

# Appendix C

## INDIVIDUAL ROADLESS AREA DESCRIPTION

**ROADLESS AREA NAME:** Lindenberg (216)

**ACRES (NFS):** 25,136

**BIOGEOGRAPHIC PROVINCE:** Kupreanof/Mitkof Islands

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

**2003 WILDERNESS ATTRIBUTE RATING:** 18

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

(1) **Location and Access:** This area lies on the Lindenberg Peninsula on Kupreanof Island, directly south of the Petersburg Creek-Duncan Salt Chuck Wilderness, between Duncan Canal and the Wrangell Narrows. The city of Petersburg, served by the Alaska Marine Highway and daily jet service, lies approximately 3 air miles to the east, across Wrangell Narrows, and the city of Kupreanof is adjacent to the east side of the area but is not connected by a road system. The area is bounded to the south and along most of the western side by areas developed for timber management.

There are no sites suitable for landing wheeled aircraft or floatplanes in the interior of this area. Saltwater access is by way of the Wrangell Narrows and upper Duncan Canal. The western and southern boundaries can be accessed from an existing road network, which terminates at the Tonka Log Transfer Facility and does not connect to any community. Access to the interior is by helicopter or by foot.

(2) **History:** The area lies within the traditional territory of the Stikine Tlingit. Cultural resources in the area include historic period cabins, mining sites, culturally modified trees and prehistoric period fish traps, villages, and camps. Many of the known sites are on the shoreline or on private property adjacent to the defined roadless area. At least one historic site, a shelter at Warm Fish Lake built in the 1940s, lies in the interior as does the old, primitive Duncan Canal Portage Trail. The trail is no longer part of the Forest Service trail system and has not been maintained for many years. It is very overgrown and difficult to find. Parts of the trail (outside the roadless area) have been obliterated by roads and harvest units. No timber harvest has occurred within the roadless area.

(3) **Geography and Topography:** The landforms of the Lindenberg Roadless Area are predominantly mountainous. Slopes rise steeply from either saltwater or valley bottoms to the ridge tops. Lindenberg Peak, the highest point in the area, is 3,250 feet in elevation. Spruce-hemlock forests are continuous below alpine and extend into the valley drainages. Muskeg is common in areas with flat terrain. The roadless area is bounded to the north by the broad valley of Duncan Creek. The valley extends in an east-west direction from Ohmer Slough on Duncan Canal to a point outside the roadless area near the intersection with Coho Creek, which drains into the Wrangell Narrows. Skoags Creek extends eastward from Lindenberg Peak toward Scow Bay partially on non-National Forest System lands. There are approximately 5 miles of saltwater shoreline. There are 93 acres of alpine and 50 acres of rock but no ice or snow features mapped in the area.

(4) **Ecosystem:**

(a) **Classification:** Biogeographic Province. The area is classified as being in the Kupreanof/Mitkof Islands Biogeographic Province. This province is generally characterized by rolling, subdued topography and extensive muskeg areas, but may have rugged terrain in localized areas.

Ecological Section/Subsection. The Lindenberg Roadless Area is contained mostly within the Inside Passage Fjordlands Ecological Section (M247E) and also contains a small portion within the Kupreanof Lowlands Ecological Section (M247G). These areas are represented by two ecological subsections (see table below). The Wrangell Narrows Metasediments Ecological Subsection covers almost all of the

Lindenberg Roadless Area. It is typified by mountains of sedimentary origin which have been extensively reshaped by glaciers and glacial deposition. Slopes are forested with hemlock, spruce, and cedar while lodgepole pine and mixed-conifer stands are found in poorly drained soils. Wetlands are common in low relief, depositional areas. Thick peat deposits have accumulated in some sites with poor drainage (Nowacki et al., 2001).

Ecological Section	Ecological Subsection	Percent of Roadless Area
Inside Passage Fjordlands	Wrangell Narrows Metasediments	99%
Kupreanof Lowlands	Duncan Canal Till Lowlands	1%

**(b) Soils:** Soils in this area are formed in a wide variety of parent material, including bedrock and glacial drift. In general, well-drained 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 forested wetlands to open muskeg. Alpine soils, generally above 2,000 feet elevation, are mostly rocky, shallow, very wet organic soils.

**(c) Vegetation:** Muskeg/forested wetland complexes cover the lowlands from north of Mountain Point to the Coho Creek drainage. Approximately 109 acres of muskeg are mapped for the area; however, due to their small size and association with forested sites, accurate acreage estimates are difficult. Forested hill slopes are dominated by western hemlock and mixed conifer plant communities. Minor amounts of red cedar are present. There are 93 acres of alpine vegetation mapped for the area.

There are approximately 24,202 acres mapped as forest land of which 11,793 acres or 49 percent are mapped as productive old-growth forest. Of the productive old growth, 5,826 acres or 49 percent are mapped as high-volume old-growth forest. The productive old growth includes about 1,008 acres of high-volume, coarse-canopy old growth. There is no second-growth forest where timber harvest has occurred in the past.

**(d) Fish Resources:** The two Alaska Department of Fish and Game (ADF&G) numbered streams in the roadless area produce chum, coho, and pink salmon; steelhead and cutthroat trout; and Dolly Varden char. Duncan Creek is the most productive drainage in the roadless area. The upper watershed of Skoags Creek is the only other stream system in the roadless area.

**(e) Wildlife Resources:** Sitka black-tailed deer and moose are present over most of Kupreanof Island. Suitable habitat for both is available and populations of both are stable and possibly growing. Black bears are abundant on Kupreanof Island. Wolves are located across all habitat types on Kupreanof Island. The mountain lion is present as an incidental species, probably migrating into Southeast Alaska from Canada along large rivers, such as the Stikine River. One mountain lion has been trapped on Kupreanof Island near Totem Bay to the west.

Mink, river otters, beaver, marten, ermine, red squirrel, porcupine, mice, shrews, and voles are well distributed over Kupreanof Island. 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.

Bald eagles, northern goshawks, ospreys, red-tailed hawks, sharp-shinned hawks, great horned owls, western screech owls, saw-whet owls, pigmy owls, spruce grouse, and ptarmigan all occur on Kupreanof Island. Bats are present during the summer months and occasionally over winter in man-made structures.

Numerous species of ducks and geese, sandhill cranes, trumpeter swans, marbled murrelets, and great blue herons occur in and around Kupreanof Island, both during migration and, in some cases, during the nesting season.

## Appendix C

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.

**(5) Management Direction and Current Uses:** The roadless area was allocated to four Land Use Designations (LUDs) under the 1997 Tongass Land and Resource Management Plan. These four LUDs are Timber Production, Modified Landscape, Scenic Viewshed, and Old-growth Habitat.

<b>LUD</b>	<b>Acres</b>
Timber Production	11,244
Modified Landscape	5,017
Scenic Viewshed	6,362
Old-growth Habitat	2,513

The majority of the roadless area, approximately 90 percent, was allocated to a development LUD (Timber Production, Modified Landscape, Scenic Viewshed). The interior of the Lindenberg Peninsula is allocated to the Timber Production LUD, which accounts for approximately 45 percent of the roadless area. In the northeast corner of the area around Wrangell Narrows, approximately 25 percent of the roadless area was allocated to the Scenic Viewshed LUD. Approximately 20 percent of the roadless area was allocated to the Modified Landscape LUD. This LUD is located in parts of the less visible land in the northeast and interior.

Approximately 10 percent of the roadless area was allocated to one non-development LUD, the Old-growth Habitat LUD. Land allocated to this LUD is located in the northwest section, near the mouth of Duncan Creek.

The Lindenberg Roadless Area, along with Roadless Area #217, was analyzed for timber harvest and road construction in the mid 1990s as part of the South Lindenberg Timber Sale(s) EIS. The resulting decision allowed for multiple sales in these areas. The sales that already have been sold under this EIS include: South Lindenberg, South Lindenberg One, Tatonka, Dakota, South Lindenberg Mountain, South Park, South Central, South Saddle, and South Sand. The South Lindenberg Timber Sale will extend the existing road system into the northern portion of the roadless area. The South Lindenberg Mountain Timber Sale will affect the extreme southeastern section. Other smaller sales, some of which are currently under contract, and others that will be offered in the near future, will affect portions of the roadless area adjacent to existing roads and harvest units. The 10-year timber sale schedule has other timber sales proposed in this area.

The primary recreation uses of the area include moose and deer hunting, coho salmon and steelhead fishing, camping, and viewing scenery from marine waters. Area residents also participate in subsistence deer hunting in the roadless area. There is one developed recreation site, a three-sided shelter at Warm Fish Lake built during the 1940s. There was no recorded use of the area by outfitters or guides in 2000. Recreation use is moderate. Most recreation use is in the Duncan Pass area, especially by residents of Petersburg and Kupreanof. There are no public recreation

cabins in the roadless area; however, there are three special use permits for private cabins. The Duncan Creek fishpass, located 1.5 miles upstream from saltwater, was constructed in 1999.

**(6) Appearance (Apparent Naturalness):** The area is mostly unmodified. However, harvest units and roads adjacent to the roadless area are visible from Duncan Canal, a key travelway. The existing visual condition of the area is predominantly natural; however, the extensive developed areas along the boundaries affect the appearance of adjacent portions of the roadless area.

**(7) Surroundings (External Influences):** The area is close to the community of Petersburg. The Petersburg Creek-Duncan Salt Chuck Wilderness directly adjoins the Lindenberg Roadless Area to the north. The city of Kupreanof and the State of Alaska own the majority of land along Coho Creek and adjacent to the Wrangell Narrows. Private development on these lands could influence the setting. Areas developed for timber management border the roadless area to the west and south and extend deep into the area in the northwest, nearly dividing the roadless area in two. Duncan Pass is a primary flight route for air charter companies based in Petersburg.

**(8) Attractions and Features of Special Interest:** The area contains two inventoried recreation places that cover 475 acres, or 2 percent of the roadless area. The area is immediately adjacent to saltwater and the major creeks are valued for recreation uses such as moose, deer, and black bear hunting; hiking; and beach combing. Sport fishing and sightseeing is popular on Duncan Creek.

**(9) Differences Between the 1989 and 2003 Roadless Area Boundary:** There are differences on the western and southern boundaries (mostly minor) that result from more closely following the edge of the developed area. Because of this, the 2003 roadless area is larger than the 1989 version.

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

**(1) Natural Integrity and Apparent Naturalness:** The area is essentially unmodified. Areas adjacent to private land are likely to change in character as development occurs. The land in the roadless area has a mostly natural appearance; however, the landscape is influenced by the developments along the west and south boundaries. Developments from the west and lands owned by the city of Kupreanof and the State of Alaska on the east nearly divide the area in two.

**(2) Opportunity for Solitude and Serenity, Self-reliance, Adventure, Challenging Experiences, and Primitive Recreation:** There is a moderately high opportunity for solitude and primitive recreation in the Lindenberg Roadless Area, primarily because of the proximity to the Petersburg Creek Duncan Salt Chuck Wilderness. Floatplanes and powerboats may disrupt visitors for brief periods, as could scheduled commercial airline flights to and from Petersburg. Fishing, hunting, and sightseeing are the basic recreation opportunities found in this semi-primitive setting. The area is accessible by boat from the city of Petersburg in less than one-half hour. Present recreation use levels are moderate compared to recreation activity across the Petersburg Ranger District, and are concentrated in specific locations adjacent to major creeks and drainages, and along the adjacent road system. A visitor camped on a creek in the area would have a low chance of seeing or being seen by other visitors in the area.

Travel within the area is moderately challenging, with some steep, rugged areas. 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 semi-primitive and 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.

## Appendix C

ROS Class	Acres	Percent of Total ROS
Primitive (P)	51	0%
Semi-Primitive Non-Motorized (SPNM)	17,078	68%
Semi-Primitive Motorized (SPM)	2,001	7%
Roaded Natural (RN)	243	1%
Roaded Modified (RM)	5,763	23%

The area contains two inventoried recreation places that cover 475 acres, or 2 percent of the roadless area.

ROS Class	# of Rec. Places*	Total Acres
P	0	0
SPNM	0	0
SPM	2	356
RN	0	0
RM	1	119

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

There is one developed recreation site at Warm Fish Lake. There was no recorded use of the area by outfitters or guides in 2000. Recreation use levels are moderate compared to recreation use on the Petersburg Ranger District as a whole. Most use is along Duncan Creek and Coho Creek, near saltwater, and on the road system just outside the roadless area.

**(3) Wilderness Attribute Rating System:** In 1977, the Forest Service, along with public interest groups, developed the Wilderness Attribute Rating System (WARS), which was used to inventory the wilderness characteristics of roadless areas during the second Roadless Area Review and Evaluation process (referred to as RARE II). The purpose of WARS was to provide a measure of the area's wilderness quality, based on the key attributes of wilderness as defined in the Wilderness Act. It is largely based on the attributes described above in items 1 and 2 of this section (natural integrity, apparent naturalness, outstanding opportunity for solitude, and primitive recreation opportunities).

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 Lindenberg Roadless Area was given a rating of 24 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 18. The lower score reflects ongoing developments in the roadless area and activities and uses associated with the proximity of the area to Petersburg.

**(4) Ecologic and Geologic Values:** There are no unique ecologic or geologic values in the area. The roadless area is relatively small and irregularly shaped. However, it adjoins the Petersburg-Duncan Salt Chuck Wilderness to the north.

**(a) Fish Resources:** The Tongass Fish and Wildlife Resource Assessment (ADF&G, 1998) lists VCU 447 along Wrangell Narrows as a primary producer of salmon and of sport fish. The Duncan Creek drainage originates in the north central portion of the roadless area and flows westward into Duncan Canal. It has 31 stream miles that are classified as Class I or II. Chum, coho, and pink salmon; steelhead and cutthroat trout; and Dolly Varden char are present in the stream. A 30-foot high waterfall is located about 2 miles upstream of the mouth of the creek. A barrier modification was completed in 2000 to allow anadromous fish passage above the falls. As of fall 2001, adult coho salmon and anadromous Dolly Varden char are accessing upstream waters.

Skoags Creek produces both recreational and commercial fishing opportunities. The ADF&G has documented the presence of all salmonid species native to the Lindenberg Peninsula, except steelhead. Pink salmon production is best on the southern Lindenberg Peninsula, with escapement upwards of 4,200. Although the lower section of Skoags Creek is outside the roadless area, the upper watershed includes 11 miles of Class I and II streams.

**(b) Wildlife Resources:** South Lindenberg Peninsula forms a migration corridor with the south part of Mitkof Island and Woewodski Island for species migrating down the Stikine River valley. This migration pattern has resulted in species that recently (in the past few decades) immigrated to the islands to the west. This area is also allowing the dispersal of elk, a non-native species that was introduced to Etolin Island in the south to colonize islands within these biogeographic provinces. This migration route also extends to the north and across the isthmus of Kupreanof Island to allow access to the middle of the island.

Sitka black-tailed deer and moose are present on the South Lindenberg Peninsula. Suitable habitat for both is available and populations of both are stable and possibly growing. Black bears are abundant within this roadless area. This area is popular for hunting by residents of Kupreanof and Mitkof Islands. Based on harvest data compiled from 1985 to 1995, VCU 447 along Wrangell Narrows, was ranked in the second 25 percent of brown bear harvest areas on the Tongass. Several people trap furbearers along the shoreline and road system.

Northern goshawks are known to nest within this area and the small bays provide habitat for nesting waterfowl. Humpback whales have been observed both in Duncan Canal and the Wrangell Narrows.

Numerous species of ducks and geese, sandhill cranes, trumpeter swans, marbled murrelets, and great blue herons occur in and around this roadless area, both during migration and, in some cases, during the nesting season.

**(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). Humpback whales have been observed both in Duncan Canal and the Wrangell Narrows. Steller sea lions may be 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. Goshawks are known to nest within the roadless area. 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 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 unique scientific or educational values identified in this roadless area.

**(6) Scenic Values:** The overall area is mostly natural appearing with a landscape that is, for the most part, common. Developed areas can be viewed from many of the higher elevations in the area. The unmodified eastern mountain ridge in the roadless area can be seen from the Wrangell Narrows. Development on private land along the shore modifies the view from the Wrangell Narrows. Traveling down Duncan Canal, an observer would view the roadless area's peaks, but also the timber harvest on the adjacent land.

Visual Priority Routes and Use Areas identified by the Forest Plan that are within or adjacent to the area include: Wrangell Narrows, which is a tour ship route and a part of the Alaska Marine Highway, and Duncan Canal, which is a small boat route and a saltwater use area up to Indian Point.

Nine percent of this roadless area is inventoried Variety Class A (possessing landscape diversity that is unique for the character type). About 69 percent of this area is inventoried Variety Class B (possessing landscape diversity that is common for the character type), and the remaining 22 percent is inventoried Variety Class C (possessing a low degree of landscape diversity).

## Appendix C

The majority of this roadless area, 75 percent, has an Existing Visual Condition (EVC) Type I, where only ecological change has occurred. About 1 percent has an EVC of III, where changes in the landscape are seen by the average person, but they do not attract attention. Nine percent of the area is in EVC Type IV, where changes in the landscape are easily noticed by the average person and may attract some attention. They appear to be disturbances but resemble natural patterns. About 15 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.

**(7) Social, Cultural, and Historical Values:** The area lies within the traditional territory of the Stikine Tlingit. Cultural resources in the area include historic period cabins, mining sites, culturally modified trees and prehistoric period fish traps, villages and camps. Many of the known sites are on the shoreline or on private property adjacent to the roadless area. At least one historic site, a three-sided shelter built in the 1940s, lies in the interior, as does the old, primitive Duncan Canal Portage Trail.

The area is approximately 3 miles east of the city of Petersburg. The city of Kupreanof is on the eastern boundary of the roadless area. There are no public recreation cabins or developed trails in the roadless area. No outfitter/guide permits were issued for this area in 2000. Special use permits have been issued for three private cabins on the south side of Ohmer Slough, which is just outside the roadless area. The South Lindenberg EIS timber sales will develop a road system and harvest timber in the northern and southeastern portions of the roadless area. VCU 447, along Wrangell Narrows, was listed among the VCUs with highest community use value and with the highest sensitivity to disturbance of subsistence use areas (ADF&G, 1998).

**(8) Manageability as Wilderness and Boundary Conditions/Changes:** This roadless area is adjacent to the community of Kupreanof, and to land owned by the State of Alaska and the city of Petersburg. This will most likely lead to continued development of homesites, which may not be compatible with management of portions of the area as roadless or wilderness in the long term. On the other hand, the northern boundary of this roadless area directly adjoins the Petersburg Creek-Duncan Salt Chuck Wilderness. This enhances the ability to maintain the roadless, undeveloped character of both areas. Except along the northern wilderness boundary and small segments of the western and eastern boundaries along saltwater, the area does not have natural boundaries. Feasibility of management in a roadless condition is fair. The South Lindenberg Timber Sale will extend the existing road system into the northern portion of the roadless area. The South Lindenberg Mountain Timber Sale will affect the extreme southeastern section. Other smaller sales, some of which are currently under contract, and others that will be offered in the near future, will affect portions of the roadless area adjacent to existing roads and harvest units. The 10-year timber sale schedule has other timber sales proposed in this area.

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

**(1) Recreation, Including Tourism Potential:** Recreation potential for the Lindenberg Roadless Area is high, due to the proximity to Petersburg and the adjacent wilderness. Petersburg is a popular tourist destination for people from outside of Alaska. There is potential for outfitter and guide permits, and development of cabins and/or shelters. Additional opportunities for trails would create more loop options, and could increase the diversity of settings and ecotypes encountered.

**(2) Subsistence Uses:** Continued management in an unroaded condition or management as a wilderness would not conflict with current subsistence uses.

**(3) Fish Resources:** There are two fish enhancement projects on Duncan Creek, including coho stocking and barrier modifications at three complete or partial barrier complexes. The barrier downstream was modified in 2000. The middle barrier was planned to be modified in 2002. The third (uppermost) barrier is currently being evaluated for possible modification.

**(4) Wildlife Resources:** No wildlife habitat improvement projects are currently planned in the area.

**(5) Timber Resources:** There are approximately 11,793 acres inventoried as productive old-growth forest in the roadless area. There is no mapped second-growth timber due to harvesting. Of this, approximately 8,695 acres are categorized as tentatively suitable for timber harvest. Based on the Forest Plan LUDs assigned to this area (and

estimated falldown and scheduling reduction factors), 4,639 acres (18 percent) of this roadless area are estimated to be suitable for timber production. Approximately 2,759 of the suitable acres are mapped as high-volume old growth; of these acres, 368 are mapped as high-volume, coarse-canopy old growth.

The South Lindenberg EIS timber sales are scheduled to harvest timber in and near the roadless area. The sales would extend the existing road system from adjacent developed areas into the roadless area in the northern and southeastern portions. The sales that already have been sold under this EIS include: South Lindenberg, South Lindenberg One, Tatonka, Dakota, South Lindenberg Mountain, South Park, South Central, South Saddle, and South Sand. The 10-year timber sale schedule has other timber sales proposed in this area.

**(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:** There are no inventoried areas with high mineral development potential; however, the area does have mineral exploration potential. The roadless area contains an estimated 1,751 acres of undiscovered locatable mineral resources (Brew et al., 1990; USDA Forest Service, 1991). All of these acres are considered to have low potential for development.

**(8) Transportation and Utilities:** There are no travel corridors identified in the roadless area. The timber sales currently under contract and future timber sales from the South Lindenberg EIS will continue to develop the road system in order to harvest timber in the northern portion of the roadless area and in the southeastern part. There are no power transmission corridors identified within the roadless area; however, a potential corridor has been identified near the southern boundary.

**(9) Water Availability and Use:** There are no recreation or other facilities located in this roadless area. As a result, demand does not currently exist for domestic water use. This may change as recreation cabins within the roadless area and residences on private land along the eastern boundary are developed. There are no existing or planned hydroelectric or domestic water projects.

**(10) Areas of Scientific Interest:** The area contains no Research Natural Areas and has not been identified for any other scientific value.

**(11) Land Use Authorizations:** No land use authorizations are currently issued for this roadless area.

**(12) Land Status:** All land within the roadless area is part of the National Forest System.

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

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

**(a) Interest Expressed by Local Users and Residents:** Many local residents want this area to remain unroaded and undeveloped. Other residents enjoy using the road system and want to see a more extensive system. Small timber operators have successfully bought and sold timber from some of the small sales in this area and would like a sustained local supply from here and Mitkof Island.

**(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 Lindenberg Roadless Area. In 2001, HR 2908 proposed that the northern portion of the roadless area be designated as an addition to the Petersburg Creek-Duncan Salt Chuck Wilderness. The remainder of the roadless area would be managed in an unroaded condition as LUD II under this bill.

**(c) Public Input During Forest Plan Revision and Appeals:** In 1996, the Southeast Alaska Conservation Council recommended managing the area to preserve its integrity. They felt that the area merited special protection for its outstanding wildlife, fish, hunting, subsistence, recreation, and tourism values. The Narrows Conservation Council felt that the upper Duncan Canal area should be managed under

## Appendix C

the Primitive Recreation LUD because it is the largest estuary in Southeast Alaska. However, timber industry organizations felt that there was no justification for this.

Some comments suggested managing the area as wilderness and others as an old-growth reserve. One commenter wanted the area managed as a Developed Recreation LUD, while another wanted the existing developed recreation facilities maintained before new facilities were added. Several comments wanted the Forest Service to provide the strongest possible protection for the area. There were also general comments on Kupreanof Island. Some commenters wanted all unroaded areas developed and some wanted all unroaded areas protected. Some favored designating all unroaded lands as wilderness and some wanted them managed as roadless areas for remote recreation.

**(d) Public Input During Roadless Area Conservation Rule and Road Management Policy**

**Review:** This area was not specifically identified in the public comments received during the Roadless Area Conservation Rule or Road Management Policy Review. However, some commenters wanted all unroaded lands on the Tongass to be protected from development, while others wanted the current level of development to continue.

**(e) Public Input Expressed for Project-level EISs and Other Input:** In response to the South Lindenberg Timber Sale EIS, the Narrows Conservation Council and the Southeast Alaska Conservation Council felt that the northern portion of the roadless area should be protected from road building and logging. The City of Kupreanof stated that new roads would be contrary to their goal of maintaining a roadless community. Others commented that roads and timber harvest would be bad for wildlife, subsistence, and/or recreation. Owners of adjacent land were concerned that roads would adversely affect the drinking water supply for homes they plan to build on their property, as well as disturb the wilderness-like setting. Comments on the Kupreanof Island Analysis ranged from favoring protection of the area from logging and road building to increasing timber harvest.

**(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.

The Alaska Rainforest Campaign (a coalition of national and Alaska conservation groups) recommended Roadless Area 216 for permanent protection as LUD II. SEACC recommended that the remaining unlogged portions of the Lindenberg Peninsula of Kupreanof Island be designated LUD II to safeguard the area's valuable fish and wildlife habitat. They indicated that the northern portion of the Lindenberg Roadless Area should be designated wilderness and added to the adjoining Petersburg Creek/Duncan Salt Chuck Wilderness.

**(2) Nearby Roadless and Wilderness Areas and Uses:** The northern boundary of the Lindenberg Roadless Area adjoins the Petersburg Creek-Duncan Salt Chuck Wilderness. The remaining roadless units on Kupreanof Island are separated from the area by saltwater or developed areas.

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

<b>Community</b>	<b>Air Miles</b>	<b>Water Miles</b>
Juneau (Pop. 30,711)	115	125
Petersburg (Pop. 3,224)	3	5
Wrangell (Pop. 2,308)	30	45
Ketchikan (Pop. 14,070)	100	125

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

**(4) Relative Contribution to the National Wilderness Preservation System:** The Lindenberg Roadless Area lies on the Lindenberg Peninsula on Kupreanof Island, directly south of the Petersburg Creek-Duncan Salt Chuck Wilderness, between Duncan Canal and the Wrangell Narrows. The city of Petersburg lies approximately 3 air miles to the east, across Wrangell Narrows, and the city of Kupreanof is adjacent to the east side of the area but is not connected by a road system. The area is bounded to the south and along most of the western side by areas developed for timber management. Landforms along this area are characterized by steep mountain slopes divided by broad valleys. The highest peak rises to 3,250 feet above sea level.

The area itself is mostly unmodified; however, it is heavily influenced by ongoing developments and activities on adjacent lands. The area has high natural integrity and moderate apparent naturalness. The opportunity for solitude is moderate and the opportunity for primitive recreation is high.

Approximately 9 percent of the landscape of the area is considered distinctive for the character type from a scenery standpoint. The area has no other significant or unique wilderness attributes.

The roadless area includes about 5,826 acres of high-volume, old-growth forest. Of these acres, 1,008 are mapped as high-volume, coarse-canopy old growth.

The Lindenberg Roadless Area is classified as being in the Kupreanof/Mitkof Islands 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 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 Lindenberg Roadless Area lies within two ecological sections; it represents 1 percent of the Inside Passage Fjordlands Ecological Section and less than 0.1 percent of the Kupreanof Lowlands Ecological Section. Approximately 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, while 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.

The vast majority (99 percent) of the roadless area is in the Wrangell Narrows Metasediments Ecological Subsection; this portion of the roadless area represents 8 percent of the entire ecological subsection that has portions protected by existing wilderness (11 percent) and other non-development LUDs (18 percent). Less than 1 percent of the roadless area is in the Duncan Canal Till Lowlands Ecological Subsection; this portion of the roadless area represents 0.1 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).

The Lindenberg Roadless Area was rated 18 out of a possible 28 points under the Wilderness Attribute Rating System (WARS). As such, its WARS rating is ranked 84th from the highest (along with eight other roadless areas) among the 109 Tongass inventoried roadless areas.

There is some local and national support for managing the area in an unroaded condition, but very little support for designating the area as wilderness. Designation would create a wilderness with few significant or unique wilderness attributes. The northern portion of the roadless area would add to the size of the Petersburg Creek-Duncan Salt Chuck Wilderness. The roadless area includes several timber sales authorized under the South Lindenberg FEIS, many of which are under contract. Overall, the factors identified here indicate that the relative contribution of this area to the National Wilderness Preservation System would be low.

## **V. Environmental Consequences**

The Lindenberg Roadless Area would be managed under the existing Forest Plan if Alternative 1, 2, 3, 4, or 5 is implemented. Approximately 10 percent of the roadless area would be managed under non-development LUDs. Timber harvest and road development could occur in the remaining 90 percent. The land in the development LUDs provides an estimated 4,639 acres that are suitable for timber production (3 percent of the suitable acres on the Petersburg Ranger District). Approximately 368 of the suitable acres are classified as high-volume, coarse-canopy old growth. Timber sales under contract and future sales would continue. The roadless area contains an estimated

## Appendix C

1,751 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. Values associated with the natural settings of the roadless area could be affected by ongoing development activities.

Under Alternative 6, a 17,042-acre portion of roadless are would be converted to Recommended Wilderness LUD and the remainder, approximately 8,094 acres, would be converted to Recommended LUD II. The ongoing recreation, minerals, and special use programs would continue similar to current conditions in the Recommended LUD II area and would be restricted in the Recommend Wilderness area. No timber harvest would be allowed. The values associated with the natural settings of the roadless area would receive long-term protection if designated LUD II or wilderness.

Under Alternative 7, an 8,094-acre portion of Old-growth Habitat, Modified Landscape, and Timber Production LUDs would be converted to Recommend Wilderness. No timber harvest would be allowed and the ongoing recreation, minerals, and special use programs would be restricted in the Recommend Wilderness area. Lands suitable for timber production would be reduced to approximately 3,332 acres. The values associated with the natural settings of the roadless area would receive long-term protection if designated wilderness

Under Alternative 8, the entire roadless area would be converted to Recommended Wilderness. No timber sales 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 would receive long-term protection if designated wilderness.

Land Use Designation Allocations and Suitable Timber Lands by Alternative for Roadless Area 216 (in acres)								
Land Use Designation	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8
Recommended Wilderness						8,094	8,094	25,136
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	2,513	2,513	2,513	2,513	2,513			
Semi-remote Recreation								
Recommended LUD II						17,042		
LUD II								
Wild, Scenic, Recreational River								
Experimental Forest								
Scenic Viewshed	6,362	6,362	6,362	6,362	6,362		6,362	
Modified Landscape	5,017	5,017	5,017	5,017	5,017		4,858	
Timber Production	11,244	11,244	11,244	11,244	11,244		5,822	
<b>TOTAL</b>	<b>25,136</b>	<b>25,136</b>	<b>25,136</b>	<b>25,136</b>	<b>25,136</b>	<b>25,136</b>	<b>25,136</b>	<b>25,136</b>
Suitable Timber Lands	4,639	4,639	4,639	4,639	4,639	0	3,332	0