

# Appendix C

## INDIVIDUAL ROADLESS AREA DESCRIPTION

**ROADLESS AREA NAME:** Frosty (210)

**ACRES (NFS):** 45,522

**BIOGEOGRAPHIC PROVINCE:** Revilla Island/Cleveland Peninsula

**ECOLOGICAL SECTION:** Inside Passage Fjordlands

**2003 WILDERNESS ATTRIBUTE RATING:** 19 (24, 21)

### **I. Overview and Description**

(1) **Location and Access:** The area is located primarily on the mainland (on the Cleveland Peninsula), but it also includes Deer Island and other small, nearby islands. It is bounded on the northeast by the Anan Roadless Area (209), on the south by the Cleveland Roadless Area (528), on the southeast by North Cleveland Roadless Area (529), and on the west by Ernest Sound and Seward Passage. The area is accessible by boat or floatplane from Ernest Sound. A marine access point and road system is located out of Frosty Bay in the middle of the mainland portion of the roadless area. This area of development nearly divides the roadless area into 2 pieces. There are no sites suitable for landing small, wheeled aircraft. The roadless area is approximately 25 miles from Wrangell. Access to the interior is by foot or helicopter.

(2) **History:** The area was inhabited by the Tlingit in prehistoric times. There are a number of historical sites, especially axed, marked, and stripped cedar trees. In the 1930s and 1940s there were salmon canneries located at Point Ward and in Santa Anna Inlet. A fox farm was located on the Niblak Islands. Limited timber harvest occurred along the shore beginning in 1917. Much of the early harvest was individual tree selection accessed primarily from the beach, but there were also some regeneration harvest treatments. Additional timber harvests occurred approximately 30 years ago near Frosty Bay. Portions of the Frosty Creek watershed were roaded and harvested in the early 1990s. This activity has essentially divided the roadless area into two parts (in addition to the islands).

(3) **Geography and Topography:** The area is generally characterized as complex terrain dominated by rounded mountains and hills rising steeply from saltwater. Many reach elevations of over 2,000 feet, and the tallest is approximately 3,000 feet. Between the mountains and hills are low valleys containing short streams. There are numerous small lakes in the area totaling about 802 acres. About 40 acres of this area are mapped as rock while no acres are mapped as alpine or ice or snowfield. The area contains 90 miles of saltwater shoreline and 9,558 acres of islands and islets, including the 8,296-acre Deer Island.

(4) **Ecosystem:**

(a) **Classification:** Biogeographic Province. The area is in the Revilla Island/Cleveland Peninsula Biogeographic Province. This province is generally characterized as complex terrain dominated by rounded mountains and hills, many of which reach elevations of over 2,000 feet. The tallest is over 3,000 feet. Between the mountains are deep, narrow valleys. There are no known areas of unique or uncommon plant/soils associations.

Ecological Section/Subsection. The Frosty Roadless Area is contained entirely within the Inside Passage Fjordlands Ecological Section (M247E). There are two ecological subsections that each cover about half of the roadless area (see table below). The Zimovia Strait Complex Ecological Subsection is typified by broad glacial valleys and rounded hills. Roughly half of the subsection is productive hemlock forest which may include cedar or Sitka spruce. Stratified sedimentary rock and volcanic intrusions are found beneath mineral soils. The Bell Island Granitics Ecological Subsection is characterized by rounded hills and narrow, glacially scoured valleys. Within this subsection, mountain slope soils are usually well-drained,

mineral soil, while lowlands, lake margins and wetlands are typically poorly drained soils (Nowacki et al., 2001).

Ecological Section	Ecological Subsection	Percent of Roadless Area
Inside Passage Fjordlands	Zimovia Strait Complex	55%
	Bell Island Granitics	45%

**(b) Soils:** Soils in this area are formed in a wide variety of parent materials, including bedrock and glacial drift. In general, well- or moderately-well-drained soils are on moderate to steep mountain slopes with permeable parent materials. These soils are acidic, have cold soil temperatures, and are very high in organic matter. Rooting is largely limited to the surface organic layers and the top few inches of mineral soil. These soils are usually moist, sometimes wet, but are never dry.

More-poorly-drained soils developed on less-sloping areas and/or areas with impermeable soil materials. These soils have deep accumulations of organic matter and range from scrubby, forested wetlands to open muskeg.

Alpine soils, generally above 2,000 feet in elevation, are mostly shallow, very wet organic soils or are extremely shallow and rocky.

**(c) Vegetation:** Alpine vegetation dominates the few areas above 2,500 feet in elevation. Below that elevation there are minor areas of muskeg and scrub lodgepole pine. Hillsides and steeper slopes with better drainage are generally heavily forested with Sitka spruce and western hemlock.

There are approximately 43,397 acres mapped as forest land of which 20,771 acres or 48 percent are mapped as productive old-growth forest. Of the productive old growth, 5,785 acres or 28 percent are mapped as high-volume old-growth forest. The productive old growth includes about 85 acres of high-volume, coarse-canopy old growth. There are about 1,906 acres of second-growth forest where timber harvest has occurred in the past.

**(d) Fish Resources:** Fish resources were rated by the Alaska Department of Fish and Game (ADF&G, 1983) in its Forest Habitat Integrity Program. These ratings describe the value of VCUs for sport fish, commercial fish, and estuaries. VCU 526 is rated as high value for sport fish. The one VCU rated as highly valued for commercial fish is 523. The Tongass Fish and Wildlife Resource Assessment (ADF&G, 1998) listed VCU 523 as a non-producer of pink salmon and VCUs 524 and 526 as secondary producers.

Four ADF&G numbered fish streams are present. The largest producers are Sunny (June) Creek in Sunny Bay and Santa Anna (Helen) Creek in Santa Anna Inlet. Species commonly found in this area are pink, chum, and coho salmon, steelhead and cutthroat trout. The Anadromous Waters Catalogue and Atlas (ADF&G, 2000) identifies coho salmon, Dolly Varden char, and steelhead trout in Santa Anna Creek.

**(e) Wildlife Resources:** Black bears, brown bears, and wolves range over the area, as well as a small mountain goat population. Other wildlife common to the area include Sitka black-tailed deer, marten, bald eagle, and Canada goose. Geese nest in Frosty Creek, and swans winter at Helen Lake and a small lake in Frosty Creek drainage. While most of the Frosty Creek watershed is no longer part of the roadless area, the watershed is surrounded by it.

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

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<b>LUD</b>	<b>Acres</b>
Timber Production	16,679
Modified Landscape	13,721
Scenic Viewshed	4,658
Transportation and Utility System	NA
Old-growth Habitat	8,400
Semi-remote Recreation	1,129
Wild River	936

Approximately 77 percent of the roadless area (not including the TUS LUD overlay) was allocated to a development LUD (Timber Production, Modified Landscape, Scenic Viewshed). Land along the Earnest Sound was allocated to the Scenic Viewshed LUD, which accounts for approximately 10 percent of the roadless area. The Modified Landscape LUD was assigned to approximately 30 percent of the roadless area and is located around Seward Pass and Sunny Bay and on Deer Island. The Transportation and Utility Systems LUD overlay was assigned to the potential power transmission corridor that runs through the roadless area.

Approximately 23 percent of the roadless area was allocated to non-development LUDs. The Old-growth Habitat LUD was allocated to approximately 18 percent of the roadless area. Pockets of land in the Old-growth Habitat LUD are located around Santa Anna Inlet, west Deer Island, and the central portion of the roadless area. Approximately 2 percent of the roadless area was allocated to the Semi-remote Recreation LUD, which is located on Deer and Niblack Islands. Four river miles along Santa Anna Creek and Lake Helen are allocated to the Wild River LUD, which accounts for approximately 2 percent of the roadless area.

Portions of the Frosty Creek watershed were roaded and fairly extensively harvested in the early 1990s. Earnest Sound and Seward Passage receive moderately-heavy use by recreation and commercial fishing boats. Frosty and Sunny Bays provide good anchorages. Trapping occurs along the beach fringe. There are no public recreation facilities within the roadless area and inland use is light. There is little known subsistence use in the area.

**(6) Appearance (Apparent Naturalness):** Most of the area appears natural and unmodified. However, near the mouth of Frosty Bay, areas were harvested about 50 years ago and second growth is somewhat apparent, although maturing. There are also obvious remains of the cannery in Santa Anna Inlet. Recent harvest on Deer Island and the Frosty Bay area have also affected the appearance (apparent naturalness) of the area. There is a Forest Service public recreation cabin located on Frosty Bay. A little-used float house is anchored along the west shore of Deer Island. A private special-use cabin is located on Niblack Island.

**(7) Surroundings (External Influences):** The continental portion of the area is part of a much larger roadless area on Cleveland Peninsula. Boats passing close by or anchored in one of the bays may be observed by users near saltwater. Views of timber harvest on Deer Island and near Frosty Bay may become apparent by users in some of this area.

**(8) Attractions and Features of Special Interest:** Attractions include the opportunity to view the Santa Anna Scenic River, the opportunity for secure anchorage, and the opportunity to observe remains of the old canneries. The area contains 10 inventoried recreation places that cover 5,005 acres (11 percent) of the roadless area. There are no developed recreation facilities in the roadless area. However, there is a recreation cabin with a mooring float located near the mouth of Frosty Bay.

**(9) Differences between the 1989 and 2003 Roadless Area Boundary:** Deer Island and several smaller islands have been added to the roadless area. The beach fringe north of Frosty Bay, which has a string of old, beach-logged harvest units but no roads, has also been added. Due to recent timber sale activity, much of the Frosty Creek watershed has been dropped from the roadless area. The Frosty watershed is now roaded and nearly divides this roadless area in two near the upper reaches of Frosty Creek. Adjustments were also made to the boundary along the Anan Creek LUD II area.

## II. Capability for Management as Wilderness

**(1) Natural Integrity and Apparent Naturalness:** The area appears to be unmodified, except for the timber harvest in Frosty Bay, Deer Island, and old harvests along the east-facing beach north of Frosty Bay, the private permitted special use cabin on Niblack Island, and the old cannery remnants. Because most of the area is in a natural and unmodified state and is part of a larger unmodified unroaded area, this area is suitable for wilderness classification. The above described developments affect the natural integrity and apparent naturalness noticeably. However, the portion of the area south of the developments associated with Frosty Bay on the mainland has outstanding natural integrity and apparent naturalness. The area north of Frosty Bay and west of the Anan Roadless Area has very high natural integrity and high apparent naturalness.

**(2) Opportunity for Solitude and Serenity, Self-reliance, Adventure, Challenging Experiences, and Primitive Recreation:** There is a high opportunity for solitude and primitive recreation within the area. Boats or airplanes passing by or entering one of the bays may be observed by people in this roadless area. Logging equipment and traffic in the Frosty Creek watershed and on Deer Island may be observed or heard, especially during periods of timber harvest. Present recreation use levels are low. Generally, a person using the area is unlikely to see others. The character of the landforms generally allows the visitor to feel remote from the sights and sounds of human activity. The area is accessible by boat from the community of Wrangell in less than 2 hours, and from Ketchikan in approximately 6 hours.

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

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)	17,901	39%
Semi-Primitive Non-Motorized (SPNM)	10,535	23%
Semi-Primitive Motorized (SPM)	11,165	25%
Roaded Natural (RN)	5,609	12%

The area contains 10 inventoried recreation places that cover 5,005 acres (11 percent) of the roadless area.

ROS Class	# of Rec. Places*	Total Acres
P	2	1
SPNM	1	457
SPM	6	2,646
RM	2	1,901

\* Some Rec. Places 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 process (referred to as RARE II). The purpose of WARS was to provide a measure of the area's wilderness quality, based on the key attributes of wilderness as defined in the Wilderness Act. It is largely based on the attributes described above in items 1 and 2 of this section (natural integrity, apparent naturalness, outstanding opportunity for solitude, and primitive recreation opportunities).

The inventoried roadless areas of the Tongass National Forest were rated according to this system in 1989 for the Analysis of the Management Situation developed in support of the Forest Plan Revision. At that time, the Frosty

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Roadless Area was given a rating of 25 out of 28 possible points. The rating was re-evaluated for this updated version of the Analysis of the Management Situation. Based on this re-evaluation, the area was given a rating of 19. This reflects the degree of development that has occurred on Deer Island and in the Frosty Bay area. The area south of Frosty Bay and its associated developments was rated separately and received a score of 24. The area north of Frosty Bay and west of Anan Roadless Area was rated separately and received a score of 21.

### (4) Ecologic and Geologic Values:

**(a) Fish Resources:** The Tongass Fish and Wildlife Resource Assessment (ADF&G, 1998) did not list any VCUs as primary salmon or sport fish producers and listed VCU 523, on the mainland coast adjacent to Anan roadless area, as a non-producer of salmon.

Four ADF&G numbered fish streams are present. Species commonly found in this area are pink, chum, and coho salmon, steelhead and cutthroat trout. The largest producer is June Creek, with estimated annual peak escapements of 2,700 pink salmon. Generally, this area is not a major producer of anadromous fish. Lake Helen in Santa Anna Inlet is a popular sport fishing site for resident trout. Santa Anna Creek is in the same area and has high sport fish values. The Anadromous Waters Catalogue and Atlas (ADF&G, 2000) lists coho salmon, Dolly Varden char, steelhead, and cutthroat trout in the upper reaches of Santa Anna Creek, and pink and sockeye salmon present in the lower reaches of Santa Anna Creek. Santa Anna Creek and Lake Helen have “outstandingly remarkable” sport fish recreation values of regional significance due to high quality steelhead fishing and the unique low elevation lake that can be entered by boat from saltwater at high tide. Trout are also found in Standing Rock Lake, but the lake is rarely fished because access is poor.

Deer Island is not considered an important producer of commercial, sport, or subsistence fish species. There are less than 4 miles of fish-bearing streams on the island. Spawning and rearing habitat is poor due to the small size of the watersheds, steep stream gradients, large stream substrate, and lack of deep pools. The only fish observed during the Kuakan Timber Sale EIS (USDA Forest Service, 2000) survey were “trout” fry in Canyon Creek at the north end of the island.

**(b) Wildlife Resources:** Black bears, brown bears, and wolves range over the area, as well as a small mountain goat population. Other wildlife common to the area includes Sitka black-tailed deer, marten, bald eagle, and Canada geese. Sitka black-tailed deer are also present, but population numbers are relatively low. Swans winter at Helen Lake. Geese nest in Frosty Creek and swans winter in a small lake in the Frosty Creek drainage, which is a roaded area that is surrounded by the roadless area.

Information from the Kuakan Timber Sale EIS (USDA Forest Service, 2000) indicates that one goshawk nest was located on Deer Island in 1997 and 1998. The Frosty Bay EIS indicates that there are five known bald eagle nests in the area. The Frosty area also contains one of three known high density nesting sites for geese in the Wrangell district. Unlike other Canada geese which nest primarily in open wetlands, these geese nest primarily in forested areas, near open water but occasionally as far as one-half mile away.

**(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. Humpback whales and Steller sea lions are known to use the waters of Ernest Sound in the immediate vicinity of Frosty Bay and Steller sea lions have a documented haul-out on the southern tip of Deer Island. 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. Swans winter at Helen Lake and in a small lake in the Frosty Creek drainage, which is a roaded area that is surrounded by the roadless area. 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, eight sensitive plant species are known or suspected to occur in the Wrangell Ranger District.

**(d) Karst, Cave, and Other Geologic Resources:** There are no known karst or cave resources in this roadless area. There are no glaciers or unique geologic features.

**(5) Scientific and Educational Values:** There are no known outstanding features in the area. There are numerous opportunities to observe and study fish and wildlife within an easily accessible area.

**(6) Scenic Values:** From Earnest Sound, the natural landscape continues from the adjacent roadless area. Recent logging and the log transfer facility in Frosty Bay may be noticed when traveling through Seward Passage. Views of the log transfer facility and timber harvest (cut in 1989) on the south end of Deer Island may be apparent by users in some of this area. The private permitted special use cabin on Niblack Island may be visible to travelers exploring the islands.

Visual Priority Routes and Use Areas identified by the Forest Plan for this area include: Ernest Sound, a part of the Alaska Marine Highway and tour ship route; Seward Passage, a travel route; Santa Anna Creek and Lake Helen, recommended for Scenic River designation; Frosty Bay and Sunny Bay, saltwater use areas and boat anchorages; Santa Anna Inlet, saltwater use areas; and the Frosty Bay Forest Service Public Recreation Cabin.

Four percent of this area is inventoried as Variety Class A (possessing landscape diversity that is unique for the character type). About 50 percent is inventoried as Variety Class B (possessing landscape diversity that is common for the character type) and 45 percent is inventoried Variety Class C (possessing a low degree of landscape diversity).

The majority of this roadless area, 86 percent, is in Existing Visual Condition (EVC) Type I, where the landscape is natural appearing, and only ecological change has occurred. Three percent of this roadless area has an EVC Type III, where the average forest visitor notices changes in the landscape, but the natural landscape remains dominant. About 11 percent of the area has an EVC IV, where alterations to the landscape are obvious but tend to blend with natural landscape features.

**(7) Social, Cultural, and Historical Values:** The area was inhabited by the Tlingit in prehistoric times. There are a number of historical sites, especially axed, marked, and stripped cedar trees. In the 1930s and 1940s there were salmon canneries located at Point Ward and in Santa Anna Inlet. Limited timber harvest occurred along the shore beginning in 1917. Much of the early harvest was individual tree selection but there was some clearcutting.

The area includes a proposed Scenic River; the Santa Anna River and Lake. Other attractions include the opportunity for secure anchorage and the opportunity to observe remains of the old canneries. The area contains 10 inventoried recreation places totaling 5,005 acres. There are no developed recreation facilities in the roadless area. However, there is a recreation cabin near the mouth of Frosty Bay.

The area does not appear to receive heavy subsistence use. There is some subsistence bear hunting and fishing. No VCUs were listed among the VCUs with the highest community use values and two (VCUs 525 and 526, Deer Island and along the mainland coast south of Santa Anna Inlet) were listed among the VCUs with having highest sensitivity to disturbance of subsistence areas (ADF&G, 1998).

There was one outfitter/guide permit for black bear hunting issued in 2000. There were 4 service days used. There is a recreation cabin near the mouth of Frosty River. Ernest Sound and Seward Passage receive moderately-heavy use by recreation and commercial fishing boats. Frosty and Sunny Bays provide good anchorages. Trapping occurs along the beach fringe. There are no public recreation facilities and inland use is light.

**(8) Manageability as Wilderness and Boundaries Conditions/Changes:** The roadless area is bounded on the east by the Anan Roadless Area (209), on the south by the Cleveland Roadless Area (528), on the southeast by North Cleveland Roadless Area (529), and on the west by Ernest Sound and Seward Passage. These areas are adjacent to other roadless areas and to the Misty Fiords National Monument Wilderness to the southwest and to the Stikine-Leconte Wilderness to the northwest. The saltwater boundary is well defined, but many of the drainage divides in this area are not distinct. Due to recent timber sale activity, portions of the Frosty watershed have been dropped from the roadless area. The Frosty watershed is now roaded and nearly divides this roadless area in two

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near the upper reaches of Frosty Creek. This change has decreased the potential to manage the entire area as one roadless area. Much of Deer Island has been included in a timber sale that was helicopter logged and had partial harvest prescriptions. This area looks natural to most visitors and remains within the roadless area. The area south of developments associated with Frosty Bay could easily be managed as wilderness, especially if part of the larger roadless area. If the Anan Roadless Area were to be managed as wilderness, the area north of Frosty Bay could be managed with it.

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

- (1) Recreation, Including Tourism Potential:** There is potential for increased outfitter and guide permits, and for developed trails to some of the lakes. There is a recreation cabin near the mouth of Frosty River. Additional cabins or shelters are also possible.
- (2) Subsistence Uses:** The existing patterns of subsistence activities in the area would not be affected by wilderness designation or management in an unroaded condition.
- (3) Fish Resources:** The Tongass Land Management Plan does not identify any fish habitat enhancement projects in this roadless area.
- (4) Wildlife Resources:** The Tongass Land Management Plan does not identify any wildlife habitat improvement projects in the area.
- (5) Timber Resources:** There are approximately 20,771 acres mapped as productive old growth in the roadless area. In addition, 1,906 acres mapped as second growth have resulted from beach and helicopter logging. Of this area, 13,474 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), 4,989 acres, or 11 percent of this roadless area are estimated to be suitable for timber production. Approximately 1,131 of the suitable acres are mapped as high-volume old growth; of these acres, 12 are mapped as high-volume, coarse-canopy old growth.  
  
With an LTF and a road system in place (from the Frosty timber sale), the economics of additional timber harvest inside the roadless area and in the Frosty area may be favorable. The Kuakan Timber Sale was a helicopter partial harvest on Deer Island that was completed in 2001. The current 10-year timber action plan for the Tongass includes additional harvest in this area identified as the Pt. Warde/Frosty/Sunny Bay project.
- (6) Fire, Insects, and Disease:** The area has no significant fire history, although there is one fire-origin stand along the shore west of Sunny Bay. Endemic tree diseases common to Southeast Alaska are present; there are no known epidemic disease occurrences.
- (7) Minerals:** The area has a low minerals rating and there are no known mining claims. The roadless area contains an estimated 23,228 acres of undiscovered locatable mineral resources (Brew et al., 1990; USDA Forest Service, 1991). All of these acres are considered to have low potential for development.
- (8) Transportation and Utilities:** The Transportation and Utility Systems LUD overlay was assigned to the potential power transmission corridor that runs through the roadless area. Maintaining the area as unroaded would not interfere with any planned transportation or utility corridors. The State of Alaska includes a transportation corridor between Spacious Bay south of the Frosty Roadless Area and the west side of Santa Anna Inlet.
- (9) Water Availability and Use:** There are no developed recreation facilities in the roadless area; however, there is a private permitted special-use cabin on Niblack Island. There is no demand to create a large water system, but there is domestic water use from a stream for the special-use cabin. There are no existing or planned hydroelectric or domestic water projects in the area.
- (10) Areas of Scientific Interest:** The area contains no Research Natural Areas and has not been identified for any other scientific value. There are opportunities to observe and study forests, fish, wildlife, and geologic processes.

(11) **Land Use Authorizations:** There are no special uses authorized for this area. A grow-fish site has been proposed in Santa Anna Inlet.

(12) **Land Status:** This roadless area comprises all National Forest System land. The State of Alaska has included an area around Sunny Bay for potential selection, but the selection has not yet been through the approval process.

#### **IV. Wilderness Evaluation (Need for Wilderness)**

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

(a) **Interest Expressed by Local Users and Residents:** Local fishermen and Ketchikan residents traveling to Anan Creek use the waters and anchorages associated with this area. There is some subsistence, recreation, and commercial fishing in the waters near the roadless 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 Frosty Roadless Area. In 2001, HR 2908 did not propose this area for wilderness, but it did propose that most of the area be classified as a Congressionally Designated LUD II area and managed in an unroaded condition. The southern portion of Deer Island was not included in the proposal.

(c) **Public Input During Forest Plan Revision and Appeals:** Some comments supported prohibiting logging in places like Frosty Bay, Santa Anna Inlet, and Deer Island. The Wrangell Resource Council was concerned that the existing deer habitat capabilities in the area were low, and wanted no additional logging because of it.

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

(e) **Public Input Expressed for Project-level EISs and Other Input:** At least one commenter on the Kuakan EIS said Deer Island should remain roadless because of the island's highly visible location along a heavily used waterway.

(f) **Public Input Expressed During Supplemental EIS Process:** In comments relative to the 1997 Forest Plan, the Governor of Alaska recommended that logging and construction of logging roads be avoided in important public interest areas such as the Cleveland Peninsula (most of RA# 528, 529, 209, and 210). This comment was reiterated by the Governor in scoping comments regarding the SEIS and in comments by the Division of Governmental Coordination on the Draft SEIS.

Alaska Department of Fish and Game recommended permanent roadless status for the Cleveland Peninsula in their comments on the Draft SEIS.

The Department of Transportation and Public Facilities noted that there is a corridor across Cleveland Peninsula that passes through this roadless area; it is identified in the Southeast Alaska Transportation Plan under Long Term Actions and was not included in the SEIS. They commented that this corridor is for a proposed highway that would link new ferry terminals on Spacious Bay and Santa Anna Inlet and would be a component of the Inside Passage Highway.

The city of Petersburg said they were opposed to designation of this area as wilderness because of the potential long-term economic impacts on the city.

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The Alaska Rainforest Campaign (a coalition of national and Alaska conservation groups) identified Roadless Areas 204, 205, 206, 207, 208, 209, 210, 528, and 529 as a contiguous complex of roadless areas that should be considered one roadless area and recommended it for permanent protection as LUD II. SEACC identified the Frosty roadless area as part of the Cleveland Peninsula, which includes Roadless Areas 209, 210, 528, and 529. They recommend this entire area as LUD II.

Many individual commenters identified the Cleveland Peninsula as an area in need of protection.

**(2) Nearby Roadless and Wilderness Areas and Uses:** The Frosty Roadless Area is part of a larger mainland unroaded land mass that is located between the Stikine-LeConte Wilderness on the northwest, the roadless Canadian mountains to the north, and Misty Fiords National Monument on the southeast. The mainland areas receive light use inland away from saltwater access. Also, the South Etolin Wilderness is directly across Ernest Sound from Deer Island, approximately 3 miles away).

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

Community	Air Miles	Water Miles
Ketchikan (Pop. 14,070)	35	60
Wrangell (Pop. 2,308)	25	30
Petersburg (Pop. 3,224)	60	70
Juneau (Pop. 30,711)	175	180

Wrangell is the nearest stop on the Alaska Marine Highway.

**(4) Relative Contribution to the National Wilderness Preservation System:**

The Frosty Roadless Area is located primarily on the mainland (on the Cleveland Peninsula) but it also includes Deer Island and other small, nearby islands. It is bounded on the northeast by the Anan Roadless Area (209), on the south by the Cleveland Roadless Area (528), on the southeast by North Cleveland Roadless Area (529), and on the west by Ernest Sound and Seward Passage. The roadless area is generally characterized as complex terrain, dominated by rounded mountains and hills, many of which reach elevations of over 2,000 feet. The tallest is approximately 3,000 feet. Between the mountains are deep, narrow valleys containing two forks of Santa Anna Creek and two long, narrow lakes. Several smaller lakes exist near the headwaters and numerous small cirque lakes occur in the alpine. Several islands are also included, the largest of which is Deer Island.

The area is mostly unmodified; however, it is heavily influenced by developments in nearby Frosty Bay. Deer Island has had uneven age timber harvest with helicopters, but is natural appearing. Overall, the area has high natural integrity and moderate apparent naturalness. The area south of the Frosty Bay developments has outstanding natural integrity and apparent naturalness when rated separately. Also when rated separately, the area north of Frosty Bay and west of Anan Roadless Area has very high natural integrity and high apparent naturalness. The opportunity for solitude and primitive recreation is high for the roadless area.

Approximately 4 percent of the landscape is considered distinctive for the character type from a scenery standpoint. The Santa Anna Creek system is allocated to the Scenic River LUD in the Forest Plan. The area has cultural and historic values associated with native cultures and historic canneries, especially in Santa Anna Bay.

The roadless area includes about 5,785 acres of high-volume, old-growth forest. Of these acres, 85 are mapped as high-volume, coarse-canopy old growth.

The Frosty Roadless Area is classified as being in the Revilla Island/Cleveland Peninsula Biogeographic Province and makes up about 3 percent of the province. It is one of 12 inventoried roadless areas found within the province that collectively make up about 60 percent of the province. Part of the Misty Fiords National Monument Wilderness is located in this province and makes up about 18 percent of the province. The province also includes two Congressionally designated LUD II areas (Naha and Anan) which make up about 5 percent of the province.

The Frosty Roadless Area lies completely within the Inside Passage Fjordlands Ecological Section and represents 2 percent of the ecological section. Approximately 20 percent of the Inside Passage Fjordlands Ecological Section is in existing wilderness, 2 percent is in existing LUD II, and an additional 30 percent is protected by other existing non-development LUDs.

Approximately half (55 percent) of the roadless area is in the Zimovia Strait Complex Ecological Subsection; this portion of the roadless area represents 11 percent of the entire ecological subsection, 5 percent of which is in existing wilderness and 26 percent in other existing non-development LUDs. Forty-five percent of this roadless area is within the Bell Island Granitics Ecological Subsection; this portion of the roadless area represents 6 percent of the entire ecological subsection, 14 percent of which is in existing wilderness, 9 percent in LUD II, and is well represented by other existing non-development LUDs (57 percent).

The Frosty Roadless Area was rated 19 out of a possible 28 points under the Wilderness Attribute Rating System (WARS). As such, its WARS rating is ranked 70th from the highest (along with 13 other roadless areas) among the 109 Tongass inventoried roadless areas. A separate rating was done for the southern portion of the roadless area and received a score of 24. A rating for the area north of Frosty Bay and west of the Anan Roadless Area received a score of 21.

There is both local and national support for management of the area in an unroaded condition, but little support for designation of the area as wilderness. Designation would create a wilderness with the northern portion heavily influenced by nearby developed areas. It would include the Santa Anna recommended Scenic River system. The factors identified here indicate that the relative contribution of this area to the National Wilderness Preservation System would be low for the whole roadless area, but moderate to high for the southern portion, and moderate for the northern portion.

### **V. Environmental Consequences**

The Frosty Roadless Area would be managed under the existing Forest Plan if Alternative 1, 2, 3, 4, 5, or 7 is implemented. Approximately 23 percent of the roadless area would be managed under non-development LUDs. Timber harvest and road development could occur in the remaining 77 percent. The land in the development LUDs provides an estimated 4,989 acres that are suitable for timber production (2 percent of the suitable acres on the Wrangell Ranger District). Approximately 12 of the suitable acres are identified as high-volume, coarse-canopy old growth. The roadless area contains an estimated 23,228 acres of undiscovered locatable mineral resources. All of these acres are considered to have low potential for development. The timber sales, recreation, minerals, and special use programs would continue. The values associated with the natural settings of the area could be affected by ongoing developments. The cultural and historic values of the area, and the Santa Anna Scenic River related values would be protected under the Forest Plan.

Under Alternative 6, the entire area would be converted to Recommended LUD II. The ongoing recreation, minerals, and special use programs would continue similar to current conditions. No timber harvest would be allowed. The values associated with the natural settings of the roadless area, including the cultural, historic and the Santa Anna Scenic River related values, would be provided long-term protection if designated LUD II

Under Alternative 8, the entire roadless area would be converted to Recommended Wilderness. No timber harvest would be allowed and the ongoing recreation, minerals, and special uses programs 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 cultural, historic and the Santa Anna Scenic River related 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 210 (in acres)								
Land Use Designation	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8
Recommended Wilderness								45,522
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	8,400	8,400	8,400	8,400	8,400		8,400	
Semi-remote Recreation	1,129	1,129	1,129	1,129	1,129		1,129	
Recommended LUD II						45,522		
LUD II								
Wild, Scenic, Recreational River	936	936	936	936	936		936	
Experimental Forest								
Scenic Viewshed	4,658	4,658	4,658	4,658	4,658		4,658	
Modified Landscape	13,721	13,721	13,721	13,721	13,721		13,721	
Timber Production	16,679	16,679	16,679	16,679	16,679		16,679	
<b>TOTAL</b>	<b>45,522</b>	<b>45,522</b>	<b>45,522</b>	<b>45,522</b>	<b>45,522</b>	<b>45,522</b>	<b>45,522</b>	<b>45,522</b>
Suitable Timber Lands	4,989	4,989	4,989	4,989	4,989	0	4,989	0