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INDIVIDUAL ROADLESS AREA DESCRIPTION

ROADLESS AREA NAME: Yakutat Forelands (339)

ACRES (NFS): 337,374

BIOGEOGRAPHIC PROVINCE: Yakutat Forelands, Yakutat/Glacier Bay Upland

ECOLOGICAL SECTION: St. Elias-Fairweather Mountains, Northern Gulf Forelands

2003 WILDERNESS ATTRIBUTE RATING: 22

I. Overview and Description

(1) **Location and Access:** The Yakutat Forelands Roadless Area is located on the mainland, southeast of Yakutat. The area adjoins National Forest System, State and private lands to the northwest, and the Glacier Bay National Park to the southeast. Forest Highway 10, the Russell Fiord Wilderness, and the Brabazon Range bound the Yakutat Forelands on the northeast. The southwestern boundary is the Gulf of Alaska, from Dry Bay to Johnson Slough. The center of the roadless area is approximately 30 air miles from Yakutat and 150 miles from Juneau.

There is small boat access via rivers, but anchorages are virtually non-existent along most of the Gulf Coast. Floatplane access is difficult. Estuary water contains significant amounts of suspended glacial sediment and constantly shifting bars that are undetectable in the muddy water. Plane access is achieved primarily by landing wheeled planes on the beach or on rudimentary airstrips. There are seven maintained strips for wheeled aircraft. Forest Highway 10 goes from Yakutat to the Dangerous River, providing vehicle access to the upper reaches of several rivers, as well as direct access to approximately 40 percent of the northern boundary. All-terrain vehicles (ATV) are used along most of the beaches, to access many of the river bottoms and from the road system to access the uplands. Access away from water and from the airfields is by foot or helicopter. There are four hiking trails in the roadless area.

(2) **History:** Human settlement in the area is believed to have begun about 1,000 years ago, with the people coming from the north (probably Eyak from the Copper River). Tlingit occupation from the south began approximately 300 years before the present. European ventures into the area started in the late 18th century with Russian and English traders. A Russian farming settlement was established in the approximate location of Yakutat in 1796. Hostilities between the Russians and the Alaska Native population ended when the Yakutat Tlingits removed the settlement in 1805. Little contact between whites and the Tlingits occurred from 1805 to about 1874. Activities since 1874 have included mining, fish canneries, fur farms (mink and fox), manufactured native goods, and tourism. Salmon processing became a major industry, with the first salmon cannery constructed in 1902. Others, located along the Gulf coast, followed over the next 20 or so years. In the early 20th century, a railroad was planned from Yakutat to Dry Bay for the service of the various canneries; however, construction eventually went only to Johnson Slough, with lines serving the Situk and Lost Rivers. There was a large military presence, with attendant activities, during World War II. More recent activities within or adjacent to the roadless area have included commercial logging operations, commercial fishing, and outfitter/guide services for sports fishing and hunting.

(3) **Geography and Topography:** Approximately 80 percent of the roadless area is relatively flat, with elevations ranging from sea level to approximately 200 feet. The lowland terrain is characteristic of formerly glaciated topography, glacial outwash plains with lateral and terminal moraines, separated by low, flat areas with numerous streams and rivers as well as large marshes and muskegs. The rivers and streams are low gradient and follow wandering and braided channels, with wide floodplains. Due to the flat topography, a major runoff episode may completely change the location of stream courses and may combine two or more totally divergent streams into one system. Were the Hubbard Glacier, located to the northwest, to close off Russell Fiord, the resulting lake could

reach overflow in a short period of time. The Situk River would be the overflow channel, drastically changing the landscape in this area. The northeastern half also contains many lakes; the largest is over 500 acres.

The northeast quadrant contains the southern slopes of the Brabazon Range, with elevations ranging from 200 feet to approximately 4,980 feet. This mountainous area is steep and highly dissected with numerous stream courses. Several glaciers are present, and include the Rodman, Fassett, Canyon, and Martin Glaciers. The beach area is subject to drastic change due to open-water wave activity and ocean storms. The coastal area contains an extended stretch of sand dunes, formed by the wind. This dunes area is one of two found in Alaska. There are approximately 203 miles of shoreline on saltwater and 3,994 acres of small islands with only 9 of the almost 500 islands larger than 50 acres. Freshwater lakes total approximately 3,330 acres. There are 385 acres of alpine tundra, 21,457 acres of ice and snow and 20,287 acres of rock mapped in the area.

(4) Ecosystem:

(a) Classification: Biogeographic Province. Most of the area is in the Yakutat Forelands Biogeographic Province. The province includes Glacier Bay north to Yakutat Bay. The area is very young, with nearly flat landscape and active isostatic rebound (uplifting of the ground after the glaciers have receded). Most surfaces vary from 200 to 1,500 years old. Dune formation and succession are on-going processes, due to glacial rebound and active wave action. The climate is typical of the coastal maritime zone. Total annual precipitation at Yakutat is 135 inches, with a 33-year snowfall average of 219 inches. The remainder of the roadless area (approximately 20 percent) is in the Yakutat/Glacier Bay Upland Biogeographic Province. This province includes the upland area northeast of the Yakutat Forelands Biogeographic Province. The province includes mountains as high as 10,000 feet, extensive active glaciers, and fiords. The climate is very wet.

Ecological Section/Subsection. The Yakutat Forelands Roadless Area is contained within the Northern Gulf Forelands Ecological Section (M245B) and St. Elias-Fairweather Mountains Ecological Section (M244C). These areas are represented by two ecological subsections (see table below). The Yakutat-Lituya Forelands Ecological Subsection (79% of the roadless area) is a vast coastal plain that was formed by the seaward deposition of sediments from the mountains. The soils of the gently sloped area include unconsolidated glacial, alluvial, and marine deposits. The coast is spotted with parabolic dunes formed from outwash sand. The low gradient terrain prevents rapid drainage, and the majority of land cover is wetland. The flat land also allows complex braided stream systems with vast floodplains. Where slight elevations exist, Sitka spruce, hemlock, or cottonwood trees are present. The towering mountains of the St. Elias-Fairweather Icefields Ecological Subsection (21% of the roadless area) reach elevations of 19,000 feet. The faulted and folded sedimentary rocks are covered almost completely by icefields, snowfields, and glaciers except for occasional nunataks and rock cliffs. Rocky and thin soils exist where ice, snow, and active scree fields are not present. Here, alpine communities of sedges, forbs, grasses, and low shrubs thrive (Nowacki et. al., 2001).

Ecological Section	Ecological Subsection	Percent of Roadless Area
Northern Gulf Forelands	Yakutat-Lituya Forelands	79%
St. Elias-Fairweather Mountains	St. Elias-Fairweather Icefields	21%

(b) Soils: The majority of the soils for the Yakutat Forelands lowlands are youthful soils of glacio-fluvial and fluvial origin. Terrain is generally gently sloping. Base material is highly variable and consists of igneous, metamorphic, and sedimentary rocks. The mountainous northeastern portion of the roadless area consists of steep, deeply incised slopes of exposed bedrock. Glaciers still occupy much of this area. Other features, such as mature soils (unglaciated remnants), steep slopes and dunes occur, but to a limited extent. Recent glaciation and ongoing uplift has, and does, affect soil development. Groundwater over most of the area is at or near the surface. Large portions of the roadless area are poorly drained organic soils.

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(c) **Vegetation:** Much of the vegetation in the lowlands are marsh and muskeg species, with willows, cottonwoods and alders on the drier sites. The wetland species are primarily sphagnum moss, sedges, and heathers. The drier sites contain low-growing species such as devils-club, salmonberry, blueberry, copper bush, hellebore, ferns, skunk cabbage and huckleberry, over a carpet of mosses and liverworts. Timbered areas contain primarily a dense overstory of Sitka spruce and/or western hemlock. Even in heavily timbered areas, the tree species are found on the drier sites on the ridges, separated by marsh or muskeg, containing meandering streams. The climate is very wet. Lichen communities dominate ice-free areas above 2,000 feet elevation. Approximately 385 acres are mapped as alpine vegetation, and 70,884 acres are mapped as muskeg. Muskeg is interspersed within other types in units too small to map. Therefore, the acreage for muskeg may be substantially understated.

The sand dune area along the beach has a plant association, unique to Southeast Alaska. Uncommon plants found here include species of the *Atriplex*, *Lupimachia* and *Saussurea* genera.

There are approximately 164,922 acres mapped as forestland, of which 34,829 acres or 21 percent are mapped as productive old-growth forest. Of the productive old growth, 20,998 acres or 60 percent are mapped as high-volume old-growth forest. The productive old growth includes about 20,030 acres of high-volume, coarse-canopy old growth. There are no acres of second growth forest where timber harvest has occurred in the past.

(d) **Fish Resources:** There are numerous fish-bearing streams in this area. The Anadromous Waters Catalogue (ADF&G, 2000) identifies Williams Creek, Akwe River, Italo River, Ahrnklin River, and Situk River as primary fish-bearing streams. Additional Class I streams include: Cabin Slough, Emile Creek, Gines Creek, Clear Creek, Tanis River and Lake, Muddy Creek Cannery Creek, Square Creek and Outflow, Ustay River and Triangle Lake, Dangerous River, Miller Creek, Antlen River, Seal Creek, Middle Slough, and Kunayosh Creek. These waters provide habitat for sockeye, chinook, coho, pink, and chum salmon; steelhead and cutthroat trout; and Dolly Varden char. Eulachon run in the Situk, Lost, Dangerous, Italo, Akwe, and Alsek Rivers.

(e) **Wildlife Resources:** The Yakutat Forelands support a rich wildlife population, both in numbers and species diversity. Large mammal species include both brown and black bears (including the glacier bear, a bluish color phase of the black bear), moose, wolverines, wolves, and mountain goats. There is a Sitka black-tailed deer population, as a result of transplant efforts in the 1940's. Small animals include mink, marten, beaver snowshoe hare and pika, as well as several amphibian species. There are few resident bird species; however, the area is heavily used by migratory species, both for nesting and resting and includes waterfowl and raptors.

(5) **Management Direction and Current Uses:** This roadless area was allocated to seven Land Use Designations (LUDs) under the 1997 Tongass Land and Resource Management Plan. These seven LUDs include Timber Production, Scenic Viewshed, LUD II, Semi-remote Recreation, Remote Recreation, Old-growth Habitat, and Special Interest Area.

LUD	Acres
Timber Production	13,262
Scenic Viewshed	9,477
LUD II	137,099
Semi-remote Recreation	121,149
Remote Recreation	51,031
Old-growth Habitat	3,248
Special Interest Area	2,067

Approximately 7 percent of the roadless area was allocated to development LUDs, which allow timber harvest and the associated road construction (Timber Production, Scenic Viewshed). The Timber Production LUD was assigned to approximately 4 percent of the roadless area. Near the community of Yakutat and Highway 10, approximately 3 percent of the roadless area was allocated to the Scenic Viewshed LUD.

Most of this roadless area, approximately 93 percent, was allocated to non-development LUDs (LUD II, Semi-remote Recreation, Remote Recreation, Old-growth Habitat, Special Interest Area). Approximately 41 percent of the roadless area was allocated to the LUD II designation, which makes up the Yakutat Forelands LUD II area. The Semi-remote Recreation LUD was assigned to approximately 36 percent of the roadless area. Approximately 15 percent of the roadless area was allocated to the Remote Recreation LUD. Adjacent to the Russell Fiords Wilderness Area, approximately 1 percent of the roadless area was allocated to the Old-growth Habitat LUD. Less than 1 percent of the roadless area was allocated to the Pike Lake Special Interest Area LUD to recognize its unusual muskeg formation in the Yakutat area. It is managed as a recreational Special Interest Area.

There are 10 public recreation cabins, 7 aircraft landing strips, and 4 trails in the roadless area. Timber management and associated developments have taken place on the western and northwestern boundaries. Oil and gas exploration has occurred in the recent past but no development has occurred.

Other uses include sport fishing and hunting, subsistence fishing, hunting and trapping, and commercial fishing. Most of the use comes from local residents, except for sports hunting and fishing by nonresidents that fly in to the area. Set-net commercial fisheries are a major use of the many river mouths and bays. Fish camps for commercial fishers are common. Outfitting and guide service is a major business in the Yakutat area. There are approximately 130 special use permits for uses such as fish camps, outfitter/guides, subsistence and trapping camps, and recreation cabins. There are many cabins and camps under special use permit. Most of the cabins are concentrated along the coast and are associated with fish camp and outfitter/guide camps. There is some wood gathering, primarily along the north and west boundaries and around cabin/camp areas.

(6) Appearance (Apparent Naturalness): Land within the roadless area generally appears unmodified. Exceptions within the area are evidence of World War II activities, former oil and gas exploration sites, abandoned fish canneries and the various cabins/camps. Highway 10, which forms the northeastern boundary, and other roads near Yakutat affect the apparent naturalness of adjacent areas within the roadless area, as do public recreation cabins and special use cabins.

(7) Surroundings (External Influences): The area to the northwest and west of the Yakutat Forelands has been modified by development. Forest Highway 10 runs along the northeastern boundary; vehicular traffic noise originating from the highway is audible for some distance into the roadless area. The Yakutat airport is just outside the roadless area; therefore, users in the western portion of the area may be subjected to some aircraft noise. Most of the activities outside the roadless area are not readily apparent to users because of the flat, rolling terrain. There are daily commercial airline flights over the southern boundary, along the coast. There is some water-borne activity in the coastal waters; however, disturbance from this traffic is minimal. There is one other roadless evaluation area and the Russell Fiord Wilderness adjacent to the Yakutat Forelands roadless area on the north, with Glacier Bay National Park to the east.

(8) Attractions and Features of Special Interest: The Pike Lakes Special Interest Area has evolved into a muskeg unusual to the Yakutat area and with a unique and distinct fauna and flora compared to surrounding areas. Attractions of the area include wildlife viewing, sports hunting and fishing, and camping in association with other activities. The numerous small lakes and streams provide a variety of fishing sites. There is driftboat-fishing traffic on the Situk River, from the put-in site at Forest Highway 10 to the landing at the mouth of the river. There are small boat anchorages at various places along the coast. The very long stretches of sandy beach provide an opportunity for beachcombing, surfing, picnicking, and “dune running” with all-terrain vehicles. Sea mammal observation is a common activity.

The area contains 21 inventoried recreation places, which cover 151,449 acres, or 45 percent of the roadless area. There are four maintained trails within the roadless area. These are the Situk River #649, Lower Dangerous River #653, Middle Dangerous River #654, and Harlequin Lake #655. These trails total 10.7 miles. There are 10 public recreational cabin sites, with airstrips associated with 7 of the locations.

(9) Differences between the 1989 and 2003 Roadless Area Boundary: There have been minor changes to the boundaries since 1989. A road (approximately 2 miles long) has been built into the northwest corner of the roadless area. Also, a small area on the mainland north of Situk Island is no longer National Forest System land.

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II. Capability for Management as Wilderness

(1) **Natural Integrity and Apparent Naturalness:** Overall, the area provides very high natural integrity and high apparent naturalness. Most of the area appears to be in a natural condition, although the natural integrity has been compromised by Highway 10 in the northeast and by the seven maintained, “grass” landing strips. There are modifications in the form of extensive ATV trails, airfields, cabins, and camps, but most are widely scattered and are fairly unobtrusive, except for the concentrations of fish camps at Situk and on Blacksand Spit Island. There has been past modification of the area as evidenced by the abandoned fur farms, canneries and oil/gas exploration-sites. Developments are visible along the northwestern and western boundaries. However, because of terrain, they are not visible from a distance and do not affect the vast majority of the roadless area. These modifications to an otherwise natural landscape decrease the suitability of the area for wilderness to a minor degree.

(2) **Opportunity for Solitude and Serenity, Self-reliance, Adventure, Challenging Experiences, and Primitive Recreation:** The area provides high opportunity for solitude and very high opportunity for primitive recreation. The high degree of difficulty accessing this large area and generally low visitor numbers provide the solitary setting. Exceptions are locations along the western edge of the roadless area, and along Forest Highway 10. These are the locations people tend to concentrate. There is some disruption by small aircraft flying overhead, and powerboat use along several of the rivers and the coast. The Situk River is heavily used by driftboaters. The two commercial powerboat operations on the Situk are limited to one trip per day each.

The Pike lakes Special Interest Area is classified as a Recreational Area due to its unusual flora and fauna including unusual species of fish (northern pike) for anglers in the area.

Most of this large roadless area is far from a road or developed trail. The size of the roadless area, the lack of developed trails or roads, the steep nature of the mountainous areas with active glaciers, and the presence of both brown and black bears present a high degree of challenge and the need for woods skills and experience in much of the roadless area. Portions of the roadless area near roads, cabins, and salt-water access are less challenging.

The area provides primarily primitive recreation opportunities. The table below lists the acreage and percent of the various Recreation Opportunity Spectrum (ROS) classes that have been inventoried in the roadless area.

ROS Class	Acres	Percent of Total ROS
Primitive (P)	172,051	51%
Semi-Primitive Non-Motorized (SPNM)	121,282	36%
Semi-Primitive Motorized (SPM)	25,997	8%
Roaded Natural (RN)	3,861	1%
Roaded Modified (RM)	3,174	1%
Unidentified	11,005	3%

The area contains 21 inventoried recreation places, which cover 151,449 acres, or 45 percent of the roadless area.

ROS Class	# of Rec. Places*	Total Acres
P	7	50,383
SPNM	11	74,067
SPM	2	24,303
RN	1	1,847
RM	4	848

* Rec. Places may occur in more than one ROS Class; the sum of this column may exceed the total number of Rec. Places.

The area provides for the full spectrum of recreation opportunities. It is evident that both off-road and highway vehicles use the area. There are 10 public recreation cabin sites (including two double-cabins) located throughout the roadless area. They receive some summer use (primarily anglers), but principle use is during the moose and bear hunting seasons.

(3) Wilderness Attribute Rating System: In 1977, the Forest Service, along with public interest groups, developed the Wilderness Attribute Rating System (WARS), which was used to inventory the wilderness characteristics of roadless areas during the second Roadless Area Review and Evaluation process (referred to as RARE II). The purpose of WARS was to provide a measure of the area's wilderness quality, based on the key attributes of wilderness as defined in the Wilderness Act. It is largely based on the attributes described above in items 1 and 2 of this section (natural integrity and apparent naturalness; opportunity for solitude and primitive recreation).

In 1979, during the RARE II process, the Tongass National Forest applied WARS for the first time and rated each unroaded VCU on the Tongass. In 1989, the inventoried roadless areas (which generally include more than one VCU) were rated according to this system for the Analysis of the Management Situation (AMS) developed in support of the Forest Plan Revision. This original version of the AMS included both the individual VCU ratings done in 1979 and the composite rating that was done for each roadless area in 1989. The 1989 rating for the Yakutat Forelands Roadless Area was 20 out of 28 possible points. The 1989 rating was re-evaluated for this updated version of the AMS. Based on this re-evaluation, the area was given a rating of 22.

(4) Ecologic and Geologic Values: The Yakutat Forelands Roadless Area supports rich fish and wildlife populations, both in numbers and species. There are several glaciers in the southern part of the roadless area and extensive sand dunes along the coast. The Tanis Mesa is another unique geologic feature. This large roadless area is part of a much larger roadless area that includes other roadless areas on the Tongass National Forest, Glacier Bay National Park, and Russell Fiord Wilderness. These unroaded areas are connected to unroaded areas in Canada and Alaska, including the Wrangell-Saint Elias National Park.

(a) Fish Resources: The Tongass Fish and Wildlife Resource Assessment (ADF&G, 1998) listed the majority of the roadless area, VCUs 366, 370, 372, 373, 377, 379, 387, and 389 as primary salmon producers. VCUs 366, 370, 379, 381, 384, and 395 were listed as primary sportfish producers.

There are numerous fish-bearing streams in this area. The Anadromous Waters Catalogue (ADF&G, 2000) identifies Williams Creek, Akwe River, Italo River, Ahrnklin River, and Situk River as major fish-bearing streams. Additional Class I streams include: Cabin Slough, Emile Creek, Gines Creek, Clear Creek, Tanis River and Lake, Muddy Creek Cannery Creek, Square Creek and Outflow, Ustay River and Triangle Lake, Dangerous River, Miller Creek, Antlen River, Seal Creek, Middle Slough, and Kunayosh Creek. These waters provide habitat for sockeye, chinook, coho, pink, and chum salmon; steelhead and cutthroat trout; and Dolly Varden char. Eulachon run in the Situk, Lost, Dangerous, Italo, Akwe, and Alsek Rivers.

The area around the Situk River contains productive fisheries with high quality chinook and coho salmon rearing habitat. The system also supports sea-run cutthroat and fall run steelhead. The area supports significant recreational fishing. Lost River and Tawah Creek are considered exceptionally productive for four of the five Pacific salmon. Lost River is a short river in the southern region of the area that supports a late run of coho salmon, which offers a food resource to predators at a critical time of year. The Dangerous River was rated low for fisheries value in the ADF&G Forest Habitat Integrity Plan, but the mouth and estuary were rated high. Annual production for the evaluation area is estimated at more than 250,000 salmon. Situk River, Ahrnklin River, Dangerous River, Italo River, Ustay River, and Emile Creek receive an estimated peak escapement of 13,200, 35,200, 0, 19,800, 4,400, and 13,200 pink salmon respectively. These rivers also have outstanding coho salmon production.

Fisheries-habitat improvement projects have occurred in several areas. Most notable are the efforts create coho habitat in the many small rock pits along Forest Highway 10. A fishpass was completed on Italo River in 1985.

(b) Wildlife Resources: The Yakutat Forelands support a rich wildlife population, both in numbers and species diversity. Large mammal species include both brown and black bears (including the glacier bear, a bluish color phase of the black bear), moose, wolverines, wolves, and mountain goats. Moose are abundant on the Yakutat Forelands. The Lost River and Tawah Creek corridor is important moose habitat (TLMP, 1997). There is a Sitka black-tailed deer population, as a result of transplant efforts in the 1940's. The small animals include mink, marten, beaver, snowshoe hare, and pika, as well as several amphibian

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species. There are few resident bird species; however, the area is heavily used by migratory species, both for nesting and resting and includes waterfowl and raptors. Sandhill cranes land in the vicinity of Dangerous River and Alsek River during spring and fall migrations. The largest nesting population of trumpeter swans on the Tongass National Forest occurs on Yakutat Forelands (TLMP, 1997). One to two pairs nest at Square Lake each summer (ADF&G, 2001). Peregrine and gyrfalcons as well as snowy owls are migratory users. Bald eagles are common along the coastal zone and the fish bearing streams.

(c) Threatened, Endangered, and Sensitive Species: The only federally listed threatened or endangered species likely to occur within or adjacent to the roadless area are the humpback whale (endangered) and the Steller sea lion (threatened). Both of these species are found in adjacent marine waters. Three Forest Service Region 10 Sensitive Species are suspected or known to occur within the area: the trumpeter swan, Peale's peregrine falcon, and the Queen Charlotte goshawk. Trumpeter swans nest in the lowlands on small lakes and along large rivers and winter in ice-free areas throughout the Tongass. Peale's peregrine falcons nest on cliff faces and islands and feed primarily on seabirds. Inhabitants of late seral forests, Queen Charlotte goshawks, are closely associated with productive old growth. In addition, nine sensitive plant species, and two species proposed as sensitive, are known or suspected to occur in the Yakutat Ranger District.

(d) Karst, Cave, and Other Geologic Resources: There are no known karst or cave resources in this roadless area. There are numerous glaciers in the southern part of this area, including Creek Canyon, Martin, Fassett, Chamberlain, and Rodman Glaciers. A unique geologic feature is the extensive sand dunes along the coast, one of only two such sites in Alaska. Tanis Mesa is a unique geologic feature.

(5) Scientific and Educational Values: This area ranges from a constantly changing, uplifting coastal area, to a remnant area untouched by the last glacial period, to a young, developing ecosystem on immature or undeveloped soils. Of special ecological interest is the extensive sand dune area along the coast. As one of only two such sites in Alaska, this feature is rare, even when compared to the rest of the wilderness system. Their fairly recent development (estimated at less than 2,000 years), combined with unusual or uncommon plant associations, is of special interest.

Active glaciers in the south mountains are also of interest to visitors. The presence of species such as eagles, brown bears, black bears (including the glacier bear color phase), moose, and mountain goats provide interesting wildlife viewing. The many miles of sandy beach along the coastline provide for beachcombing opportunities. Cultural resource sites may provide special interest because of pre-contact mixing of peoples from the north and south, as well as relatively late prolonged direct contact with Europeans.

(6) Scenic Values: The visual character type for approximately 80 percent of the roadless area is the Cordova-Yakutat, consisting of a coastal plain marked by longitudinal beach and dune ridges, crossed by outwash plains and moraines, and backed by marine ridges to several hundred feet in height. The Brabazon Range provides a backdrop from outside the unit. The area is characterized by a great variety of water forms, including glacial streams, meandering lowland streams, and small lakes. The ocean surf is a key water form. The remaining 20 percent of the roadless area lies in the Coast Range visual character type. The landforms are massive and highly dissected. There is a great diversity in geological features including cliffs, escarpments and jagged peaks.

Less than half of the roadless area is forested. Most of the vegetation consists of groundcover or low-growing shrubs and short trees. The areas covered by forest contain stands with size classes from seedling/saplings to large mature/overmature trees. The heavily timbered areas are primarily in the eastern half. The view distance over much of the area is relatively short because of terrain and vegetation. The view to the south and west from the mountains shows most of the Yakutat Forelands, and presents an unrestricted view of the coastal area.

The roadless area generally appears unmodified. Exceptions within the area are evidence of Highway 10, the World War II activities, former oil and gas exploration sites, abandoned fish canneries and the various cabins/camps. The inland sites generally are not obtrusive, except at short range or from the air. The coastal sites are far more visible. Areas used in the past are reclaimed for the most part, with differences in vegetation the primary indicators of use. Most of the activity was, and is, concentrated along the coast, within one-half mile of the beachfront.

There is widespread evidence of vehicular use, including ATV trails and undesignated roads. Widespread ATV use is evident along the beaches, river bottoms, muskegs, and upland trails. The heaviest cabin/fish camp concentrations are at the mouth of the Situk River, on Blacksand Spit and on Blacksand Island. Many of the cabins have impromptu small aircraft landing areas on the beach fringe. The airstrips associated with the public recreation cabins are highly visible from the air. These strips are maintained with heavy-duty mowing equipment. Developed areas are visible along the northwestern boundaries. However, because of terrain, these areas are not visible from a distance and do not affect the vast majority of the roadless area.

Visual Priority Routes and Use Areas identified by the Forest Plan, that are within or adjacent to the area, include: Highway 10, Situk Landing Road FH 9969, and Alsek Bay/River Non System Road; the small boat routes including Alsek River, Ahrnklin River, the mouth of Dangerous River to Harlequin Lake, Mouth of Situk River, and Italo River; the dispersed recreation areas including Square Lake, Gines Creek, Alsek River Delta, Harlequin Lake, Italo Lake Big Game Camp, Ahrnklin River, Alsek River Big Game & Fish Camp, Dangerous River Guide Camp, Highway 10 Corridor, Gulf of Alaska Coastline, Tanis River Mesa Guide Camp, Italo River, Lower Dangerous River, Middle Slough River, and Dangerous River; the Yakutat community; the Square Lake, Tanis Mesa, Alsek River, Harlequin Lake, Italo River, Middle and Lower Dangerous River, and Middle Situk public recreation cabins; the Alsek River Rafting Campsite private resort; and the Dangerous River (654), Italo River, Lower Dangerous River, Harlequin Lake, and Situk River Cabin hiking trails.

Approximately 28 percent of the roadless area was inventoried as Variety Class A, having landscape diversity unique for the character type. Thirty-six percent of the area was rated as Variety Class B, possessing landscape characteristics common for the character type. Approximately 32 percent of the area possesses a low degree of landscape diversity (Variety Class C). Approximately 4 percent of the area was not inventoried for Variety Class type.

The majority of the area, 93 percent, is inventoried with an Existing Visual Condition (EVC) I, which appears untouched by human activity. Approximately 2 percent of the area has as an EVC II, where the average visitor does not notice changes to the landscape. The inventory identifies approximately 1 percent of the area as EVC III, where the average person notices changes in the landscape, but they do not attract attention. Another 1 percent is rated with an EVC IV, where changes in the landscape are easily noticed by the average visitor, and may attract some attention. Almost 4 percent of the area was not inventoried for EVC.

(7) Social, Cultural, and Historical Values: Human settlement in the area is believed to have started about 1,000 years ago, with the people coming from the north (probably Eyak from the Copper River). Tlingit occupation from the south began approximately 300 years before the present. European ventures into the area started in the late 18th century with Russian and English traders. A Russian farming settlement was established in the approximate location of Yakutat in 1796. Hostilities between the Russians and the Native population ended when the Yakutat Tlingits removed the settlement in 1805. Little contact between whites and Yakutat Tlingits occurred from 1805 to about 1874. Activities since 1874 have included mining, fish canneries, fur farms (mink and fox), manufactured native goods, and tourism. Salmon processing became a major industry, with the first salmon cannery constructed in 1902. Others, located along the Gulf coast, followed over the next 20 or so years. In the early 20th century, a railroad was planned from Yakutat to Dry Bay for the service of the various canneries; however construction eventually went only to Johnson Slough, with lines serving the Situk and Lost Rivers. There was a large military presence, with attendant activities, during World War II. More recent activities within or adjacent to the roadless area have included commercial logging operations, commercial fishing, and outfitter/guide services for sport fishing and hunting. No VCUs are listed among the VCUs with highest community use value or with highest sensitivity to disturbance of subsistence use areas (ADF&G, 1998).

(8) Manageability as Wilderness and Boundary Conditions/Changes: The roadless area is long and relatively narrow, with a length of about 53 miles and a width varying from approximately seven to 15 miles. Most of the roadless area is defined by a physical boundary, i.e., the coastline, Dry Bay and the Alsek River, mountain ridgelines or Forest Highway 10. However, approximately 24 miles of the northeast boundary is a “point-to-point” straight line, and is not tied to readily identified physical points. In addition, the, northwestern boundary abuts private lands, roads or development. The presence of roads and/or private lands to the west may reduce the manageability of the area. It would be reasonable to combine this roadless area with the Brabazon Addition (338) since there are no topographic features to delineate a boundary between the two roadless areas.

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III. Availability for Management as Wilderness (including effects of wilderness designation on adjacent areas)

(1) **Recreation, including Tourism Potential:** Tourism has been increasing in Southeast Alaska and is expected to continue to increase. Cruise ships travel to Glacier Bay National Park. There are daily scheduled commercial flights into Yakutat. Sport fishing and hunting are popular in the area. Moose hunting and steelhead fishing are the major activities. Recreation potential includes the opportunity for additional public recreation cabins and trail corridors along several of the rivers and accessing several lakes. Trailheads would have to be accessed from the coast, from aircraft landing strips, or from the road system to the northwest and northeast. Management as a wilderness might conflict with the use of power mowers to maintain the seven existing airfields in the roadless area. It also might conflict with special use cabins and some ATV use.

(2) **Subsistence Uses:** Management as a wilderness would not conflict with current subsistence uses.

(3) **Fish Resource:** There are no current plans for fish habitat enhancement projects in the roadless area. However, the Forest Service is investigating the possibility of bioenhancement and habitat manipulation on a limited basis.

(4) **Wildlife Resources:** There are no current plans for wildlife habitat enhancement projects in the roadless area. However, the Forest Service is investigating several browse enhancement possibilities.

(5) **Timber Resources:** There are 34,829 acres inventoried as productive old-growth forest and no acres mapped as second growth due to harvest in the roadless area. Of this, approximately 21,435 acres are categorized as tentatively suitable for timber harvest. Based on the Forest Plan LUDs assigned to this area (and estimated falldown and scheduling reduction factors), 4,137 acres or 1 percent of this roadless area are estimated to be suitable for timber production. Approximately 2,366 of the suitable acres are mapped as high-volume old growth; of these acres, 2,216 are mapped as high-volume, coarse-canopy old growth.

The potential for larger scale commercial timber management is low, even for high quality, very high volume stands. More local small-scale operations may be more adjustable to the fluctuating timber market conditions. Timber stands rated moderate to high for management operability are concentrated in VCUs 379, 382, 386, 387, 383, and 389. Outside of these VCUs, the majority of the timber is not considered operable, or does not constitute a significant component.

(6) **Fire, Insects, and Disease:** The area has no significant fire history. There are no epidemic insect or disease conditions.

(7) **Minerals:** The opportunity for mineral development appears low. There are no known deposits of minerals important for development. This area contains an estimated 115,938 acres of undiscovered locatable mineral resources (Brew et al., 1990; USDA Forest Service, 1991); all of these acres are considered to have low potential for development.

Oil and gas exploration has occurred and the potential for development appears relatively high. The U.S. Geological Survey (USGS) has identified the Yakutat Forelands as a “Most Favorable Petroleum Reserve Area”. However, development activities have not been initiated. The USGS Mineral Resource Data website (2001) indicates that there are eight prospects in the area for iron, titanium, gold, platinum, and chromium.

(8) **Transportation and Utilities:** There are no transportation or utility projects proposed for this area. An existing State road corridor is adjacent to the northern part of the roadless area.

(9) **Water Availability and Use:** Water demand is created by the public recreation cabins, the outfitter/guide cabins, and the private resort in this area. There are no existing or planned hydroelectric or domestic water projects within the roadless area to accommodate these demands.

(10) **Areas of Scientific Interest:** The roadless area supports rich fish and wildlife populations, both in numbers and species diversity. There are several glaciers in the southern part of the roadless area and extensive sand dunes along the coast. Tanis Mesa is another unique geologic feature.

(11) **Land Use Authorizations:** There are approximately 130 special use permits for uses such as fish camps, outfitter/guides, subsistence and trapping camps, and recreation cabins. The potential for an increase in the number of permits is high, however carrying capacities may restrict such increases. The increase will be in applications for fish camps, outfitter/guide activities, and facilities associated with subsistence and outfitter/guide activities.

(12) **Land Status:** The entire roadless area is a part of the National Forest System. Encumbered land within the roadless area is located in the west, adjacent to land owned by the Yak-Tat Kwaan Village Corporation.

IV. Wilderness Evaluation (Need for Wilderness)

(1) Public and Congressional Interest:

(a) **Interest Expressed by Local Users and Residents:** Local residents have a strong interest in maintaining the area for commercial and subsistence fishing. The income generated from fishing by non-residents who fly into the area is important to the local economy. The general feelings of the local residents appear to favor a primitive/semi-primitive designation without the area becoming a wilderness in order to avoid restrictions associated with wilderness designation and the elimination of future management options.

(b) **Congressional Interest:** In 1989, U.S. House of Representatives Bill HR 987 proposed to designate 23 areas as wilderness on the Tongass National Forest. The Yakutat Forelands, the area between the Dangerous and Alsek Rivers and between the coast and the Brabazon Range (137 M out of 338 M acres), was included in the bill. The Yakutat Forelands area was designated as LUD II by the Tongass Timber Reform Act of 1990. In 2001, HR 2908 proposed managing the entire roadless area as LUD II in an unroaded condition.

(c) **Public Input During Forest Plan Revision and Appeals:** The City of Yakutat recommended that the fisheries values and fish habitat protection be of paramount importance in managing the Foregrounds. The Foregrounds should be managed for fish, wildlife, subsistence, and visual resources. Small scale and personal use timber harvest should be permitted. The Southeast Alaska Conservation Council and others recommended against road building and logging because of the effects of logging on the education and recreational values of the area. They stated that the area merited special protection for its outstanding wildlife, fisheries, hunting, subsistence, recreation, and tourism values. The National Audubon Society recommended that the area be managed for primitive recreation. The Alaska Forest Association, the Alaska Miners Association, and the Alaska Visitors Association recommended that no new wilderness be designated on the Tongass National Forest. Others stated that all unroaded areas should be designated wilderness. Timber industry representatives recommended managing all areas not designated as wilderness for timber.

(d) **Public Input During Roadless Area Conservation Rule and Road Management Policy Review:** This area was not specifically identified in the public comments received during the Roadless Area Conservation Rule or Road Management Policy Review. However, some commenters wanted all unroaded lands on the Tongass to be protected from development.

(e) **Public Input Expressed for Project-level EISs and Other Input:** No project-level comments on this roadless are available.

(f) **Public Input Expressed During Supplemental EIS Process:** The U.S. Department of the Interior identified this roadless area as having important fish and wildlife habitat and populations; although not a top priority for protection, it ranked in their top third among all roadless areas. The area adjoins Glacier Bay National Park, and the Russell Fiord Wilderness Area.

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The Alaska Department of Fish and Game rated the Yakutat Forelands roadless area (Italio, Akwe, Tanis Mesa, and Alsek Rivers) as the fourth highest priority for protection in northern Southeast Alaska. This rating is based on the VCUs with the highest value fish and wildlife resources needing additional protection. VCUs are prioritized for their very high productivity, essential role in connectivity, and/or very high value as community use areas.

SEACC recommended that the remaining unlogged portions of the Yakutat area, including Roadless Areas 338, 339, and 341, should be protected through a combination of LUD II and wilderness designations as in Alternative 6.

The Yakutat Tlingit Tribe supported "...the present land management scheme." and stated that it did not want to see "...changes in the Wilderness designation...."

Some individuals recommended permanent protection for the entire area.

(2) Nearby Roadless and Wilderness Areas and Uses: This large roadless area is part of a much larger unroaded area that includes the Brabazon Addition (338) and the Upper Situk (341) Roadless Areas, Glacier Bay National Park, and Russell Fiord Wilderness. These roadless areas are connected to other unroaded areas in Canada and Alaska, including the Wrangell-Saint Elias National Park and other roadless areas on the Tongass National Forest. These areas are used primarily for recreation (including tourism) and subsistence.

(3) Distance From Population Centers (Accessibility): Approximate distances from population centers are as follows:

Community	Air Miles	Water Miles
Juneau (Pop. 30,711)	150	185
Sitka (Pop. 8,835)	180	200
Cordova (Pop. 2,454)	220	275
Anchorage (Pop. 260,283)	350	635

Yakutat has twice-daily commercial air service, both north- and southbound. There is no ferry service. The nearest Alaska Marine Highway terminals are at Hoonah to the southeast and Cordova to the west.

(4) Relative Contribution to the National Wilderness Preservation System: The Yakutat Forelands Roadless Area is located on the mainland, southeast of Yakutat. The area adjoins National Forest System, State, and private lands to the northwest and the Glacier Bay National Park to the southeast. Forest Highway 10, the Russell Fiord Wilderness and the Brabazon Range bound the Yakutat Forelands on the northeast. The southwestern boundary is the Gulf of Alaska, from Dry Bay to Johnson Slough. Approximately 80 percent of the roadless area is relatively flat, with elevations ranging from sea level to approximately 200 feet. The lowland terrain is characteristic of formerly glaciated topography, glacial outwash plains with lateral and terminal moraines, separated by low, flat areas with numerous streams and rivers as well as large marshes and muskegs. The rivers and streams are low gradient and follow meandering and braided channels, with wide floodplains. The northeastern half also contains many lakes, the largest is over 500 acres. The northeast quadrant contains the southern slopes of the Brabazon Range, with elevations ranging from 200 feet to approximately 4,980 feet. This mountainous area is steep and highly dissected with numerous stream courses. The area contains several glaciers. The Gulf beach area is subject to drastic change due to open-water wave activity and ocean storms. The coastal area contains an extended stretch of sand dunes, formed by the wind. This dunes area is one of two found in Alaska.

The area generally appears to be natural and unmodified. There are modifications in the form of Highway 10, ATV trails, airfields, cabins, and camps, but most are widely scattered and are fairly unobtrusive, except for the concentrations of fish camps at Situk and on Blacks and Spit Island. The area has overall very high natural integrity and high apparent naturalness. Opportunities for solitude are high and opportunities for primitive recreation are very high within the area.

The area has moderate to high scenic qualities; approximately 28 percent of the landscape is considered distinctive from a scenery standpoint. There are numerous glaciers in the southern part of this area, including Creek Canyon,

Martin, Fassett, Chamberlain, and Rodman Glaciers. A unique geologic feature is the extensive sand dunes along the coast, one of only two such sites in Alaska. Tanis Mesa is a unique geologic feature. Outfitting and guide service is a major business in the Yakutat area. There are approximately 130 special use permits for fish camps, outfitter/guides, subsistence and trapping camps, and recreation cabins.

The roadless area includes about 20,998 acres of high-volume, old-growth forest. Of these acres, approximately 20,030 are mapped as high-volume, coarse-canopy old growth. It ranks among the top five Tongass roadless areas in terms of acres of high-volume, coarse-canopy old growth; the vast majority of this old growth is contained within non-development LUDs.

Approximately 80 percent of the Yakutat Forelands Roadless Area is classified as being in the Yakutat Forelands Biogeographic Province and makes up about 78 percent of the province. It is one of two roadless areas that make up about 82 percent of the province. About 2 percent of the Yakutat Forelands Province is in designated wilderness, and about 39 percent is in designated LUD II. The remaining 20 percent of the Yakutat Forelands Roadless Area is located in the Yakutat/Glacier Bay Uplands Biogeographic Province and makes up about 7 percent of that province. It is one of three roadless areas that collectively make up about 62 percent of the province. About 37 percent of the Yakutat/Glacier Bay Uplands Province is in designated wilderness.

The Yakutat Forelands Roadless Area lies within two ecological sections; it represents 8 percent of the St. Elias-Fairweather Mountains Ecological Section and 69 percent of the Northern Gulf Forelands Ecological Section. The St. Elias-Fairweather Mountains Ecological Section is well represented by existing wilderness and other non-development LUDs (35 and 64 percent, respectively, including 1 percent in LUD II). The Northern Gulf Forelands Ecological Section is well represented by non-development LUDs (72 percent, including 33 percent in LUD II) with an additional 9 percent in existing wilderness.

The majority of the Yakutat Forelands Roadless Area (79 percent) is contained within the Yakutat-Lituya Forelands Ecological Subsection. This portion of the roadless area represents 69 percent of the entire ecological subsection, which is well represented by LUD II and other non-development LUDs (33 and 39 percent, respectively) with an additional 9 percent in existing wilderness. The remaining 21 percent of this roadless area is within the St. Elias-Fairweather Icefields Ecological Subsection. This portion of the roadless area represents 9 percent of the entire ecological subsection, which is well represented by existing wilderness and other non-development LUDs (27 and 72 percent, respectively including 1 percent in LUD II).

The Yakutat Forelands Roadless Area was rated 22 out of a possible 28 points under the Wilderness Attribute Rating System (WARS). As such, its WARS rating is ranked 38th from the highest (along with eight other roadless areas) among the 109 Tongass inventoried roadless areas.

There is strong local and national support for managing the roadless area in an unroaded condition. There is some national support for designating the northern two-thirds of the roadless area as wilderness and for managing the remainder in an unroaded condition. The roadless area contains one of the highest acreages of high-volume, coarse-canopy old growth among Tongass roadless areas. Designation of the roadless area as a wilderness would expand the Russell Fiord Wilderness and include the glaciers, sand dunes and geologic mesa formation. Overall, the factors identified here indicate that the relative contribution of this area to the National Wilderness Preservation System would be moderate.

V. Environmental Consequences

The Yakutat Forelands Roadless Area would be managed under the existing Forest Plan if Alternative 1, 3, or 4 is implemented. Approximately 93 percent of the roadless area would be managed under non-development LUDs. Timber harvest and road development could occur within the remaining 7 percent of the roadless area. The land in the development LUDs includes an estimated 4,137 acres that are suitable for timber production (40 percent of the suitable acres on the Yakutat Ranger District). Approximately 2,216 of the suitable acres are classified as high-volume, coarse-canopy old growth. This area contains an estimated 115,938 acres of undiscovered locatable mineral resources. All of these acres are considered to have low potential for development. The very heavy recreation and special use program would continue. The values, including the scenic, geologic, commercial recreation, and ecologic values, associated with the natural settings of the roadless area are mostly protected by the Forest Plan.

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There is a small portion of the roadless area in the northwest tip near the highway that would allow timber management activities.

Under Alternative 2, the existing LUD II area, approximately 137,099 acres, would be converted to Recommended Wilderness LUD. This would not affect timber management because this area is currently allocated to a non-development LUD. The area suitable for timber production would not change from Alternative 1. The ongoing recreational use, special uses, and mineral management that occur within the designated LUD II area could be restricted. Mineral prospecting would be allowed in the Recommended Wilderness LUD up to the time that the area is actually designated as wilderness by Congress. The values associated with the natural settings of the existing LUD II portion of the roadless area, including the scenic, geologic, commercial recreational, and ecologic values, would continue to be provided long-term protection if designated wilderness.

Under Alternative 5, a 219,651-acre portion of the LUD II, Remote Recreation, and Semi-remote Recreation LUDs would be converted to Recommended Wilderness LUD. The ongoing recreational use, special uses, and mineral management that occur within the designated LUD II area could be restricted. Mineral prospecting would be allowed in the Recommended Wilderness LUD up to the time that the area is actually designated as wilderness by Congress. The values associated with the natural settings of the southern two-thirds of the roadless area, including the scenic, geologic, commercial recreational, and ecologic values, would be provided long-term protection if designated wilderness.

Under Alternative 6, the majority of the Remote Recreation, Special Interest Area, Old-growth Habitat, Semi-remote Recreation, Scenic Viewshed, and Timber Production LUDs would be converted to Recommended LUD II and the remainder converted to Recommended Wilderness LUD. No timber harvest would be allowed in the roadless area. Mineral prospecting and development, some special uses, and some recreation developments could continue in the LUD II areas but could be restricted in the Recommended Wilderness LUD area. Mineral prospecting would be allowed in the Recommended Wilderness LUD up to the time that the area is actually designated as wilderness by Congress. The values associated with the natural settings of the roadless area, including the scenic, geologic, commercial recreational, and ecologic values, would be provided long-term protection if designated LUD II or wilderness.

Under Alternatives 7, a 232,366-acre portion of the roadless area in Remote Recreation, Special Interest Area, Old-growth Habitat, Semi-remote Recreation, LUD II, Scenic Viewshed, and Timber Production LUDs would be converted to Recommended Wilderness LUD. Timber harvest would not be allowed in the Recommended Wilderness LUD. The area suitable for timber production would be reduced to 2,682 acres. The ongoing recreational use, special uses, and mineral management could be restricted. Mineral prospecting would be allowed in the Recommended Wilderness LUD up to the time that the area is actually designated as wilderness by Congress. Similar to Alternative 5, the values associated with the natural settings of the southern two-thirds of the roadless area, including the scenic, geologic, commercial recreational, and ecologic values, would be provided long-term protection if designated wilderness.

Under Alternative 8, the entire roadless area would be converted to Recommended Wilderness LUD. Timber harvest would not be allowed and the ongoing recreational use, special uses, and mineral management could be restricted. Mineral prospecting would be allowed up to the time that the area is actually designated as wilderness by Congress. The values associated with the natural settings of the roadless area, including the scenic, geologic, commercial recreational, and ecologic values, would be provided long-term protection if designated wilderness.

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Land Use Designation Allocations and Suitable Timber Lands by Alternative for Roadless Area 339 (in acres)								
Land Use Designation	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8
Recommended Wilderness		137,099			219,651	12,716	232,366	337,374
Wilderness								
Recommended Wilderness Nat. Mon.								
Wilderness National Monument								
Non-wilderness National Monument								
Research Natural Area								
Special Interest Area	2,067	2,067	2,067	2,067	2,067			
Remote Recreation	51,031	51,031	51,031	51,031				
Enacted Municipal Watershed								
Old-growth Habitat	3,248	3,248	3,248	3,248	3,248			
Semi-remote Recreation	121,189	121,189	121,189	121,189	89,669		89,670	
Recommended LUD II						187,559		
LUD II	137,099		137,099	137,099		137,099		
Wild, Scenic, Recreational River								
Experimental Forest								
Scenic Viewshed	9,477	9,477	9,477	9,477	9,477		9,279	
Modified Landscape								
Timber production	13,262	13,262	13,262	13,262	13,262		6,059	
TOTAL	337,374	337,374	337,374	337,374	337,374	337,374	337,374	337,374
Suitable Timber Lands	4,137	4,137	4,137	4,137	4,137	0	2,682	0