

INDIVIDUAL ROADLESS AREA DESCRIPTION

ROADLESS AREA NAME: Crystal (224)

ACRES (NFS): 19,609

BIOGEOGRAPHIC PROVINCE: Kupreanof/Mitkof Islands

ECOLOGICAL SECTION: Inside Passage Fjordlands

2003 WILDERNESS ATTRIBUTE RATING: 19

I. Overview and Description

(1) **Location and Access:** The Crystal Roadless Area is located on the southwest part of Mitkof Island. The area is 15 miles southwest of the city of Petersburg. Petersburg is served by the Alaska Marine Highway and daily jet service. Forest roads, harvest units, the Mitkof Highway, and the Wrangell Narrows make up the irregularly-shaped boundaries. There are non-National Forest System lands along the western boundary along the Wrangell Narrows, and in the north near Crystal Lake. Roads provide access to portions of this roadless area from the city of Petersburg. Boats can access the northwest portion of the roadless area at Blind Slough and near the southeast portion at South Blind Slough. There are no areas suitable for landing wheeled airplanes within the roadless area. Access to the interior is by foot or helicopter.

(2) **History:** The area is in the traditional territory of the Stikine Tlingit. No known archaeological sites exist in the area, probably due to its mostly interior location. Nearby, the remains of villages, camps, fish traps, and culturally modified trees are present.

(3) **Geography and Topography:** Landforms consist primarily of two relatively small mountainous groups separated by the Sumner Creek watershed. To the north of Sumner Creek lies Crystal Mountain, the highest point on Mitkof Island, and associated ridgelines. To the south of Sumner Creek are the Sumner Mountains rising to a circular ridgeline of peaks of around 2,700 feet in elevation. Elevation ranges from sea level to 3,317 feet at the top of Crystal Mountain. The area contains only approximately 7 miles of saltwater shoreline, since the majority of land adjacent to the Wrangell Narrows along the western boundary of the roadless area is State land. Slopes are fairly steep overall, except in portions of the eastern and western edges where drainages approach saltwater. Crystal Lake, a large lake in the northern portion of the area, has been conveyed to the State of Alaska. There are several smaller lakes in the northwest corner of the area. The majority of the area is forested. Alpine covers about 579 acres while rock outcrops and cliffs cover another 359 acres. Freshwater lakes cover a combined area of 6 acres and there are 7 miles of saltwater shoreline. Island and islets account for approximately 23 acres of this roadless area.

(4) **Ecosystem:** The Blind Slough Special Interest Area is considered scenically and zoologically interesting. It has outstanding bird habitat, significant returns of king and coho salmon, and alpine features of Crystal Mountain.

(a) **Classification:** Biogeographic Province. The area is classified as being in the Kupreanof/Mitkof Islands Biogeographic Province. The area is generally characterized by rolling, subdued topography and extensive muskeg areas. There are no known areas of unique or uncommon plant/soils associations or geologic formations in the area.

Ecological Section/Subsection. The Crystal Roadless Area is contained entirely within the Inside Passage Fjordlands Ecological Section (M247E), Wrangell Narrows Metasediments Ecological Subsection (see table below). Mountains of sedimentary origin 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).

Appendix C

Ecological Section	Ecological Subsection	Percent of Roadless Area
Inside Passage Fjordlands	Wrangell Narrows Metasediments	100%

(b) Soils: Soils in this area are formed in a wide variety of parent materials, 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 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: Vegetation of this roadless area primarily consists of typical spruce-hemlock forests on the mountainsides and alpine vegetation (mapped as 579 acres) at elevations above 2,000 feet. Low-lying, poorly-drained portions of the area are often covered with muskeg interspersed with slow-growing trees. Less than 100 acres of muskeg are mapped for the area; however, due to their small size and association with forested sites, accurate acreage estimates are difficult.

There are approximately 17,872 acres mapped as forest land of which 8,330 acres or 47 percent are mapped as productive old-growth forest. Of the productive old growth, approximately 2,215 acres or 27 percent are mapped as high-volume, old-growth forest. The productive old growth includes about 337 acres of high-volume, coarse-canopy old growth. There is no mapped second-growth forest where timber harvest has occurred in the past.

(d) Fish Resources: The Alaska Department of Fish and Game (ADF&G) rated fish resources as part of its Forest Habitat Integrity Program (1983). These ratings describe the value of VCUs for sport fish, commercial fish, and estuaries. VCU 447 was rated high for sport fish and commercial fish values, although that small portion of VCU 447 in this roadless area did not contribute significantly to that rating. VCU 451 was also rated high for sport fish values. VCUs 447 and 452 were rated as moderately-high value for commercial fish and VCU 451 was rated as having high commercial fish value. VCUs 448 and 452 were rated as having high value estuaries. The Tongass Fish and Wildlife Resource Assessment (ADF&G, 1998) listed VCUs 451 and 452 as primary producers of pink salmon, and VCU 448 as a primary sportfish producer.

Streams in this area provide habitat for coho, pink, and chum salmon; cutthroat trout; and Dolly Varden char. Blind River, along the northern boundary, is the most important stream, with fish values for pink, coho, chinook, and chum salmon, as well as steelhead, cutthroat trout, and Dolly Varden char.

(e) Wildlife Resources: A population of Sitka black-tailed deer, moose, wolves, black bear, and bald eagles range over the roadless area. A few mountain lion sightings have recently been reported on the island. They are probably migrating into Southeast Alaska from Canada via the river corridors, and are considered incidental species at the edge of their range. Brown bears and elk are rarely seen on Mitkof Island.

Mink, river otters, beaver, marten, ermine, red squirrel, northern flying squirrel, porcupine, mice, shrew, and voles are well distributed over Mitkof Island. There are occasional sightings of fisher and wolverine but they are considered incidental species at the edge of their range. Bats are present during the summer months and occasionally over winter in man-made structures.

Bird species that may be found in the area include bald eagles, wintering trumpeter swans, northern goshawks, red-tailed hawks, sharp shinned hawks, marbled murrelets, great blue herons, and Canada geese. Numerous duck and goose species, sandhill cranes, spruce grouse, blue grouse, and ptarmigan may also be

found on Mitkof Island. Other bird species that might be found in the area include: great horned owls, western screech owls, saw-whet owls, and pigmy owls.

Red-throated, Pacific, and common loons all occur on the Mitkof 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 Mitkof 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 Mitkof Island include the rough-skinned newt, the western toad, and spotted frogs. 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. Spotted frogs are found primarily in lacustrine and palustrine ecosystems and were probably introduced by local residents who brought them back from the Stikine River as pets.

Marine mammals known to inhabit the waters surrounding Mitkof Island are the Pacific white-sided dolphin, orca whale, harbor porpoise, Dall's porpoise, humpback whale, Steller sea lion, and the harbor seal.

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

LUD	Acres
Modified Landscape	4,917
Timber Production	4,351
Scenic Viewshed	4,000
Special Interest Area	2,929
Old-growth Habitat	2,865
Wild River	547

Much of the roadless area, approximately 68 percent, was allocated to LUDs that allow development (Modified Landscape, Timber Production, Scenic Viewshed). Approximately 25 percent of the roadless area was allocated to the Modified Landscape LUD. Most of the eastern portion of the roadless area was allocated to the Modified Landscape LUD. Approximately 22 percent of the roadless area was allocated to the Timber Production LUD. The Scenic Viewshed LUD was assigned to approximately 20 percent of the roadless area. Land with this LUD can be seen from Visual Priority Travel Routes and Use Areas such as Sumner Strait and Wrangell Narrows.

Approximately 32 percent of the area was allocated to non-development LUDs (Special Interest Area, Old-growth Habitat, Wild River). South of Blind Slough approximately 15 percent of the roadless area was allocated to the Special Interest Area LUD. The Blind Slough Special Interest Area is recognized for its zoological and scenic values. Approximately 15 percent of the roadless area was allocated to the Old-growth Habitat LUD, located south of Blind Slough. Along 5 miles of the Blind River, approximately 3 percent of the roadless area was allocated to the Wild River LUD. Only the southern shore of the Blind Wild River is in the roadless area. There is a road adjacent to the northern shore.

Areas along the Wrangell Narrows to the north and near Crystal Lake (outside the roadless area) have been conveyed to the State of Alaska. The top of Crystal Mountain has been designated as a communications site.

Appendix C

An EIS has been completed for the Woodpecker Timber Sale Project, but it has not been sold (USDA Forest Service, 2001). It would extend the existing road system into the roadless area in the south and west and harvest timber along these roads.

Recreation uses include: king and coho salmon fishing; trout and steelhead fishing; deer, moose, and waterfowl hunting; hiking; cross-country skiing; snowmobiling; other snow sports; ice skating; sightseeing; fish and wildlife viewing; and gathering forest products. Due to its proximity to Petersburg and accessibility by road and water, the Crystal Roadless Area receives moderate to high recreational use. Lands used for these activities are accessible by roads that border the roadless area on three sides of the area. Crystal Lake and the alpine ridges above attract recreationists despite the lack of improved access. A short section of the Ohmer Creek Trail is near the boundary of the roadless area. There is some subsistence use in the area, mostly deer hunting. No outfitter/guide permits were issued for the roadless area in 2000. There are two special use permits for recreation cabins in the roadless area.

(6) Appearance (Apparent Naturalness): The majority of the area appears unmodified. Exceptions are areas adjacent to timber harvest activities, roads, the communications site.

(7) Surroundings (External Influences): Roads and timber management activities occur on three sides of the roadless area. Noise and sights of vehicles and active timber sales may occur periodically, particularly in those portions of the roadless area closest to the activities. Frequent low-flying aircraft may temporarily distract visitors in the area. Wrangell Narrows, which receives heavy boat traffic, is adjacent to the western boundary of the roadless area. Much of the area along the Wangell Narrows is non-National Forest System land, as is the area around Crystal Lake, including the dam and penstock.

(8) Attractions and Features of Special Interest: The proximity to Petersburg by roaded access makes portions of this roadless area attractive for recreation. The prime attractions are hunting, fishing, gathering forest products, and hiking the system of ridges in alpine terrain, which provides outstanding views. Saltwater access is also an attraction. The area contains seven inventoried recreation places, which cover 5,873 acres, or 30 percent of the roadless area. The Blind Slough Special Interest Area, including Crystal Lake, has outstanding bird and fish values and the scenic alpine features of Crystal Mountain.

(9) Differences between the 1989 and 2003 Roadless Area Boundary: There have been minor additions to the boundaries since 1989. The area along the roaded and harvested portions has been more carefully defined, adding to the size of the roadless area. Also, the area around Crystal Lake, including the dam and penstock area, has been dropped from the roadless area since it was conveyed to the State of Alaska. Several small areas along the boundaries formed by adjacent developments have been excluded between the Draft and Final SEIS to improve manageability in these areas.

II. Capability for Management as Wilderness

(1) Natural Integrity and Apparent Naturalness: The area is unmodified; however, its overall integrity is not considered pristine. Adjacent management activities have negatively affected the natural integrity of portions of this area. Nearly all the watersheds within the area have developments in them. The irregular shape of the area and development on adjacent private land, such as the dam and penstock, also lessen its natural integrity and apparent naturalness.

(2) Opportunity for Solitude and Serenity, Self-reliance, Adventure, Challenging Experiences, and Primitive Recreation: There is a moderate opportunity for solitude within the area. Air traffic and vehicle traffic pass nearby and may be heard and observed by people in this roadless area. Overall, recreation use levels are moderate; the areas on the fringes near road access receive the highest use. Generally, a person camped or traveling within the area away from the roads is unlikely to encounter others nearby. Timber harvest or periodic activities in adjacent areas affect the opportunity for solitude when they are occurring. The steep nature of the landforms and relationship to external influences allow a visitor to feel somewhat remote from the sights and sounds of human activity. The area is readily accessible from the community of Petersburg.

The system of ridgelines, which make up the greatest amount of alpine setting on Mitkof Island, is an important recreation feature. Crystal Lake, road access from Petersburg, and saltwater access also attract recreationists. The

steep terrain, the climate, the potential for avalanches on Crystal Mountain, and the presence of large wild animals present a moderate degree of challenge and risk, necessitating good preparation and knowledge of outdoor survival skills for the backcountry traveler.

The area provides primarily Semi-Primitive Recreation opportunity as inventoried with the Recreation Opportunity Spectrum (ROS) System. The table below lists the acreage and percent of the various Recreation Opportunity Spectrum (ROS) classes that have been inventoried in the roadless area.

ROS Class	Acres	Percent of Total ROS
Semi-Primitive Non-Motorized (SPNM)	14,651	75%
Roaded Natural (RN)	1,313	7%
Roaded Modified (RM)	3,645	19%

The area contains seven inventoried recreation places, which cover 5,873 acres, or 30 percent of the roadless area.

ROS Class	# of Rec. Places*	Total Acres
SPNM	1	4,621
RN	2	641
RM	5	612

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

There are no developed recreation sites in the roadless area. The Ohmer Creek Trail has a short section near the southeastern boundary.

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

The inventoried roadless areas of the Tongass National Forest were rated according to this system in 1989 for the Analysis of the Management Situation developed in support of the Forest Plan Revision. At that time, the Crystal Roadless Area was given a rating of 20 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 reflects the effects of developments and activities on wilderness attributes within the area.

(4) Ecologic and Geologic Values: The roadless area is small and irregular. It is not connected to any other roadless area or wilderness. The Blind Slough Special Interest Area has excellent bird and fish habitat and includes the scenic alpine features of Crystal Mountain.

(a) Fish Resources: The Tongass Fish and Wildlife Resource Assessment (ADF&G, 1998) listed VCUs 447, 451 and 452 (all of the area except the western section) as primary producers of salmon, and VCUs 447 and 448 along Wrangell Narrows as primary sport fish producers (ADF&G, 1998). The portion of VCU 448 within the boundaries of the roadless area contains no fisheries resources and does not contribute to the high sport fish rating.

Pink, coho, and chum salmon plus cutthroat trout, steelhead, and Dolly Varden char can be found in this area. Blind River has high fish values for coho, chinook, and chum salmon, as well as steelhead, cutthroat trout, and Dolly Varden char. It has an estimated annual peak escapement of 68,200 pink salmon and good coho smolt capability. The State of Alaska operates a fish hatchery that produces chinook and coho salmon, and steelhead. ADF&G lists Blind River as one of 65 "important watersheds" for salmon in Southeast Alaska. This area is a major sport fishing area. This river is one of the few places in the region where sport fishing for chinook salmon is permitted from the river bank. Blind River is close to a population center and is used by many people.

Appendix C

(b) Wildlife Resources: A population of Sitka black-tailed deer, wolves, marten, river otter, northern flying squirrel, black bear, and eagles range over the roadless area, as do moose. Elk sightings have occurred on Mitkof Island. One brown bear was recently killed near this area, but brown bears are rare on Mitkof Island. Blind River is important winter habitat for trumpeter swans. Northern goshawks, red-tailed hawks, and sharp shinned hawks may occur in this area, but no nests have been found. A great blue heron rookery was identified in the Woodpecker project area, which is south of the roadless area. One marbled murrelet fledgling was found in the Woodpecker Cove Small Old-growth Habitat Reserve in 1999 (USFS, 2000).

(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. Blind River on the north boundary of the wilderness area is one of the most northern wintering areas for the trumpeter swan. 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. Peale's peregrine falcon may migrate through this area. 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 are no known karst or cave resources in this roadless area.

(5) Scientific and Educational Values: The Blind Slough Special Interest Area is considered an important zoological area because of its excellent bird and fish values. The system of ridgelines, which comprises the greatest amount of alpine setting on Mitkof Island, is of some interest.

(6) Scenic Values: An important feature of the Blind Slough Special Interest Area is the outstanding beauty of the Crystal Mountain scenery. The roadless area has retained a mostly natural state on Crystal Mountain and associated ridgelines and the northern portion of the Sumner Mountains. A communications site on the top of Crystal Mountain detracts from the natural appearance. This natural state of the roadless area dominates views from Blind Slough and the part of Wrangell Narrows between Kupreanof Island and Mitkof Island. Adjacent areas are exceptions to the natural appearance and include timber harvest activities, which can be seen from the southernmost part of Wrangell Narrows between Woewodski Island and Mitkof Island. Roads and timber activity can also be seen from Sumner Strait.

Visual Priority Routes and Use Areas identified by the Forest Plan, that are within or adjacent to the area include: Wrangell Narrows, a tour ship route and dispersed recreation area; Sumner Strait, a tour ship route; Blind River, a designated Recreational River; South Blind Slough, a saltwater use area; and Crystal Mountain, a dispersed recreation area.

Twenty-five percent of this roadless area was inventoried in Variety Class A (possessing landscape diversity that is unique for the character type). Most of the area, 74 percent, was inventoried in Variety Class B (possessing landscape diversity that is common for the character type).

Most of the roadless area, 84 percent, is in Existing Visual Condition (EVC) I. These areas appear to be untouched by human activity. EVC II accounts for 2 percent, in which changes to the landscape are not noticed by the average person. About 5 percent of the area is in EVC IV, in which changes to the landscape are easily noticed by the average person and may attract some attention. They appear to be disturbances but resemble natural patterns. EVC V accounts for approximately 9 percent. These are areas in which changes to the landscape are obvious to the average person, and appear to be major disturbances.

(7) **Social, Cultural, and Historical Values:** The area is in the traditional territory of the Stikine Tlingit. Though no known archaeological sites exist in the area, nearby is evidence of prehistoric period villages, camps, fish traps, and culturally-modified trees. Blind Slough, which is adjacent to the north side of the roadless area, provided subsistence resources through historic times. Targeted resources include waterfowl and salmon. Most use is concentrated along the outside edges that are accessible by roads. Uses along the roads, which surround the area, are primarily hunting, fishing, berry picking, and woodcutting. Some of the use is for subsistence, particularly deer and moose hunting. VCUs 447, 451 and 452 (all of the roadless area except the western portion) are listed as having the highest community use values. All VCUs in the roadless area are listed among the VCUs with the highest sensitivity to disturbance of subsistence use areas (ADF&G, 1998).

(8) **Manageability as Wilderness and Boundary Conditions/Changes:** The area is bounded on three sides by roads and timber management activities. Private land occurs along the west side and at Crystal Lake. There are few topographic breaks or other natural features to define the area. Feasibility of management in a wilderness condition is low to moderate, due to the amount of development activities adjacent to this roadless area. Feasibility of management in an unroaded condition is moderate, as it maintains traditional opportunities. Changing the boundary is not likely to create a better-defined boundary.

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

(1) **Recreation, Including Tourism Potential:** Tourism has been increasing in Southeast Alaska and this trend is expected to continue. Petersburg and Wrangell are hubs for this increase in tourism. The close proximity of the roadless area to Petersburg is unlikely to result in an increase in tourist interest in the roadless area due to the condition of the roads and the developments near the boundaries. There is little opportunity for outfitter/guide permits. Potential trails and shelters have been identified to access the ridgelines. There is some potential for interpretive activities due to the area's accessibility and proximity to the Mitkof Highway, the Three Lakes Loop Road, and the popular Blind Slough recreation area.

(2) **Subsistence Uses:** Management as a wilderness would not conflict with current subsistence uses.

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

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

(5) **Timber Resources:** There are approximately 8,330 acres inventoried as productive old-growth forest in the roadless area. There is no second growth timber due to harvest. Of this, approximately 5,134 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), 2,129 acres or 11 percent of this roadless area are estimated to be suitable for timber production. Approximately 483 of the suitable acres are mapped as high-volume old growth; of these acres, 28 are mapped as high-volume, coarse-canopy old growth.

The Woodpecker Project FEIS (USDA Forest Service, 2001) would extend the existing road system into the roadless area in the south and west and harvest timber along these roads.

(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 area within and adjacent to the Blind River corridor has no mining claims. Neither the U.S. Bureau of Land Management nor the USGS list this area as having potential for mineral development.

The roadless area contains an estimated 597 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 transportation or utility corridors identified for the roadless area except where new roads may be needed to access areas available for development.

Appendix C

(9) **Water Availability and Use:** No developed recreation sites exist to create a water demand, but there are two special use recreation cabins in the area. There are no existing or planned hydroelectric or domestic water projects within the roadless area. Crystal Lake, outside the roadless area, provides a water source for the State's Crystal Lake Fish Hatchery and for domestic use by residents at the hatchery. There is a concrete dam on the outlet of Crystal Lake and a penstock that brings water down the mountain where it is used to generate electricity for the city of Petersburg.

(10) **Areas of Scientific Interest:** The Blind Slough Special Interest Area has outstanding bird habitat and significant returns of king and coho salmon. Management of the area as wilderness may limit the research opportunities.

(11) **Land Use Authorizations:** Two cabins near Blind Slough and communication facilities at the Crystal Mountain Communication Site are authorized.

(12) **Land Status:** All land within this roadless area is part of the National Forest System. An extensive area along Wrangell Narrows, and the basin and area around Crystal Lake have been conveyed to the State of Alaska.

IV. Wilderness Areas Evaluation

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

(a) **Interest Expressed by Local Users and Residents:** Portions of the area are traditional and/or popular recreation areas. Support for a trail to the ridgeline and alpine terrain above Crystal Lake has evolved from several recreation public meetings.

(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 Crystal Roadless Area. In 2001, HR 2908 proposed that the roadless area be managed in an unroaded condition as LUD II land.

(c) **Public Input During Forest Plan Revision and Appeals:** There were no direct comments on the roadless area. The Narrows Conservation Council, the Wrangell Resource Council, and others felt that the undeveloped areas on Mitkof Island should be protected from timber harvest. The Wrangell Resource Council felt that the remaining roadless areas should be managed as Old-growth Habitat or Primitive Recreation. The Southeast Alaska Conservation Council and the Alaska Rainforest Campaign recommended that the remaining unroaded areas on the island be managed as LUD II lands. They felt that these areas merited protection due to their outstanding wildlife, fisheries, hunting, subsistence, recreation, and tourism values. However, timber industry organizations felt that there was no justification for this.

(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 same level of development to continue.

(e) **Public Input Expressed for Project-level EISs and Other Input:** Comments were received on the Final Mitkof Landscape Design (USDA Forest Service, 1995). There were no specific comments on the Crystal Roadless Area dealing with the roadless/wilderness issue. There were general comments concerning this issue for Mitkof Island. Some commenters wanted more roads to allow better access and some wanted roadless and unroaded areas to remain unroaded. Some favored timber harvest and some wanted the remaining old growth (and deer habitat) protected. Comments were also received on the Woodpecker Project Area DEIS in 2000 (USDA Forest Service, 2000). The Woodpecker project area covers the southern portion of the roadless area, which is allocated to development LUDs. The City of Petersburg supported timber harvest in the area, as did the Alaska Forest Association and several individuals. Some comments favored creating a loop road, outside the roadless area. The Narrows Conservation Council was concerned with the adverse effects that roads would have on wildlife, fish, and

subsistence. The Southeast Alaska Conservation Council recommended that no decision be made until after the roadless issue is resolved at a national level. Some individuals supported this recommendation.

(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 roadless areas on heavily logged Mitkof Island be designated LUD II. The Alaska Rainforest Campaign (a coalition of national and Alaska conservation groups) recommended Roadless Area 224 for permanent protection as LUD II.

(2) Nearby Roadless and Wilderness Areas and Uses: The nearest roadless areas are Woewodski, North Mitkof, East Mitkof, and Manzanita. All are within 2 to 12 miles of the Crystal Roadless Area, and are separated by roads and harvest areas. The nearest wilderness areas are the Stikine-LeConte and the Petersburg Creek/Duncan Salt Chuck, portions of which are about 8 to 15 miles away.

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

Community	Air Miles	Water Miles
Juneau (Pop. 30,711)	130	135
Petersburg (Pop. 3,224)	15	15
Wrangell (Pop. 2,308)	20	15
Ketchikan (Pop. 14,070)	90	110

Petersburg is the nearest stop on the Alaska Marine Highway, and is connected to the roadless area by road.

(4) Relative Contribution to the National Wilderness Preservation System: The Crystal Roadless Area is located on the southwest part of Mitkof Island. Forest roads, harvest units, the Mitkof Highway, and the Wrangell Narrows make up the irregularly-shaped boundaries. There are non-National Forest System lands along the western boundary along the Wrangell Narrows, and in the north near Crystal Lake. Two mountainous areas dominate the roadless area. To the north lies Crystal Mountain and associated ridgelines. To the south lies the northern portion of the Sumner Mountains. A river valley separates the two mountain areas. Elevation ranges from sea level to 3,317 feet at Crystal Peak.

The area is mostly unmodified but is influenced by developments and activities on adjacent lands. The natural integrity and apparent naturalness is considered to be high. The opportunity for solitude is considered moderate and the opportunity for primitive recreation is high.

Approximately 25 percent of the landscape is considered distinctive for the character type from a scenery standpoint. The Blind Slough Special Interest Area is considered an important zoological area because of its excellent bird and fish values.

The roadless area includes about 2,215 acres of high-volume, old-growth forest. Of these acres, 337 are mapped as high-volume, coarse-canopy old growth.

The Crystal Roadless Area is classified as being in the Kupreanof/Mitkof Islands Biogeographic Province and makes up about 2 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 Crystal Roadless Area lies completely within the Inside Passage Fjordlands Ecological Section and represents approximately 1 percent of the ecological section. Approximately 20 percent of the Inside Passage Fjordlands Ecological Section is in existing wilderness, 2 percent is in existing LUD II, and 30 percent is protected by other existing non-development LUDs.

Appendix C

The Crystal Roadless Area lies completely within the Wrangell Narrows Metasediments Ecological Subsection and represents approximately 6 percent of the ecological subsection. . Approximately 11 percent of the Wrangell Narrows Metasediments Ecological Subsection is in existing wilderness and 18 percent is protected by other existing non-development LUDs.

The Crystal 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.

There is both local and national support for managing the area in an unroaded condition, but there is little support for designating the area as wilderness. Designation would create a wilderness that contains the Blind Slough Special Interest Area and some areas with distinctive scenery. It also would be a wilderness influenced by developments and activities in nearby areas. Portions of the area is also actively managed for timber sales and is included in the Woodpecker Timber Sale Final EIS. 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 Crystal Roadless Area would be managed under the existing Forest Plan if Alternative 1, 2, 3, 4, 5, or 7 is implemented. Approximately 32 percent of the roadless area would be managed under non-development LUDs. Timber harvest and road development could occur in the remaining 68 percent. The land in the development LUDs provides an estimated 2,129 acres that are suitable for timber production (1 percent of the suitable acres on the Petersburg Ranger District). Approximately 28 of the suitable acres are classified as high-volume, coarse-canopy old growth. Timber sales planned in the Woodpecker Final EIS will continue. The roadless area contains an estimated 597 acres of undiscovered locatable mineral resources; all of the acres are considered to have low potential for development. The high scenic values and the Blind Slough Special Interest Area would not be affected. The timber sales, recreation, minerals, and special use programs would continue. The values associated with the natural settings of the roadless area could be affected by ongoing developments in the areas that allow such activities.

Under Alternative 6, the entire area would be converted to Recommended LUD II. The ongoing recreation, minerals, and special use programs would continue similar to current conditions. No timber harvest would be allowed. The values associated with the natural settings of the roadless area, including the high scenic values and those associated with the Blind Slough Special Interest Area, would receive long-term protection if designated LUD II.

Under Alternative 8, the entire roadless area would be converted to Recommended Wilderness. No timber harvest would be allowed and the ongoing recreation, minerals, and special uses programs could be restricted. Mineral prospecting would be allowed up to the time that the area is actually designated as wilderness by Congress. The values associated with the natural settings of the roadless area, including the high scenic values and those associated with the Blind Slough Special Interest Area, would receive long-term protection if designated wilderness.

Appendix C

Land Use Designation Allocations and Suitable Timber Lands by Alternative for Roadless Area 224 (in acres)								
Land Use Designation	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8
Recommended Wilderness								19,609
Wilderness								
Recommended Wilderness Nat. Mon.								
Wilderness National Monument								
Non-wilderness National Monument								
Research Natural Area								
Special Interest Area	2,929	2,929	2,929	2,929	2,929		2,929	
Remote Recreation								
Enacted Municipal Watershed								
Old-growth Habitat	2,865	2,865	2,865	2,865	2,865		2,865	
Semi-remote Recreation								
Recommended LUD II						19,609		
LUD II								
Wild, Scenic, Recreational River	547	547	547	547	547		547	
Experimental Forest								
Scenic Viewshed	4,000	4,000	4,000	4,000	4,000		4,000	
Modified Landscape	4,917	4,917	4,917	4,917	4,917		4,917	
Timber Production	4,351	4,351	4,351	4,351	4,351		4,351	
TOTAL	19,609	19,609	19,609	19,609	19,609	19,609	19,609	19,609
Suitable Timber Lands	2,129	2,129	2,129	2,129	2,129	0	2,129	0