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INDIVIDUAL ROADLESS AREA DESCRIPTION

ROADLESS AREA NAME: Port Alexander (334)

ACRES (NFS): 124,021

BIOGEOGRAPHIC PROVINCE: West Baranof Island

ECOLOGICAL SECTION: Baranof-Chichagof Fjordlands

2003 WILDERNESS ATTRIBUTE RATING: 25

I. Overview and Description

(1) **Location and Access:** The area is located on the southern tip of Baranof Island. The open Pacific Ocean and Chatham Strait border the area to the west and east, respectively. The South Baranof Wilderness borders the area to the north.

The area is accessed in three main ways. The first is by floatplane, with Sitka the most frequent place of origin. The second access is by saltwater on both the west and east side. The third access is from the community of Port Alexander, which is located near the southern tip of the area. Access to the area is generally good. This is due to the numerous bays and fjords that provide sheltered anchorage for boats and the numerous lakes accessible by floatplane. The distance from population centers is the primary restriction on access. The area is located approximately 40 miles south of the city of Sitka, serviced by the Alaska Marine Highway and regular flights.

There is one National Forest System Trail in the area. The Sashin Lake Trail extends 1.7 miles from the head of Little Port Walter to the northeast end of Sashin Lake. A short non-National Forest System Trail leading to Round Lake branches north from the Sashin Lake Trail.

(2) **History:** This area has a long and varied history of use dating from Tlingit use in prehistoric and historic times to the present use by a variety of Alaska residents and visitors. Use of the area since 1900 includes fish canneries, herring reduction plants, whaling stations, and settlements. Remains of structures and other human cultural activity in varying degrees of deterioration can still be found. Goldschmidt and Haas (1946) identified a fort and former smokehouse or cabin near Redfish Bay. They also noted that hunting or trapping, salmon fishing, and trolling for halibut or king salmon occurred along the shores of the area. Port Walton was the last whaling station in Southeast Alaska.

(3) **Geography and Topography:** The area is generally characterized as an irregular, rugged chain of mountains 2,000 to 3,800 feet in elevation with steep slopes and deeply indented fjords. Numerous rocky crests and sharp ridges are found at higher elevations. Snow can be seen all year round on higher summits with a few cirque glaciers and small permanent ice fields in the northern part of the area.

Streams are generally short and flow directly to saltwater. The one exception is the stream that empties into Big Branch Bay. This stream runs in a southerly direction for over 12 miles. Cascades are common and lakes are plentiful. The largest lake is Deer Lake in the northeast end of the area. This lake stretches approximately 4 miles and lies at an elevation of 386 feet. The west coastline exhibits areas of very dynamic surf waterforms.

The area includes approximately 4,702 acres of freshwater lakes and 256 miles of shoreline along saltwater. Approximately 19 percent of the area consist of alpine tundra, ice, snow, and rock. This includes 12,744 acres of alpine tundra, 553 acres of ice and snow, and 9,664 acres of rock. There are approximately 496 acres of small islands located along the coastline.

(4) Ecosystem:

(a) Classification: Biogeographic Province. The area is classified as being in the West Baranof Island Biogeographic Province. Topographically, Baranof Island is the most rugged of all the islands in Southeast Alaska. The southern half of this province is highly dissected by steep-sided fjords. The outer coast is dotted with hundreds of small islands. All forest plant associations except those in the Western red-cedar series and those found around large mainland rivers occur in this province.

This general area is possibly the highest rainfall zone in North America. The official Weather Service station at Little Port Walter, on the east side of the Port Alexander Roadless Area, records a long-term average annual precipitation of 224 inches. Total precipitation in the upper elevations of the area is probably significantly higher as a result of orographic uplift (winds forced to rise over mountains).

Ecological Section/Subsection. The Point Alexander Roadless Area is contained entirely within the Baranof-Chichagof Fjordlands Ecological Section (M247B). This area is represented by two ecological subsections (see table below). The South Baranof Sediments Ecological Subsection, which covers the vast majority of the roadless area, is underlain by a graywacke bedrock that has been intensely scoured by alpine glaciers. This ecological subsection is unique in that it receives the highest annual precipitation in Southeast Alaska. This climatic condition coupled with the very steep terrain results in a highly unstable landscape. Alpine, brush, and landslide track characterize more than half of the land cover and forest can only grow at mountain bases or along the shoreline. The Outer Coast Wave-cut Terraces Ecological Subsection, which covers 8 percent of the area, includes thousands of islands that line the western edge of Chichagof and Baranof Islands. Soils in this area are derived from bedrock, and vegetation is varied with grasses along the coastline and stunted Sitka spruce on the interior. Wetlands and lakes are common beyond the beachfront forests (Nowacki et. al., 2001).

Ecological Section	Ecological Subsection	Percent of Roadless Area
Baranof-Chichagof Fjordlands	South Baranof Sediments	92%
	Outer Coast Wave-cut Terraces	8%

(b) Soils: Shallow mineral soils with good drainage can be found on steeper slopes due to rapid loss of material by erosion and efficient rainwater runoff. Deep, well-drained soils commonly occur below the shallow soils on the gentler slopes where transported soil materials have collected. Poorly drained soils are found associated with low relief and impermeable subsurface layers. Deep organic soils (muskegs) tend to form in locations with poor drainage. In riparian areas, soil zones tend to contain sand and gravels as a result of flood deposition.

(c) Vegetation: The proximity of this area to the open North Pacific Ocean and the unimpeded movement of storms into the area from the southwest results in a low freezing level and high snowfall total. As a result, tree line is at a low elevation and much of the vegetation of the steep watershed basins is alpine tundra. Conifer cover density varies widely even on low slopes near saltwater and is usually interspersed with muskeg and other lower forms of vegetation. Larger intertidal grass and associated meadows species are infrequent. The effects of wind and salt spray affect the character and, to some extent, the species on the west side of this roadless area.

The vegetation of this roadless area consists primarily of typical spruce-hemlock forests. Western hemlock-Sitka spruce dominate the overstory while the understory is composed of shrubs such as red huckleberry, rusty menziesia, and devil's club. The forest floor is covered with a mat of mosses, liverworts, and plants such as deerheart, bunchberry dogwood, single delight, and skunk cabbage. Streamside riparian vegetation is characterized by salmonberry, devil's club, alder, grasses, ferns, and currants.

Muskegs, mapped at approximately 1,108 acres, are abundant within this area, however due to their small size and association with forested sites; accurate acreage estimates are difficult. These areas, dominated by sphagnum mosses, sedges, and shrubs of the heath family, are interspersed among low elevation timber

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stands where drainage is restricted. Trees within the muskegs are sparse and consist mainly of stunted hemlock, lodgepole pine, and Alaska-cedar.

At elevations generally above 2,000 feet, the alpine plant communities (mapped as approximately 12,744 acres) are characterized by low shrubs, grasses, and sedges. Subalpine forests and meadows occur at the interface between the forested communities and the alpine tundra.

There are approximately 66,234 acres mapped as forestland, of which 30,875 acres or 47 percent are mapped as productive old-growth forest. Of the productive old growth, 9,035 acres or 29 percent are mapped as high-volume old-growth forest. The productive old growth includes about 509 acres of high-volume, coarse-canopy old growth. The area does not contain any second-growth forest.

(d) Fish Resources: Many streams and lakes in this area provide habitat for coho, pink and chum salmon as well as Dolly Varden char. Sashin Creek, Mist Cove, and some other streams also provide habitat for steelhead. The streams below Nakvassin and Tumakof Lakes are inhabited by sockeye, coho, pink, and chum salmon as well as Dolly Varden char. Pink and chum salmon are not found in the lakes or in waters above them. Red Fish Bay has a relatively large sockeye salmon run that supports targeted subsistence and commercial fisheries. The Big Branch Bay system produces some sockeye salmon, in addition to other fish species. Lover's Creek contains productive fisheries, especially for pink salmon. The unnamed inlet stream to Big Branch Bay is rated as highly-valued for commercial and sport fisheries by Alaska Department of Fish and Game (ADF&G) (USDA Forest Service, 1997).

(e) Wildlife Resources: There are many varied wildlife resources in this roadless area. Generally, the area provides good habitat for Sitka black-tailed deer and brown bear. Furbearers such as mink, marten and river otter, are also present on Baranof Island. Mountain goats inhabit Baranof Island, but they have not been reported in this roadless area. Moose, wolves, and black bear are not present on Baranof Island (MacDonald and Cook, 1999). Birds and waterfowl rearing and nesting areas are abundant in this area. Bald eagle habitat, including nesting and roosting trees, can be found along the shorelines.

(5) Management Direction and Current Uses:

This area was allocated to two Land Use Designations (LUDs) in the 1997 Tongass Land and Resource Management Plan. These two LUDs are Remote Recreation and Semi-remote Recreation.

LUD	Acres
Remote Recreation	99,915
Semi-remote Recreation	24,106

All of this roadless area was allocated to non-development LUDs (Remote Recreation, Semi-remote Recreation). Most of the roadless area, 81 percent, was allocated to the Remote Recreation LUD. Semi-remote Recreation was assigned to approximately 19 percent of the roadless area, primarily located in the southeast portion. Small islands associated with the roadless area are also allocated to the Semi-remote Recreation LUD

There are a number of authorized special uses located within this area including:

National Marine Fisheries Service—Interagency Agreement for the Little Port Walter Fisheries Research Field Laboratory, including the Research Station at Little Port Walter and an area within the Little Port Walter-Sashin Lake drainage encompassing approximately 2,400 acres.

Northern Southeast Regional Aquaculture Association (NSRAA)—Special Use Permit for use of facilities at Upper Deer Lake, Deer Lake, Mist Cove, Fawn Creek, Upper Rostilaf Lake, Lower Rostilaf Lake, Rostilaf Beach, Borodino Lake, Cliff Lake, Deep Cove, and Osprey Lake.

Armstrong-Keta, Inc.—Special Use Permit for water transmission lines from Jetty Lake to the north shore of Port Armstrong for fish hatchery operation and power generation.

Port Alexander—Special Use Permit for a water supply system.

Recreational use of the area primarily involves hunting, fishing, and enjoying the scenery. This use is scattered across the area, with the usual concentrations near lakes, streams, and shorelines. Subsistence use occurs in this area.

(6) Appearance (Apparent Naturalness): The Port Alexander Roadless Area is considered unmodified except for the evidence of current or historic use of the area. This evidence although locally noticeable, has a very low overall effect on the natural integrity of the area. Both the relative size of the developments and their location close to the shoreline contribute to this low impact. The area generally appears natural when viewed from nearby water travel routes and boat anchorages and from most locations within the area itself.

(7) Surroundings (External Influences): The east and west sides of the area are bordered by saltwater. Two areas of non-National Forest System lands are located along the east shoreline of this area at Port Alexander and Port Armstrong. External influences on these sides are primarily limited to the sights and sounds of motorized boats, and the settlements and research activities along the east coast, which include the city of Port Alexander and the Fisheries Research Station at Little Port Walter. South Baranof Wilderness borders the area to the north.

(8) Attractions and Features of Special Interest: Features of special interest in the Port Alexander Roadless Area include: the high precipitation in the area and the associated ecological effects; the large number of lakes in the area, some at very low elevations and some at higher elevations; and the extremely carved coastline, which has resulted in a large number of deep fjords and bays.

The area contains 19 inventoried recreation places, which cover 18,103 acres, or 15 percent of the roadless area. The natural features of the area, the scenery, and the opportunity to see wildlife are all considered attractions. High quality fishing opportunities in the streams and lakes are also an attraction. There is one National Forest System Trail in this roadless area, but no public recreation cabins.

(9) Differences between the 1989 and 2003 Roadless Area Boundary: The north boundary of this area changed slightly between 1989 and 2032. Antipatr Lake and the small group of surrounding lakes, which were part of the roadless area in 1989, are now part of the South Baranof Wilderness.

II. Capability for Management as Wilderness

(1) Natural Integrity and Apparent Naturalness: The area is unmodified except for the evidence of current and historic use of the area. Evidence of historic use includes old fish canneries and herring reduction plants, water diversion structures and pipelines, mineral prospecting, old cabins, and other historic occupancies. Current use includes fish enhancement activities and facilities, fisheries research activities and facilities, various short-term occupancies, and the city of Port Alexander. This evidence of historic and current use although locally noticeable, has a low overall effect on the natural integrity and a very low effect on the apparent naturalness of the area. Both the relative size of the developments and their location close to the shoreline contribute to this low impact. Overall, the area has high natural integrity and very high apparent naturalness.

(2) Opportunity for Solitude and Serenity, Self-reliance, Adventure, Challenging Experiences, and Primitive Recreation: There is outstanding opportunity for solitude and primitive recreation within the area, especially when the adjacent roadless lands and general remoteness of the area are factored in. Both the size of the area and the screening offered by the topography increase the opportunity for solitude and primitive recreation. Recreational use of the area is relatively limited and dispersed, so that encounters with other visitors are unlikely. The sight or sound of airplanes overhead and boats along the coastlines can occasionally intrude on a visitor's solitude.

The opportunity for primitive recreation is a result of its size, topographic screening, and physical challenges. This area has a highly irregular topography and diverse vegetation that combine to offer a setting capable of providing a variety of primitive recreation opportunities. There are lakes, ponds, streams, bays, rugged mountains, and a varied coastline that contribute to these opportunities. The absence of developed recreational facilities further enhances the opportunity for primitive recreation. 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

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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 bear encounters are just two examples of the many risks that must be considered before traveling in the backcountry of southeast Alaska.

Outfitter/guide use was reported at 12 locations in this area in 1999. Eleven of these locations were along the east shoreline of the area. The remaining location was Branch Bay, located on the west coast of the area. Sixty-five groups, with a total of 222 clients, were reported visiting this area in 1999. Reported uses included fishing, hiking, and brown bear hunting. Deep Cove was the most popular location accounting for 26 groups and 139 clients.

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)	111,269	90%
Semi-Primitive Non-Motorized (SPNM)	9,058	7%
Semi-Primitive Motorized (SPM)	3,356	3%
Rural (R)	3	0%

The area contains 19 inventoried recreation places, which cover 18,103 acres, or 15 percent of the roadless area.

ROS Class	# of Rec. Places	Total Acres
P	14	10,153
SPNM	2	4,792
SPM	3	3,158
R	0	0

There is one National Forest System Trail within the area, the Sashin Lake Trail, and no recreation cabins.

(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 (RARE II) process. 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 Port Alexander Roadless Area was 22 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 25.

(4) Ecologic and Geologic Values: The Port Alexander Roadless Area occupies the southern tip of Baranof Island. The South Baranof Wilderness borders the area to the north.

(a) Fish Resources: The Tongass Fish and Wildlife Resource Assessment lists only one VCU, Port Walter (337), as a primary salmon producer. The remaining VCUs that comprise this area were identified as secondary producers. This area does not include primary sport fish producing areas (ADF&G, 1998).

Many streams and lakes in this area provide habitat for coho, pink and chum salmon as well as Dolly Varden char. Sashin Creek and Mist Cove also provide habitat for steelhead. The estimated annual peak escapement for Sashin Creek is 64,800 pink salmon. The streams below Nakvassin and Tumakof Lakes are

inhabited by sockeye, coho, pink, and chum salmon as well as Dolly Varden char. Pink and chum salmon are not found in the lakes or in waters above them.

Lover's Creek contains productive fisheries, especially for pink salmon. The unnamed inlet stream to Big Branch Bay is rated as highly-valued for commercial and sport fisheries by ADF&G (USDA Forest Service, 1997).

NSRAA has had a Special Use Permit for use of facilities at Upper Deer Lake, Deer Lake, Mist Cove and other nearby areas for many years as part of their barren coho lake rearing project. Juvenile coho have been stocked into many barren lakes in the area (upstream of natural barrier falls) and then either piped or allowed to migrate out over the falls to saltwater with various ranges of mortality depending on the falls and stream flow levels. For about the past 10 years, NSRAA has primarily centralized their remote lake coho stocking and rearing work in this area at Deer Lake. They have added fertilizer to the lake in recent years to boost production capability. This project is one of the most successful coho salmon enhancement projects in southeast Alaska, annually producing over 100,000 adult coho salmon in recent years.

(b) Wildlife Resources: There are many varied wildlife resources in this roadless area. Generally, the area provides good habitat for Sitka black-tailed deer and brown bear. Based on harvest data compiled from 1985 to 1995, VCU's 337, 338, and 339 were ranked in the third 25 percent of brown bear harvest areas on the Tongass (ADF&G, 1998). Furbearers such as mink, marten and river otter are also present on Baranof Island. Mountain goats inhabit Baranof Island, but they have not been reported in this roadless area. Moose, wolves, and black bear are not present on Baranof Island (MacDonald and Cook, 1999). The unnamed inlet stream to Big Branch Bay provides important habitat for Sitka black-tailed deer and brown bear.

Birds and waterfowl rearing and nesting areas are abundant in this area. Bald eagle habitat, including nesting and roosting trees, can be found along the shorelines.

(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, 12 sensitive plant species are known or suspected to occur in the Sitka Ranger District.

(d) Karst, Cave, and Other Geologic Resources: There are no known karst or cave resources in this roadless area. There are a few cirque glaciers and small permanent ice fields in the northern part of the area. There are no other unique geologic features known in this area.

(5) Scientific and Educational Values: One feature of ecological and scientific significance is the exceptionally high precipitation and the effect that has on the ecology of the area. The Lover's Creek area has been inventoried as a potential Research Natural Area (RNA) but was not designated in the 1997 Forest Plan. This area, located in possibly the highest rainfall zone in North America, was identified in order to represent several phenomena associated with exceptionally high precipitation. This area contains productive fisheries, and alpine, rock, and snow communities that occupy unusually low elevations. The proximity of the area to the open North Pacific and the unimpeded movement of storms into the area from the southwest probably result in a low freezing level and high snowfall total. As a result, tree line occupies a low elevation and much of the vegetation of the steep watershed basin is alpine tundra. The inventoried area is also of interest because of the presence of Sitka spruce-western hemlock and yellow-cedar forest types that have developed under high rainfall conditions.

The area is located approximately 50 miles south of Sitka and is, therefore, not readily accessible to school-age children, with the exception of those residing in close proximity.

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(6) Scenic Values: The visual character type of this roadless area is classified as Baranof Highland. Terrain in this character type consists of an irregular, rugged asymmetrical chain of landforms reaching 3,000-5,300 feet in elevation with a steep eastern slope and a gentler western slope deeply indented with fjords. Generally, landforms are visually massive, bulky and stark throughout the character type. Shoreline forms are very rugged with steep-sided fjord country on both east and west coasts. Rugged headwalls, cliffs, and escarpments are common on the west side of the Baranof Highland character type, as a result of exposure to the sea wind and waves. Rock faces are sometimes visible on steep-sided fjords near saltwater throughout the unit. Numerous rocky crests, sharp ridges, horns, aretes and cirques are found at higher elevations. Snow can be seen all year round on the higher summits with cirque glaciers and small permanent ice fields, especially in the northern portion of the area.

The Port Alexander Roadless Area at the southern end of Baranof Island presents an extreme representation of the Baranof Highland visual character type. This area displays a coastline deeply and repeatedly scalloped by fjords and bays, the result of the Baranof landmass dipping down beneath the ocean surface. A combination of historic glaciation and erosion from the high level of precipitation has further accentuated the carving of cliff topography. This is apparent near the southern tip of the area where the head of Port Lucy, on the east coast of the area, reaches to within one-half mile of the head of Puffin Bay on the west coast. This occurs in an area where Baranof Island is approximately 10 miles across, measured from the mouth Port Lucy to the mouth of Puffin Bay.

The area is unmodified except for the evidence of current and historic use of the area. Evidence of historic use includes old fish canneries and herring reduction plants, water diversion structures and pipelines, mineral prospecting, old cabins, and other historic occupancies. Current use includes fish enhancement activities and facilities, fisheries research activities and facilities, various short-term occupancies, and the city of Port Alexander. This evidence of historic and current use although locally significant, has a very low overall effect on the natural integrity and scenic quality of the area. Both the relative size of the developments and their location close to the shoreline contribute to this low impact. The area generally appears natural when viewed from nearby water travel routes and boat anchorages and from most locations within the area itself.

A number of Visual Priority Routes and Use Areas identified by the Forest Plan are within or adjacent to the area. Identified Visual Priority Routes include: the west coast of Baranof Island and Chatham Strait (Tour Ship Routes) and Chatham Strait, Port Walter, Port Armstrong, Port Alexander, Puffin Bay, Snipe Bay, and Redfish Bay (Small Boat Routes). Use Areas include Redfish Bay, Port Walter, and Big Port Walter, (Saltwater Use Areas); Port Alexander (Community); Sashin Lake Trail (Hiking Trail); and Ship Cove, Little Port Walter, Puffin Bay, Ten Fathom Anchorage, Redfish Bay, Snipe Bay, Port Armstrong, and Deep Cove (Boat Anchorages).

Approximately 24 percent of the area was inventoried as Variety Class A (possessing landscape diversity unique for the character type). Approximately 67 percent of this roadless area was inventoried as Visual Variety Class B (possessing landscape characteristics common for the character type). Approximately 8 percent was inventoried as Variety Class C (possessing a low degree of landscape diversity). Almost all of land within the roadless area, approximately 99 percent, has an Existing Visual Condition (EVC) I, where the land appears to be untouched by human activity.

(7) Social, Cultural, and Historical Values: This area has a long and varied history of use dating from Tlingit use in prehistoric and historic times to the present use by a variety of Alaska residents and visitors. Use of the area since 1900 includes fish canneries, herring reduction plants, whaling stations, and settlements. Remains of structures and other human cultural activity in varying degrees of deterioration can still be found. Goldschmidt and Haas (1946) identified a fort and former smokehouse or cabin near Redfish Bay. They also noted that hunting or trapping, salmon fishing, and trolling for halibut or king salmon occurred along the west shore of the area. The area is located approximately 50 miles south of the city of Sitka.

Based on harvest data compiled from 1985 to 1995, VCUs 337, 338, and 339 were ranked in the third 25 percent of brown bear harvest areas on the Tongass (ADF&G, 1998).

Subsistence use occurs in this area. The Tongass Fish and Wildlife Resource Assessment indicated that the six VCUs along the east coast of the area (VCUs 334 through 339) are subsistence use areas with a high sensitivity to disturbance. None of the VCUs in this area were included among the VCUs with highest community use value (ADF&G, 1998).

(8) Manageability as Wilderness and Boundary Conditions/Changes: The Port Alexander Roadless Area is well defined by topographic features. The boundaries determined by Chatham Strait and the Pacific Ocean are easily described and recognized. Even the northern boundary, which follows the boundary of the South Baranof Wilderness, lies on top of major watershed divides. The only area where the boundary is not defined by topographic features is around non-National Forest System lands at Port Armstrong and Port Alexander.

The feasibility of management of this area as wilderness or in an unroaded condition is good, as there is no significant motorized access. The exceptions to this would be the extensive fish enhancement and fisheries research activities along the eastern edge and in most drainages of the area. These activities, although locally noticeable, have a low overall effect on the area.

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

(1) Recreation, including Tourism Potential: The varied terrain, diverse vegetation, and attractive scenery of this area provide unlimited recreation potential for dispersed recreation. Additional trails and cabins or shelters are possible. In 1996, the Alaska Visitors Association (AVA) proposed the following developments for Mist Cove: a trail to Deer Lake, day-use recreation for 100 persons/day, hut-to-hut hiking for 25 persons/day, flight-seeing landings for 50 persons/day, day-boat docks for 20 persons/day, and boardwalks, paths and trails.

(2) Subsistence Uses: The existing patterns of subsistence activities in the area would not be affected by wilderness designation.

(3) Fish Resources: Fisheries research and management activities are ongoing as previously described. The barrier falls at Big Branch Bay was considered a potential fish passage project in the past. It was visited by two fish biologists in the early 1990s while fish were in the stream. The falls are only a partial barrier, with coho and sockeye salmon and Dolly Varden char in abundant numbers upstream of the falls. Work to provide passage around the falls for other fish species is not considered feasible or cost effective.

(4) Wildlife Resources: No wildlife enhancement projects are planned for this roadless area.

(5) Timber Resources: There are 30,875 acres mapped as productive old growth and no acres are mapped as second growth due to harvest in the roadless area. Of these acres, 13,259 acres are categorized as tentatively suitable for timber production. Based on the Forest Plan LUDs assigned to this area (Remote and Semi-remote Recreation), these forested lands are classified as unsuitable for timber production. Designating this area wilderness would not affect timber harvest in adjacent areas.

(6) Fire, Insects, and Disease: The area has no significant fire history. Endemic tree diseases common to Southeast Alaska are present in the area. There are no known epidemic disease occurrences.

(7) Minerals: The area generally has little minerals development potential or current mineral claims. The only exception is a historic claim on a Nickel-Copper deposit, located on the north side of Snipe Bay. Prospecting and examination has occurred on and off since it was first staked in 1922. This area contains an estimated 11,639 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.

The USGS Mineral Resource Data website (2001) indicates that there are four prospects in the area for nickel, copper, or gold. None of this roadless area was assigned to the Minerals LUD in the 1997 Tongass Land and Resource Management Plan.

(8) Transportation and Utilities: There are no transportation or utility projects proposed for this area.

(9) Water Availability and Use: The numerous facilities authorized in this area under special use permits create a demand for water. Two of these permits are specifically related to water use. Armstrong-Keta, Inc. has a

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Special Use Permit for water transmission lines from Jetty Lake to the north shore of Port Armstrong for fish hatchery operation and power generation. Port Alexander has a Special Use Permit for a water supply system.

(10) **Areas of Scientific Interest:** One feature of ecological and scientific significance is the exceptionally high precipitation and the effect that has on the ecology of the area. There are no known karst or other unique features in this area.

(11) **Land Use Authorizations:** Major land use authorizations in this area include the following:

National Marine Fisheries Service—Interagency Agreement for the Little Port Walter Fisheries Research Field Laboratory, including the Research Station at Little Port Walter and an area within the Little Port Walter-Sashin Lake drainage encompassing approximately 2,400 acres.

NSRAA—Special Use Permit for use of facilities at Upper Deer Lake, Deer Lake, Mist Cove, Fawn Creek, Upper Rostilaf Lake, Lower Rostilaf Lake, Rostilaf Beach, Borodino Lake, Cliff Lake, Deep Cove, and Osprey Lake.

Armstrong-Keta, Inc.—Special Use Permit for water transmission lines from Jetty Lake to the north shore of Port Armstrong for fish hatchery operation and power generation.

Port Alexander—Special Use Permit for a water supply system.

(12) **Land Status:** The area consists entirely of National Forest System lands.

IV. Wilderness Evaluation (Need for Wilderness)

(1) **Public and Congressional Interest:**

(a) **Interest Expressed by Local Users and Residents:** Most use of the area is associated with recreational boating, hunting and fishing, and viewing wildlife and the scenery of the area.

(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. This bill did not include the Mansfield Peninsula Roadless Area. In 2001, HR 2908 identified most of the area as a proposed wilderness addition. The remaining portion of the area extending from Cape Ommaney to just north of Port Lucy was identified as a proposed LUD II addition.

(c) **Public Input During Forest Plan Revisions and Appeals:** This area was specifically addressed in public input received during the Forest Plan revision and appeal. Commenters requested that the area be designated wilderness because of its exceptional beauty, good bear habitat, and rugged terrain. Another commenter requested that the area be assigned to the timber production LUD. The AVA proposed the following developments for Mist Cove: a trail to Deer Lake, day use recreation for 100 persons/day, hut-to-hut hiking for 25 persons/day, flight-seeing landings for 50 persons/day, day boat docks for 20 persons/day, and boardwalks, paths and trails. This area was not specifically identified in any of the Forest Plan appeals.

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

(e) **Public Input Expressed for Project-level EISs and Other Input:** This area is not within the study area of any recently completed project-level EISs.

(f) **Public Input Expressed During Supplemental EIS Process:** The Alaska Department of Fish and Game rated the Port Alexander roadless area as the sixth 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.

The Alaska Rainforest Campaign (a coalition of national and Alaska conservation groups) identified Roadless Area 328 as adjacent to the South Baranof Wilderness and recommended it for permanent protection in a combination of wilderness and LUD II, as described in Alternative 6. SEACC also recommended this area for permanent protection through a combination of wilderness and LUD II as outlined in Alternative 6.

Some members of the Southeast Alaska Federal Subsistence Regional Advisory Council identified the need for further protection of this area because of its importance for subsistence. A number of individuals recommended this area for permanent protection as wilderness.

(2) Nearby Roadless and Wilderness Areas and Uses: The nearest wilderness is the South Baranof Wilderness, which borders the roadless area to the north. The Tebenkof Bay and Kuiu Wildernesses are located directly east across Chatham Strait from the area.

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

Community	Air Miles	Water Miles
Juneau (Pop. 30,711)	120	200
Sitka (Pop. 8,835)	40	55
Hoonah (Pop. 860)	110	190
Angoon (Pop. 572)	55	70

The nearest stop on the Alaska Marine Highway is Sitka.

(4) Relative Contribution to the National Wilderness Preservation System: The Port Alexander Roadless Area is located on the southern tip of Baranof Island. The open Pacific Ocean and Chatham Strait border the area to the west and east, respectively. The South Baranof Wilderness borders the area to the north. The area is generally characterized as an irregular, rugged chain of mountains 2,000 to 3,800 feet in elevation with steep slopes and deeply indented fjords and bays. Numerous rocky crests and sharp ridges are found at higher elevations. Snow can be seen year round on higher summits with a few cirque glaciers and small permanent ice fields in the northern part of the area. The area also has a large number of lakes.

The area generally appears natural and unmodified except near the fish research, processing and enhancement related facilities, and the community of Port Alexander. The area has high natural integrity and very high apparent naturalness. The opportunities for solitude and primitive recreation are outstanding within the area.

The area has high scenic qualities; approximately 24 percent of the landscape is considered distinctive from a scenery standpoint. The small cirque glaciers and icefields, high fishery production, and the Lovers Creek very high precipitation with associated ecological effects are unique features of the roadless area.

The roadless area includes about 9,035 acres of high-volume, old-growth forest. Of these acres, approximately 509 are mapped as high-volume, coarse-canopy old growth.

The Port Alexander Roadless Area is classified as being in the West Baranof Island Biogeographic Province and makes up about 16 percent of the province. It is one of eight inventoried roadless areas found within the province that collectively make up about 62 percent of the province. The majority of the South Baranof Wilderness is also within this province and makes up approximately 29 percent of the province.

The Port Alexander Roadless Area lies completely within the Baranof-Chichagof Fjordlands Ecological Section. The roadless area represents 6 percent of the entire ecological section, which is well represented in existing wilderness (28 percent) and other non-development LUDs (35 percent) with an additional 13 percent in LUD II.

Appendix C

The majority of this roadless area is represented by the South Baranof Sediments Ecological Subsection (92 percent). This portion of the roadless area represents 68 percent of the ecological subsection within the Tongass National Forest boundary and is well represented by existing wilderness and non-development LUDs (32 and 68 percent, respectively). The remaining 8 percent of the roadless area is represented by the Outer Coast Wave-Cut Terraces Ecological Subsection. This portion of the roadless area represents 8 percent of the entire ecological subsection, which is well represented by existing wilderness (75 percent) and non-development LUDs (21 percent).

The Port Alexander Roadless Area was rated 25 out of a possible 28 points under the Wilderness Attribute Rating System (WARS). As such, its rating is ranked 12th from the highest (along with 12 other roadless areas) among the 109 Tongass inventoried roadless areas.

There is high local and national support for designating the Port Alexander Roadless Area as wilderness. Designation would create a larger wilderness in conjunction with the South Baranof Wilderness. It would include the small cirque glaciers and icefields, and the Lovers Creek high precipitation area. Additionally, it would include areas where ongoing fisheries research and enhancement activities and facilities occur. Overall, the factors identified here indicate that the relative contribution of this area to the National Wilderness Preservation System would be high.

V. Environmental Consequences

The Port Alexander 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 11,639 acres of undiscovered locatable mineral resources; all of these acres are considered to have low potential for development. The relatively high recreation use, research activities, and special use permits would continue. The values, including the historic, scenic, ecologic, high fish production, and geologic values, associated with the natural settings of the roadless area are protected by the Forest Plan.

Under Alternative 6, 100,621 acres, or about 81 percent of the area, would be converted to Recommended Wilderness LUD and the remainder converted to Recommended LUD II. The potential for development, including recreation, research, 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 majority of the roadless area, including the historic, scenic, ecologic, high fish production, and geologic values, would be provided long-term protection if designated LUD II and protection if designated wilderness.

Under Alternative 7, a 100,621-acre portion of the Remote Recreation and Semi-remote Recreation LUD would be converted to Recommended Wilderness LUD. The potential for development, including recreation, research, 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 majority of the roadless area, including the historic, scenic, ecologic, high fish production, and geologic values, would be provided long-term protection if designated wilderness.

With Alternative 8, the entire roadless area would be converted to Recommended Wilderness LUD. The potential for development, including recreation, research, 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 historic, scenic, ecologic, high fish production, and geologic values, would be provided long-term protection if designated wilderness.

Appendix C

Land Use Designation Allocations and Suitable Timber Lands by Alternative for Roadless Area 334 (in acres)								
Land Use Designation	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8
Recommended Wilderness						100,621	100,621	124,021
Wilderness								
Recommended Wilderness Nat. Mon.								
Wilderness National Monument								
Non-wilderness National Monument								
Research Natural Area								
Special Interest Area								
Remote Recreation	99,915	99,915	99,915	99,915	99,915		22	
Enacted Municipal Watershed								
Old-growth Habitat								
Semi-remote Recreation	24,106	24,106	24,106	24,106	24,106		23,378	
Recommended LUD II						23,400		
LUD II								
Wild, Scenic, Recreational River								
Experimental Forest								
Scenic Viewshed								
Modified Landscape								
Timber production								
TOTAL	124,021	124,021	124,021	124,021	124,021	124,021	124,021	124,021
Suitable Timber Lands	0	0	0	0	0	0	0	0