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.

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 threedistinct 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 *other than forestry*, 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 and 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 *other than forestry*, 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 Commisssioner 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 beachfront 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 nonexistent 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, ilemnite, 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 subsititute 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	Desig-nation	Resource or Use (See the resource reports and maps for more complete information)	Background
3e-1 Boulder & Porcupine creeks mid-elevation slopes	H1	■ 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	■ 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	■ The university has one-time timber harvest rights within this subunit.[5]
3e-3 unnamed saddle east of Porcupine Creek	H1	■ alpine: non-forested ■ bear spring feeding concentration areas (alders and avalanche slopes)	■ The university has one-time timber harvest rights within this subunit.[5]
3e-4 Dahlgren Ridge high alpine areas	G	■ alpine tundra and rock ■ icefields cover approximately half the unit.	■ The university has one-time timber harvest rights within this subunit.[5]
3e-5 North channel Yakataga River	H1 HV1	■ 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	Desig-nation	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	■ 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	■ The university has one-time timber harvest rights within this subunit.[6]
3e-6 South Channel Yakataga River	F1	■ 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	■ The university has one-time timber harvest rights within this subunit.[6]
3e-7 upper Brower Ridge	H1 HV1	■ mostly alpine, with some mature spruce and hemlock on slopes below 2,000 to 1,500-foot elevation; most timber is in-operable 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	Desig-nation	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	■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	■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	■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	■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	Desig-nation	Resource or Use (See the resource reports and maps for more complete information)	Background
3e-10 Crooked Creek headwall ridge	H1	■ alpine and alder slopes ■ mountain goat winter habitat ■ bear spring feeding concentration area	■ The university has one-time timber harvest rights within this subunit.[8]
3e-11 Clear Creek & Yakataga Ridge	F1	■ 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	■ alpine ■ no identified high or moderate resource values	■ 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	■ 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	■ 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	Desig-nation	Resource or Use (See the resource reports and maps for more complete information)	Background
3e-14 tidelands & submerged lands between Duktoth River & Icy Cape - most areas	H2 HV2	■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	■potential offshore resources: placer gold, ilemnite, zircon and other minerals ■Aleutian tern nesting colony at Cape Yakataga ■sea otter concentration area ■community harvest: fish ■commercial salmon trolling harvest ■surfing	■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	■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	■commercial salmon set net fishery at the mouth of Priest River ■sea otter established population ■community waterfowl harvest ■surfing	