually, and newly discovered anadromous fish streams would have 100-foot set-backs).

In June 1990, the Superior Court found in favor of the University and the state on several issues, but returned the case to DNR to make additional findings on two issues: 1) sustained yield for this area, and 2) classification of the Yakataga parcel.

The court required additional findings on sustained yield for the Yakataga forest because there was not enough information in the record to determine the basis for the annual allowable cut used in the decision. A proposed decision on the annual allowable cut was made by then-Commissioner Harold C. Heinze on April 10, 1992.

Then-Commissioner Heinze also decided that Yakataga Tract 20 would be classified through the area plan. If Yakataga Tract 20 were classified Forestry, the Commissioner would subsequently decide anew whether or not to convey this parcel to the University.

The legislature in Chapter 143 SLA 1990 directed DNR to "make every reasonable effort to achieve settlement" of the timber litigation, and to "make every reasonable effort to reach agreement (with the University) on the fair market value" of the Cape Suckling and Yakataga timber tracts, with the intent that the tracts be reacquired by the next legislature.

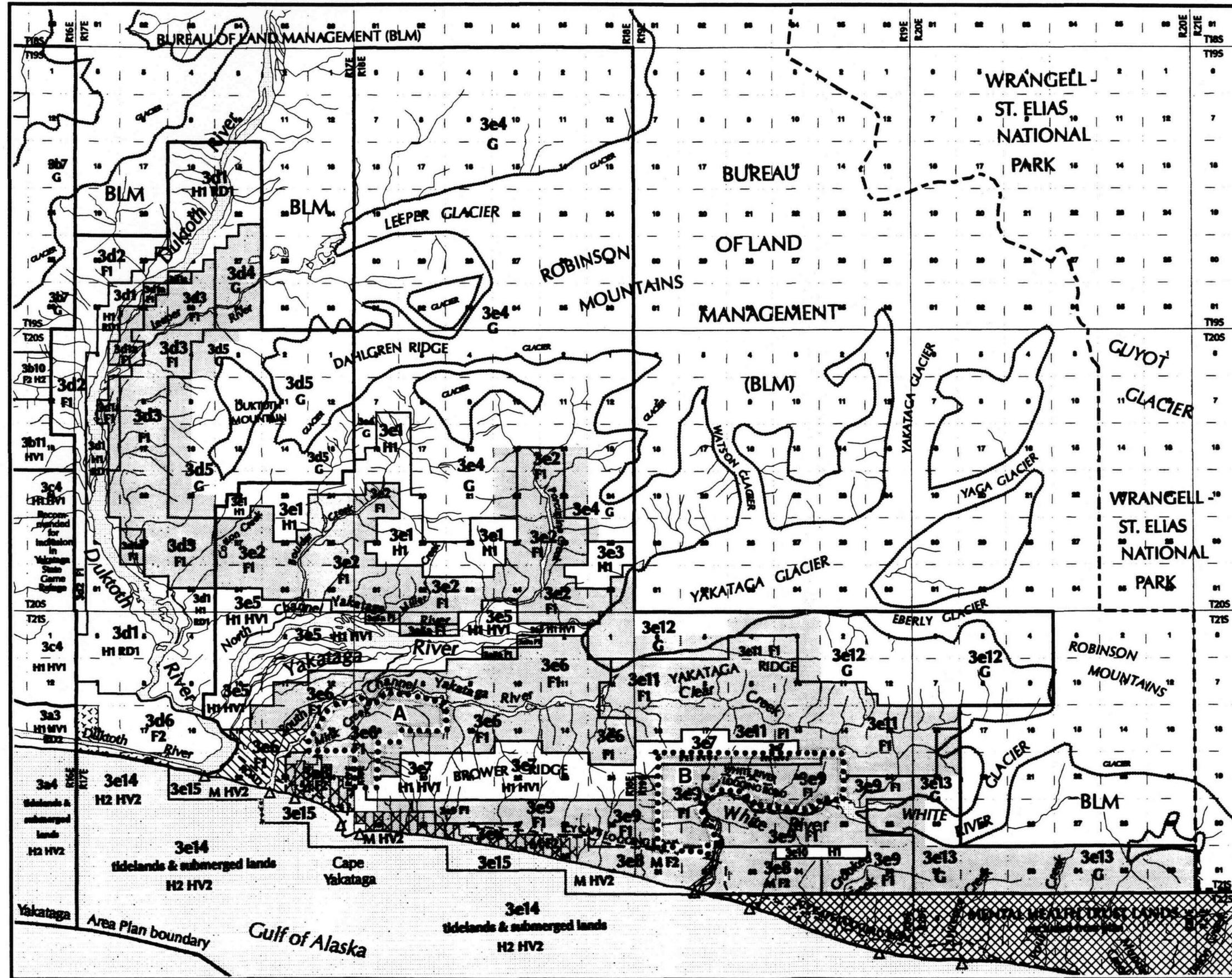
In 1991, DNR and the University agreed to the current fair-market-value of the Yakataga timber cutting rights (\$6.4 million), but declared an impasse with respect to the value of the Cape Suckling timber cutting rights. In 1991, the legislature was informed of the agreement on the value for the Yakataga parcel and the impasse on the value of the Cape Suckling parcel. During the 1992 legislative session, the legislature appropriated \$6 million from the Exxon Valdez criminal funds towards the purchase of timber cutting rights at Cape Suckling. This appropriation was vetoed by the then-Governor Walter Hickel, and the legislature has not taken any further action. During the 1993, 1994, and 1995 legislative sessions, there was little discussion of this issue by the legislature.

Litigants agreed to release the White River tract from the litigation. The University began harvest of the White River tract in 1994.

The timber rights litigation did not directly affect the area plan. The court gave no direction with respect to the area plan.

However, the legislature did give DNR directions for preparation of the area plan. The legislature directed DNR to "consider the full range of management options for the timber rights in each tract of land ... under litigation, including and excluding timber harvest." The alternatives DNR prepared for public review in 1992 presented options other than timber harvest for these parcels. When the planning team chose

Map C.1 University settlement tracts: substitute tract, Yakataga tract, and White River tract



Map C.1 University settlement tracts: substitute tract, Yakataga tract, and White River tract

	substitute tract
	Yakataga tract
	White River tract

among the alternatives, it considered the litigation, DNR's obligation to reimburse the university, resource information, public comments, and other factors before assigning land use designations.

Before the Yakataga Area Plan was adopted, most state lands in the planning area were classified Resource Management, which doesn't identify priority uses. This plan reclassifies as Forestry lands approximately 90 percent of the commercial timber in the planning area, in part to maintain a commercially-profitable timber base. The tracts with university timber rights were classified largely for forestry, except for small non-forestry areas that were either already excluded from timber harvest under ADL 223456 (see map on page C-3), or have no commercially harvestable timber, or have no operable commercial timber under current conditions.

On December 2, 1994, the parties in Yakutat v. Brady, No. 1 JU-88-271 Civil (Consolidated) signed a settlement agreement (hereafter called the December 1994 settlement agreement, or the agreement). The parties agreed to amend ADL 223456 to convey to the University of Alaska limited timber cutting rights on state land east of the Duktoth River in substitution for equivalent limited timber cutting rights the university held at Cape Suckling (see map in this Appendix).

The agreement required changes to the Draft Yakataga Area Plan. The agreement required specific land use designations, classifications, and management intent for several subunits of the area plan. The agreement also changed guidelines for mountain goat habitat, riparian buffers, and bear and moose habitat on the university's substitute tract and Yakataga tract. The agreement commits DNR to allow a cabin and trail system funded by the University on state lands west of the Duktoth River. See Chapter 4 of the Area Plan for a checklist of the area plan policies that result from the December 4 settlement agreement. For more information, see the *Final Finding and Decision of the Commissioner of the DNR regarding the conveyance of substitute timber cutting rights, annual allowable cut and sustained yield for Yakataga area; amendment #3 of ADL 223456*, February 8, 1995.

The parties also agreed to three main issues dealing with annual allowable cut and sustained yield:

- 1) The university will have an annual allowable cut of 17.24 million board feet per year.
- 2) Timber harvest will be prohibited on state land in the Yakataga area between Cape Suckling and Dry Bay for at least 20 years (until 2014), other than the University harvest and harvest incidental to the cabin and trail system). DNR must amend the Yakataga Area Plan and re-calculate the annual allowable cut using area plan provisions before additional harvesting can occur. Future state timber offerings may be delayed later than 2014 if the university's stipulated annual allowable cut of 17.24 MMBF, measured on a ten-year average, is found to have exceeded the annual allowable cut needed for even flow of timber on a sustained yield basis, from one decade to the next.
- 3) The agreement limits timber harvesting by the university to specific units east of the Duktoth River unless DNR does not make sufficient timber available from that area. If DNR does not make sufficient timber available, the university will have rights to the first state timber offered outside the substitute area, after 2014.

Finally, the agreement has several provisions between the university and various litigants, and DNR and various litigants. These include local hire preference for Yakutat residents for university timber harvest operations, and a land conveyance of 138 acres from DNR to the borough.

Following adoption of the Area Plan, DNR issued a Final Finding and Decision to convey the timber on Yakataga Tract 20 to the University (amendment #4 to ADL 223456), June 6, 1995.

If the University withdraws from the Agreement pursuant to paragraph 16 of the Agreement, the university shall have whatever rights it possessed prior to the Agreement, without the need for further modification of the area plan, to harvest timber on the Yakataga tract and the Cape Suckling tract, minus whatever volume has been harvested under the Agreement; provided that, if the University withdraws from the agreement, nothing herein shall preclude the Borough or the Association from continuing or

reinstating their legal challenges to the conveyance of limited timber cutting rights to the University under ADL 223456, as set forth in paragraph 16(c).

The Mental Health Settlement

Background

Prior to statehood, Alaska was granted title to one million acres of federal land to generate revenue to support Alaska's mental health programs. Land that was thought to have high income-producing potential was selected to fulfill this trust entitlement. The original trust lands included coal and mineral deposits, commercial forests, agricultural areas and land near communities, especially communities in Southeast Alaska.

As Alaska's population increased, some Alaskans wanted certain of these lands for non-income-producing activities such as parks, municipal expansion, and public facilities. In 1978, the legislature removed the trust status of mental health trust land, and redesignated it as general statehood grant land. In return, the legislature was to appropriate 1.5 percent of all income from state lands to the Mental Health Trust Fund.

No appropriation was made, and in 1982, mental health advocates sued the state (Weiss v. State of Alaska, 4FA-82-2208 Civil.). After years of litigation, the Alaska Supreme Court ruled in 1988 in favor of the plaintiffs and ordered the state to "reconstitute, as nearly as possible the holdings which comprised the trust when the 1978 law became effective."

In 1991, the legislature passed the Mental Health Trust Lands Settlement Act to reconstitute the trust. This act reconstitutes the land trust with all unencumbered land from the original mental health trust and provides replacement land through an exchange process for land conveyed out of the trust.

In a recent decision, the Superior Court ruled that the Department must follow AS 38.04 and AS 38.05 (specifically planning and classification requirements) in order to transfer state land to the Mental Health Trust. Once land is transferred to the Trust, it is no longer subject to management by DNR or any of the land use designations or guidelines in this plan.

There are 45,312 acres of Original Mental Health Trust lands, located between the White River and Icy Bay. Mental Health Trust Land shall be managed consistent with the trust principles imposed on the state by the Alaska Mental Health Enabling Act, P.L. 84-830, 70 Stat. 709 (1956) and AS 38.05.801. Hence these trust lands have been excluded from the Yakataga Area Plan.

Subunit 8a-4 has been identified as substitute land. The draft plan proposed to classify Subunit 8a-4 Settlement, which is consistent with conveyance to the Mental Health Trust. DNR considers this parcel to be Mental Health Trust land and it is therefore not subject to this area plan.

APPENDIX D

FOREST LAND USE PLANS AND ANNUAL OPERATING PLANS

Several policies guide timber harvest on state land in the Yakataga area:

- The Yakataga Area Plan determines where timber harvest is allowed. The plan has areawide guidelines on forestry and access that give general direction as to *how* timber harvest will occur.
- The Alaska Forest Resources and Practices Act (commonly referred to as the Revised Forest Practices Act or FPA)¹ determines in more detail *how* timber resources will be managed.
- The Five-Year Timber Sale Schedule and Forest Land Use Plan (FLUP) for each sale give specific decisions on *when* individual timber sales will be held and the *size and design* of each sale.
- In lieu of a Forest Land Use Plan, the University of Alaska prepares for DOF approval an Annual Operating Plan to describe the timing, size, and design of each timber harvest.

Forest Land Use Plans (FLUPs)

The Forest Practices Act requires that the Division of Forestry (DOF) prepare a Forest Land Use Plan (FLUP) for every timber sale except for certain emergencies or personal use. The FLUP must meet the statutory requirements for the balanced use of renewable and non-renewable resources described in AS 38.05.112. Agencies and the public are provided an opportunity to review and comment on draft FLUPs. The DOF evaluates and responds to comments in the final FLUP. FLUPs are generally completed between five and 14 months prior to the anticipated timber sale date.

A Forest Land Use Plan is a site-specific plan that describes a timber sale in detail. The FLUP includes cutting units and design information, location, land title details, conformance with existing plans, department policies and regulations, access provisions including roads, a narrative section, and site-specific stipulations (AS 38.05.112).

The FLUP also addresses impacts to non-timber resources. This includes identification and protection of important wildlife habitat; design of harvest to provide wildlife travel corridors and escape cover; uses of the forest for recreation and tourism activities and visual resources; other existing commercial and non-commercial uses; and impacts to adjoining lands.

¹ The Forest Practices Act is the primary law governing forestry activities on state, municipal, and private land. The Act establishes minimum statewide standards for multiple use and sustained yield management of forest lands, reforestation, protection of riparian areas, and enforcement procedures.

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The Yakataga Area Plan specifically deferred to the FLUP process several issues related to balancing timber harvest with non-timber resources and uses. Examples include:

- making allowances for important bear habitat;
- minimizing impacts to viewsheds;
- additional habitat protection measures for species of concern such as moose, bear, goat, swans, and eagles; and
- forest management activities within ¼ mile of mapped goat winter habitat, within 1,000 feet of mapped moose winter habitat, and in river corridors farther than 100 feet from anadromous fish streams.

Deferral of these site-specific decisions to the FLUP allows an opportunity for more detailed information to be gathered and flexibility for managers to respond to the specific situation. DOF solicits information and recommendations from agencies (particularly DFG), the public, and other interested parties early in the timber sale planning process through reviews of the Five-Year Timber Sale Schedule and draft FLUPs.

Notice Requirements

DOF provides agencies and the public several opportunities to contribute to the DNR timber sale program.

First, a timber sale must be on the Five-Year Timber Sale Schedule for two years prior to sale. (Small or emergency sales may be exempt by regulation.) The schedule describes proposed sales, access sales, and reforestation plans for the next five years. The schedule gives advance notice to the timber products industry, agencies, and the public. It provides a basis for public comment on the DNR timber sale program (AS 38.05.113).

Second, DOF must prepare a Forest Land Use Plan (FLUP) prior to each timber sale. FLUPs must meet the public participation requirements for land use planning included in AS 38.04.065 (b)(8): "provide for meaningful participation in the planning process by affected local governments, state and federal agencies, adjacent landowners, and the general public." Meaningful participation is informally defined as a genuine opportunity to influence the outcome.

Finally, because a timber sale is a disposal of state resources, DNR must make a written finding that the sale is in the best interests of the state under AS 38.05.035 (e). The finding must be publicized under DNR's key law on public notice, AS 38.05.945. By practice, although not legally required, the Division of Forestry also notices FLUPs and Five-Year Timber Sale Schedules under the guidelines of AS 38.05.945.

AS 38.05.945 notices must be published in statewide and local newspapers at least 30 days before the proposed action. DNR must also give notice to:

- municipalities whose boundaries include the affected area;
- regional ANCSA corporations whose regional boundaries include affected land outside a municipality;
- village ANCSA corporations outside a municipality and within 25 miles of the proposed action;
- nonprofit community organizations who request notification in writing and whose boundaries include the affected area; and
- postmasters of permanent settlements of 25 or more persons outside a municipality and within 25 miles of the proposed action.

Annual Operating Plans

A timber sale contract may require the purchaser of the contract to prepare an annual plan of operations (11 AAC 71.300). The plan must be prepared before beginning operations in the timber sale area and before beginning operations each calendar year thereafter (AS 41.17.090 (c)). The operating plan may be modified by mutual agreement.

A detailed plan of operations must identify on a detailed map the land involved, and describe the action proposed in sufficient detail to inform the public of the nature of the proposed operation. Annual operating plans are not subject to public notice but are distributed to affected agencies, coastal districts, and members of the public that have made a written request. The operating plan is subject to inter-agency review under the Alaska Coastal Zone Management Program and must be consistent with the Alaska Forest Resources and Practices Act. It must also be consistent with the area plan.

Under terms of the University of Alaska timber rights settlement, the University must submit an annual plan of operations (see Appendix C). Some mitigation measures for impacts to fish and wildlife habitat were included in the settlement agreement.

Forest Land Use Planning Statutes

Following are the statutes that directly affect Forest Land Use Plans:

AS 38.05.112: Forest Land Use Plans.

- (a) The department may not sell or harvest timber, except for isolated personal use timber harvest, until a site-specific forest land use plan has been adopted. A forest land use plan is required whether or not a regional or area land use plan under AS 38.04.065(a) or a forest management plan under AS 41.17.230 has been adopted.
- (b) The commissioner shall base a forest land use plan on the best available data, including information provided by other agencies describing the immediate and long-term effects of individual and collective forest activities on the timber base and on other resources and uses.
- (c) In addition to the requirements of AS 38.04.065(b), a forest land use plan shall consider
 - (1) commercial timber harvesting, including related activities;
 - (2) harvesting of forest products for personal use;
 - (3) fish and wildlife habitat, including
 - (A) identification and protection of important wildlife habitat;
 - (B) retention of riparian, wetland, and ocean-shoreline vegetation critical for fish and wildlife habitat; and
 - (C) classification of water bodies according to physical characteristics;
 - (4) uses of forest land for nontimber purposes; including
 - (A) recreation, tourism, and related activities;
 - (B) mining, mining claims, mineral leaseholds, and material extraction;
 - (C) uses of fish and wildlife;
 - (D) agriculture, including grazing; and
 - (E) other resources and uses appropriate to the area, including compatible traditional uses;
 - (5) soil characteristics and productivity;
 - (6) water quality; and
 - (7) watershed management.

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- (d) A management plan prepared by the commissioner must consider and permit the uses described in (c) of this section. If the commissioner finds that a permitted use is incompatible with one or more other uses in a portion of a state forest, the commissioner shall affirmatively state in the management plan that finding of incompatibility for the specific area where the incompatibility is anticipated to exist and the time period when the incompatibility is anticipated to exist together with the reasons for each finding.

Section (c) above includes the requirements of AS 38.04.065(b):

AS 38.04.065(b): In the adoption and revision of regional and site-specific land use plans, the commissioner shall

- (1) use and observe the principals of multiple use and sustained yield;
- (2) consider physical, economic, and social factors affecting the area and involve other agencies and the public in achieving a systematic interdisciplinary approach;
- (3) give priority to planning and classification in areas of potential settlement, renewable and non-renewable resource development, and critical environmental concern;
- (4) rely, to the extent that it is available, on the inventory of the state land, its resources, and other values;
- (5) consider present and potential uses of state land;
- (6) consider the supply, resources, and present and potential use of land under other ownership within the area of concern;
- (7) plan for compatible surface and mineral land use classifications; and
- (8) provide for meaningful participation in the planning process by affected local governments, state and federal agencies, adjacent landowners, and the general public.

AS 41.17.060 provides direction for the management of forest land (land stocked with forest trees). Section (c) applies specifically to state and municipal forest land. A FLUP would therefore reflect the provisions of AS 41.17.060(c) and regulations promulgated pursuant to Sec 41.17.080. Section (c) of 41.17.060 states the following :

- (c) With respect to state and municipal forest land only, the following standards also apply:
- (1) forest land shall be administered for the multiple use of the renewable and nonrenewable resources and for the sustained yield of the renewable resources of the land in the manner that best provides for the present needs and preserves the future options of the people of the state;
 - (2) a system of allocating predominant uses or values to particular units within a contiguous area of land shall reflect in reasonable proportion the various resources and values present in that area;
 - (3) to the extent its capacity permits, forest land shall be administered so as to provide for the continuation of businesses, activities, and lifestyles that are dependent upon or derived from forest resources;
 - (4) timber harvesting is limited to areas where data and information demonstrate that natural or artificial reforestation techniques will result in the production of a sustained yield of merchantable timber from that area;
 - (5) there may not be significant impairment of the productivity of the land and water with respect to renewable resources;
 - (6) allowance shall be made for scenic quality in or adjacent to areas of substantial importance to the tourism and recreation industry; and
 - (7) allowance shall be made for important fish and wildlife habitat.

APPENDIX E

HABITAT AND HARVEST RATINGS CRITERIA

This appendix defines the criteria used to map the most valuable fish and wildlife habitat in the Yakataga planning area. Please note that some of the land with valuable fish and wildlife habitat has been designated for uses other than habitat. Land use designations take into consideration all resource values.

Highest Value "A" Habitat Areas

Definition: Limited, concentrated use area for fish and wildlife species during a sensitive life history stage where alteration of the habitat and or human disturbance could result in a permanent loss of a population or species' sustained yield.

Criteria:

Anadromous fish spawning areas: All streams and lakes known to be used for spawning by one or more anadromous fish species, as identified in the *Catalog of Waters Important to Anadromous Fish* and updated by DFG Area Management biologists.

Estuaries important for rearing or schooling of anadromous fish: All estuarine areas adjacent to anadromous fish streams that provide important rearing habitat for anadromous fish, as identified by Alaska Department of Fish and Game (DFG) biologists. Throughout the planning area, even though not appearing on the maps, crucial anadromous fish habitat occurs in estuarine waters off the mouths of all anadromous fish streams out to a depth of 40 feet at Mean Lower Low Water.

Adult anadromous trout over-wintering areas: Areas where concentrations of adult anadromous trout or Dolly Varden char have been observed in the winter, as identified in the Alaska Habitat Management Guide (AHMG).

Limited rearing areas for Dungeness crab: Shallow, nearshore areas that provide important habitat for rearing juvenile Dungeness crab in state waters, as identified by DFG biologists.

Limited rearing areas for king crab: Nearshore waters less than 50 fathoms deep that provide the habitat necessary for adult female king crab to molt and breed, and in which larvae are released. Often these areas are within the lower zone of kelp and boulders, where *Alaria* sp., *Costaria* sp., and *Laminaria* sp. are common and provide the cover necessary for protection from predation. Areas were identified by DFG biologists.

Razor clam concentration areas: Intertidal areas known to produce harvestable concentrations of edible clams.

Herring spawning areas: Areas where concentrations of spawning herring have been observed by DFG biologists.

Important resident sport fish spawning and rearing areas beyond anadromous fish habitat: All water bodies known to be important for the spawning or rearing of resident sport fish species and supporting an intensive or unique sport fishery within the planning area, as identified by DFG biologists and survey reports.

Eulachon spawning concentration areas: Areas where concentrations of spawning eulachon have been observed by DFG biologists.

Capelin spawning areas: Areas where concentrations of spawning capelin have been observed by DFG biologists.

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Shrimp rearing areas: Areas where concentrations of either pink, coonstripe or sidestripe shrimp are known to occur in nearshore or inner bay areas with smooth mud, sand or organic debris bottoms in depths less than 70 fathoms. Areas were identified by DFG biologists.

Harvestable concentrations of bivalves: Intertidal habitats known to support harvestable concentrations of cockles and littleneck and softshell clams, usually in sheltered tidal flats with sandy silt, sandy clay, or sandy substrate.

Black bear spring concentration areas: Areas where concentrations of black bears have been observed by DFG biologists during the spring; or high use spring habitats identified from vegetation maps where bears are known to concentrate to seek out critical spring food resources. In general, areas where bears are known to concentrate in spring include south-facing alder slopes, sedge-grass-horsetail wet meadows, bogs and muskeg forests with relatively abundant skunk cabbage, and beaches where carrion collects. No formal spring surveys have been done.

Black bear summer/fall concentration areas: Areas where concentrations of black bears have been observed in the summer/fall by DFG biologists; or specific habitats identified from vegetation and anadromous fish stream maps where bears are known to seek out high-protein, high-caloric, abundant food resources during this season.

High quality brown bear spring habitat areas: Areas where concentrations of brown bears have been observed by DFG biologists during the spring; or high use spring habitats identified from vegetation maps where bears are known to concentrate to seek out critical spring food resources. In general, areas where bears are known to concentrate in spring include south-facing alder slopes, sedge-grass-horsetail wet meadows, bogs and muskeg forests with relatively abundant skunk cabbage, and beaches where carrion collects. No formal spring surveys have been done.

Brown bear summer/fall concentration areas: Areas where concentrations of brown bears have been observed in the summer/fall by DFG biologists; or specific habitats identified from vegetation and anadromous fish stream maps where bears are known to seek out high-protein, high-caloric, abundant food resources during this season.

Moose winter concentration areas: Areas where concentrations of moose have been observed during winters of average or deep snow depth, as identified by DFG surveys.

High quality mountain goat winter habitat: Limited areas surrounding steep, forested slopes, generally over 50°, that support relatively high densities of goats in a discrete population during the months in which snow cover limits the movements of goats and their access to forage, as identified by DFG biologists from aerial and ground surveys.

The mountain goat winter **mapped habitat** in the Fish and Wildlife Resources Atlas of the Yakataga Area Plan consists of areas within ¼ mile of escape terrain (slopes generally over 50 degrees). Where steep slopes or cliffs are extensive or spaced at intervals less than one mile apart, goat habitat extends throughout the cliff area. Sources include the DNR 1:630,360 vegetation map produced from the Yakataga Forest Inventory data (1985), USGS 1:63,360 topographical maps for identifying cliffs, DFG goat survey data, goat habitat models for Southeast Alaska, and DFG professional opinion based on best available information. DNR conducted four aerial surveys of goats between Icy Bay and Cape Yakataga in early August in 1977, 1984, 1989, and 1993. Goats were counted in the Suckling Hills in 1980, 1986, and 1993. DFG also conducted ground surveys in 1989. The 1993 survey information was not available for inclusion in the Yakataga Area plan atlas. DFG will update these goat habitat maps as new and better information becomes available.

Waterfowl and shorebird nearshore migratory concentration areas: Limited areas observed by U.S. Fish and Wildlife Service (USFWS) or DFG biologists where waterfowl and shorebirds concentrate during spring or fall migrations to rest and feed (AHMG).

Duck or geese nesting or molting concentration areas. Areas of limited size where ducks or geese are known to concentrate for molting or nesting. (Data incomplete, have some goose molting).

Bald eagle nest trees, 330-foot radius around all nests, and observed concentration areas for feeding. Known bald eagle nest trees and concentrated feeding areas as identified by USFWS.

Swan nesting, molting, and migratory staging areas. Areas identified by USFWS biologists where swans are known to concentrate for nesting, molting, or migratory staging. (Data incomplete, no formal studies have been made except for nesting areas.)

Sea lion haulout areas and a 1-mile radius around them. Areas where sea lions are known to haul out for breeding, feeding, or resting for more than one season.

Seal haulouts for 25 or more seals. Islets, rocks, or other sites where seals are known to haul out for breeding, feeding, or resting for more than one season.

Sea otter feeding concentration areas. Discrete areas of limited size where sea otters are known to concentrate because of an abundance of food.

Moderate Value "B" Habitat Areas

Definition: Limited areas that contain productive components of ecosystems where alteration of the habitat and or human disturbance would reduce the yield of fish and wildlife populations either indirectly or cumulatively.

Criteria:

Lagoons, eelgrass beds, kelp beds and extensive shallow, estuarine habitat (other than the more limited estuaries mapped as "A" habitat for rearing crab or anadromous fish): Lower intertidal and shallow subtidal areas in very protected estuarine areas where substantial beds of eelgrass or kelp have been identified from aerial photographs taken at an extreme low tide, and by field reconnaissance.

Herring over-wintering areas: Areas where concentrations of herring have been observed during the winter by DFG biologists or knowledgeable local residents.

Herring schooling concentrations: Areas in which dense schools of herring have been observed by DFG biologists near shore during the spring spawning period.

Highest quality marten habitat: Old-growth forests with at least 20,000 board feet per acre (bf/ac) in a riparian zone, less than 500 ft from the coastline, or upland site below 800 feet elevation, and in areas with less than 0.3 miles of road per square mile of land, based on the marten winter habitat model for southeast Alaska (Flynn et al. draft 1991). This category was mapped from DNR's vegetation maps and topographic maps for the Yakataga Area Plan. DFG mapped marten habitat only west of Icy Bay, although marten also occupy similar habitats at Yakataga.

Highest quality land otter habitat: Old-growth forests with at least 8000 bf/ac below 800 feet elevation either within a riparian zone or within 500 feet of the coastline, based on the otter habitat model for Southeast Alaska (Suring et al. 1988). This category was mapped from DNR's vegetation maps and topographic maps for the area west of Icy Bay only. The maps do not show areas where otters or their tracks have been observed by DFG biologists in the Yakutat area, although they occur there.

Highest quality wolf habitat: Areas known to be optimal wolf habitat based on reported sightings and a documented abundance of the most important prey species (deer, beaver, moose, breeding and molting waterfowl, and spawning salmon).

Canada geese and trumpeter swan wintering areas. Areas where concentrations of Canada geese or trumpeter swans have been observed during winter.

A one-mile radius around seabird breeding colonies. Data from the Alaska Habitat Management Guide (AHMG).

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Beaver concentration areas: Areas in which there is a relatively dense population of beavers based on DFG biologists' observations of lodges, food caches, bank burrows or dams.

Potential high-quality beaver habitat: Vegetation types identified from USFWS' wetlands maps known to be high-quality beaver habitat based on habitat research results from similar habitats. The following USFWS wetland types were mapped:

PEM1A PUS/EM1A PAB3/EM1H PEM1/AB3H PFO5/EM1F PEM1F PSS1/EM1C PEM1/SS1F PEM1/SS1C
PEM1C PEM1/USC PSS1H PSS1F PSS1/UBH PSS1C PSS1R PSS1A PSS1/USA PSS1S L2AB3H L2EM2H
R3USA R4SBC R4SBA PUBH PUB/AB3H PAB3H PAB3/UBH PUB/EM1H PEM1H PEM1/UBH PUB/SS1H
PUS/SS1C PSS1/USC PSS1/EM1A PFO1/SS1A PSS1/FO1A PFO1/SS1C PSS1/FO4A PFO4/SS1A PFO4/SS1C

High Value Harvest Areas "HV"

Definition: Either 1) areas of intense harvest compared with the rest of the planning area where the level of harvest has or is projected to reach the harvestable surplus for the resource, or 2) discrete fish and wildlife harvest areas historically important to a community for the harvest of a species where alteration of habitat could permanently limit sustained yield to traditional users.

Criteria:

Intensive community harvest areas: Important community fish and wildlife harvest areas of limited size where the level of harvest, when combined with sport and commercial harvests has, or is projected to reach, the harvestable surplus for the resource.

Intensive sport fishing areas: Areas intensively used for sport fishing where the level of effort or harvest for a particular species is at the sustained yield compared to the overall planning area regardless of land ownership.

Intensive commercial fishing areas by gear type: Areas along the coast where commercial trollers, gillnetters, or purse seiners concentrate on a regular basis to harvest salmon to sell.

Intensive commercial crab harvest areas by species: Areas along the coast where commercial crabbers concentrate on a regular basis to harvest crab to sell.

Intensive hunting areas by species: Areas where the level of hunter days or harvest for moose, goat, brown bear, black bear, deer, waterfowl, or upland game birds is at sustained yield indicating that the area is important for the public's use and enjoyment of one or more wildlife species.

Intensively used areas for watching fish and wildlife: Areas where a relatively large number of people go to watch, photograph, film, study, or draw fish and wildlife species. Results from the DFG 1989 survey of businesses involved with nonconsumptive users of wildlife was the primary source of information for use by visitors. This information is included in the *Recreation and Tourism Resource Report*.

Commercial guide regular use areas: Specific fish and wildlife use areas known to be important to the commercial guiding and outfitting industry. DFG information on the use areas is the primary source of information.

Potentially important wildlife viewing areas: Areas that have abundant wildlife resources, that would allow the public to safely enjoy the wildlife resource, and that have the potential to become a tourist attraction. This information is mapped with the Recreation uses.

Important access for human use of fish and wildlife: Access points and routes that are important for the public's access to fish and wildlife resources as identified in *Southeast Region: Selective Historical Access to Fish and Wildlife* (DFG 1991). Categories include: roads, ATV trails, general trails, freshwater boat routes, boat landings/launch areas, airstrips, float plane traditional landing areas, bush wheel plane traditional landing areas, remote cabins and camps used for the harvest of fish and wildlife, and guide camps or lodges. This information is included on the Access map.

APPENDIX F

SITE-SPECIFIC RESOURCE INFORMATION FOR MARINE OR SHORE USES IN UNIT 8B

Introduction

The waters near Yakutat yield abundant fish and wildlife for community, sport, and commercial harvests, and for recreational viewing. These waters also provide excellent potential for aquatic farming. Future aquatic farms and other developments should avoid or minimize impacts to sensitive and heavily used marine areas. To foster careful development, DNR has compiled site-specific resource information on existing marine resources and uses near Yakutat.

The following table is adapted from the draft *Aquatic Farming Resources Report* prepared for this plan. The table identifies known resources and uses, potential conflicts, possible aquatic farming mitigation measures, and relative sensitivity to aquatic farming for 26 sites within Unit 8B. Local Yakutat representatives provided much of the resource and sensitivity information. In addition to these sites, Humpie Creek and Chicago Harbor just outside of Unit 8B are sensitive to development impacts.

The sites are numbered 12-36 (using the numbering scheme from the *Aquatic Farming Resources Report*). They are identified on the accompanying map. Several of these sites may occur within a single management subunit for the area plan. The subunit number in which the site lies is noted in small type (8b-1, 8b-2, 8b-3 or 8b-4). The sites numbered 1-11 in the *Aquatic Farming Resources Report* are upland areas outside the purview of this area plan.

Map F.1
Resource analysis units for Unit 8B

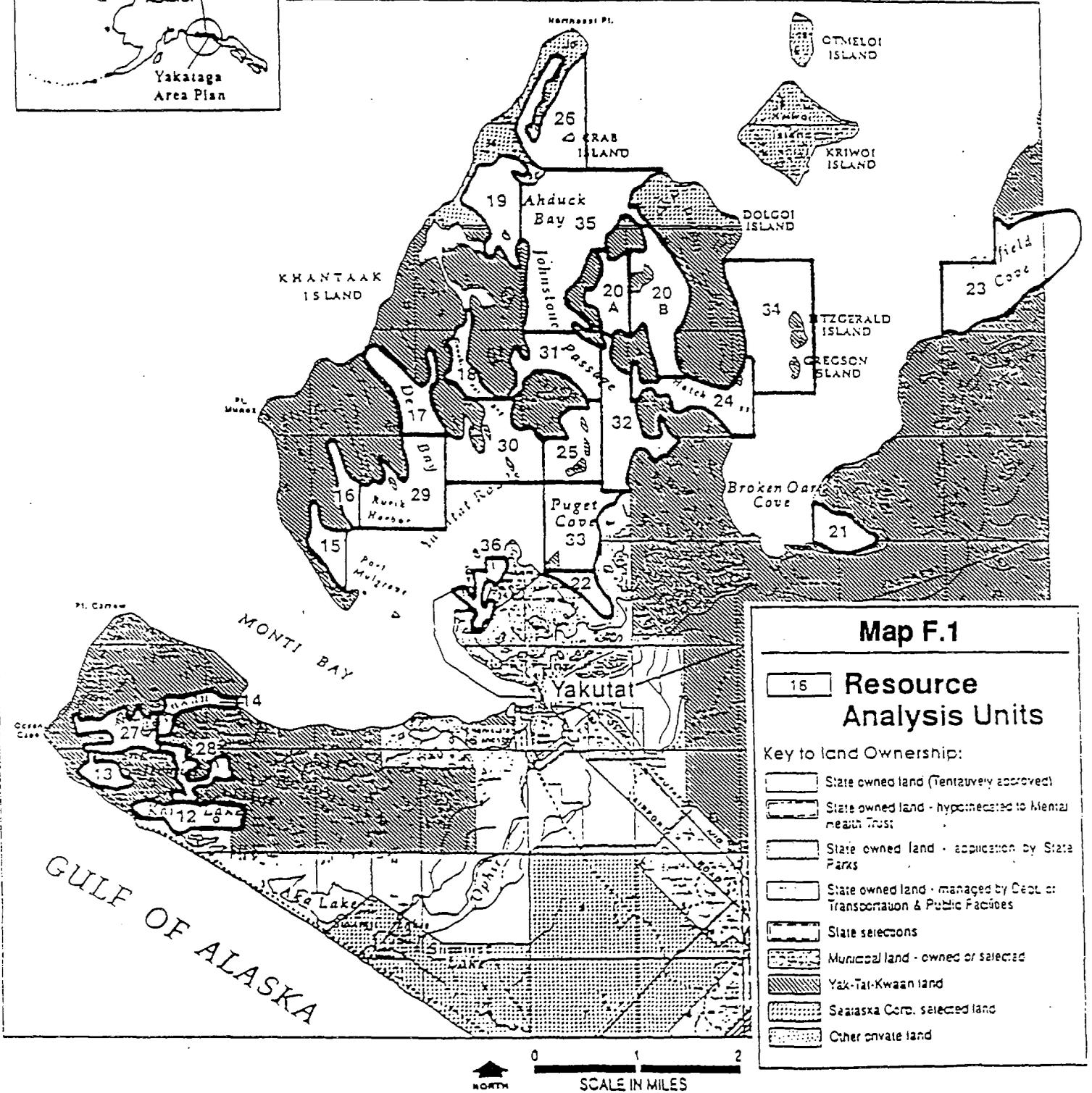
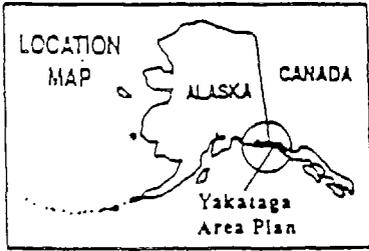


Table F.1

Unit 8B: Existing Uses, Potential Conflicts, and Possible Mitigation by Site

No.	Name	Existing Uses and Potential Conflicts	Possible Mitigation
(8b-1)	Entire nearshore waters	Entire bay has numerous species of waterfowl, including some marbled murrelets. Commercial crabbing is mostly by local residents. Some locals also crab in the outside waters. Skiff fishermen are limited to inside waters. Pot shrimping is almost all local. Most pot shrimping is north east of Khantaak Island except Johnstone passage. Khantaak island is closed to trawling.	<ul style="list-style-type: none"> ■ Standard mitigation.
12 (8b-2)	Kardy Lake Very sensitive Possible consideration for closure to aquatic farming	<p><u>Navigation:</u> access via skiff, mostly</p> <p><u>Subsistence:</u> shellfish (especially crab), waterfowl - ducks & geese, clamming on reefs</p> <p><u>Commercial:</u> Dungeness crabbing, salmon and redfish net fisheries</p> <p><u>Recreation/tourism:</u> Recreation coho fishing, drive out and cast from shore, very popular. Remote, undeveloped</p> <p><u>Aesthetics:</u> med-high</p> <p><u>Cultural:</u> general area of New Russia site, former village fish sites and smoke house remnants</p> <p><u>Habitat:</u> waterfowl concentrations</p> <p><u>Other:</u> conflict is beginning to develop between sport and subsistence. Yak-tat Kwaan did a pilot project for oysters - rack and bag system.</p>	<ul style="list-style-type: none"> ■ Avoid impacts to subsistence harvest, cultural resources, and recreation and aesthetic values. Minimize visible evidence of operation.
13 (8b-2)	Ankau #13 Somewhat sensitive	<p><u>Navigation:</u></p> <p><u>Subsistence:</u> shellfish - cockles & clams, waterfowl, seal hunting. Elders want the highest protection of subsistence at Ankau.</p> <p><u>Commercial:</u></p> <p><u>Recreation/tourism:</u> culture camp</p> <p><u>Aesthetics:</u> med-high; remote, secluded character</p> <p><u>Cultural:</u> culture camp</p> <p><u>Habitat:</u></p> <p><u>Other:</u> Yak-tat Kwaan has considered development plans for Ocean Cape. This area has much less use than Kardy Lake. Storms have occasionally breached the coastal barrier</p>	<ul style="list-style-type: none"> ■ Avoid adverse impacts to culture camp, subsistence, and recreation and aesthetic values. ■ Least sensitive Ankau area. ■ Aquatic farm may be a tourist attraction if tourist lodgings are developed at Ocean Cape.

Table F.1

Unit 8B: Existing Uses, Potential Conflicts, and Possible Mitigation by Site

No.	Name	Existing Uses and Potential Conflicts	Possible Mitigation
14 (8b-2)	Ankau Entrance	<p><u>Navigation:</u> high use, narrow opening, shallow, strongest currents, whirling eddies</p> <p><u>Subsistence:</u> fish, one of the most abundant cockle sites</p> <p><u>Commercial:</u> fish</p> <p><u>Recreation/tourism:</u> high use. Easy road access from town in summer/fall.</p> <p><u>Aesthetics:</u></p> <p><u>Cultural:</u> cemetery</p> <p><u>Habitat:</u> north shore selected by city for a park under ANCSA 14(c)3</p> <p><u>Other:</u></p>	<ul style="list-style-type: none"> ■ Close this area to aquatic farming. Existing uses seasonally saturate capacity of site. Navigation conflict is significant. ■ Some community members desire to close this area in the Ankau to aquatic farming. Area 13 would be the location of lowest conflict within the Ankau.
15 (8b-1)	Port Mulgrave	<p><u>Navigation:</u> shallow, almost dry at low tide</p> <p><u>Subsistence:</u> moderate Dungeness crabbing all the way into the tidal areas, possible rearing area for juvenile Dungeness. Low to moderate clam & cockle gathering.</p> <p><u>Commercial:</u> not heavily used</p> <p><u>Recreation/tourism:</u></p> <p><u>Aesthetics:</u></p> <p><u>Cultural:</u> historic village site and burial sites, not visited much. Possible site for a cultural tourist attraction: Yak-tat Kwaan is interested.</p> <p><u>Habitat:</u></p> <p><u>Other:</u></p>	<ul style="list-style-type: none"> ■ Aquatic farming acceptable with standard mitigation. ■ Crabbing conflicts but aquatic farming could be designed to accommodate crabbing. Do not want onshore facilities because this site is close to town. ■ Used less than most Khantaak bays.
16 (8b-1)	Rurik Harbor	<p><u>Navigation:</u> main anchorage for non-Yakutat boats during commercial fish openings. This is one of the deeper bays: 20 fathoms at mouth and has open channel. Has room to allow anchors to drag a little: mud bottom. Large vessel anchorage in mouth.</p> <p><u>Subsistence:</u> moderate Dungeness crabbing</p> <p><u>Commercial:</u> not heavily used</p> <p><u>Recreation/tourism:</u></p> <p><u>Aesthetics:</u></p> <p><u>Cultural:</u></p> <p><u>Habitat:</u> moderate to high herring spawning; eel grass</p> <p><u>Other:</u></p>	<ul style="list-style-type: none"> ■ Aquatic farming is acceptable with standard mitigation. ■ Do not want onshore facilities. Coves are close to town and operators can commute. ■ Relatively low use, lower than most Khantaak bays.

Table F.1

Unit 8B: Existing Uses, Potential Conflicts, and Possible Mitigation by Site

No.	Name	Existing Uses and Potential Conflicts	Possible Mitigation
17 (8b-1)	Deep Bay Moderate conflicts	<p><u>Navigation:</u> anchorage for large boats, 30 fathoms deep at mouth; 10 fathoms at the head of the bay; free from westerly winds common in summer.</p> <p><u>Subsistence:</u> shrimp pot, crab, salmon trolling. Skiffs go to the end and anchor so people can pick sea weed on the outer beach, and/or picnic.</p> <p><u>Commercial:</u> not heavily used for commercial fishing.</p> <p><u>Recreation/tourism:</u> fishing, access to west Khantaak Island at head of bay, trolling, shrimp and crab</p> <p><u>Aesthetics:</u></p> <p><u>Cultural:</u></p> <p><u>Habitat:</u></p> <p><u>Other:</u> Probably wide enough for boats and aquatic farms. Trollers can pass close to shore because of deep waters.</p>	<ul style="list-style-type: none"> ■Aquatic farming is acceptable with standard mitigation. Avoid adverse impacts to anchorage. ■Concentrated anchorage of boats could degrade water quality for aquatic farming: wastewater discharge, improper garbage disposal.
18 (8b-1)	Gonakadetseat Bay Moderate conflicts; need mitigation.	<p><u>Navigation:</u></p> <p><u>Subsistence:</u> shellfish-crab, relatively high. Coves north of area 18 are used for digging clams and cockles, subsistence & recreation fishing, & waterfowl hunting.</p> <p><u>Commercial:</u> some commercial crabbing, formerly was a commercial set net site. Yak-tat Kwaan operates an oyster farm.</p> <p><u>Recreation/tourism:</u></p> <p><u>Aesthetics:</u></p> <p><u>Cultural:</u></p> <p><u>Habitat:</u> moderate to low; herring spawning; not used some years</p> <p><u>Other:</u> existing aquatic farm in operation with another proposed. The human activity and generator at the aquatic farm have reportedly driven away the game on the shores. See also Other in 19 (Ahduck Bay)</p>	<ul style="list-style-type: none"> ■Minimize adverse impacts to subsistence shellfish harvest. Avoid adverse impacts to existing aquatic farm operations.
19 (8b-1)	Ahduck Bay (Square Bay) Very sensitive	<p><u>Navigation:</u> boat traffic east of bay</p> <p><u>Subsistence:</u> moderate king crab use; waterfowl, bear, northern end used for cockles, deer hunting. Preferred area for deer hunting on Khantaak.</p> <p><u>Commercial:</u> crab; 10 fathom trench in northern end used for trolling;</p> <p><u>Recreation/tourism:</u> access to west Khantaak Island for beachcombing, gumboot harvest, kayaking, berry picking, high recreation use</p> <p><u>Aesthetics:</u> med-high</p> <p><u>Cultural:</u></p> <p><u>Habitat:</u> moderate herring spawning</p> <p><u>Other:</u> area between 18 and 19 receives low use. Kwaan has permit & new operation for scallops: lantern nets & single shell suspension. Experimental. Kwaan is using west side.</p>	<ul style="list-style-type: none"> ■Avoid impacts to navigation, recreation, and aesthetic qualities. Minimize impacts to subsistence. Possibly do not allow floating caretaker facilities. ■Aquatic farming may be acceptable for the area between 18 and 19 with standard mitigation. ■Would need restrictions that locate aquatic farms outside of troll drags. Do not allow caretaker facility or rafts; maintain low visibility of the farm facilities.

Table F.1

Unit 8B: Existing Uses, Potential Conflicts, and Possible Mitigation by Site

No.	Name	Existing Uses and Potential Conflicts	Possible Mitigation
20 A (8b-1)	West Dolgoi Island (west)	<p><u>Navigation:</u> narrow access to Johnstone Passage, somewhat shallow</p> <p><u>Subsistence:</u> cockle & clam gathering (disease concern), deer hunting, highly preferred waterfowl site. Waterfowl are easily disturbed by boats.</p> <p><u>Commercial:</u> highest concentration of Dungeness crab in bay along with #26. Juvenile crab rearing area.</p> <p><u>Recreation/tourism:</u></p> <p><u>Aesthetics:</u> med-high</p> <p><u>Cultural:</u></p> <p><u>Habitat:</u> mostly eel grass</p> <p><u>Other:</u></p>	<p>■ Minimize impacts to navigation and aesthetic values.</p>
20 B (8b-1)	<p>West Dolgoi Island (east)</p> <p>Possible consideration for closure to aquatic farming</p>	<p><u>Navigation:</u> salmon trolling near Hatchet Pass, trollers anchor there in the summer.</p> <p><u>Subsistence:</u> relatively high; crab, seal, fish, waterfowl & geese, very good hunting for waterfowl (especially at north end)</p> <p><u>Commercial:</u> south end is one of top trolling areas, crabbing in summertime, commercial set nets 500 feet from streams</p> <p><u>Recreation/tourism:</u> trolling in south half in summertime. Too shallow for trolling in north half.</p> <p><u>Aesthetics:</u> med-high</p> <p><u>Cultural:</u></p> <p><u>Habitat:</u> some eel grass, high level of herring spawning, coho streams come in on east shore</p> <p><u>Other:</u> Native allotment on northwest shore (?)</p>	<p>■ Carefully site to avoid impacts to significant fish and wildlife harvest, recreation, and aesthetic qualities.</p>
21 (8b-1)	<p>Broken Oar Cove</p> <p>sensitive to very sensitive</p>	<p><u>Navigation:</u> used for loading large ships (log transfer)</p> <p><u>Subsistence:</u> relatively moderate, some shrimp pots, low to moderate tanner & king crab, preferred for seal hunting</p> <p><u>Commercial:</u> trolling</p> <p><u>Recreation/tourism:</u> possible lodge on uplands, some locals keep skiffs here, kayak launching, recreational trolling</p> <p><u>Aesthetics:</u></p> <p><u>Cultural:</u></p> <p><u>Habitat:</u> low to moderate herring spawning on south shore & tip of cove</p> <p><u>Other:</u> road accessible from town, only log transfer facility for Yakutat forelands</p>	<p>■ Avoid adverse impacts to log transfer. Minimize impacts to subsistence and recreation/tourism.</p>

Table F.1

Unit 8B: Existing Uses, Potential Conflicts, and Possible Mitigation by Site

No.	Name	Existing Uses and Potential Conflicts	Possible Mitigation
22 (8b-1)	Puget Cove extremely sensitive	<p><u>Navigation:</u> heavily used offshore to 35 feet</p> <p><u>Subsistence:</u> highly used for crab, fishing - may be heaviest used subsistence waters along with the Ankau entrance</p> <p><u>Commercial:</u> fishing, some crabbing</p> <p><u>Recreation/tourism:</u> high use potential. Currently used for sport trolling, shore casting.</p> <p><u>Aesthetics:</u> forested slopes hide the logging on the bench lands further inland. Excellent westward views of islands and Mt. St. Elias</p> <p><u>Cultural:</u></p> <p><u>Habitat:</u> a few coho spawning streams, moderate herring spawning, eel grass at head of cove</p> <p><u>Other:</u> area is heavily used. Road from town approaches close to the cove.</p>	<ul style="list-style-type: none"> ■ Avoid impacts to navigation, fish and shellfish harvest, recreation, settlement. Area may be candidate for closure due to significant conflicts.
23 (8b-1)	Redfield Cove Extremely sensitive Possible consideration for closure to aquatic farming.	<p><u>Navigation:</u> 200 feet deep close to shore</p> <p><u>Subsistence:</u> prime for seal hunting, shrimping, crabbing, clams, & cockles; almost guaranteed to catch fish</p> <p><u>Commercial:</u> trolling, especially along north shore over a 10 fathom trench, one of best troll drags in Yakutat Bay. Fishermen troll the entire cove because it is deep from bank to bank.</p> <p><u>Recreation/tourism:</u></p> <p><u>Aesthetics:</u> some logging visible from water.</p> <p><u>Cultural:</u></p> <p><u>Habitat:</u> herring concentration but little spawning.</p> <p><u>Other:</u> uplands owned by Kwaan</p>	<ul style="list-style-type: none"> ■ Avoid impacts to commercial trolling and subsistence activities.
24 (8b-1)	Hatchet Pass (locally called Canoe Pass) Prohibitively sensitive	<p><u>Navigation:</u> main route, narrow, top spot for navigation to inner bay</p> <p><u>Subsistence:</u> fishing, seal hunting, crabbing, shrimp, clam & cockle gathering in pass & in small cove</p> <p><u>Commercial:</u> fish trolling all winter (preferred [possibly top] commercial trolling site) crab, shrimp. This is a top troll drag: the #1 spot in Yakutat Bay.</p> <p><u>Recreation/tourism:</u> fish trolling all winter</p> <p><u>Aesthetics:</u></p> <p><u>Cultural:</u></p> <p><u>Habitat:</u> spawning stream enters cove; major annual herring spawning, continuous eel grass on south shore</p> <p><u>Other:</u></p>	<ul style="list-style-type: none"> ■ Avoid impacts to navigation and salmon trolling.

Table F.1

Unit 8B: Existing Uses, Potential Conflicts, and Possible Mitigation by Site

No.	Name	Existing Uses and Potential Conflicts	Possible Mitigation
25 (8b-1)	Southwest Johnstone Pass	<p><u>Navigation:</u> shallow; 30 feet deep <u>Subsistence:</u> moderate Dungeness crabbing; a little waterfowl hunting <u>Commercial:</u> <u>Recreation/tourism:</u> low fishing <u>Aesthetics:</u> <u>Cultural:</u> <u>Habitat:</u> coho stream <u>Other:</u></p>	<ul style="list-style-type: none"> ■Aquatic farming is acceptable with standard mitigation. ■Size of area might limit size of farm.
26 (8b-1)	Crab Island Extremely sensitive Possible consideration for closure to aquatic farming	<p><u>Navigation:</u> common route to Yakutat Bay <u>Subsistence:</u> relatively heavy use, berries, clams, fishing, (waterfowl?), as valuable as Ankau <u>Commercial:</u> <u>Recreation/tourism:</u> adjacent to boat travel route, camping on spit, picnicking, local recreation <u>Aesthetics:</u> med-high <u>Cultural:</u> historic use documented <u>Habitat:</u> low herring spawning <u>Other:</u></p>	<ul style="list-style-type: none"> ■This may be an area to close to aquatic farming due to significant conflicts. Avoiding adverse impacts may essentially make siting impossible. ■Don't allow caretaker facility.
27 (8b-2)	Ankau #27 Somewhat sensitive	<p><u>Navigation:</u> shallow, some narrow passages <u>Subsistence:</u> shellfish - clams & cockles, waterfowl. Full range of subsistence activities. <u>Commercial:</u> <u>Recreation/tourism:</u> <u>Aesthetics:</u> med-high <u>Cultural:</u> culture camp 2-3 weeks in summer, May - July. <u>Habitat:</u> <u>Other:</u> possible clam growing; accessible by road from town, seniors go there</p>	<ul style="list-style-type: none"> ■May be area of Ankau system with less conflict. ■Avoid impacts to navigation. ■Minimize impacts to visual qualities, subsistence activities.
28 (8b-2)	Ankau #28 Sensitive	<p><u>Navigation:</u> narrow passages, shallow, almost dry at low tide <u>Subsistence:</u> crab(?), waterfowl <u>Commercial:</u> <u>Recreation/tourism:</u> access to Kardy Lake <u>Aesthetics:</u> med-high <u>Cultural:</u> <u>Habitat:</u> <u>Other:</u></p>	<ul style="list-style-type: none"> ■Avoid impacts to navigation.

Table F.1

Unit 8B: Existing Uses, Potential Conflicts, and Possible Mitigation by Site

No.	Name	Existing Uses and Potential Conflicts	Possible Mitigation
29 (8b-1)	Prince Shoal not too sensitive	<u>Navigation:</u> <u>Subsistence:</u> clams, cockles, waterfowl hunting <u>Commercial:</u> <u>Recreation/tourism:</u> <u>Aesthetics:</u> <u>Cultural:</u> <u>Habitat:</u> low level herring spawning along shore & reef <u>Other:</u> exposed to rough weather	■Aquatic farming is acceptable with standard mitigation.
30 (8b-1)	Yakutat Roads Sensitive	<u>Navigation:</u> common route <u>Subsistence:</u> crabbing, clamming on tidal reefs in south <u>Commercial:</u> Dungeness crabbing, trolling (moderate to low) <u>Recreation/tourism:</u> <u>Aesthetics:</u> <u>Cultural:</u> <u>Habitat:</u> regular herring spawning in south <u>Other:</u>	■Aquatic farming is acceptable with standard mitigation. Avoid impacts to navigation.
31 (8b-1)	Canoe Pass North (local name Hatchet Pass) southern shore and cove are very sensitive	<u>Navigation:</u> common route: deep water (30 fathoms) <u>Subsistence:</u> cove is highly used for crabbing, clamming along point <u>Commercial:</u> king & tanner crab <u>Recreation/tourism:</u> cove is used for recreational fishing <u>Aesthetics:</u> <u>Cultural:</u> <u>Habitat:</u> coho runs in cove, cove is used for herring spawning <u>Other:</u>	■Aquatic farming is acceptable with standard mitigation. Avoid impacts to navigation. ■Do not want onshore facilities. Coves are close to town and operators can commute.
32 (8b-1)	Southeast Johnstone Pass (Shaw's Cove) Main channel is deep (200 - 250 feet) and less sensitive	<u>Navigation:</u> common boat traffic; cove is shallow <u>Subsistence:</u> relatively high use in cove, low use for set netting in spring for king salmon. Seals, eels also harvested. <u>Commercial:</u> trolling & set netting (low use) along shore, relatively low crab fishing in the cove. <u>Recreation/tourism:</u> <u>Aesthetics:</u> <u>Cultural:</u> <u>Habitat:</u> cove is used for herring spawning; best herring spawning in bay; anadromous streams <u>Other:</u>	■Do not want onshore facilities. Coves are close to town and operators can commute.

Table F.1

Unit 8B: Existing Uses, Potential Conflicts, and Possible Mitigation by Site

No.	Name	Existing Uses and Potential Conflicts	Possible Mitigation
33 (8b-1)	North Puget Cove	<u>Navigation:</u> common boat traffic <u>Subsistence:</u> seal hunting, some clamming on reefs <u>Commercial:</u> Dungeness crab, moderate trolling <u>Recreation/tourism:</u> moderate trolling <u>Aesthetics:</u> <u>Cultural:</u> <u>Habitat:</u> <u>Other:</u>	<ul style="list-style-type: none"> ■ Avoid impacts to navigation. ■ Do not want onshore facilities. Coves are close to town and operators can commute. ■ Standard mitigation.
34 (8b-1)	East Dolgoi	<u>Navigation:</u> exposed <u>Subsistence:</u> <u>Commercial:</u> important troll area <u>Recreation/tourism:</u> <u>Aesthetics:</u> <u>Cultural:</u> <u>Habitat:</u> <u>Other:</u>	<ul style="list-style-type: none"> ■ Avoid impacts to commercial trolling.
35 (8b-1)	North west shore of Dolgoi and smaller islands	<u>Navigation:</u> <u>Subsistence:</u> excellent clamming on reefs <u>Commercial:</u> <u>Recreation/tourism:</u> <u>Aesthetics:</u> <u>Cultural:</u> <u>Habitat:</u> <u>Other:</u>	<ul style="list-style-type: none"> ■ Standard mitigation.
36 (8b-4 & 8b-5)	Saltchuck (near the boat harbor) Somewhat sensitive	<u>Navigation:</u> <u>Subsistence:</u> sea cucumbers, sea urchins <u>Commercial:</u> <u>Recreation/tourism:</u> <u>Aesthetics:</u> <u>Cultural:</u> <u>Habitat:</u> <u>Other:</u> important use area by less mobile residents	<ul style="list-style-type: none"> ■ Avoid impacts to subsistence activities.

APPENDIX G

PUBLICATIONS RELATED TO THE PLAN

The Department of Natural Resources, Division of Land, produced the following documents in developing the Yakataga Area Plan. These documents are available in the project files located in the Anchorage office of the Division of Land.

MAPS

- Recreation and tourism access map. 1992
- Vegetation map (18 categories of timber and land cover based on 1985 survey). 1991
- Conifer crown closure (1985 survey data). 1991
- Fish and Wildlife Resources Atlas for the Yakataga Area Plan (fish and wildlife habitat and harvest areas; produced jointly with Alaska Department of Fish & Game). 1993

RESOURCE REPORTS

Note: Resource reports are subject to updating.

- Aquatic Farming Resources Report. March 1993
- Cultural Resources Report. March 1993
- Forestry Resources Report. September 1992
- Fish and Wildlife Resources Report. March 1993
- Fish and Wildlife Resources Report. March 1993
- Minerals and Materials Resources Report. March 1993
- Recreation and Tourism Resources Report. June 1993
- Settlement Resources Report. March 1993

DRAFT PLANS

- Management Alternatives for the Yakataga Area Plan. May 1992
- Public Review Draft. June 1993
- Draft Yakataga Area Plan. June 1993
- Proposed Changes to the Public Review Draft of the Yakataga Area Plan. October 1994

PUBLIC COMMENT REPORTS

- Additional Proposed Changes to the Draft Yakataga Area Plan. February 1995
- Public Comment Report: Issues. August 1991
- Public Comment Report on Management Alternatives. October 1992
- Supplement to the Public Comment Report on Management Alternatives. October 1992
- Public Comment Report on the Draft Plan. August 1993

YAKATAGA AREA PLAN

- Draft Responses to the Public Comments. October 1993
- Response to Comments on the Public Review Draft to the Yakataga Area Plan. November 1994
- Responses to Comments Received November 1-30, 1994 on the Proposed Changes to the Draft Yakataga Area Plan. February 1995

CLASSIFICATIONS AND MINERAL CLOSING ORDERS

- Classification Order C-SE-95-002
- Mineral Leasehold Location Order 17
- Interim Mineral Closing Order 711
- Mineral Closing Order 712

DNR DECISIONS AND AGREEMENTS

- ADL 223456, 1988. Final Finding and Decision of the Commissioner regarding replacement University lands.
- Memorandum of Understanding Regarding White River Timber Rights [under] ADL 223456. June 25, 1993.
- ADL 223456, Amendment 3: December 2, 1994. Memorandum of Agreement in settlement of litigation on-going in Consolidated Case 1 JU-88-271 Civil. See also Amended Stipulated Dismissal and Order, Alaska Superior Court, First Judicial District. August 1995.
- ADL 223456, Amendment 4: June 6, 1995. Final Finding and Decision of the Commissioner of DNR regarding conveyance of limited one-time timber cutting rights for Yakataga Tract 20.
- Memorandum of Understanding Regarding Yakataga Tract and Substitute Tract Timber Rights [under] ADL 223456. October 20, 1995.

APPENDIX H

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Note: This index does not list every reference to specific resources, such as minerals, wildlife species, or commercial timber. For a summary of specific resources, see the resource summary tables in Chapter 3.

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RESOURCE POLICIES OF THIS PLAN

Land use designations in this plan indicate the primary use for a particular area. DNR will manage resources and activities so as to promote or protect this use. The designated use does not preclude other uses: DNR lands are intended for multiple uses.

The area plan presents general management intent and guidelines. Further planning and guidelines may be needed when long-term or widespread development is proposed for a particular site.

Forestry

The Yakataga area has the most valuable timber the state owns. The plan designates approximately 90 percent of the state forest lands in the Yakataga area for forestry.

There will be intensive state timber harvest from Duktotoh River east to Icy Cape. The University of Alaska holds one-time timber cutting rights to most of the timber in this area.

For the next twenty years (until 2014), the only harvest of state timber in the planning area west of Duktotoh River will be small sales incidental to developing and operating a cabin and trail system. DNR will re-evaluate the area plan and the timber harvest rate before considering timber harvest west of Duktotoh River.

The Yakataga Area Plan applies guidelines for state timber harvest. These guidelines include criteria for locating roads, size and shape of clear cuts, and retaining timber in river corridors. The plan supports three log transfer facilities (two in Icy Bay and one in Yakutat Bay).

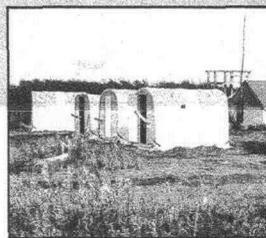
Fish and Wildlife Habitat and Harvest

In developing the Yakataga Area Plan, DNR and the Department of Fish and Game (DFG) jointly compiled an atlas of important fish and wildlife habitat and harvest areas.

The area plan recommends that the state legislature add 13,000 acres along the lower Kaliakh River to the Yakataga State Game Refuge. This addition would protect mountain goat habitat, which the current refuge lacks. The area plan designates most of the large river corridors for habitat, as well as most marine waters. In fish and wildlife areas not designated for habitat, the plan's guidelines will minimize or mitigate the effects of other activities on habitat. Several specific habitat provisions include:

Mountain goat habitat The plan prohibits timber harvest within mapped mountain goat winter habitat.

Coastal habitat The plan establishes a 500-foot-wide buffer of timber along the coast, to protect important habitat for species that feed and travel along the coast, such as bears, land otters, wolves, and bald eagles. The plan's guidelines limit forestry activities and new surface uses in this 500-foot-wide buffer.



Tsiu River camp

Riparian habitat Setbacks for building along water bodies will help protect riparian habitat for fish and wildlife. Along the five largest streams on state land, the plan establishes special management zones to ensure that any forestry activities will be compatible with habitat and recreation values.

Other habitat provisions DNR will apply additional specific habitat protection measures when reviewing timber harvest plans submitted by the University.

Hunting and fishing areas Most marine waters and river corridors are designated for fish and wildlife harvest to protect commercial, sport, and personal use fisheries. Several upland areas are also designated for fish and wildlife harvest based on established hunting and fishing patterns.

The area plan supports hunting and fishing by protecting habitat, by retaining in public ownership lands that the public now uses for hunting and fishing, and by reserving public access along water bodies.

Recreation and tourism

Recreation and tourism have potential to increase in the Yakataga area. A primary attraction is the variety and drama of the glacial, forest, and coastal scenery. Other important attractions are the fish and wildlife and the remote and rugged setting.

Most coastal and river areas are designated for recreation. The plan establishes a 500-foot coastal buffer and recreation management zones along several rivers. DNR will reserve camping and public access sites between Cape Suckling and Duktotoh River. The plan also has guidelines for protecting scenic quality. DNR has placed a moratorium on timber harvest west of the Duktotoh River for at least 20 years.

The plan allows development of a cabin and trail system to be funded by the University. In addition, the plan identifies several locations where DNR may promote commercial recreation by competitive bid.

The plan encourages DNR to evaluate lands near Bering Glacier in the future for a potential state park. The Bering Glacier area has outstanding tourism and scientific research opportunities.



Tidewater glacier

Mining and materials

The established mining region at Cape Yakataga has been designated for minerals development.

State lands are open to mineral entry unless specifically closed. The plan applies mineral closures or leaseholds to 13 streambeds and estuaries with low mineral potential but high fish productivity, including the Situk River. All other state lands are open for mineral exploration and entry, regardless of land use designation.

The area plan has guidelines for gravel extraction on state lands, particularly to minimize disturbance in river flood plains.

DNR has a separate planning process for oil and gas lease sales. DNR uses a 5-Year Leasing Program to decide on oil and gas leasing. Subsequent to a lease sale, surface land uses related to oil and gas development are subject to this plan.

Land sales

Approximately 1,140 acres in the vicinity of Yakutat are designated for settlement. These areas are near municipal services provided by the City and Borough of Yakutat. DNR has not scheduled any near-term land disposals. Some of these lands may be conveyed to the City and Borough of Yakutat under their municipal entitlement.

State land in remote parts of the Yakataga planning area is generally ill-suited or too remote for settlement and will be retained in state ownership. This avoids high fiscal costs to provide government services in remote areas. In addition, state forestry and habitat management are more efficient with a large, contiguous land base.

Public and private access

The plan has guidelines to protect anchorages, trails, and access to public and private lands and resources.

The plan establishes widths for reserved public access on state lands adjacent to water bodies. The plan has particular access provisions for the Tsiu and Kaliakh rivers to protect the set net and sport fisheries and access to the Yakataga State Game Refuge. DNR will ensure public access along the main haul road between Icy Bay and Cape Yakataga. Where the main haul road crosses non-DNR lands, DNR will seek a right-of-way.

Waterfront development and shoreline use

Four areas in Yakutat Bay and Icy Bay are designated for waterfront development. No suitable sites were identified along the outer coastline because of the hazards from storms and shoreline instability. The plan provides information on natural hazards in certain coastal areas and river corridors.

The plan sets policies for coordinating tideland use with owners of non-state uplands.

Development guidelines for tidelands and shorelines will minimize impacts to habitat, natural hydrology, and public use. The plan establishes widths for reserved public access, building setbacks, fish management zones, and recreation zones along lakes, streams, and marine waters.

YAKATAGA AREA PLAN

SUMMARY BROCHURE

April 1995

PURPOSE OF THE YAKATAGA AREA PLAN

The Yakataga Area Plan prescribes how the Alaska Department of Natural Resources (DNR) will manage approximately 1,384,000 acres of state land along the northern Gulf of Alaska coast, between Cape Suckling and Alek River. The plan applies to state uplands, tidelands, submerged lands, and shorelands. The plan classifies these lands to indicate their primary uses, and provides guidelines for leases and permits. It identifies land to be sold and other land to be retained in state ownership. The plan restricts mineral entry in the shorelands of several rivers. The Yakataga Area Plan does not make decisions for federal, borough, Native, or private lands, nor does it affect fishing and hunting regulations.

WHERE TO GET A COPY OF THE PLAN

Copies of the complete plan have been sent to the municipal planning offices in Yakutat and Cordova and the public libraries in Anchorage, Cordova, Gustavus, Juneau, Seward, and Yakutat.

Copies are also available for use or purchase from DNR in Anchorage and Juneau. Contact the DNR Public Information Center at 3601 C Street, Suite 200, Anchorage; or the DNR Division of Land public counter at 400 Willoughby Avenue, Suite 400, Juneau.

This brochure summarizes the principal policies of the Yakataga Area Plan.



Bald eagle

HOW THE PLAN WAS DEVELOPED

The Yakataga Area Plan is the product of a four-year effort by DNR staff, a planning team, and the public. The planning team represented 12 state resource agencies. Advisors from federal agencies, local communities, and interest groups helped to shape the policies of this plan. DNR held several public meetings in five interested communities to collect public comments. Following is an outline of the planning process:

THE PROCESS

Identify issues	spring 1991
Map and analyze resources	1991 to 1994
Develop and review management alternatives	spring 1992
Prepare the draft plan	fall 1992 - spring 1993
The public and agencies review the draft plan	summer 1993
Prepare the final plan using comments on the draft plan	fall 1993 through 1994*
DNR adopts the plan which becomes DNR policy for managing state lands in the Yakataga area	spring 1995

*The plan was delayed pending settlement of the Mental Health Trust litigation and the University timber rights litigation.

LAND USE DESIGNATIONS AND ACREAGE SUMMARY BY SUBUNIT*

The land use designations in this table are abbreviated as follows:

F = forestry HV = fish and wildlife harvest S = settlement
G = general uses M = minerals development T = transportation
H = fish and wildlife habitat R = recreation and tourism WD = waterfront development

In the table below, the numeral 1 indicates a designated use with high priority, and the numeral 2 indicates a designated use with lesser priority. An "x" means that the designated use was not rated as to priority. Chapter 3 of the area plan gives a detailed explanation of the designation system.

Upland designations						Upland designations									
Subunit #	Acres	Land use designations				Subunit #	Acres	Land use designations							
		F	G	HV	M	R	S			F	G	HV	M	R	S
1a-1	3,004			1				3d1a	1,266	1					
1a-2	2,082	1						3d-2	3,212	1					
1a-3	7,272			1		2		3d-3	5,233	1					
1a-4	3,932	1						3d-4	1,320		x				
1a-5	3,662			1	1	1		3d-5	8,515		x				
1a-6	879	1						3d-6	2,273	2					
1a-7	7,322	1						3e-1	4,093			1			
1a-8	1,733					1		3e-2	9,528	1					
1a-9	8,524			1		2		3e-3	640			1			
1a-10	1,835					1		3e-4	36,271		x				
1a-11	1,439	1						3e-5	6,262			1	1		
1a-12	579			1	2	1		3e-5a	518	1					
2a	9,646		x					3e-6	7,573	1					
2b	96,984			1		1		3e-7	4,230			1	1		
3a-1	6,747				1	1		3e-8	3,151	2				x	
3a-2	4,814				1	1		3e-9	6,016	1					
3a-3	3,186				1	1	2	3e-10	320			1			
3b-1	1,310		x					3e-11	7,978	1					
3b-2	15,173	2		2		2		3e-12	9,132		x				
3b-3	1,461		x					3e-13	5,594		x				
3b-4	4,267		x					4a-1	2,015	1					
3b-5	8,161	2		2		2		4a-2	2,581			1	1		
3b-6	17,883	1		1				4a-3	9,026			2			
3b-7	21,247		x					8a-1	267					1	x
3b-8	920			2				8a-2	278						x
3b-9	1,262			2				8a-3	346						x
3b-10	2,278	2		2				8a-4	conveyed to Mental Health Trust						
3b-11	1,679				1			8a-5	126						x
3c-1	4,392	2	1	1				8a-6	1,244	2		1	1	1	
3c-2	2,955	2		2		2		8a-7	177		x				
3c-3	3,612	1						8a-8*	584			1	1	1	
3c-4	13,105			1	1			8a-9	122						x
3d-1	9,977			1		1									

*Subunit 8a6 is also designated for Heritage Resources.

Tideland, submerged land and shoreland designations

Subunit #	Acres	Land use designations					
		H	HV	R	WD, M, or T		
1b	52,943	2	2				
3a-4	61,675	2	2				
3a-5	1,359	1	1				
3a-6	1,590	1	1				
3e-14	108,131	2	2				
3e-15	3,252		2			x	
3e-16	1,706		1				
3e-17	1,024	1	1				
4b	1,199					x	
5a	59,741	1	1				
5b	3,324	1	1				
5c	2,438		2			x	
5d	1,904	1					
6a-1	86,107	1	2				
6a-2	2,524	1	1				
6a-3	2,827	1	1				
6a-4	5,187	1	2				
6b	269,179	1	2	1			
6c	21,383	1	1	1			
6d	48,827	2	2	1			
7a	164,855	2	2	1			
7b	92	1	1	1			
7c-1	999	1	2	2			
7c-2	205	1	1	2			
7d	4,698	1	1	2			
7e	200	1	1	2			
7f	3,177	1	1	1			
7g	10,914	2	2	1			
7h	100	1	1	1			
7i	2,027	1	1	1			
7j	12,863	1	1	1			
8b-1	33,223	1	1	1			
8b-2	613	1	1	1			
8b-3	247					x	
8b-4	80	1					
8b-5	21			1		x	
8b-6	127					x	

* See maps on reverse side for subunit locations.

OTHER FEATURES

Convey state-selected lands

The state has filed applications (selections) with the federal government to receive title to certain federal lands in the planning area. The plan recommends that DNR postpone conveyance of lands selected at Bering Glacier until the glacier retreats farther, so that only emerging uplands, and not submerged lands, are counted toward the statehood entitlement.

Conveyance of state land selections in the upper Kulthieth and Kaliakh River watersheds has been postponed until Native corporation conveyances are complete so that DNR does not acquire isolated, fragmented parcels.

Other plans and programs

The policies of the Yakataga Area Plan were written to be consistent with the Alaska Coastal Management Program. The eastern part of the planning area is within the newly-established City and Borough of Yakutat. DNR's area plan was developed before the City and Borough had developed a district coastal program or a comprehensive plan. However, borough officials represented their interests during the area plan process.

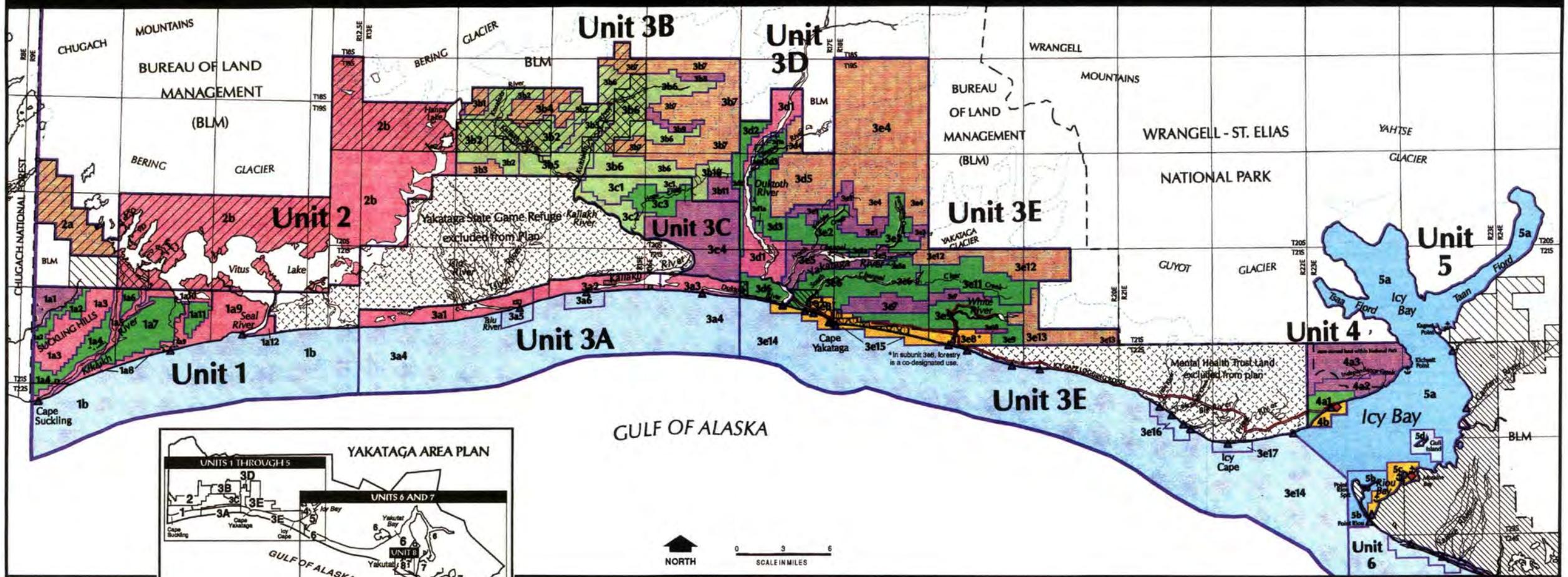
HOW THE PLAN CAN BE CHANGED

The plan must be flexible to respond to changes in information, technology, economics, and public values. The plan may be amended with the approval of the Commissioner of DNR, after public review and consultation with affected agencies. DNR intends that an interagency planning team review this plan every five to ten years to determine if conditions warrant updating the plan.

Special exceptions to the plan can be made in cases where it is impossible or impractical to comply with the plan, and when an alternative course of action will meet the plan's purpose. Special exceptions require public notice. Minor changes to the plan, such as clarifications or corrections, do not require public review.

This brochure was released by the Alaska Department of Natural Resources and printed in Anchorage, Alaska, at a cost of \$8.55 per copy. Its purpose is to provide the public with a summary of the policies in the Yakataga Area Plan.





YAKATAGA AREA PLAN

SUMMARY BROCHURE

April 1995

LEGEND

LAND STATUS

STATE OWNED OR SELECTED - SUBJECT TO PLAN

- state owned - patented or tentatively approved
- state selected
- state and Native selected (dual selection)
- state selected and Federal mining claims

STATE OWNED - EXCLUDED FROM PLAN

- State owned but excluded from plan
- State owned - Yakutat airport

OTHER LAND OWNERSHIP

- Native owned - patented or interim conveyed
- Native selected
- University owned
- Federal
- Federal conservation system unit boundary
- municipal
- private, including Native allotments

Note: These maps show generalized land status. Additional categories of land ownership and use exist in the Yakataga planning area, but are too small or complex to be depicted here. See the individual unit maps in the Yakataga Area Plan for detailed land status information.

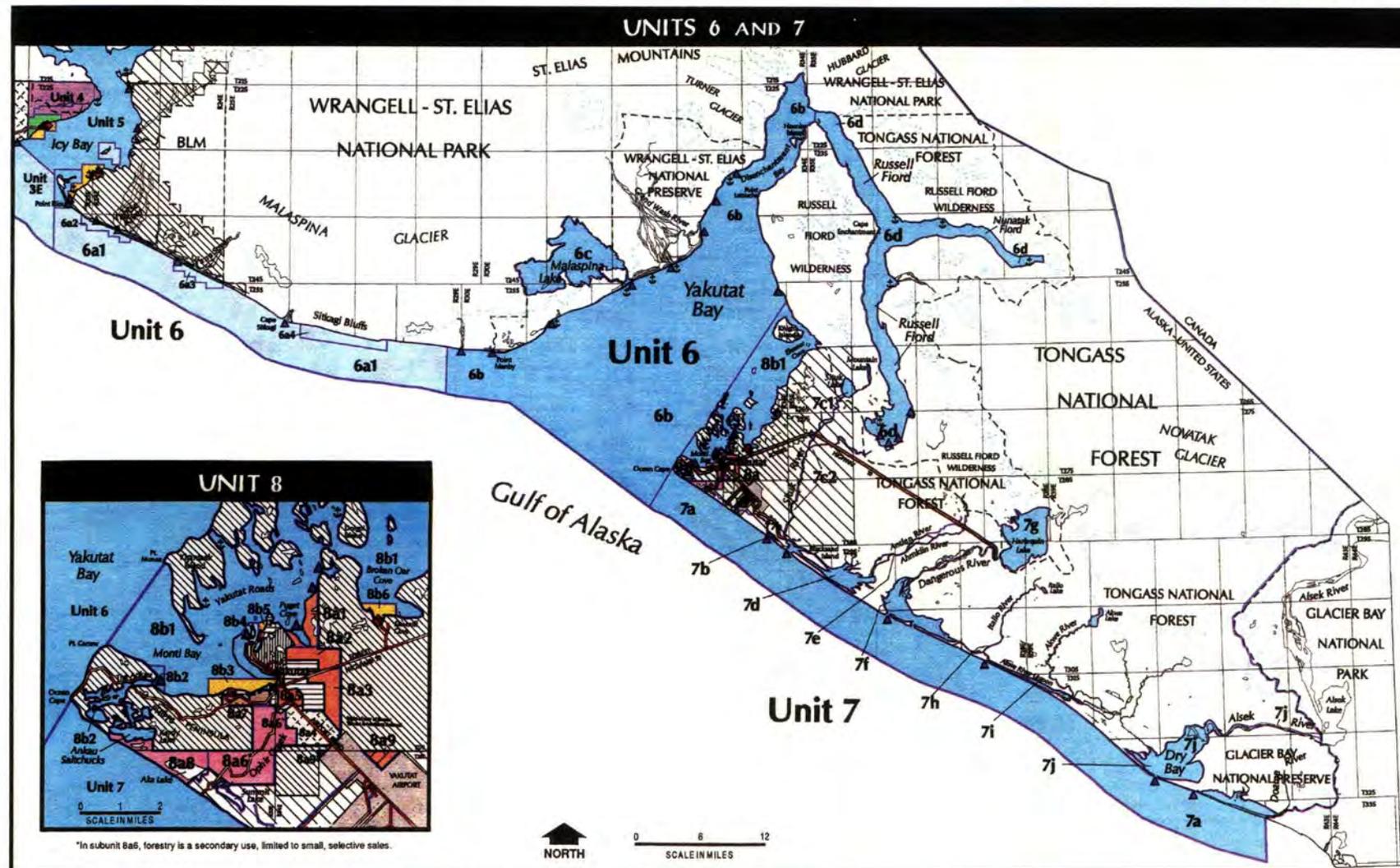
DESIGNATIONS

- Forestry - primary use
- Forestry - codesignated with other uses
- Fish & wildlife habitat & harvest on uplands - primary use(s)
- Fish & wildlife habitat & harvest on waterways - primary use(s)
- Recreation, habitat & harvest on uplands
- Recreation, habitat & harvest on waterways
- Settlement
- Waterfront development, mining, or transportation
- General uses

AREAS WITH RESTRICTIONS ON NEW MINERAL ENTRY
State lands are open to mineral entry, unless specifically closed. Two streambeds in the planning area are closed to new mineral entry to protect the most productive state-owned stream and estuarine fish habitats. In eleven streams or estuaries, mineral entry is restricted to leasehold location. These areas are too small to be shown here. See the Yakataga Area Plan for maps and lists of areas with restricted mineral entry.

MAP FEATURES

- Yakataga Area Plan boundary
- management unit boundary
- subunit boundary and number
- road
- log transfer facility (LTF)
- anchorage
- anadromous fish stream mouth



*In subunit 8a8, forestry is a secondary use, limited to small, selective sales.