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INDIVIDUAL ROADLESS AREA DESCRIPTION

ROADLESS AREA NAME: Game Creek (323)

ACRES (NFS): 51,436

BIOGEOGRAPHIC PROVINCE: East Chichagof Island

ECOLOGICAL SECTION: Northeast Chichagof Fjordlands and Baranof-Chichagof Fjordlands

2003 WILDERNESS ATTRIBUTE RATING: 18

I. Overview and Description

(1) **Location and Access:** The Game Creek Roadless Area is located in the middle of Chichagof Island. Huna Totem and Sealaska Corporation lands, the town of Hoonah, and forest roads and associated timber harvest units border the area to the north and northwest. To the south and southeast are Tenakee Inlet and a small portion of the Tenakee Springs townsite boundary. The Salt Lake Bay road system and associated timber harvest units border the area to the southwest. The Narrows, Port Frederick, and a forest road and associated harvest units border the area to the west. Roads and timber harvest units extend into the area along drainage channels almost dividing the area into four separate sections.

Tenakee Springs and Hoonah are the closest communities to the Game Creek Roadless Area. Tenakee Springs is located adjacent to the area. Hoonah is located approximately 5 miles northeast. Both communities are on the Alaska Marine Highway route and have scheduled plane service. The city of Juneau, the closest larger community, is located approximately 40 air miles northeast of the area. The Game Creek Roadless Area can be easily accessed from Tenakee Springs and Hoonah via existing road systems and/or walking. Direct access is via powerboat or floatplane. Access to the interior is by foot or helicopter. There are no areas suitable for landing wheeled airplanes.

(2) **History:** Port Frederick is adjacent to the Game Creek Roadless Area and was named in 1794 by Captain Vancouver. At the time of Euroamerican contact, the Hoonah and Angoon Tlingit used this area of Chichagof Island. Villages and sites for seasonal hunting, fishing, and collecting activities were located throughout the area. The forest archaeologist has identified an Alaska Native village site, cache pits, shell middens piles, an old smokehouse/cabin, petroglyphs and Alaska Native burial sites in the area.

(3) **Geography and Topography:** The Game Creek Roadless Area is mountainous with one large U-shaped valley in the northwest corner and many V-shaped valleys. The northern area is mostly mountain ridges, but the Upper Game Creek and Seagull Creek drainages provide wide, open areas with heavy ridge systems to the southeast and west in the central portion of this roadless area. The Game Creek Roadless Area also contains part of the Freshwater Creek drainage. A heavy ridge system running northwest to southeast with some associated flat ground is located in the southern portion of this roadless area. Most of the valleys have streams that flow year round. There are 18 miles of saltwater shoreline, 3,745 acres of alpine tundra, and 2,527 acres of rock. There is one four acre island included in the area.

(4) **Ecosystem:**

(a) **Classification:** Biogeographic Province. This area is located within the East Chichagof Island Biogeographic Province. This province has a dryer and colder climate than the outer coast of Chichagof Island and the winter snow pack is generally greater. Chichagof Island is deeply dissected into three peninsulas that may be functioning biologically more like separate islands. Vegetation in this province represents a modal condition similar to Admiralty Island Province.

Ecological Section/Subsection. The Game Creek Roadless Area is contained almost entirely within the Northeast Chichagof Fjordlands Ecological Section (M247C) with portions within the Baranof-Chichagof Fjordlands Ecological Subsection (M247B). This area is represented by three ecological subsections (see table below); however, the Freshwater Bay Carbonates Ecological Subsection occupies almost 100 percent of the roadless area. It has a bedrock mixture of carbonate and noncalcareous sedimentary rocks with bits of volcanic and intrusive igneous rocks. Many formations of almost pure carbonate form impressive mountains and ridges with extensive areas of exposed rocks containing pits and sinkholes. Atop the mountains, alpine vegetative communities thrive. The mid to lower elevations of the moderately sloped mountains have well drained soils that support productive hemlock-spruce forests. In the valleys where glacial tills and glaciomarine sediments exist, non-forested wetlands are present. Where streams flow through calcareous colluvium, rich calcareous fens develop at the stream base creating a diverse and rare plant community (Nowacki et al., 2001).

Ecological Section	Ecological Subsection	Percent of Roadless Area
Northeast Chichagof Fjordlands	Freshwater Bay Carbonates	100%
	Point Adolphus Carbonates	<1%
Baranof-Chichagof Fjordlands	North Chichagof Granitics	<1%

(b) Soils: Glacial history has played an important part in the placement and character of soil parent material in this roadless area. The development of soils is influenced by high levels of rainfall, cool summer temperatures, a short growing season, and moderately low soil temperatures. Because of the high rainfall in this area, the available nutrients can be leached rapidly and exposed mineral soils are subject to erosion.

There are shallow soils with good drainage on the steeper slopes. The upper soils tend to be eroded by rainwater runoff. Deep, well-drained soils occur below shallow soils on gentler slopes where transported soil materials have collected.

The poorly-drained soils in Seagull Creek and Upper Game Creek are associated with low relief and impermeable subsurface layers. In locations with poor drainage, deep organic soils (muskegs) tend to form. This situation occurs where the soil material fails to provide sufficient internal drainage or where topography prevents external drainage.

Since these soil materials tend to be wet and have been associated with lower bearing strengths, these areas are generally not well-suited for road construction. Drainage improves with increased slope gradient. However, as slopes become oversteepened, soil depths become much shallower. In riparian areas, soils tend to contain sand and gravels as a result of flood deposition.

(c) Vegetation: Western hemlock-Sitka spruce forests dominate the overstory of the Game Creek Roadless Area. 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, deerheart, bunchberry dogwood, single delight, and skunk cabbage. Streamside riparian vegetation is characterized by salmonberry, devil's club, alder, grasses, ferns, and currants.

Approximately 909 acres of muskeg are mapped for the area; however, due to their small size and association with forested sites, accurate acreage estimates are difficult. Muskegs are dominated by sphagnum mosses, sedges, and shrubs of the heath family, and are interspersed among low elevation timber stands where drainage is restricted. Trees are sparse and consist mainly of stunted hemlock, lodgepole pine, and Alaska-cedar.

Common marine plants in the near-shore waters include brown, red, and green algae, and eelgrass. Tideflats are found at the heads of many of the bays and are usually associated with stream estuaries. The tideflats generally support sea milkwort, glasswort, and algae. Beach meadows occur between the shore and the forest. Lower beach meadows are composed of beach ryegrass, reed bent grass, hairgrass, fescue

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grass, beach lovage, goose tongue, and sedges. Upper beach meadow plants include yarrow, bedstraw, starwort, ferns, western columbine, and cow parsnip. Oregon crabapple, alder, devil's club, and blueberry occur along the border of the beach meadow and the forest.

At elevations generally above 2,000 feet, the plant communities 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 29,658 acres of forested land in the area, of which 18,999 acres or 64 percent are mapped as productive old-growth forest. Of the productive old growth, 6,247 acres or 33 percent are mapped as high-volume old-growth forest. The productive old growth includes about 763 acres of high-volume, coarse-canopy old growth. There are 672 acres of second-growth forest where beach harvesting activities have occurred.

(d) Fish Resources: The Alaska Department of Fish and Game (ADF&G) rated fish resources in their Forest Habitat Integrity Program (1983). These ratings describe the value of VCUs for sport fish, commercial fish, and estuaries. One VCU partially located in the area, Tenakee Springs (220), was rated as highly valued for sport fish. Six VCUs partially or wholly within the area were rated as highly valued for commercial fish or estuaries. The Tongass Fish and Wildlife Resource Assessment (ADF&G, 2000) listed Game Creek (204) as a primary sportfish producer.

Streams in this area provide habitat for pink, chum, coho, and sockeye salmon. Game Creek is a major anadromous stream. Seagull Creek has some pink, chum, and coho production. The Anadromous Stream Catalogue and Atlas (ADF&G, 2000) also lists Bear Creek as a fish-bearing stream in this area. There are many headwater tributaries within this roadless area for the large fish-producing streams located in adjacent roaded areas. These include the North and South Forks of Freshwater Creek and Indian River. Dolly Varden may occur in this area.

(e) Wildlife Resources: The Upper Game Creek area has been identified as having important wildlife habitat. Sitka black-tailed deer, marten, mink, brown bear, and river otter inhabit this roadless area. Critical deer winter range is located along Port Frederick on the west boundary of the Game Creek Roadless Area. Bald eagles use this shoreline to roost and nest. MacDonald and Cook (1999) do not list black bears or mountain goats as inhabiting Chichagof Island.

(5) Management Direction and Current Uses: The roadless area was allocated to four different Land Use Designations (LUDs) under the 1997 Tongass Land and Resource Management Plan. These four LUDs are Timber Production, Modified Landscape, Transportation and Utility System (TUS) and Old-growth Habitat. The TUS LUD is a secondary LUD that overlays the other land uses.

LUD	Acres
Timber Production	36,021
Modified Landscape	197
Transportation and Utility System	NA
Old-growth Habitat	15,219

Approximately 70 percent of this area (not including the LUD overlay) was allocated to two development LUDs (Timber Production and Modified Landscape). Most of this roadless area, approximately 70 percent, was allocated to the Timber Production LUD. Less than 1 percent of the roadless area was allocated to the Modified Landscape LUD. The Transportation and Utility System LUD overlay is located in the roadless area near Tenakee Springs, for a potential road corridor. Approximately 30 percent of the area was assigned to a non-development LUD, Old-growth Habitat.

No public recreation cabins or formal recreation trails are located within this roadless area. The closest public recreation cabin is located at nearby Salt Lake Bay. Recreation activities taking place in this roadless area include waterfowl hunting, hiking, saltwater shore fishing, beachcombing, kayaking, stream fishing, dispersed camping, picnicking, viewing wildlife/fish, viewing scenery, big game hunting, nature study, viewing from marine access,

boating, gathering forest products, cross-country skiing, small game hunting, upland bird hunting, and powerboat use. Outfitter/guides use the areas along Game and Seagull Creeks for hunting. No outfitter/guide use was identified in this area in 1999.

Subsistence use occurs in the area. The Tongass Fish and Wildlife Resource Assessment (ADF&G, 1998) identified six of the eight VCUs partially or wholly located within the area as subsistence use areas with a high sensitivity to disturbance. The remaining two VCUs in the area were identified as subsistence use areas with a moderate to high sensitivity to disturbance.

(6) Appearance (Apparent Naturalness): The area surrounding the Game Creek Roadless Area has been heavily modified by timber harvest activities. Roads and timber harvest units partially border the area to the north, east, south, and west and extend into the area along drainage channels, almost dividing the area into four separate sections. In addition, beach logging has occurred along most of the shoreline of the area. These areas are visible from locations within and adjacent to the area.

(7) Surroundings (External Influences): To the north of this area are Huna Totem and Sealaska private lands. These lands have been roaded and harvested. To the northeast, the roadless area is bordered by the Hoonah road system and developed areas that extend along the North Fork of Freshwater Creek. The Hoonah road system continues east and south to the closed Kennel Creek logging camp and the Indian River drainage. This road system forms the north border of the east portion of this roadless area and extends to the southeast corner of the area where the townsite of Tenakee Springs begins. Tenakee Inlet borders the area to the south. The Salt Lake Bay road system partially borders the area to the west. This road system provides access to units that were harvested in the mid-1980s.

These developed areas are visible from locations within the roadless area. The sights and sounds of motorized boats are also evident from some locations within the area. Small aircraft overflights for recreation access and service to the various communities and camps in the general vicinity are also apparent on occasion.

(8) Attractions and Features of Special Interest: The Game Creek Roadless Area, and Seagull Creek and Upper Game Creek basins have unusually large muskies. These substantial openings create an environment for many and varied recreation opportunities, especially hunting and hiking. Game Creek is a major anadromous and resident fishing stream. The area contains five inventoried recreation places, which cover 1,199 acres, or 2 percent of the roadless area.

(9) Differences between the 1989 and 2003 Roadless Area Boundary: The boundaries of this roadless area changed in four main ways between 1989 and 2003. First, the boundaries of the non-National Forest System lands that partially border the area to the north have been extended to encompass an area of land that was formerly part of the roadless area. Second, beach logged areas that were excluded from the 1989 area are included within the 2003 area. Third, roads have been built and logging has taken place along two drainages that extend into the area and these areas are excluded from the 2003 area. Fourth, several small areas along the boundaries have been excluded between the Draft and Final SEIS to improve the potential manageability of the area as wilderness.

II. Capability for Management as Wilderness

(1) Natural Integrity and Apparent Naturalness: The area surrounding the Game Creek Roadless Area has been heavily modified by timber management activities. Roads and timber harvest units partially border the area to the north, east, south, and west and extend into the area along drainage channels, almost dividing the area into four separate sections. In addition, beach logging has occurred along most of the shoreline of the area. These activities have affected the natural integrity of the area to the extent that this land may be less suitable for wilderness classification than other nearby roadless areas.

(2) Opportunity for Solitude and Serenity, Self-reliance, Adventure, Challenging Experiences, and Primitive Recreation: There is moderate opportunity for solitude and a relatively high opportunity for primitive recreation in this area between centers of human activity. Even though there are road systems surrounding this roadless area, two of the systems are not readily accessible from populated areas and vehicles must be brought in by

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boats. The recreation activities taking place in this roadless area are dispersed and encounters with other parties are infrequent.

The nearest public recreation cabin to the Game Creek Roadless Area is at Salt Lake Bay. The Seagull drainage landform allows easy walking access to this roadless area from Port Frederick. The large muskegs in the Game Creek Roadless Area provide a feeling of expanse for miles. Once accessed, the ridge system to the north and south provides a very isolated experience, although timber harvest modification may be seen.

The area provides primarily Semi-Primitive Non-Motorized 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
Semi-Primitive Non-Motorized (SPNM)	42,338	82%
Semi-Primitive Motorized (SPM)	1,331	3%
Roaded Modified (RM)	7,759	15%

The area contains five inventoried recreation places, which cover 1,199 acres, or 2 percent of the roadless area.

ROS Class	# of Rec. Places*	Total Acres
SPNM	0	0
SPM	4	1,067
RM	3	133

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

(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 (dated 1990) 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 Game Creek Roadless Area Roadless Area was 24 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 18. This rating is reflective of the degree of developments on adjacent lands and effects on wilderness attributes of the area.

(4) Ecologic and Geologic Values: This area, located on north Chichagof Island, is not part of a larger unroaded mainland area.

(a) Fish Resources: The Tongass Fish and Wildlife Resource Assessment (ADF&G, 1998) listed Game Creek (204), in the center of the roadless area running south from Port Frederick, as a primary sportfish producer. All VCUs were listed as secondary but none as primary salmon producers (ADF&G, 1998).

Streams in this area provide habitat for pink, chum, coho, and sockeye salmon. Game Creek is a major anadromous stream. The estimated annual peak escapement is 16,000 pink salmon for Game Creek, which also has excellent coho salmon smolt capability (ADF&G, 1998). Seagull Creek also has some pink and coho production. There are many headwater tributaries within this roadless area for the large fish-producing streams located in adjacent roaded areas. These include the North and South Forks of

Freshwater Creek and Indian River. The Anadromous Stream Catalogue (ADF&G, 2000) lists Bear Creek as a fish-bearing stream in this area. Dolly Varden may occur in this area.

(b) Wildlife Resources: The Upper Game Creek area has been identified as having important wildlife habitat. Sitka black-tailed deer, marten, mink, brown bear, and river otter inhabit this roadless area. Critical deer winter range is located along Port Frederick on the western boundary of the Game Creek Roadless Area. Bald eagles use this shoreline to roost and nest. MacDonald and Cook (1999) do not list black bears or mountain goats as inhabiting Chichagof Island.

Based on harvest data compiled from 1985 to 1995, VCU 202 between the end of Port Frederick and Tenakee Inlet and partially located in this area, was ranked in the top 25 percent of brown bear harvest areas on the Tongass. Another of the VCUs partially located in this area, Freshwater Bay (215), was ranked in the second 25 percent of brown bear harvest areas on the Tongass (ADF&G, 1998).

(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 are known or suspected to occur in the Hoonah Ranger District.

(d) Karst, Cave, and Other Geologic Resources: A portion of this area is underlain by limestone or marble, and karst and cave resources are known to have developed there. Only limited inventory has occurred in this area so the extent of karst and cave development is not fully understood. The limestones and marbles found here are commonly the ridge-forming rock types. Extensive karst systems are known from the intensity and numbers of features identified during limited inventory and air photo interpretations. Paleontological discoveries are likely as well as archaeological finds. Because of the thickness of the limestone and marble in this area, vertical pits and cave systems of record depth are possible. Extensive areas of limestone and marble are exposed from sea level to the ridge tops in these glaciated valleys. The karst systems found here extend from the alpine or higher elevations to the sea, providing increased productivity for the plant, animal, and aquatic communities found on the karst lands. This represents 11,776 acres, or 23 percent of the roadless area. Approximately 70 percent of the karst acres are classified as high vulnerability karst. There are no glaciers or other unique geologic features.

(5) Scientific and Educational Values: The Seagull Creek and Upper Game Creek areas are geologically interesting because of their obvious glacially caused U-shaped valleys. These valleys are very wide in the bottom and have steep sidewalls to the north and south.

There are no Research Natural Areas (RNAs) in this roadless area. The city of Juneau, the closest larger community, is located approximately 40 air miles northeast of the area. Therefore, this area is relatively inaccessible to large numbers of school-age children. The area is more accessible to school-age children residing in the cities of Tenakee Springs and Hoonah and other nearby communities.

(6) Scenic Values: The visual character type of this area is Admiralty-Chichagof. The landforms in this area are generally rounded with mountain elevations varying from 2,300 to 3,400 feet. Upper slopes and summits appear barren from a distance, but offer a variety of alpine vegetation as well as numerous rock outcroppings. The Game Creek Roadless Area has rocky shorelines interspersed with small gravel beaches. Streams are larger and longer in this area than on other islands of Southeast Alaska. Tidal meadows associated with estuaries are common in this roadless area.

The area surrounding the Game Creek Roadless Area has been heavily modified by timber management activities. Roads and timber harvest units partially border the area to the north, east, south, and west and extend into the area along drainage channels almost dividing the area into four separate sections. In addition, beach logging has

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occurred along most of the shoreline of the area. These areas are visible from locations within and adjacent to the area.

Visual Priority Routes and Use Areas identified by the Forest Plan, that are within or adjacent to the area, include: Port Frederick, a part of the Alaska Marine Highway, a tour ship and small boat route, and a dispersed recreation area; Tenakee Inlet, a part of the Alaska Marine Highway, a tour ship and small boat route, a dispersed recreation area, and a boat anchorage; Game Creek, a dispersed recreation area; and Salt Chuck, a saltwater use area.

Approximately 14 percent of the acreage in the Game Creek Roadless Area was inventoried Variety Class A (possessing landscape diversity that is unique for the character type), 64 percent of this roadless area was inventoried in Variety Class B (possessing landscape diversity that is common for the character type), and 21 percent was inventoried in Variety Class C (possessing a low degree of landscape diversity).

Just over half (approximately 54 percent) of this roadless area is in Existing Visual Condition (EVC) I; these areas appear to be untouched by human activity. Two percent of the acreage is in EVC III, where the average person notices changes to the landscape but the natural appearance of the landscape remains dominant. Five percent of the acreage is in EVC IV, which are areas where changes in the landscape are easily noticed by the average person and may attract some attention. There appear to be disturbances but they resemble natural patterns. Approximately 39 percent is in EVC V where changes in the landscape are obvious to the average person and those changes appear to be major disturbances.

(7) Social, Cultural, and Historical Values: Port Frederick is adjacent to the Game Creek Roadless Area and was named in 1794 by Captain Vancouver. At the time of Euroamerican contact, the Hoonah and Angoon Tlingit used this area of Chichagof Island. Villages and sites for seasonal hunting, fishing, and collecting activities were located throughout the area. The forest archaeologist has identified an Alaska Native village site, cache pits, shell middens piles, an old smokehouse/cabin, petroglyphs and Alaska Native burial sites in the area. Tenakee Springs and Hoonah are the closest communities to the Game Creek Roadless Area. Tenakee Springs is located adjacent to the area. Hoonah is located approximately 5 miles northeast. The city of Juneau, the closest larger community, is located approximately 40 air miles northeast of the area.

Recreation activities taking place in this roadless area include waterfowl hunting, hiking, saltwater shore fishing, beachcombing, kayaking, stream fishing, dispersed camping, picnicking, viewing wildlife/fish, viewing scenery, big game hunting, nature study, viewing from marine access, boating, gathering forest products, cross-country skiing, small game hunting, upland bird hunting, and powerboat use. Outfitter/guides use the areas along Game and Seagull Creeks for hunting. No outfitter/guide use was identified in this area in 1999. Based on harvest data compiled from 1985 to 1995, one of the VCUs partially located in this area, Freshwater Bay (215), was ranked in the second 25 percent of brown bear harvest areas on the Tongass.

This area is an important subsistence use area for residents of Tenakee Springs and Hoonah. The portion of the roadless area extending along the shoreline of Tenakee Inlet accounted for greater than 15 percent of Tenakee Springs annual average deer harvest by Wildlife Analysis Area (WAA) from 1987 to 1994. The northwest portion of the area accounted for greater than 15 percent of Hoonah annual average deer harvest by WAA from 1987 to 1994. The Tongass Fish and Wildlife Resource Assessment (ADF&G, 1998) identified six of the eight VCUs partially or wholly located within the area as subsistence use areas with the highest sensitivity to disturbance. The remaining two VCUs in the area were identified as subsistence use areas with a moderate to high sensitivity to disturbance. Five of the eight VCUs partially or wholly located within this area were included among the highest value community use areas identified by ADF&G in their comments on the Tongass Land and Resource Management Plan EIS (1996).

(8) Manageability as Wilderness and Boundary Conditions/Changes: Huna Totem and Sealaska Corporation lands, the town of Hoonah, and forest roads and associated timber harvest units border the area to the north and northwest. To the south and southeast are Tenakee Inlet and a small portion of the Tenakee Springs townsite boundary. The Salt Lake Bay road system and associated timber harvest units border the area to the southwest. The Narrows, Port Frederick, and a forest road and associated harvest units border the area to the west. Roads and timber harvest units extend into the area along drainage channels almost dividing the area into four separate sections.

The roads and associated harvest areas separate the Game Creek Roadless Area from the Chichagof (#311), Tenakee Ridge (#321), and Freshwater Bay (#325) roadless areas. These nearby roadless areas were primarily assigned LUDs that allow timber harvest and road construction, with smaller areas assigned to the Old-growth Habitat LUD.

The Game Creek Roadless Area is irregularly shaped, with roads and harvest units bordering the area on all sides and extending along drainages into the center of the area. These activities have affected the natural integrity of the area to the extent that this land may be less suitable for wilderness classification than other nearby roadless areas.

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

(1) **Recreation, including Tourism Potential:** The Tongass Land Management Plan proposed the construction of an alpine trail in VCU 204. Increased hunting, fishing, and dispersed camping are possible in the Game Creek Roadless Area. Because the Game Creek Road system is closed to vehicles, dispersed camping in that area may increase. Bear hunters will not be able to access this area by driving.

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

(3) **Fish Resources:** A potential for building of a fish passage in Freshwater Creek drainage exists. Lake Creek, identified as underutilized fisheries habitat, is being considered for sockeye salmon incubation boxes. A possible woody debris enhancement project also exists in the Game Creek Drainage.

(4) **Wildlife Resources:** No wildlife enhancement projects are currently identified.

(5) **Timber Resources:** There are 18,999 acres mapped as productive old growth in the roadless area. In addition, 672 acres of second growth have resulted from beach logging activities. Of these acres, 11,486 acres are categorized as tentatively suitable for timber production. Based on the Forest Plan LUDs assigned to this area (and estimated falldown and scheduling reduction factors), 2,243 acres or 4 percent of this roadless area are estimated to be suitable for timber production. Approximately 509 of the suitable acres are mapped as high-volume old growth; 53 of these are mapped as high-volume, coarse-canopy old growth.

The potential for managing timber in this roadless area is very high. The existing nearby road systems and logging camp at Kennel Creek make the management of this area for timber harvest economical. The Indian River Timber Sale EIS project area includes parts of the Game Creek Roadless Area and has had a Draft EIS and Final EIS produced. The Final EIS decision was overturned and additional analysis will be needed to complete the EIS. Another decision based on the additional analysis will need to be issued prior to implementation of any activities proposed in the EIS.

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

(7) **Minerals:** The Geological Survey conducted in 1984 identified the Game Creek Roadless Area as having mineral development potential. There are epigenetic and disseminated and polymetallic veins, identified in this area. The USGS Mineral Resources Data website (USGS, 2001) shows an explored prospect for iron within this roadless area. This area contains an estimated 283 acres of undiscovered locatable mineral resources that are considered to have low potential for development (Brew et al., 1990; USDA Forest Service, 1991).

(8) **Transportation and Utilities:** The Potential Transportation and Utility System LUD overlay runs through the roadless area near Tenakee Springs. This LUD overlay is also adjacent to the northern border of this roadless area.

(9) **Water Availability and Use:** No developed recreation cabins or other facilities exist to create a demand for water in this area. There are no existing or planned hydroelectric or domestic water projects in the area.

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(10) Areas of Scientific Interest: There are extensive karst resources in this roadless area. The mapped karst resources encompass approximately 11,776 acres or 23 percent of the roadless area. The peak southeast of Burnt Point has karst of mostly high vulnerability. The Seagull Creek drainage has karst of high vulnerability, with the exception of the area along Port Frederick. The mountains surrounding Game Creek all contain high vulnerability karst, and the karst areas in the mountains southwest of the Indian River exhibit medium to low vulnerability.

The Seagull Creek and Upper Game Creek areas are geologically interesting because of their obvious glacially caused U-shaped valleys. These valleys are very wide in the bottom and have steep sidewalls to the north and south.

(11) Land Use Authorizations: The current special use permits will probably continue. An increase in outfitter/guide use of this area is predicted.

(12) Land Status: The roadless area is completely National Forest System lands. Land within the roadless area has encumbrances. These encumbered areas are located in parts adjacent to land owned by the Sealaska Regional Corporation.

IV. Wilderness Evaluation (Need for Wilderness)

(1) Public and Congressional Interest:

(a) Interest Expressed by Local Users and Residents: Most of the use in this roadless area is associated with the populations of Tenakee Springs and Hoonah. Residents of these communities access the area for hunting via boat or by driving or walking. Outfitter/guides use the areas along Game and Seagull Creeks for hunting.

The local issues concerning this area are continuing harvesting and roading of the timber lands, the effects on fisheries and wildlife habitat caused by logging, maintaining the visual quality of high interest areas, maintaining lifestyles, location of log transfer facilities, the distribution of harvest volume classes, and the tradeoffs between environmental protection measures and the economics of the harvest activities.

The majority of the people in Tenakee Springs and a significant portion of people in Hoonah consider this section of land as a subsistence area. People from these communities hunt and gather forest products for everyday use as well as for Alaska Native arts and crafts. Both communities feel there has been a reduction of these types of natural resources. These feelings are caused by the extensive roading and harvesting around their communities that were created by Alaska Pulp Corporation on National Forest System lands, and the Native Corporations of Huna Totem and Sealaska on their lands.

Another concern of Tenakee Springs is the potential connection of the Indian River road system with the Hoonah road system. Tenakee Springs is a small community accessed by the Alaska Marine Highway system, small boats, and regularly scheduled plane service. Residents are concerned that they will lose their isolated lifestyles if these two road systems are connected.

There is also a significant group of people in Hoonah that would like to see the Game Creek Roadless Area developed. These people feel that developing this area would stabilize the economy of their town by providing work for the existing logging camp at Hoonah.

(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 Game Creek Roadless Area. In 2001, HR 2908 identified the area as a proposed LUD II addition. It also proposed that the harvested areas along the shoreline within the area be protected as restoration areas.

(c) Public Input During Forest Plan Revisions and Appeals: This area was addressed in public input received during the Forest Plan revision and appeal. Many commenters (including the City of Tenakee Springs, Taku Conservation Society, Juneau Sierra Club, National Audubon Society, and Tenakee Fish and Game Advisory Board) stated that the important scenic, wildlife, fishing, and (especially) subsistence values and habitats of Tenakee Inlet, which borders the area to the south, must be protected.

They felt that the area has many natural values warranting protection and that there is much public support for protection and reducing timber harvest. Commenters requested that Management Area (MA) C29 be managed as Wilderness, Primitive Recreation, or Old Growth, for its high value wildlife habitat and high scenic value. Timber industry interests on the other hand requested that Management Areas (MAs) C29 and C32, which include parts of the Game Creek Roadless Area, be in Timber Production, adding that there is not much use of the MA29 area or justification for Scenic Viewshed or Modified Landscape allocations in MA C32. The scenic qualities of Chichagof Island in general were mentioned as very important to the tourism, tour boat, and guide service industries.

Parts of the area were identified in the Forest Plan appeal filed on behalf of the Hoonah Indian Association et al. This appeal identified Northeast Chichagof Island, which may include all or part of the Game Creek Roadless Area, as an important customary and traditional Hoonah hunting and fishing area. The appeal stated that this area has already suffered substantial deer habitat loss from past logging and deserves protection. Parts of the area were also identified in the appeal filed by the City of Tenakee Springs. The City of Tenakee Springs expressed concern that future plans for road building in the area were not adequately disclosed in the 1997 Tongass Land Management Plan Revision. The city also stated that the Forest Service needs to protect key areas in Tenakee Inlet to maintain their old growth character and limit future operations so that subsistence and sport use of deer are fully protected.

(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 project area of any recently completed project-level EISs.

(f) Public Input Expressed During Supplemental EIS Process: ADF&G noted that this roadless area is “ecologically roaded” from a brown bear perspective because virtually all brown bear home ranges in this area intersect roads (based on extensive brown bear radiotelemetry).

SEACC recommended Roadless Areas 317, 318, 319, 321, 323, and 325 for LUD II protection. They indicated it is more critical now than ever before that these remaining wild areas on Chichagof are protected. The Alaska Rainforest Campaign (a coalition of national and Alaska conservation groups) recommended Roadless Area 323 for permanent protection as LUD II.

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 cave/karst experts and other individuals stated that East Chichagof and the North Central Prince of Wales Biogeographic Provinces contain some of the most highly developed karst lands in the Tongass. It was noted that protection of a combination of Freshwater Bay (#325), Game Creek (#323), Tenakee Ridge (#321), and Pavlov/East Point (#319) Roadless Areas would create a truly world class karst reserve for the East Chichagof Biogeographic Province. Freshwater Bay and Game Creek are the two most critical components of this province because of their size and amount of remaining forested karst.

The president of the Hoonah Indian Association asked for the protection, conservation, and responsible management of this roadless area because of its special interest to the Huna People.

A number of individuals requested protection for Upper Tenakee Inlet.

(2) Nearby Roadless and Wilderness Areas and Uses: The Admiralty Island National Monument - Kootznoowoo Wilderness is located approximately 18 miles east of the area. The West Chichagof-Yakobi Wilderness is located approximately 22 miles to the west.

Appendix C

Non-National Forest System lands and roads and associated developed areas separate the Game Creek Roadless Area from the Chichagof (#311), Tenakee Ridge (#321), and Freshwater Bay (#325) roadless areas.

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

Community	Air Miles	Water Miles
Juneau (Pop. 30,711)	40	65
Sitka (Pop. 8,835)	50	110
Hoonah (Pop. 860)	10	15
Angoon (Pop. 572)	30	40

The nearest Alaska Marine Highway service is at Tenakee Springs. Hoonah also has ferry service and this roadless area can be accessed from the Hoonah road system.

(4) Relative Contribution to the National Wilderness Preservation System: The Game Creek Roadless Area is located on Chichagof Island along the north shore of Tenakee Inlet. The southwestern borders follow the shoreline, while the other borders follow roaded areas. The roadless area is mountainous with a large U-shaped valley in the northwest corner and many V-shaped valleys. Elevations range from sea level to nearly 3,500 feet.

The Game Creek Roadless Area has moderate natural integrity and high apparent naturalness. Exceptions are the developed areas along the boundary that nearly divide the roadless area into three segments. Development in these areas disrupts the natural appearance of the landscape. There is a moderate opportunity for solitude and a relatively high opportunity for primitive recreation within the roadless area.

Approximately 14 percent of the area was inventoried as distinctive for the character type from a visual perspective. The roadless area has extensive karst resources, a wide U-shaped valley, and extensive muskegs areas that provide diversity.

The roadless area includes about 6,247 acres of high-volume, old-growth forest. Of these acres, approximately 763 are mapped as high-volume, coarse-canopy old growth.

The roadless area is classified as being in the East Chichagof Island Biogeographic Province and makes up about 5 percent of the province. It is one of 12 inventoried roadless areas found in the province that collectively make up about 72 percent of the province. Approximately 79 percent of the province is unroaded. The province contains the Pleasant-Lemesurier-Inian Islands Wilderness and a portion of the West Chichagof-Yakobi Wilderness, which make up 6 percent of the province. The province includes all or portions of three LUD II areas, which make up approximately 25 percent of the province.

The Game Creek Roadless Area lies almost entirely within the Northeast Chichagof Fjordlands Ecological Section; it covers 11 percent of the section. The Northeast Chichagof Fjordlands Ecological Section is well represented in non-development LUDs (33 percent, including 7 percent within LUD II).

This roadless area is almost entirely within the Freshwater Bay Carbonates Ecological Subsection; this portion of the roadless area represents 20 percent of the entire ecological subsection which is well represented by non-development LUDs (28 percent), but not represented in wilderness or LUD II. A very small portion of this roadless area (less than 1 percent) is within the North Chichagof Granitics Ecological Subsection; this portion of the roadless area represents less than 1 percent of the entire ecological subsection. Approximately 19 percent of this ecological subsection is in existing wilderness, an additional 38 percent is in existing LUD II, and an additional 15 percent is protected by other existing non-development LUDs. The Point Adolphus Carbonates Ecological Subsection represents less than 1 percent of this roadless area; this portion of the roadless area represents less than 0.1 percent of the entire ecological subsection, which is well represented in other non-development LUDs (48 percent, including 16 percent of LUD II).

The Game Creek Roadless Area was rated at 18 out of a possible 28 points under the Wilderness Attribute Rating System (WARS). As such, it is ranked 84th from the highest (along with 8 other roadless areas) out of the 109 Tongass inventoried roadless areas.

There is national and local support for managing the area in a roadless condition but there is little support for designating the area as a wilderness. The WARS score for the area is low relative to other areas of Southeast Alaska, and the Pleasant-Lemesurier-Inian Islands Wilderness and a portion of the West Chichagof-Yakobi Wilderness are in the biogeographic province. Designation of the area would add Congressional protection to about 20 percent of the Freshwater Bay Carbonates Ecological Subsection, which currently contains no areas under Congressional protection. The roadless area is relatively small and fragmented and it is adjacent to roaded and harvested areas. The degree of timber harvest in adjacent lands adds importance to the old growth within the roadless area. These factors indicate that the relative contribution to the National Wilderness System would be low to moderate.

V. Environmental Consequences

The Game Creek Roadless Area would be managed under the existing Forest Plan if Alternative 1, 2, 3, 4, 5, or 7 is implemented. Approximately 30 percent of the roadless area would be managed under non-development LUDs. Timber harvest and road development could occur in the remaining 70 percent of the roadless area. The land in the development LUDs provides an estimated 2,243 acres that are suitable for timber production (12 percent of the suitable acres on the Hoonah Ranger District). Approximately 53 of the suitable acres are classified as high-volume, coarse-canopy old growth. This area contains an estimated 283 acres of undiscovered locatable mineral resources that are considered to have low potential for development. The values associated with the natural settings of the roadless area could be affected by ongoing developments allowed by the Forest Plan. The high karst values are protected by the Forest Plan.

Under Alternative 6, the entire roadless area would be converted to Recommended LUD II. Mineral prospecting and development and recreation developments could continue, but no timber harvest would be allowed. The values associated with the natural settings of the roadless area, including karst, old growth, and scenic values, would be provided long-term protection if designated LUD II. Designation of the area would add Congressional protection to about 20 percent of the Freshwater Bay Carbonates Ecological Subsection, which currently contains no areas under Congressional protection.

With Alternative 8, the entire roadless area would be converted to Recommended Wilderness. Timber sale projects would not be allowed, and the potential for other development, including recreation, mineral, and hydroelectric, would be significantly restricted. Mineral prospecting and development 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 karst, old growth, and scenic values, would be provided long-term protection if designated wilderness. Designation of the area would add Congressional protection to about 20 percent of the Freshwater Bay Carbonates Ecological Subsection, which currently contains no areas under Congressional protection.

Appendix C

Land Use Designation Allocations and Suitable Timber Lands by Alternative for Roadless Area 323 (in acres)								
Land Use Designation	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8
Recommended Wilderness								51,436
Wilderness								
Recommended Wilderness Nat. Mon.								
Wilderness National Monument								
Non-wilderness National Monument								
Research Natural Area								
Special Interest Area								
Remote Recreation								
Enacted Municipal Watershed								
Old-growth Habitat	15,219	15,219	15,219	15,219	15,219		15,219	
Semi-remote Recreation								
Recommended LUD II						51,436		
LUD II								
Wild, Scenic, Recreational River								
Experimental Forest								
Scenic Viewshed								
Modified Landscape	197	197	197	197	197		197	
Timber production	36,021	36,021	36,021	36,021	36,021		36,021	
TOTAL	51,436	51,436	51,436	51,436	51,436	51,436	51,436	51,436
Suitable Timber Lands	2,243	2,243	2,243	2,243	2,243	0	2,243	0