

Appendix C

INDIVIDUAL ROADLESS AREA DESCRIPTION

ROADLESS AREA NAME: Brabazon Addition (338)

ACRES (NFS): 500,597

BIOGEOGRAPHIC PROVINCE: Yakutat/Glacier Bay Upland

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

2003 WILDERNESS ATTRIBUTE RATING: 27

I. Overview and Description

(1) **Location and Access:** The Brabazon Addition Roadless Area is located on the mainland, approximately 35 air miles east of Yakutat. It is approximately 150 miles northwest of Juneau. The area adjoins the Russell Fiord Wilderness to the west, the Canadian border to the east, and the Glacier Bay National Park to the southeast. The southwestern boundary is the Yakutat Forelands Roadless Area. Access to the roadless area is by foot from the end of Forest Highway 10 or from Russell Fiord and Nunatak Fiord. Air access is by ski-equipped small plane or helicopter. Access into the interior is by foot or helicopter. There are no places suitable for landing wheeled airplanes.

(2) **History:** The glaciated state of the entire area indicates there has been little human use. There may have been some passage over the glaciers by native peoples in the past; however, there is no physical evidence to support this. European use has been limited to exploration. Human occupation of the Yakutat Forelands (to the southwest of the Brabazon Range) is believed to have started about 1,000 years ago, with the people coming from the north. Tlingit occupation, from the south, began approximately 300 years ago. European ventures into the area started in the late 18th century, with Russian and English traders. There was little contact with outside groups until about 1874. A continuing European-American presence in the Yakutat area has been maintained since. Current activities in the roadless area are scientific or recreational in nature.

(3) **Geography and Topography:** The Brabazon Addition is characterized by steep, rugged mountains, interspersed with, or surrounded by, glaciers. The glaciers moderate the terrain by providing large, relatively flat areas. The highest point is approximately 9,310 feet above sea level. The majority of the area is above 3,000 feet; although there are some areas below 1,000 feet. Most surface features are hidden by the glaciers. Major glaciers within the area are the Chamberlain (on the south), Novatak, Yakutat (feeding Harlequin Lake), Hidden (feeding Russell Fiord), East and West Nunatak (feeding Nunatak Fiord), and Battle (extending into Canada). There are several small lakes in the roadless area. The visual character is the Coast Range. This area does not have saltwater shoreline. There are approximately 1,575 acres of freshwater lakes, 120,215 acres of ice and snow, 54,036 acres of rock, and no acres mapped as alpine within this roadless area.

(4) **Ecosystem:**

(a) **Classification:** Biogeographic Province. The roadless area is in the Yakutat/Glacier Bay Upland 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 Brabazon Addition Roadless Area is contained almost entirely within the St. Elias-Fairweather Mountains Ecological Section (M244C) with portions within the Northern Gulf Forelands Ecological Subsection (M245B). These areas are represented by two ecological subsections (see table below). The towering mountains of the St. Elias-Fairweather Icefields Ecological Subsection, which covers 99 percent 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
St. Elias-Fairweather Mountains	St. Elias-Fairweather Icefields	99%
Northern Gulf Forelands	Yakutat-Lituya Forelands	1%

(b) Soils: There is little soil development because of recent glaciation. The primary feature (other than ice) is sharply uplifted bedrock, with steep, deeply incised slopes. Terrain is mountainous above the ice plains. Glaciers occupy much of this area.

(c) Vegetation: Vegetation is sparse and consists of lichens, mosses and grasses. Tree or brush species are unusual and are concentrated around the fringes, especially to the southeast in the Alsek River drainage. There are no mapped forestlands within the roadless area. There are no acres of mapped muskeg or of alpine vegetation.

(d) Fish Resources: The Tongass Fish and Wildlife Resource Assessment (ADF&G, 1998) indicates that VCU's 353, 354, 888, and 999 are non-producers of salmon. No important fish streams have been identified in the roadless area. There is some fishing activity in the two lakes adjacent to the southeastern boundary.

(e) Wildlife Resources: Little is known about the wildlife in the Brabazon Addition. The area is used by mountain goats, and possibly by black and brown bear. Small mammals, such as pika, are present.

(5) Management Direction and Current Uses: This roadless area was allocated to one Land Use Designation (LUD) under the 1997 Tongass Land and Resource Management Plan. This LUD is Remote Recreation.

LUD	Acres
Remote Recreation	500,597

All of this roadless area was allocated to a non-development LUD, Remote Recreation.

(6) Appearance (Apparent Naturalness): The roadless area is unmodified and the appearance is entirely wild and natural.

(7) Surroundings (External Influences): The surrounding areas are all roadless and unmodified. The area to the west is a designated wilderness area, the areas to the north and south are rugged mountains surrounded by, or containing, glaciers and ice fields, and the area to the southeast is a National Park. The area to the southwest is in the Yakutat Forelands Roadless Management Area (339). Additionally, the nature of the adjoining terrain is such that development of any kind is unlikely to occur. There are commercial flights to the south; however, none occur over the roadless area. There are occasional small aircraft overflights, generally near the southwestern boundary.

(8) Attractions and Features of Special Interest: Attractions in the area include sightseeing (primarily from aircraft), ice climbing, rock climbing, and mountain goat hunting. Several local people ski the area using small planes for access. The rugged mountains springing from massive ice fields provide a spectacular view. Some fishing occurs in two lakes accessible from the Alsek River. The primary scientific interest centers on glacial processes. There are no inventoried recreation places or trails.

(9) Differences between the 1989 and 2003 Roadless Area Boundary: The boundaries have not changed since 1989.

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II. Capability for Management as Wilderness

- (1) **Natural Integrity and Apparent Naturalness:** The area is unmodified. Natural integrity has not been affected.
- (2) **Opportunity for Solitude and Serenity, Self-reliance, Adventure, Challenging Experiences, and Primitive Recreation:** The opportunity for solitude is outstanding and the opportunity for primitive recreation is very high over the whole of the Brabazon Addition. The area's large size, difficult access, and very low visitor numbers provide this solitude. There is occasional disruption by small aircraft flying overhead.

The difficult terrain and the inaccessibility of the roadless area make crossing the area extremely challenging. As with all backcountry areas on the Tongass, the opportunity for challenge and risk in this area is high. The climate, the rugged terrain, the isolation and distance from population centers with medical facilities, the barriers to communication, and the presence of large wild animals all contribute to the need for good preparation and knowledge of backcountry survival skills for anyone using this area. Hypothermia and wild animal encounters are just two examples of the many risks that must be considered before traveling in the backcountry of southeast Alaska.

The area provides only 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)	499,914	100%

There are no inventoried recreation places within this roadless area

ROS Class	# of Rec. Places	Total Acres
P	0	0

There are no developed recreation facilities in the roadless area.

- (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, apparent naturalness; outstanding opportunity for solitude, and primitive recreation opportunities).

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 Brabazon Addition Roadless Area was 27 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 also given a rating of 27.

- (4) **Ecologic and Geologic Values:** The numerous glaciers in the roadless area, including the Art Lewis, East and West Nunatak, Novatak, Chamberlain and Yakutat Glaciers, are of interest to those studying the development of glaciers and their effect on the ecology of an area.

- (a) **Fish Resources:** The Tongass Fish and Wildlife Resource Assessment (ADF&G, 1998) indicates that all VCUs, primarily VCUs 888, and 999, are non-producers of salmon. No fish-bearing streams have been identified in the roadless area (ADF&G, 2000). There is some fishing activity in the two lakes adjacent to the southeastern boundary.

- (b) Wildlife Resources:** Little is known about the wildlife in the Brabazon Addition. The only known use by wildlife is by mountain goats, with some possible use by black and brown bears. It may be assumed that some small mammals, such as pika, are present.
- (c) Threatened, Endangered, and Sensitive Species:** There are no identified threatened, endangered, or sensitive wildlife species known to use the roadless area. 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 this area, including the Art Lewis, East and West Nunatak, Novatak, Chamberlain and Yakutat Glaciers. There are no other unique geologic features in this area.
- (5) Scientific and Educational Values:** The area is typical of much of the mainland coastal mountains. These are rugged, heavily glaciated mountains, with little vegetation. The area is of scientific interest for the effects of glaciation. The Brabazon Addition Roadless Area is not unique within the Coastal Mountain character type. The potential of the Russell Fiord being isolated from saltwater by Hubbard Glacier and becoming Russell Lake has been of considerable scientific interest. The glaciers in the Brabazon Range would be the primary contributors of freshwater to the lake.
- (6) Scenic Values:** The roadless area is unmodified; the appearance is entirely wild and natural. The remoteness and ruggedness have discouraged modification. The visual character of the area is the Coast Range. The landforms are generally massive, dissected by steep-walled canyons and valleys. Much of the area is glacier covered, making the sharp relief even more evident. This natural landscape can be seen from within the area and when traveling in the surrounding water bodies. No Visual Priority Routes and Use Areas within the area were identified by the Forest Plan. However, the higher mountains and glaciers of the roadless area are visible from many Visual Priority Routes and Use Areas located outside, but near the area.
- The roadless area is inventoried as Variety Class A, possessing landscape diversity unique for the character type. It is also in Existing Visual Condition I, having the appearance of being untouched by human activity.
- (7) Social, Cultural, and Historical Values:** The glaciated state of the roadless area indicates there has been little human use. There may have been some passage over the glaciers by native peoples in the past; however, there is no physical evidence to support this. European use has been limited to exploration. Human occupation of the Yakutat Forelands (to the southwest of the Brabazon Range) is believed to have started about 1,000 years ago, with the people coming from the north. Tlingit occupation, from the south, began approximately 300 years ago. European ventures into the area started in the late 18th century, with Russian and English traders. There was little contact with outside groups until about 1874. A continuing European-American presence in the Yakutat area has been maintained since. Current activities in the roadless area are scientific or recreational in nature. The opportunity for solitude is very high. The area's large size, difficult access, and very low visitor numbers provide this solitude. The area is unmodified. There is occasional disruption by small aircraft flying overhead. The difficult terrain and the inaccessibility of the roadless area make crossing the area extremely challenging. The area contains no recreation places. The area provides primarily primitive recreational. 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 lies in a northwest to southeast orientation and is irregularly shaped. Length is approximately 47 miles and the width is approximate 20 miles. The area could be easily managed as a wilderness within the current boundaries. With the exception of the Yakutat Forelands Roadless Area to the southwest, the Brabazon Addition Roadless Area is surrounded by areas where management is highly unlikely to change and the boundaries are described by law. Much of the management activities within the Yakutat Forelands Roadless Area are on the south and western portions; much of that roadless area is also designated LUD II by Congress. The southern boundary of the Brabazon Addition is a "point-to-point" straight line, approximately 14 miles long, and is not tied to physical points.

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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. There may be opportunities to conduct additional aerial sightseeing trips over the area. Remoteness and rugged terrain limit other opportunities to the primitive recreation. Potential exists for the development of trails and the possible construction of recreation cabins. These facilities probably would receive little use because of accessibility.
- (2) **Subsistence Uses:** Management as a wilderness would not conflict with current subsistence use, if any occurs.
- (3) **Fish Resource:** No fisheries habitat improvement activities are planned or proposed.
- (4) **Wildlife Resources:** No wildlife habitat improvement activities are planned or proposed.
- (5) **Timber Resources:** There are no timber resources and no potential for development of timber resources.
- (6) **Fire, Insects, and Disease:** The area has no fire history. There are no known insect or disease occurrences.
- (7) **Minerals:** The opportunity for mineral development appears low. There are no known deposits of minerals with in the area. The USGS Mineral Resource Data website (2001) indicates that there is one prospect for cobalt in this area. This area contains an estimated 453,689 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.
- (8) **Transportation and Utilities:** There are no transportation or utility projects proposed for this area.
- (9) **Water Availability and Use:** There are no public recreation cabins or other facilities to create a water demand. There are no existing or planned hydroelectric or domestic water projects within the roadless area.
- (10) **Areas of Scientific Interest:** The numerous glaciers in the roadless area, including the Art Lewis, East and West Nunatak, Novatak, Chamberlain and Yakutat Glaciers, are of interest to those studying the development of glaciers and their effect on the ecology of an area.
- (11) **Land Use Authorizations:** Several outfitter/guides are permitted tours in the area. However, none have reported use.
- (12) **Land Status:** There are no non-National Forest System lands located within the roadless area, nor any encumbrances or restrictions.

IV. Wilderness Evaluation (Need for Wilderness)

- (1) **Public and Congressional Interest:**
 - (a) **Interest Expressed by Local Users and Residents:** The roadless area receives little use by local residents and little is known about local concerns on how the roadless area should be managed.
 - (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 Brabazon Addition Roadless Area was not one of those areas. In 2001, HR 2908 proposed designating the entire roadless area in a wilderness.

(c) Public Input During Forest Plan Revision and Appeals: There were no specific comments on the roadless area. 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.

(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. Include local comments also

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

(f) Public Input Expressed During Supplemental EIS Process: The Alaska Department of Fish and Game rated the Brabazon Addition roadless area as the seventh 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, 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 this area for permanent protection because of world-class scenery, abundant wildlife and habitat, and almost unilateral support for wilderness protection.

(2) Nearby Roadless and Wilderness Areas and Uses: The Russell Fiord Wilderness lies to the north and northwest of the Brabazon Addition. The Yakutat Forelands Roadless Area lies along the southwestern boundary. The Glacier Bay National Park and Preserve, which is managed as wilderness, lies to the south. The area to the east, across the Canadian border, is essentially a wild, unmanaged area with no development. Because of the surrounding areas, the Brabazon Addition evaluation area is part of a contiguous unroaded area of several million acres. Roadless National Forest System lands alone total over a million acres in the vicinity of the Brabazon Roadless Area.

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

Community	Air Miles	Water Miles*
Juneau (Pop. 30,711)	150	310
Sitka (Pop. 8,835)	190	325
Cordova (Pop. 2,454)	230	300
Anchorage (Pop. 260,283)	360	670

* No direct water access. The closest water access points are in Russell Fiord (2 miles) and Nunatak Fiord (one and one-half miles).

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 east and Cordova to the west.

(4) Relative Contribution to the National Wilderness Preservation System: The Brabazon Addition Roadless Area is located on the mainland, approximately 35 air miles east of Yakutat. The area adjoins the Russell Fiord Wilderness to the west, the Canadian border to the east, and the Glacier Bay National Park to the southeast. The southwestern boundary is the Yakutat Forelands Roadless Area. The area is characterized by steep, rugged mountains, interspersed with, or surrounded by, glaciers. The glaciers moderate the terrain by providing large,

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relatively flat areas. The highest point is approximately 9,310 feet above sea level, at Boundary Peak 176. The majority of the area is above 3,000 feet; although there are some areas below 1,000 feet. Most surface features are hidden by the glaciers. Major glaciers within the area are the Chamberlain (on the south), Novatak, Yakutat (feeding Harlequin Lake), Hidden (feeding Russell Fiord), East and West Nunatak (feeding Nunatak Fiord), and Battle (extending into Canada). There are several small lakes located in the roadless area.

The area is unmodified and has outstanding natural integrity and apparent naturalness. The opportunity for solitude is outstanding and the opportunity for primitive recreation is very high within the area.

The Brabazon Addition Roadless Area has unique scenic quality; all of the landscape is considered distinctive from a scenery standpoint. There are numerous glaciers in this area, including the Art Lewis, East and West Nunatak, Novatak, Chamberlain, and Yakutat Glaciers.

The roadless area is in the Yakutat/Glacier Bay Upland Biogeographic Province and makes up about 55 percent of the province. It is one of three roadless areas that make up about 62 percent of the province. The majority of the Russell Fiord Wilderness is located in the province and accounts for about 37 percent of the province.

The Brabazon Addition Roadless Area lies within two ecological sections; it represents 53 percent of the St. Elias-Fairweather Mountains Ecological Section and 2 percent of the Northern Gulf Forelands Ecological Section. The St. Elias-Fairweather Mountains Ecological Section is well represented by existing wilderness and 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).

Almost all of the Brabazon Addition Roadless Area (99 percent) is contained within the St. Elias-Fairweather Icefields Ecological Subsection. This portion of the roadless area represents 60 percent of the entire ecological subsection, which is well represented by existing wilderness and non-development LUDs (27 and 72 percent, respectively including 1 percent in LUD II). The remaining 1 percent of this roadless area is within the Yakutat-Lituya Forelands. This portion represents 2 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 Brabazon Addition Roadless Area was rated 27 out of a possible 28 points under the Wilderness Attribute Rating System (WARS). As such, its rating is ranked 2nd from the highest (along with two other roadless areas) among the 109 Tongass inventoried roadless areas.

There is local support for managing the Brabazon Addition Roadless Area in an unroaded condition and national support for designating the area as wilderness. Designation would create a wilderness that connected the Russell Fiord Wilderness with the Glacier Bay National Park Wilderness, thus creating a very large expanse of wilderness on the mainland and adjacent to Canada. Overall, the factors identified here indicate that the relative contribution of this area to the National Wilderness Preservation System would be very high.

V. Environmental Consequences

The Brabazon Addition Roadless Area would be managed under the existing Forest Plan if Alternative 1, 2, 3, 4, or 5 is implemented. All of the roadless area would be managed under non-development LUDs. This area contains an estimated 453,689 acres of undiscovered locatable mineral resources. All of these acres are considered to have low potential for development. The relatively low recreation use and special use permits would continue. The values, including the high scenic values, associated with the natural settings of the area are protected by the Forest Plan.

Under Alternatives 6, 7, or 8, the entire roadless area would be converted to Recommended Wilderness LUD. 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 values, would be provided long-term protection if designated wilderness. Designation would also provide connection between the Glacier Bay National Park Wilderness and the Russell Fiords Wilderness, all connected to the World Heritage Site that also includes the Wrangell St. Elias National Park and the Kluane and Tatshenshini Parks in Canada.

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Land Use Designation Allocations and Suitable Timber Lands by Alternative for Roadless Area 338 (in acres)								
Land Use Designation	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8
Recommended Wilderness						500,597	500,597	500,597
Wilderness								
Recommended Wilderness Nat. Mon.								
Wilderness National Monument								
Non-wilderness National Monument								
Research Natural Area								
Special Interest Area								
Remote Recreation	500,597	500,597	500,597	500,597	500,597			
Enacted Municipal Watershed								
Old-growth Habitat								
Semi-remote Recreation								
Recommended LUD II								
LUD II								
Wild, Scenic, Recreational River								
Experimental Forest								
Scenic Viewshed								
Modified Landscape								
Timber production								
TOTAL	500,597	500,597	500,597	500,597	500,597	500,597	500,597	500,597
Suitable Timber Lands	0	0	0	0	0	0	0	0