

INDIVIDUAL ROADLESS AREA DESCRIPTION

**ROADLESS AREA NAME:** North Kupreanof (211)

**ACRES (NFS):** 99,566

**BIOGEOGRAPHIC PROVINCE:** Kupreanof/Mitkof Islands

**ECOLOGICAL SECTION:** Kupreanof Lowlands and Inside Passage Fjordlands

**2003 WILDERNESS ATTRIBUTE RATING:** 19 (22)

**I. Overview and Description**

(1) **Location and Access:** The North Kupreanof Roadless Area is at the north end of Kupreanof Island and lies along the southern shore of Frederick Sound. It is accessed primarily from saltwater by boat or floatplane and from roads in the southwest and east. These roads nearly bisect the roadless area. The area is open to northeasterly winds and no sheltered anchorages are available along the shore. The closest anchorage is in Portage Bay, which provides access to the road system. Because of road development, the shore along the bay is no longer part of this roadless area.

The community of Kake lies approximately 3 miles to the west of the roadless area and the community of Petersburg, on the Alaska Marine Highway and with air service, lies 15 miles to the southeast. Logging roads connected to Kake provide access to much of the southern portion of the area. There are no sites suitable for landing wheeled aircraft or floatplanes in the interior of this area. Access into the interior is by foot or helicopter.

(2) **History:** The area lies within the traditional territory of the Kake Tlingit and is adjacent to the present community of Kake. No known significant cultural resources exist in the area. The lower reaches of Cathedral Falls Creek and Hamilton River are areas of traditional and current subsistence uses. Extensive road construction and timber harvest has occurred to the south, east, and west of the area. Sealaska Native Corporation lands to the west have had large acreages harvested for timber.

(3) **Geography and Topography:** This area consists of relatively flat terrain with many large muskeg openings. Three major watersheds, Hamilton Creek, Big Creek, and Cathedral Falls Creek drain these lowland areas. Numerous small lakes cover a total of 18 acres and the largest one is Bohemia Lake. The Bohemian Range (including Kupreanof Mountain) is located in the eastern portion of the roadless area and is the most prominent mountain feature. The range rises to an elevation of 2,200 feet, forming a ridge running in a northwest to southeast direction for approximately 10 miles. Spruce-hemlock forest covers the entire Bohemian Range, as well as the creek drainages across the lowlands. Lodgepole pine is found in the abundant mosaic of muskeg. There are no acres mapped as ice, alpine or rock. The area contains 18 miles of shoreline on saltwater. Approximately 2 acres in this area are islands and islets.

(4) **Ecosystem:**

(a) **Classification:** Biogeographic Province. The area is classified in the Kupreanof/Mitkof Islands Biogeographic Province. This province is characterized by generally subdued, rolling topography and extensive muskeg wetlands.

Ecological Section/Subsection. The North Kupreanof Roadless Area is contained mostly within the Kupreanof Lowlands Ecological Section (M247G) and also contains portions within the Inside Passage Fjordlands Ecological Section (M247E). These sections are represented by three ecological subsections (see table below). The Duncan Canal Till Lowlands Ecological Subsection represents the majority, approximately 81 percent, of the North Kupreanof Roadless Area. The low relief, high precipitation, and

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depositional soils have produced an abundance of wetlands on poorly drained sites. Productive forests are limited to slopes and riparian areas with mineral soil. The Kake Volcanics Ecological Subsection covers the remaining 18 percent of the roadless area. It contains gently rolling hills of glacially reduced sedimentary and volcanic rock, usually below 1,000 feet elevation. Productive hemlock and spruce forests are found on the slopes (Nowacki et al., 2001).

Ecological Section	Ecological Subsection	Percent of Roadless Area
Kupreanof Lowlands	Duncan Canal Till Lowlands	81%
	Kake Volcanics	18%
Inside Passage Fjordlands	Wrangell Narrows Metasediments	<1%

**(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 very 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.

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 elevation, are mostly shallow, very wet organic soils or are extremely shallow and rocky.

**(c) Vegetation:** Muskeg/forested wetland timber complexes are extensive and interspersed with mature mixed conifer plant communities on better-drained sites along creeks and on steeper slopes. Approximately 13,536 acres of muskeg are mapped for the area, however due to their small size and association with forested sites, accurate acreage estimates are difficult. Timbered hill slopes are dominated by western hemlock, Sitka spruce and Alaska-cedar plant communities. Minor amounts of western redcedar are present in the southern part of the area. The roadless area is near the northern limit for western redcedar. There are no acres mapped as alpine vegetation within the roadless area.

There are approximately 85,425 acres of forest land of which 20,694 acres or 24 percent are mapped as productive old-growth forest. Of the productive old growth, 4,622 acres or 22 percent are mapped as high-volume old-growth forest. The productive old growth includes about 659 acres of high-volume, coarse-canopy old growth. There are approximately 54 acres of second-growth forest where timber harvest has occurred in the past. The majority of the productive old growth is in the Bohemian Range in the eastern portion of the area. The northeastern area is sometimes referred to as the “barrens.”

**(d) Fish Resources:** About 12 Alaska Department of Fish and Game numbered salmon streams are present. The major streams are the Hamilton River, Big Creek, and Duncan Salt Chuck Creek. This area also contains the headwaters of Cathedral Falls Creek and Gunnuk Creek. These streams support runs of steelhead and cutthroat trout, Dolly Varden char, and pink, chum, and coho salmon.

**(e) Wildlife Resources:** Sitka black-tailed deer, moose, black bears use this roadless area. Wolves are located across all habitat types. Mink, river otters, beaver, marten, ermine, red squirrel, mice, shrews, and voles are well distributed. Fishers and wolverines are incidental species. The northern flying squirrel has been migrating to Kupreanof Island but is not yet well distributed on the island; some may occur within this roadless area.

Bald eagles, northern goshawks, red-tailed hawks, sharp-shinned hawks, great horned owls, western screech owls, saw-whet owls, pigmy owls, spruce grouse and ptarmigan all occur within the roadless area. Bats are present during the summer months and may over winter.

Numerous species of ducks and geese, trumpeter swans, marbled murrelets, and great blue herons have been seen within this roadless area, both during migration and, in some cases, during the nesting season.

Red-throated, Pacific, and common loons all occur on Kupreanof Island. Several plover, yellowlegs, and sandpiper species occur, mainly along the river corridors and in large muskeg systems. Two swift species, one hummingbird species, four woodpecker species, three flycatcher species, and five swallow species are also known on the island. Steller’s jay, northwestern crow, and common raven all occur. Chestnut-backed chickadee, red-breasted nuthatch, brown creeper, winter wren, American dipper, golden-crowned kinglet, ruby-crowned kinglet, Swainson’s thrush, and hermit thrush occur. American robin, varied thrush, American pipit, cedar waxwing, northern shrike, warbling vireo, and five warbler species occur. Additionally, the northern water thrush, common yellow throat, western tanager, dark-eyed junco, Lapland longspur, snow bunting, red-winged blackbird, rusty blackbird, brown-headed cowbird, eight sparrow species, pine grosbeak, red crossbill, white-winged crossbill, common redpoll, and pine siskin are found.

Amphibians known to occur on Kupreanof Island include the rough-skinned newt and western toad. The rough-skinned newt is found primarily in lacustrine, palustrine, hemlock/spruce forests, and muskeg bog ecosystems. The western toad is also found primarily in lacustrine, palustrine, hemlock/spruce forests, and in clearcuts.

Sea mammals known to inhabit the waters surrounding Kupreanof Island are the Pacific white-sided dolphin, orca whale, harbor porpoise, Dall’s porpoise, humpback whale, Steller sea lion, and harbor seal. Frederick Sound to the north of this roadless area has large populations of humpback whales during the summer and fall.

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

<b>LUD</b>	<b>Acres</b>
Timber Production	60,105
Modified Landscape	247
Transportation and Utility System	NA
Old-growth Habitat	22,266
Semi-remote Recreation	16,169
Municipal Watershed	779

Approximately 61 percent of the roadless area (not including the TUS LUD overlay) was allocated to a development LUD (Timber Production, Modified Landscape). Timber Production makes up almost all of this development LUD portion. A small area, accounting for less than 1 percent of the roadless area, was allocated to the Modified Landscape LUD. The Transportation and Utility System LUD overlay is located within the roadless area in the south. This LUD overlay corresponds to a potential utility corridor that would connect Kake to Petersburg and other areas of Southeast Alaska in a power grid. Similarly, another portion of this LUD overlay is located in the northwest corner. A utility corridor along the LUD overlay would contribute to a connection with Juneau.

Approximately 39 percent of the roadless area was allocated to a non-development LUD (Old-growth Habitat, Semi-remote Recreation, Municipal Watershed). The north central part of the area was allocated to the Semi-remote Recreation LUD and includes most of the Big Creek drainage. The Semi-remote Recreation LUD accounts for approximately 16 percent of the roadless area. The Old-growth Habitat LUD was allocated to two locations in the roadless area, accounting for 22 percent of the roadless area. One Old-growth Habitat LUD area is located near Frederick Sound and includes the northern portion of the Bohemian Range. The other location includes much of the Hamilton Creek watershed, just northwest of the South Kupreanof Roadless Area (214). Approximately 1 percent of the roadless area, located in the west, was allocated to the Municipal Watershed LUD. This area is part of the watershed associated with the community of Kake. Most of the watershed is not National Forest System land.

Sea kayaking; marine wildlife viewing; beachcombing; camping; fishing for coho salmon, pink salmon, steelhead, and trout; hunting for bear, deer, and moose; waterfowl hunting; and sport fishing, occur in the areas adjacent to

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saltwater and major creeks. Other recreation uses include hiking; camping, and snowmobiling in the interior of the area. Kake residents use this area for subsistence resources.

The Bohemia Timber sale is adjacent to the northern part of this roadless area. Many of the units have been cut but some are still under contract. Other timber harvest projects are currently planned on the 10-year timber resource schedule.

A potential transmission line corridor in the northwest corner that would connect Kake with Juneau's power supply has been identified in the Forest Plan. Another potential corridor traverses across the southern part of the roadless area and would connect Kake and Petersburg.

**(6) Appearance (Apparent Naturalness):** The area appears unmodified from priority travel routes. Forest Road 6030, the White Rock Road, extends from near Hamilton Bay to the west, 15 miles inland, but is not visible to viewers from saltwater. Recent timber harvest and road building along the eastern and southwestern boundaries and in the interior of the roadless area near Road 6030 may be seen from adjacent areas within the roadless area.

**(7) Surroundings (External Influences):** North Kupreanof Roadless Area adjoins a large parcel of Native Corporation lands to the west; much of this area has been developed for timber management. The South Kupreanof Roadless Area and the Petersburg Creek-Duncan Salt Chuck Wilderness lie to the southeast. Frederick Sound is to the north. Harvest activities on Native Corporation lands to the west are evident from Frederick Sound and the adjacent areas. Forest Service harvest activities are evident in the area to the southwest and to the east.

**(8) Attractions and Features of Special Interest:** The area contains 11 inventoried recreation places that cover 42,385 acres, or 43 percent of the roadless area. The areas immediately adjacent to saltwater and major creeks are valued for recreation uses such as black bear and waterfowl hunting, camping, beach combing, and sport fishing, as well as subsistence activities. Eleven outfitter/guide permits were issued in 2000. These included 39 service days for remote setting tours, 300 for camping, and 42 for black bear hunting. The waters to the north of the area are valuable for whale watching and research. Sea kayaking is popular in these waters as well. Goose Lake Trail in the southwest corner is an easy walk to a small lake with waterfowl use.

**(9) Differences between the 1989 and 2003 Roadless Area Boundary:** The area along the west shore of Portage Bay and the area southeast of the bay have been dropped from the roadless area due to timber harvest and road building (part of the Bohemia Mountain Timber Sale). Small adjustments have been made to the boundary along the developed areas and associated with changes in land ownership between the Draft and Final SEIS to improve manageability in those areas.

## **II. Capability for Management as Wilderness**

**(1) Natural Integrity and Apparent Naturalness:** The area appears natural from priority travel routes. The portion of Forest Road 6030 that extends into the roadless area is far inland and not readily visible to viewers from saltwater. Recent timber harvest and road building along the eastern and western boundaries and in the interior of the roadless area near Road 6030 affect the appearance of adjacent areas. Most of the area away from roads appears natural and has high natural integrity; however, the area is nearly divided into two parts by roads. The larger portion of the area north of the developments that nearly dissect the area has higher natural integrity and apparent naturalness.

**(2) Opportunity for Solitude and Serenity, Self-reliance, Adventure, Challenging Experiences, and Primitive Recreation:** There is a high opportunity for solitude in the North Kupreanof Roadless Area. Floatplanes and powerboats may be seen or heard for brief periods. Current recreation use levels are low to moderate and concentrated mainly along saltwater and at specific locations adjacent to the major creeks and drainages.

Except for the Bohemian Range in the east, most of the topography is relatively gentle. Travel on land is moderately difficult, offering a lesser degree of physical challenge than many other roadless areas in Southeast Alaska. As with all backcountry areas on the Tongass, the opportunity for challenge and risk in this area is high. The climate, the rugged terrain, the isolation and distance from population centers with medical facilities, the barriers to communication, and the presence of large wild animals all contribute to the need for good preparation and

knowledge of backcountry survival skills for anyone using this area. Hypothermia and 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 and semi-primitive 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)	33,576	34%
Semi-Primitive Non-Motorized (SPNM)	51,356	52%
Semi-Primitive Motorized (SPM)	5,442	5%
Roaded Natural (RN)	1,088	1%
Roaded Modified (RM)	8,103	8%

The area contains 11 inventoried recreation places that cover 42,385 acres, or 43 percent of the roadless area.

ROS Class	# of Rec. Places*	Total Acres
P	1	377
SPNM	6	39,891
SPM	3	813
RN	0	0
RM	5	1,303

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

This roadless area contains no developed recreation; however, two public recreation cabins are located nearby in Portage Bay. Black bear and waterfowl hunting, camping, beach combing, and sport fishing, as well as subsistence activities occur in the areas adjacent to saltwater and along major creeks. Outfitters and guides use the area for remote setting tours, camping, sea kayaking, whale watching, and black bear hunting.

**(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 original Analysis of the Management Situation developed in support of the Forest Plan Revision. At that time, the North Kupreanof Roadless Area was given a rating of 23 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 rating primarily reflects the effects of developments that nearly divide the roadless area on wilderness attributes. The northern portion of the roadless area was rated separately and received a rating of 22.

**(4) Ecologic and Geologic Values:**

**(a) Fish Resources:** The Tongass Fish and Wildlife Resource Assessment (ADF&G, 1998) listed VCU's 424, 425, and 426, the majority of the roadless area, as primary salmon and sportfish producers.

The major streams in this roadless area are the Hamilton River, Big Creek, and Duncan Salt Chuck Creek. This area also contains the headwaters of Cathedral Falls Creek and Gunnuk Creek. The Hamilton River is a large stream with significant salmon returns. Due to difficult survey conditions, accurate escapement estimates are not possible. Although no spawning data are available, Hamilton River is known to produce very good runs of steelhead and coho salmon and has high value for sport fishing. Sport anglers and Kake

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residents fish in the Hamilton River. Kake natives use the river for chum and coho subsistence fishing. The steelhead run has been measured at 550 adult fish. Big Creek has an estimated annual escapement of 22,400 pink salmon (ADF&G, 1998). Duncan Salt Chuck Creek has high values for steelhead, coho salmon, and cutthroat trout. ADF&G lists this stream as one of 19 “high value” watersheds in Southeast Alaska. Halibut fishing for sport is popular in the Frederick Sound to the north.

**(b) Wildlife Resources:** Sitka black-tailed deer and moose are present but the majority of this roadless area has low habitat qualities for deer and moose. However, moose and deer populations are increasing from the low populations that occurred during the 1960s and 1970s. There have been unconfirmed sightings of elk. Elk, a non-native species, are strong swimmers; they may have migrated from where they were introduced on Etolin Island. Black bears are abundant and hunted in this area from the adjacent road system. Wolves are located across all habitat types. Furbearers such as mink, river otters, beaver, marten, and ermine are well distributed and some trapping occurs. There is a key wildlife and waterfowl migration route on the isthmus between Duncan Salt Chuck and Portage Bay to the southeast of this roadless area. The saltwater to the north contains some of the highest population densities of humpback whales in Southeast Alaska that provide wildlife viewing opportunities.

Numerous species of ducks and geese, trumpeter swans, marbled murrelets, and great blue herons have been seen within this roadless area, both during migration and, in some cases, during the nesting season. Numerous harlequin ducks were observed in Frederick Sound.

This roadless area provides habitat for many species of birds especially those that prefer more open muskeg areas and forest wetland. Goose Lake and the adjacent area provide habitat for waterfowl and visiting trumpeter swans. There are no major bays to attract concentrations of waterfowl.

**(c) Threatened, Endangered, and Sensitive Species:** The only federally listed threatened and 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. Four Forest Service Region 10 Sensitive Species are suspected or known to occur within the area: the trumpeter swan, osprey, Peale’s peregrine falcon, and the Queen Charlotte goshawk. Trumpeter swans nest in the lowlands on small lakes and along major rivers and winter in ice-free areas throughout the Tongass. Present from April through September, ospreys are rare in Southeast Alaska where they reach the northern extent of their nesting range. Feeding almost exclusively on fish, ospreys typically nest in large snags near lakes or the coast where fish are abundant. 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 Petersburg Ranger District.

**(d) Karst, Cave, and Other Geologic Resources:** There is one small area of low vulnerability karst near Hamilton Creek north of Towers Lake. There are 117 acres of karst resources, or less than 1 percent, mapped in this roadless area. There are no unique geologic features in this area.

**(5) Scientific and Educational Values:** There are currently several whale research projects being conducted in the waters north of the area. There were 39 service days of commercially provided remote setting nature tours in 2000.

**(6) Scenic Values:** The area is mostly unmodified, displaying uniformly rolling lowlands with the Bohemian Range rising to over 2,200 feet. Visual Priority Routes and Use Areas identified by the Forest Plan, that are within or adjacent to the area include: Frederick Sound, a part of the Alaska Marine Highway, a tour ship route, and a saltwater use area; Portage Bay, a boat anchorage and saltwater use area; Goose Marsh Lake, a dispersed recreation area; and the Portage Bay and West Point public recreation cabins.

None of this roadless area is an inventoried Variety Class A (possessing landscape diversity that is unique for the character type). Approximately 12 percent of this area is inventoried as Variety Class B (possessing landscape diversity that is common for the character type). Most of this area, 88 percent, is inventoried as Variety Class C (possessing a low degree of landscape diversity).

The majority of this roadless area (87 percent) is natural appearing, where only ecological change has occurred (Existing Visual Condition (EVC) Type I). About 2 percent of this roadless area is EVC Type III, where changes in the landscape are seen by the average forest visitor. The natural appearance of the landscape remains dominant. Approximately 9 percent of the area is in EVC Type V where changes in the landscape are obvious to the average person, and appear to be major disturbances. The remaining 2 percent of the area is in EVC VI, where changes in the landscape are in glaring contrast to the natural landscape.

**(7) Social, Cultural, and Historical Values:** The area lies within the traditional territory of the Kake Tlingit and is adjacent to the present community of Kake. No known significant cultural resources exist in the area. The lower reaches of Cathedral Falls Creek and Hamilton River are areas of traditional and current subsistence uses. Extensive road construction and timber harvest had occurred to the south, east, and west of the area. Recreation use and guided visits to the area are high. The road system is used to access hunting and fishing grounds. The road systems adjacent to this roadless area provide the primary access for residents of Kake. VCUs 425 and 426 were listed in the VCU group with the highest community use values and VCU 424 was listed in the third most important group of VCUs for community use values. No VCUs were listed among the VCUs with highest sensitivity to disturbance of subsistence use areas (ADF&G, 1998).

**(8) Manageability as Wilderness and Boundaries Conditions/Changes:** The North Kupreanof Roadless Area has been influenced by the adjacent community of Kake and by timber sales originating from the Portage Bay area.

In 1983, the Bohemia Timber Sale Environmental Assessment and Decision Notice were approved. Due to poor timber markets, parts of this timber sale have never been sold. A portion of Forest Road 6030 was constructed using Tongass Timber Supply Fund money in an effort to offset the lower value timber in this area. This road (Road 6030) enters the roadless area from the west. In 1995, the Final Supplemental Impact Statement for the Bohemia Mountain Timber Sale authorized building a road (Road 6031) into the eastern portion of the roadless area from the existing road on the east side of Portage Bay and extending Road 6030 from the west. These two roads nearly meet in the eastern portion of the roadless area, nearly bisecting the roadless area. Therefore, it may be logical to manage the area north of Roads 6030 and 6031 as a separate roadless area from the area to the south. This road and the accompanying timber harvest resulted in the portion of the roadless area between Portage Bay and Road 6031 being dropped from Roadless Area 211.

The Forest Plan identified a potential powerline corridor across the roadless area (partially following Forest Road 6030) to connect Kake with the Tyee powerline. There is also a proposed powerline route that crosses the northwestern corner of the roadless area, linking Kake with areas to the north. The roadless area also contains a potential transportation corridor linking Kake and Petersburg. If built, this road would definitely split the roadless area into two separate roadless areas.

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

**(1) Recreation, Including Tourism Potential:** Recreation potential in this area is moderate, reflecting its proximity to the community of Kake. The area could be accessed by foot from the adjacent road system, with appropriate trail development.

**(2) Subsistence Uses:** The existing patterns of subsistence activities in the area would not be affected by wilderness designation. Demand within the roadless area has historically been light.

**(3) Fish Resources:** No fish habitat enhancement projects are currently planned.

**(4) Wildlife Resources:** No wildlife habitat enhancement projects are currently planned. Small Old-Growth Reserves have been recommended for redesign to provide greater protection of deer habitat and subsistence hunting opportunities. A medium Old-Growth Reserve covers a large portion of this area. Wilderness designation or continued management in an unroaded condition would contribute to these goals.

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(5) **Timber Resources:** There are approximately 20,694 acres mapped as productive old growth and 54 acres mapped as second growth in the roadless area. Of this area, 13,754 acres are categorized as tentatively suitable for timber production based on national criteria. Based on the Forest Plan LUDs assigned to this area (and estimated falldown and scheduling reduction factors), 5,475 acres, or 6 percent of this roadless area are estimated to be suitable for timber production. Approximately 1,061 of the suitable acres are mapped as high-volume old growth; of these acres, 93 are mapped as high-volume, coarse-canopy old growth.

(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 USGS has identified potential copper resources in the Duncan Salt Chuck area. Valid mining claims exist west of Duncan Salt Chuck Creek. The area within and adjacent to Cathedral Falls Creek corridor has also been identified as an area with potential for mineral extraction of sedimentary uranium by the U.S. Bureau of Land Management.

The roadless area contains 629 acres of land identified as a mineral activity tract having a low potential for experiencing mineral exploration and development of locatable minerals (Coldwell, 1990; USDA Forest Service, 1991). The roadless area also contains an estimated 13,016 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 roadless area contains a potential transportation corridor linking Kake and Petersburg, partially following existing roads across the area. The road would extend between Kake and Twelvemile Creek on the northeast corner of Kupreanof Island, with new road segments on the east side of the island along Frederick Sound, leading to a new channel crossing ferry across Wrangell Narrows to Petersburg. This road was considered in the planning process for the Southeast Alaska Transportation Plan (Alaska Department of Transportation and Public Facilities, 1999). Construction of this road was not recommended as part of the initial buildout to implement the plan. It was recommended for further evaluation if travel demand grows. This route is also included as a route for consideration by Southeast Conference in their ongoing assessment of long-term transportation needs for Southeast Alaska. The portion of VCU 441 located within this roadless area was left out when the adjacent Petersburg Creek-Duncan Salt Chuck Wilderness was created. The intent was to allow for future road access options from Portage Bay to the Bohemia Mountain area and Kake, and a future tie-in with Forest Road 6030. If built, this road would split the area into two separate roadless areas.

There is a potential powerline corridor across the roadless area that would connect Kake with the existing powerline on Mitkof Island. There is also a potential powerline route that crosses the northwestern corner of the roadless area, linking Kake with areas to the north.

(9) **Water Availability and Use:** No developed recreation or other facilities exist to create a water demand within the roadless area. The Gunnuck Creek area is allocated as a Municipal Watershed for the community of Kake, which is west of North Kupreanof Roadless Area.

(10) **Areas of Scientific Interest:** The area contains no Research Natural Areas and has not been identified for any other scientific value. The karst formation in the area may be of scientific interest since karst formations are relatively rare on many islands of Southeast Alaska. The mapped karst resources encompass approximately 117 acres or less than one percent of the roadless area.

(11) **Land Use Authorizations:** There are no land use authorizations in the area.

(12) **Land Status:** All land within the roadless area is part of the National Forest System. Encumbered land located within the roadless area is mainly in the west, 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:** The area is of concern to local residents of Kake. Future timber sales may provide employment and other opportunities. A road connection from Kake to Petersburg has been discussed for some time. It would utilize Forest Road 6030 from Kake, and tie into the Portage Bay road system. This would involve crossing this roadless area. Residents of Kake have proposed building a powerline across the roadless area to connect Kake with the Tyee powerline in order to provide less expensive electricity to develop value-added industries.

**(b) Congressional Interest:** In 1989, U.S. House of Representatives Bill HR 987 proposed to designate 23 areas as wilderness on the Tongass National Forest. The bill did not include this area. In 2001, HR 2908 proposed that that portion of the roadless area south of Road 6030, along with Roadless Areas 214 and 215 be added to the Petersburg Creek/Duncan Salt Chuck Wilderness and that most of the roadless area north of the road be classified as a Congressionally Designated LUD II area and managed in an unroaded condition.

**(c) Public Input During Forest Plan Revision and Appeals:** In 1996, the Alaska Visitor Association proposed that recreation facilities should be developed across the southern part of the area between Hamilton Bay and Towers Arm to support hut-to-hut canoeing. Timber industry comments supported continued road building and timber harvest. The Cathedral Falls Creek and Hamilton Creek areas were identified in appeals as being of particular concern for Wild and Scenic River designation because of their outstanding scenic, recreation, fish, and subsistence values. Concern was also voiced regarding timbering and associated loss of deer habitat in this area because of high subsistence use.

**(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:** Comments on the Bohemia Mountain EIS stated that roads in the isthmus between Portage Bay and Duncan Canal would be very expensive to maintain and are not needed. Commenters also noted that roads harm wildlife.

**(f) Public Input Expressed During Supplemental EIS Process:** 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.

SEACC recommended that the remaining unlogged portions of northern Kupreanof Island (Roadless Areas 211, 212, and 213) be designated LUD II to safeguard their valuable fish and wildlife habitat important for subsistence, fishing, and hunting for residents of Kake and Petersburg. The Alaska Rainforest Campaign (a coalition of national and Alaska conservation groups) recommended Roadless Area 211 for permanent protection as LUD II.

**(2) Nearby Roadless and Wilderness Areas and Uses:** North Kupreanof is one of four contiguous roadless areas on the western half of Kupreanof Island. Rocky Pass, South Kupreanof, Castle Roadless Areas are located on the western half of Kupreanof Island, and Missionary Roadless Area on the northeast corner of the island. The Petersburg Creek-Duncan Salt Chuck Wilderness also adjoins these roadless units. This area receives low recreational use.

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

Community	Air Miles	Water Miles
Juneau (Pop. 30,711)	90	90
Ketchikan (Pop. 14,070)	120	175
Wrangell (Pop. 2,308)	50	60
Petersburg (Pop. 3,324)	15	30

## Appendix C

Petersburg and Kake are the nearest stops on the Alaska Marine Highway.

**(4) Relative Contribution to the National Wilderness Preservation System:** The North Kupreanof Roadless Area is at the north end of Kupreanof Island and lies along the southern shore of Frederick Sound. The roadless area is generally characterized by uniformly rolling lowlands. The Bohemia Range rises to an elevation of over 2,200 feet, providing topographic relief to essentially flat terrain. The ridge parallels other ridges on Kupreanof Island in a roughly northwest to southeast direction, with extensive areas of lowlands in between. Three major drainage systems, Hamilton Creek, Big Creek and Cathedral Falls Creek, wind across much of this area. There are many small lakes.

The area itself is mostly unmodified; however, it is influenced by developments and associated activities on the east and west sides, as well as by two roads which nearly divide the area. The overall area has moderate natural integrity and relatively high apparent naturalness. When the area is rated without the southern portion, the separated area has very high natural integrity and apparent naturalness. The opportunity for solitude and primitive recreation is high for the roadless area.

None of the landscape in the area is considered distinctive for the character type from a scenery standpoint.

A small portion of the roadless area located in Hamilton Creek drainage is part of the Kake Municipal Watershed. There is one small area of karst near Hamilton Creek north of Towers Lake.

The roadless area includes about 4,622 acres of high-volume, old-growth forest. Of these acres, 659 are mapped as high-volume, coarse-canopy old growth.

The North Kupreanof Roadless Area is classified as being in the Kupreanof/Mitkof Islands Biogeographic Province and makes up about 12 percent of the province. It is one of 12 inventoried roadless areas found within the province that collectively make up about 63 percent of the province. The Petersburg Creek-Duncan Salt Chuck Wilderness is located in this province and makes up about 6 percent of the province.

The North Kupreanof Roadless Area lies within two ecological sections; it represents 9 percent of the Kupreanof Lowlands Ecological Section and less than 0.1 percent of the Inside Passage Fjordlands Ecological Section. Approximately 1 percent of the Kupreanof Lowlands Ecological Section is in existing wilderness, 1 percent is in existing LUD II, and an additional 33 percent is protected by other existing non-development LUDs, while 20 percent of the Inside Passage Fjordlands Ecological Section is in existing wilderness, 2 percent is in existing LUD II, and 30 percent is protected by other existing non-development LUDs.

The majority (81 percent) of the roadless area is in the Duncan Canal Till Lowlands Ecological Subsection; this portion of the roadless area represents 33 percent of the entire ecological subsection, 5 percent of which is in existing wilderness, and is well represented by other existing non-development LUDs (35 percent). Most of the balance (18 percent) of this roadless area is within the Kake Volcanics Ecological Subsection; this portion of the roadless area represents 13 percent of the entire ecological subsection. Approximately 23 percent of this ecological subsection is protected by other existing non-development LUDs. Less than 1 percent of the roadless area is in the Wrangell Narrows Metasediments Ecological Subsection; this portion of the roadless area represents less than 1 percent of the entire ecological subsection, which is protected by existing wilderness (11 percent) and other non-development LUDs (18 percent).

The North Kupreanof 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 northern portion of the roadless area and it received a score of 22.

There is both local and national support for management of the area in an unroaded condition. There is some support for designation as wilderness, especially the portions near the wilderness boundary. Designation of the area as wilderness would add Congressional protection to approximately 13 percent of the Kake Volcanics Ecological Subsection that is not currently represented in wilderness or LUD II. There is substantial local support for reserving road and powerline corridors to be able to connect the communities of Kake and Petersburg in the future. These

were considerations used by Congress in their designation of the Petersburg Creek-Duncan Salt Chuck Wilderness. Overall, the factors identified here indicate that the relative contribution of this area to the National Wilderness Preservation System would be low to moderate.

### **V. Environmental Consequences**

The North Kupreanof Roadless Area would be managed under the existing Forest Plan if Alternative 1, 2, 3, 4, or 5 is implemented. Approximately 39 percent of the roadless area would be managed under non-development LUDs. Timber harvest and road development could occur in the remaining 61 percent. The land in the development LUDs provides an estimated 5,475 acres that are suitable for timber production (4 percent of the suitable acres on the Petersburg Ranger District). Approximately 93 of the suitable acres are classified as high-volume, coarse-canopy old growth. The roadless area contains about 629 acres of land identified as a mineral activity tract having a low potential for experiencing mineral exploration and development of locatable minerals. The roadless area also contains an estimated 13,016 acres of undiscovered locatable mineral resources; all of the acres are considered to have low potential for development. Planning for the State road and power grid connections between Kake and Petersburg would continue. The timber sales, recreation, minerals, and special use programs would continue. The values associated with the natural settings of this roadless area would be affected with ongoing developments, especially in the vicinity of current developments.

Under Alternative 6, a 68,603-acre portion of the roadless area would be converted to Recommended LUD II. The remaining portion of the roadless area, approximately 30,963 acres, would be converted to Recommended Wilderness. No timber harvest would be allowed in the roadless area. The ongoing recreation, transportation and utility planning, minerals, and special use programs could continue similar to current conditions in the Recommended LUD II. Restrictions would be expected on programs in the Recommended Wilderness portion. A small portion of the State road and power corridor would be affected by the Recommended Wilderness, but the route could likely be adjusted outside the Recommended Wilderness area. Mineral prospecting would be allowed in the Recommended Wilderness portion up to the time that the area is actually designated as wilderness by Congress. Designation of the area as wilderness would add Congressional protection to approximately 13 percent of the Kake Volcanics Ecological Subsection that is not currently represented in wilderness or LUD II. Long-term protection of the values associated with the natural settings of the roadless area would be provided if designated as LUD II or wilderness.

Under Alternative 7, a 30,963-acre portion (same as in Alternative 6) of the 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 in the Recommended Wilderness area. Lands suitable for timber production in the roadless area would be reduced to approximately 2,643 acres. A small portion of the State road and power corridor would be affected by the designation Recommended Wilderness, but the route could likely be adjusted outside the Recommended Wilderness area. Mineral prospecting would be allowed in the Recommended Wilderness portion up to the time that the area is actually designated as wilderness by Congress. Ongoing programs would continue as in Alternative 1 for areas outside of the Recommended Wilderness. The values associated with the natural settings of the southern portion of the roadless area would be provided long-term protection if designated wilderness.

Under Alternative 8, the entire roadless area would be converted to Recommended Wilderness. Timber harvest would not be allowed and the ongoing recreation, minerals, and special uses programs could be restricted. The road and power connection between Kake and Petersburg would likely not be able to be constructed in the area. Mineral prospecting would be allowed up to the time that the area is actually designated as wilderness by Congress. Designation of the area as wilderness would add Congressional protection to approximately 13 percent of the Kake Volcanics Ecological Subsection that is not currently represented in wilderness or LUD II. The values associated with the natural settings of the roadless area would be provided long-term protection if designated wilderness.

## Appendix C

Land Use Designation Allocations and Suitable Timber Lands by Alternative for Roadless Area 211 (in acres)								
Land Use Designation	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8
Recommended Wilderness						30,963	30,963	99,566
Wilderness								
Recommended Wilderness Nat. Mon.								
Wilderness National Monument								
Non-wilderness National Monument								
Research Natural Area								
Special Interest Area								
Remote Recreation								
Enacted Municipal Watershed	779	779	779	779	779		779	
Old-growth Habitat	22,266	22,266	22,266	22,266	22,266		14,046	
Semi-remote Recreation	16,169	16,169	16,169	16,169	16,169		16,169	
Recommended LUD II						68,603		
LUD II								
Wild, Scenic, Recreational River								
Experimental Forest								
Scenic Viewshed								
Modified Landscape	247	247	247	247	247		35	
Timber Production	60,105	60,105	60,105	60,105	60,105		37,574	
<b>TOTAL</b>	<b>99,566</b>	<b>99,566</b>	<b>99,566</b>	<b>99,566</b>	<b>99,566</b>	<b>99,566</b>	<b>99,566</b>	<b>99,566</b>
Suitable Timber Lands	5,475	5,475	5,475	5,475	5,475	0	2,643	0