

# Appendix C

## INDIVIDUAL ROADLESS AREA DESCRIPTION

**ROADLESS AREA NAME:** Behm Islands (525)

**ACRES (NFS):** 4,944

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

**ECOLOGICAL SECTION:** Inside Passage Fjordlands

**2003 WILDERNESS ATTRIBUTE RATING:** 14

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

(1) **Location and Access:** This area consists of a chain of small islands located along the southwest corner of Revillagigedo Island (also known as Revilla Island). The area includes Betton, Grant, Back, Stack, and Moser Islands. These islands are bordered to the southeast by Clover Passage. Behm Canal borders the area to the northwest. The area is 10 miles northwest of Ketchikan, which has regularly scheduled air flights and is on the Alaska Marine Highway. Access is by boat from the several marinas in the area. Access into the interior is by foot or helicopter. There are no places suitable for landing wheeled airplanes.

(2) **History:** The Behm Islands Roadless Area includes a chain of small islands extending from Point Higgins to Naha Bay. These islands form the sheltered water known as Clover Pass and have been used for fox farms, navigational aid sites, and for a recreation residence located on Betton Island. A number of prehistoric and historic sites have been identified through archeological survey, oral history and historical documents. There are remnants of structures on Betton and Stack Islands. Some beach logging has occurred on Betton Island. A Special Use Authorization was issued to the U.S. Navy (Navy) to use the Back Island site in 1998 as part of the acoustic test range located in Behm Canal. The facility is currently in operation and occupies about 15 acres. The facility has a dock at saltwater and a road that accesses the main building facility.

(3) **Geography and Topography:** The area is characterized by several low relief islands and rocky shorelines with interspersed sand beaches. There are 32 miles of saltwater shoreline. There are approximately 8 acres of rock and no mapped acres of alpine. The area consists of 40 islands (11 of which are greater than 10 acres) totaling 4,944. All the islands are forested.

(4) **Ecosystem:**

(a) **Classification:** Biogeographic Province. The area is part of the Revilla Island/Cleveland Peninsula Province. This province is characterized by a variable climate with wet conditions predominating on land nearest the outer coast, with much colder conditions near the mainland.

Ecological Section/Subsection. The Behm Islands Roadless Area is contained entirely within the Inside Passage Fjordlands Ecological Section (M247E). This area is represented by one ecological subsection (see table below). The Traitors Cove Metasediments Ecological Subsection is composed mostly of glacially carved sedimentary rock. Steep slopes give way to deeply incised valleys. Landslides are a common occurrence. Productive hemlock and Sitka spruce forests grow on well-drained soils on slopes. Forested wetlands are found in poorly drained soils along the valley floors (Nowacki et al., 2001).

<b>Ecological Section</b>	<b>Ecological Subsection</b>	<b>Percent of Roadless Area</b>
Inside Passage Fjordlands	Traitors Cove Metasediments	100%

**(b) Soils:** These highly organic, low clay content soils are generally formed over bedrock and are typically about 40 inches deep.

**(c) Vegetation:** Vegetation is typical Southeast Alaska coastal temperate rain forest. The forest is primarily western hemlock and Sitka spruce with large components of cedar. There are interspersed areas of the muskeg, however due to their small size and association with forested sites, accurate acreage estimates are difficult and none have been mapped.

There are approximately 4,891 acres mapped as forest land, of which 3,263 acres or 67 percent are mapped as productive old-growth forest. Of the productive old growth, 1,208 acres or 37 percent are mapped as high-volume old-growth forest. The productive old growth includes about 148 acres of high-volume, coarse-canopy old growth. The area also includes 397 acres of second growth where beach timber harvest has occurred in the past.

**(d) Fish Resources:** Two unnamed streams on Betton Island provide habitat for pink and coho salmon.

**(e) Wildlife Resources:** There are few land mammals on these islands. According to MacDonald and Cook (1999), black bear, Sitka black-tailed deer, beaver, mink, and river otter inhabit Betton Island. Marine mammals are occasionally seen on or near rocks along the shoreline.

**(5) Management Direction and Current Uses:** This roadless area was allocated to one Land Use Designation (LUD) in the 1997 Tongass Land and Resource Management Plan. The non-development LUD assigned to the entire area is Semi-remote Recreation.

LUD	Acres
Semi-remote Recreation	4,944

There is one recreation residence authorized by a special use permit on Betton Island. There are U.S. Coast Guard navigation aids installed on several of the islands. A Special Use Authorization was issued to the Navy to use the Back Island site in 1998 as part of the acoustic test range located in Behm Canal. The facility is currently in operation and occupies about 15 acres. The facility has a dock at saltwater and a road that accesses the main building facility.

Recreation use in this area primarily includes hiking, commercial and sport fishing, nature viewing tours, sea kayaking, and beachcombing. Two outfitter/guides operated in the area in 2000 taking visitors on remote setting nature tours and reporting a combined total of 12,807 service days. One boardwalk trail is located on the west side of Betton Island and is associated with the outfitter and guide use of this area.

**(6) Appearance (Apparent Naturalness):** This area has an overall natural appearance, with the exception of the recreation cabin and boardwalk trail on Betton Island and a 15 acre Navy site on Back Island. Timber harvest has occurred in a number of locations on Betton Island, as well as along the east shore of Hump Island and parts of Grant and Joe Islands. Overall, the area displays natural characteristics when viewed from nearby Visual Priority Routes or Use Areas. This natural appearance can also be experienced within most parts of the area, with the exception of Back Island.

**(7) Surroundings (External Influences):** The islands are located 1 to 2 miles from the recreation, resort, and residential area on Revillagigedo Island. The Clover Pass area has been designated a Scenic Recreation Area by the Ketchikan Borough. Many homes, marinas, and resort developments can be seen on the shore of Revilla Island from many portions of this area. Timber harvest and associated developments on State and private lands on the slopes east of Clover Pass has recently become visible from portions of the waterways and islands. The entire area is exposed to the constant sights and sounds of powerboats during the summer. The State of Alaska has selected the southern portion of Grant Island and Joe Islands.

**(8) Attractions and Features of Special Interest:** The Clover Pass area receives heavy fishing pressure and people fishing do land on the sandy beaches to rest, relax, and beachcomb. This is one of the most popular areas in

## Appendix C

Ketchikan for beachcombing and dispersed camping. The natural appearance, nearness to Ketchikan, and shelter provided by these islands contribute to the attraction to those who live here, and is also related to why tour groups are able to successfully use the area. There are good wildlife viewing opportunities within this area as well. The area contains four inventoried recreation places, which cover 3,976 acres, or 80 percent of the roadless area.

**(9) Differences between the 1989 and 2003 Roadless Area Boundary:** The boundaries of this roadless area did not change significantly between 1989 and 2003.

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

**(1) Natural Integrity and Apparent Naturalness:** Most of the area is physically relatively unaltered. The recreation summer home on Betton Island has little influence on the apparent natural integrity of the area. The Navy's acoustical test site on Back Island affects the natural integrity of Back Island and breaks the apparent naturalness of this island and the northeastern end of Betton Island. Evidence of past logging is apparent on Betton, Joe, Hump, and Grant Islands. However, overall, with the small size of the roadless area and the small size of the islands that make up the roadless area, the ongoing development and high level of uses significantly affect the suitability for wilderness classification based on their natural appearance. Overall the area has moderate natural integrity and apparent naturalness.

**(2) Opportunity for Solitude and Serenity, Self-reliance, Adventure, Challenging Experiences, and Primitive Recreation:** There is low opportunity for solitude and primitive recreation within this roadless area. The entire area is within sight and sound of saltwater, and the north end of the community of Ketchikan. During the summer-long principal fishing season, both sport and commercial, there are the constant sights and sounds of powerboats. The frequent landings by boaters further decrease the opportunity for solitude. Two outfitter/guides operated in the area in 2000 taking visitors on remote setting nature tours and reporting a combined total of 12,807 service days.

The area provides primarily semi-primitive recreation opportunities. The table below lists the acreage and percent of the various Recreation Opportunity Spectrum (ROS) classes that have been inventoried in the roadless area.

ROS Class	Acres	Percent of Total ROS
Semi-Primitive Motorized (SPM)	3,432	69%
Roaded Natural (RN)	1,462	30%
Roaded Modified (RM)	42	1%

The area contains four inventoried recreation places, which cover 3,976 acres, or 80 percent of the roadless area.

ROS Class	# of Rec. Places*	Total Acres
SPM	3	2,471
RN	1	1,462
RM	1	42

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

The Settlers Cove State Recreation Site is adjacent to this roadless area, across Clover Passage.

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

In 1979, during the RARE II process, the Tongass National Forest applied WARS for the first time and rated each unroaded VCU on the Tongass. In 1989, the inventoried roadless areas (which generally include more than one

VCU) were rated according to this system for the Analysis of the Management Situation (AMS) developed in support of the Forest Plan Revision. This original version of the AMS included both the individual VCU ratings done in 1979 and the composite rating that was done for each roadless area in 1989. The 1989 rating for the Behm Islands Roadless Area was 19 out of 28 possible points. The 1989 rating was re-evaluated for this updated version of the AMS. Based on this re-evaluation, the area was given a rating of 14. This rating better reflects the developments and operations associated with Back Island Naval facility, trail development, lodge on private land on Grant Island, and the very high current use of the area.

**(4) Ecologic and Geologic Values:** The Behm Islands roadless area is not a part of a larger contiguous roadless area.

**(a) Fish Resources:** The one VCU in this roadless area is not listed as a primary sport fish or salmon producer (ADF&G, 1998). Two unnamed streams on Betton Island provide habitat for pink and coho salmon.

**(b) Wildlife Resources:**

There are few land mammals on these islands. According to MacDonald and Cook (1999), black bear, Sitka black-tailed deer, beaver, mink, and river otter inhabit Betton Island. Marine mammals are occasionally seen on or near rocks along the shoreline.

**(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, eight sensitive plant species are known or suspected to occur in the Ketchikan 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 in this area.

**(5) Scientific and Educational Values:** There are no known features of ecologic, geologic, scientific, or cultural significance. There are no Research Natural Areas in this roadless area. The area is 15 miles northwest of Ketchikan and accessible to school-age children.

**(6) Scenic Values:** This roadless area is part of the Coastal Hills visual character type, which is characterized by moderately steep landforms, with generally rounded summits usually less than 4,000 feet, and also by island groups of different sizes and forms. This roadless area is typical of these island groups and is adjacent to other Coastal Hill landforms on Revilla Island.

This area has an overall natural appearance, with the exception of the recreation cabin on Betton Island and a Navy site on Back Island. Timber harvest has occurred in a number of locations on Betton Island, as well as along the east shore of Hump Island and parts of Grant and Joe Islands. Overall, the area displays natural characteristics when viewed from nearby Visual Priority Routes or Use Areas. This natural appearance can also be experienced within the area, except on Back Island and portions of Betton Island near the recreation residence and the boardwalk trail. Visual Priority Routes and Use Areas identified by the Forest Plan that are within or adjacent to the area, include: Grant Island (State Marine Park); Tongass Highway (State Highway #7) (Public Use Road); and Clover Passage, Moser Bay, and Naha Bay (Saltwater Use Areas).

Approximately 98 percent of the area was inventoried as Variety Class B and has common or average scenic diversity relative to its character type. Although there are no highly distinctive scenic features, the combination of

## Appendix C

waterways, islands of different sizes, and the backdrop of more massive landforms around this popular fishing and boating area make this a very attractive landscape. Approximately 2 percent of the area was not inventoried for Variety Class type.

The Existing Visual Condition of this area was inventoried as 80 percent Type I, indicating a landscape essentially unmodified by human activity and 18 percent EVC Type III, in which the average person notices changes in the landscape, but the changes do not attract significant attention. Approximately 2 percent of the area was not inventoried for EVC.

**(7) Social, Cultural, and Historical Values:** The Behm Islands Roadless Area includes a chain of islands extending from Point Higgins to Naha Bay. These islands form the sheltered water known as Clover Pass and have been used for fox farms, navigational aid sites, and for a recreation residence located on Betton Island. In 1988, the Navy proposed to use Back Island as the shore facility for their new acoustic test range located in Behm Canal. A Special Use Authorization was issued to the Navy to use the Back Island site in 1998. The facility is currently in operation and occupies about 15 acres. The facility has a dock at saltwater and a short road that accesses the main building facility.

Prehistoric and historic Alaska Native cultures used this roadless area. Goldschmidt and Haas (1946) identified a commercial fish trap on Betton Island. A number of prehistoric and historic sites have been identified through archeological survey, oral history and historical documents.

Recreation use in this area primarily includes hiking, commercial and sport fishing, nature viewing tours, sea kayaking, and beachcombing. Two outfitter/guides operated in the area in 2000 taking visitors on remote setting nature tours and reporting a combined total of 12,807 service days. One boardwalk trail is located on the west side of Betton Island and is associated with the outfitter and guide use of this area.

The sole VCU in this area is not listed among the VCUs with the highest sensitivity to disturbance of subsistence use areas. It is also not listed among the VCUs in the highest, second or third most important groups of community use values (ADF&G, 1998).

**(8) Manageability as Wilderness and Boundary Conditions/Changes:** Since the area is made up of small islands with limited potential for resource management activities, it could easily be managed in a roadless condition. Management as wilderness would be difficult because of the degree of development of adjacent areas.

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

**(1) Recreation, including Tourism Potential:** This roadless area has a major potential for recreation development and use. There is opportunity to provide unimproved or semi-improved rest/campsites for people kayaking or boating in the area. The Behm Canal Island group provides a scenic experience and backdrop for the significant amount of charter and independent fishing that occurs in the Clover Pass area. The area will continue to receive dispersed recreation use associated with the beaches. As exhibited by the successful boat and boardwalk tours, this is a very popular area to recreate because of the closeness to town, protected waterway providing safe access, and scenic and recreational qualities. This type of use is expected to continue and likely will increase. There is a sportfishing lodge located on the private land on Grant Island.

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

**(3) Fish Resources:** There are no fisheries enhancement projects planned for this area.

**(4) Wildlife Resources:** There are no wildlife enhancement projects planned for this area.

**(5) Timber Resources:** There are 3,263 acres mapped as productive old growth and 397 acres mapped as second growth in the roadless area. Of these acres, 2,842 acres are categorized as tentatively suitable for timber

production. Based on the Forest Plan LUDs assigned to this area, none of this roadless area is classified as suitable for timber production.

- (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 mining claims or potential for mineral development within this roadless area. This area contains an estimated 941 acres of undiscovered locatable mineral resources that are considered to have very low potential for development (Brew et al., 1990; USDA Forest Service, 1991).
- (8) **Transportation and Utilities:** There are no transportation or utility projects proposed for this area. A Potential Power Transmission Corridor runs just west of the roadless area, from Revilla Island to the Cleveland Peninsula.
- (9) **Water Availability and Use:** The recreation residence on Betton Island and the Navy acoustical test site on Back Island are the only facilities to create the water demand in this roadless area. There are no existing or planned hydroelectric or domestic water projects within this roadless area.
- (10) **Areas of Scientific Interest:** There are no areas of scientific interest in this roadless area.
- (11) **Land Use Authorizations:** There is a permitted recreation residence and an electronics site on Betton Island. Two outfitter/guides operated in the area in 2000 taking visitors on remote setting nature tours and reporting a combined total of 12,807 service days. This activity is expected to continue. The Navy has constructed buildings and a boat dock on Back Island as part of their SEAFAC facility. In addition, there are several sites reserved by the Coast Guard for placing navigation aids.
- (12) **Land Status:** All land within the roadless area is part of the National Forest System. The State of Alaska has selected land on Betton, Grant, and Joe Islands, outside of the roadless area.

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

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

- (a) **Interest Expressed by Local Users and Residents:** The area receives significant use by the local users/residents, as well as, visitors to the area. Many of the visitors using the area are from cruise ships that call in Ketchikan.
- (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 Behm Islands Roadless Area. In 2001, HR 2908 identified the area as a proposed LUD II addition.
- (c) **Public Input During Forest Plan Revision and Appeals:** The Behm Islands Roadless Area was generally referred to in public input during the Forest Plan revision. One commenter requested that roadless recreation values along Behm Canal be protected for tourism use, hunting, fishing, and scenery.
- (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:** No project-level comments on this roadless area have been identified.

## Appendix C

**(f) Public Input Expressed During Supplemental EIS Process:** SEACC recommended this area for LUD II designation. The Alaska Rainforest Campaign (a coalition of national and Alaska conservation groups) recommended Roadless Area 525 for permanent protection as LUD II.

Some individuals called for long-term protection of this area.

**(2) Nearby Roadless and Wilderness Areas and Uses:** The Misty Fiords National Monument Wilderness is located approximately 25 miles east of the Behm Islands Roadless Area. The South Prince of Wales Wilderness is located approximately 35 miles to the southwest.

This roadless area is separated from the North Revilla Roadless Area (#526) by Clover Pass and a strip of State and Borough land on Revilla Island. Other roadless areas in the general vicinity include Cleveland (#528), located northwest across Behm Canal, and Gravina (#522), located to the south.

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

Community	Air Miles	Water Miles
Juneau (Pop. 30,711)	215	235
Ketchikan (Pop. 14,070)	10	15
Wrangell (Pop. 2,308)	70	90
Petersburg (Pop. 3,324)	100	115

**(4) Relative Contribution to the National Wilderness Preservation System:** The Behm Islands Roadless Area consists of a chain of small islands located along the southwest corner of Revillagigedo Island (also known as Revilla Island). The area includes Betton, Grant, Back, Stack, and Moser Islands. These islands are bordered to the southeast by Clover Passage. Behm Canal borders the area to the northwest. The area is characterized by several low relief islands and rocky shorelines with interspersed sand beaches.

The Behm Roadless Area is natural appearing except near Back Island which has a Naval test station facility located on it. The area has moderate natural integrity and apparent naturalness. The opportunity for solitude and primitive recreation is low.

None of the landscape is considered distinctive for the character type from a scenery standpoint. The area provides the backdrop for fishing, boating and interpretive activities as part of the recreation and tourism activities near Ketchikan. The area does not have other features of significance.

The roadless area includes about 1,208 acres of high-volume, old-growth forest. Of these acres, approximately 148 are mapped as high-volume, coarse-canopy old growth.

The Behm Islands Roadless Area is classified as being in the Revilla Island/Cleveland Peninsula Biogeographic Province and makes up less than 1 percent of the province. It is one of 12 inventoried roadless areas found within the province which make up about 60 percent of the province. Part of the Misty Fiords National Monument Wilderness is located in this province and makes up about 18 percent of the province. The province also includes two Congressionally designated LUD II areas (Naha and Anan) which make up about 5 percent of the province.

The Behm Islands Roadless Area lies completely within the Inside Passage Fjordlands Ecological Section and represents 0.2 percent of the ecological section. Approximately 20 percent of the Inside Passage Fjordlands Ecological Section is in existing wilderness, 2 percent is in existing LUD II, and 30 percent is protected by other existing non-development LUDs.

This roadless area is contained entirely within the Traitors Cove Metasediments Ecological Subsection. This portion represents 2 percent of the entire ecological subsection, which is represented by 10 percent in existing LUD II and 26 percent in other existing non-development LUDs.

The Behm Islands Roadless Area was rated 14 out of a possible 28 points under the Wilderness Attribute Rating System (WARS). As such, its WARS rating is ranked 107<sup>th</sup> from the highest (along with 2 other roadless areas) among the 109 Tongass inventoried roadless areas.

There is some local and national support for managing this area in an unroaded condition, but little support for designation of this area as wilderness. Designation would create a very small wilderness with very high public uses. Overall, the factors identified here indicate that the relative contribution of this area to the National Wilderness Preservation System would be very low.

**V. Environmental Consequences**

The Behm Islands Roadless Area would be managed under the existing Forest Plan if Alternative 1, 2, 3, 4, 5, or 7 is implemented. All of the roadless area would be managed under non-development LUDs. The recreation and special use programs would continue. The values associated with the natural settings of the roadless area are protected by the Forest Plan.

Under Alternative 6, the entire roadless area would be converted to Recommended LUD II. Because the area is already allocated to non-development LUDs, this conversion would have little effect on existing or future uses. The ongoing recreation and special use programs would continue similar to current conditions. The values associated with the natural settings of the roadless area would be provided long-term protection if designated LUD II.

Under Alternative 8, the entire roadless area would be converted to Recommended Wilderness LUD. The ongoing recreational use and special uses could be restricted. The values associated with the natural settings of the roadless area would be provided long-term protection if designated wilderness.

Land Use Designation Allocations and Suitable Timber Lands by Alternative for Roadless Area 525 (in acres)								
Land Use Designation	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8
Recommended Wilderness								4,944
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								
Semi-remote Recreation	4,944	4,944	4,944	4,944	4,944		4,944	
Recommended LUD II						4,944		
LUD II								
Wild, Scenic, Recreational River								
Experimental Forest								
Scenic Viewshed								
Modified Landscape								
Timber production								
<b>TOTAL</b>	<b>4,944</b>	<b>4,944</b>	<b>4,944</b>	<b>4,944</b>	<b>4,944</b>	<b>4,944</b>	<b>4,944</b>	<b>4,944</b>
Suitable Timber Lands	0	0	0	0	0	0	0	0