USDA

United States
Department of
Agriculture

Forest Service
Tongass National
Forest

Alaska Region

R10-MB-554

January 2006

Environmental Assessment

Sitka Access and Travel Management

Sitka Ranger District, Tongass National Forest, Alaska

Information Contact: Joe Costa, Transportation Planner, Sitka Ranger District
204 Siginaka Way
Sitka, Alaska 99835
Telephone (907) 747-4323

ACRONYMS & ABBREVIATIONS

ACMP	Alaska Coastal Management Plan
ADF&G	Alaska Department of Fish and Game
ANILCA	Alaska National Interest Lands Conservation Act
ATM	Access and Travel Management
ATV	all-terrain vehicle
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CZMA	Coastal Zone Management Act
EA	Environmental Assessment
EFH	essential fish habitat
EIS	Environmental Impact Statement
Forest Plan	Tongass Land and Resource Management Plan
FSH	Forest Service Handbook
FSM	Forest Service Manual
GIS	Geographic Information System
GMU	Game Management Unit
HUC	Hydrologic Unit Code
LUD	Land Use Designation
MIS	Management Indicator Species
ML	Maintenance Level
MP	milepost
NEPA	National Environmental Policy Act
NFS	National Forest System
OHV	off-highway vehicle
OML	Objective Maintenance Level
RAP	Roads Analysis Process
RMA	Riparian Management Area
SATP	Southeast Alaska Transportation Plan
SUV	sport utility vehicle
USDA	United States Department of Agriculture
WAA	Wildlife Analysis Area

Table of Contents

List of Figures

List of Tables

DEFINITIONS

Forest Road	A road wholly or partly within or adjacent to and serving the National Forest System that the Forest Service determines is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources.
Road	A motor vehicle route over 50 inches wide, unless identified and managed as a trail.
Passenger Car Road (ML-3 & 4)	A road that is open and maintained for use by prudent drivers of passenger vehicles. Typically low-speed, single-lane roads with turnouts and spot surfacing. Some roads may be double-lane and paved, providing a moderate degree of comfort and convenience at moderate travel speeds. (These roads are designated as Maintenance Level 3 (ML-3) and ML-4 based on FSH 7709.58-92-1. ML-3 roads have rough surfaces, while ML-4 roads have smooth surfaces.) Passenger vehicles are designed primarily to provide transportation on roads. All vehicles except OHVs are considered to be passenger vehicles.
High-Clearance Passenger Vehicle Roads (ML-2)	A road that is open and maintained for use by high-clearance vehicles and monitored for resource protection. High-clearance vehicles have a minimum of 5 inches of clearance such as a sport utility vehicle (SUV) or truck-type vehicle with large tire rims and possibly four-wheel drive capability. Traffic is minor and serves primarily administrative purposes. (These roads are designated as ML-2 based on FSH 7709.58-92-1.)
Stored Road (ML-1)	A road that has been put into a self maintaining status and is closed to standard passenger and high-clearance vehicle traffic by a combination of physical blockage at the entrance, bypassing or removal of drainage structures along the road to restore natural drainage patterns, and/or adding water bars as needed to control runoff, revegetating the roadway in places to stabilize the surface. Stored roads are monitored for resource protection to ensure availability when needed in the future. (These roads are designated as Maintenance Level (ML)-1 based on FSH 7709.58-92-1.)
Unauthorized Road	A road that is not a forest road or temporary road, and that is not included in a forest transportation atlas. Unauthorized roads typically were originally temporary roads used for timber harvest or mining.

Off-Highway Vehicle (OHV) Trail	A road or trail that is closed to passenger vehicle traffic. A vegetative clearing width of approximately 6 feet is maintained and the OHV trail is monitored for resource protection. May be open to OHV use if designated by Ranger. OHVs are vehicles designed or retro-fitted primarily for recreational use off road. This classification includes all-terrain vehicles, mini-bikes, amphibious vehicles, off-highway motorcycles, go-carts, motorized trail bikes, and dune buggies.
Trail	A route 50 inches or less in width, or a route over 50 inches wide, that is identified and managed as a trail.
Closed Pending Repairs	Designated OHV routes that are closed to OHV traffic until identified repairs are made and/or adequate stream crossings can be provided.
Decommissioned Road	An unneeded road that has been stabilized and restored to a more natural state (for example, by removing culverts, re-establishing drainage-ways, and removing unstable fills). Decommissioned roads are closed to all vehicular traffic.

CHAPTER 1 PURPOSE AND NEED

Introduction

The U.S. Department of Agriculture (USDA) Forest Service has prepared this Environmental Assessment (EA) to evaluate management of the road system on the Sitka Ranger District (Ranger District). This analysis was completed in compliance with the National Environmental Policy Act (NEPA) and other relevant federal and state laws and regulations. This EA discloses the direct, indirect, and cumulative environmental impacts that would result from the alternatives, including the Proposed Action. Public comments, resource concerns, and present and future access needs were considered in this analysis. The 1997 Tongass Land and Resource Management Plan (Forest Plan) identifies the parameters of motorized access and resource protection considered in this analysis. Additional documentation, including more detailed analyses of project area resources, may be found in the project planning record located at the Sitka Ranger District Office in Sitka, Alaska.

Existing Conditions

The Sitka Ranger District of the Tongass National Forest comprises approximately 1.8 million acres. Part of the Alexander Archipelago, the Ranger District encompasses Baranof Island, Kruzof Island, and the southern half of Chichagof Island, and is bounded on the west by the Gulf of Alaska and on the east by Chatham Strait (Figure 1). Most of the Ranger District is undeveloped and contains habitat for a variety of species, including brown bears, Sitka black-tailed deer, and salmon. Resources provided by the Tongass National Forest support many uses, including recreation, subsistence, wood products including timber harvest, fishing, and tourism. Maintaining these resources, while also providing opportunities for their use, is of great importance to local residents.

The City of Sitka has the largest population (approximately 8,800 people) of the five communities within and near the project area. The Ranger District also includes the communities of Tenakee Springs, Baranof Warm Springs, and Port Alexander. Angoon, on Admiralty Island, is just east of the Ranger District. These remote island communities can only be accessed by plane or boat.

There are approximately 372 miles of forest roads on the Ranger District (including roads that cross private land where the government holds an easement); this is nearly 10 percent of the approximately 3,600 miles of forest roads on the Tongass National Forest. Cars, trucks, off-highway vehicles (OHVs) such as motorcycles and all-terrain vehicles, bicycles, and pedestrians use many of these roads. Motor vehicles frequently use the roads linked to the Alaska state system near Sitka. However, many road systems on the Ranger District are isolated; only a limited amount of automobile traffic occurs on these systems. Most of the roads on the Ranger District are only accessible by boat and float plane. Transportation on remote road systems is generally limited to bicycles, motorcycles, and OHVs due to the expense of transporting larger vehicles.

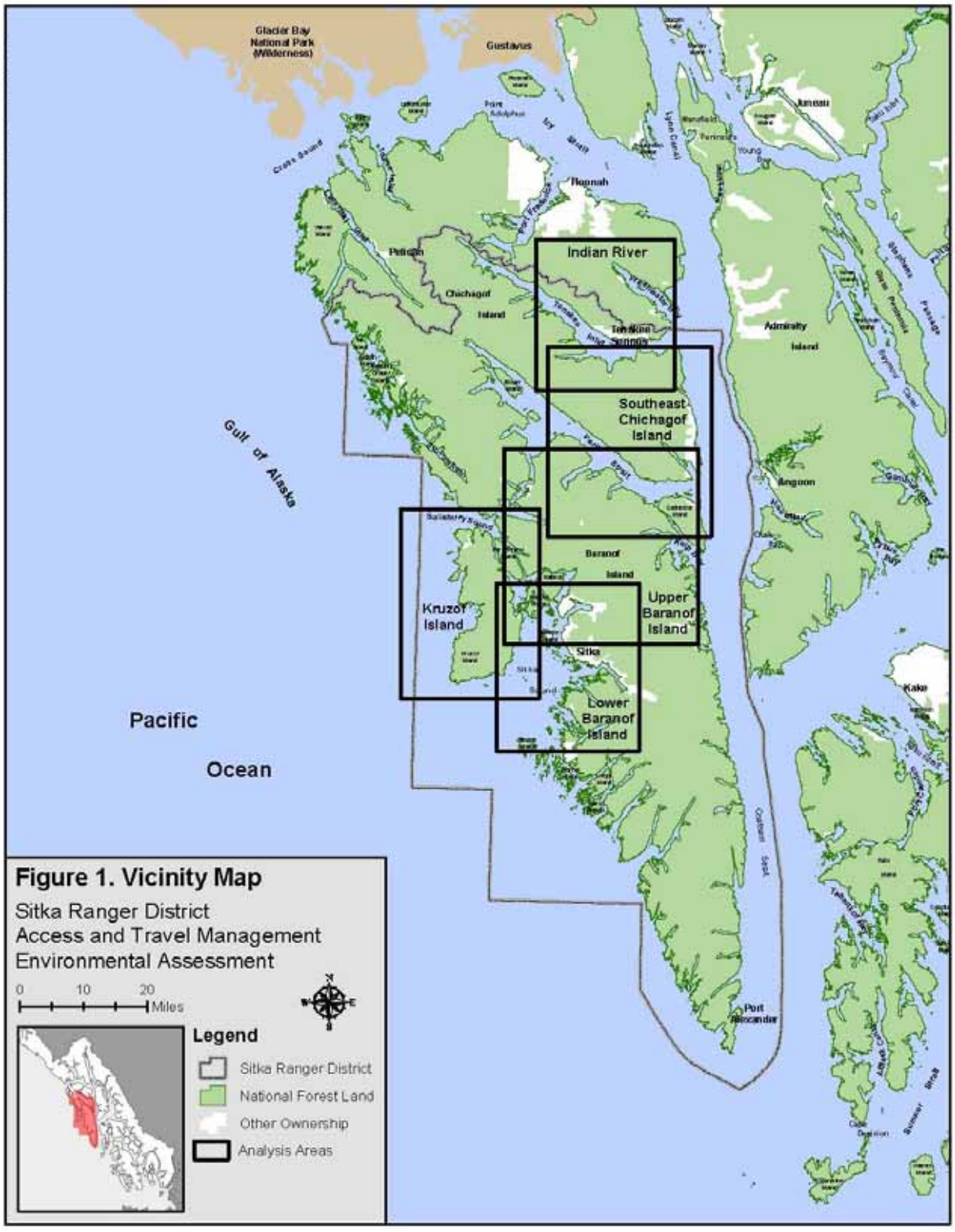

Figure 1. Vicinity Map

Most of the roads on the Ranger District were built to provide access for timber management. This road network created new and improved access to the Ranger District for recreational and subsistence uses. In addition, most trails are accessed through the road system. However, road access can alter the character of the landscape (USDA Forest Service 2002a, 2004a, 2004b, 2005c). Road drainage structures can cause barriers to fish migration. Failed log culverts and log stringer bridges can impact fish habitat and water quality. The lack of maintenance on some of these structures presents a public safety hazard. Additionally, the concentrated use of OHVs can result in erosion, stream sedimentation, and impacts to sensitive habitats.

In recent years, budgets have been insufficient for the Ranger District to perform adequate maintenance on all of its roads (USDA Forest Service 2002a, 2004a, 2004b, 2005c). The Tongass Land and Resource Management Plan (Forest Plan), approved in 1997, re-evaluated the management and use of National Forest System lands, and as a result some areas of the Ranger District formerly designated for timber management were placed under new designations that do not include programmed timber harvest. Beginning in 1998, the Forest Service began conducting road condition surveys (RCS) on District roads. The information gathered in these surveys has been used to identify barriers to fish passage, locate undersized and collapsed cross drains and landslide sites, and find road surfaces and corridor areas in need of repair. Work has began on the Ranger District to correct these identified problems. This effort represents a local and national commitment to address and correct resource problems caused by forest roads (USDA Forest Service 2002a, 2004a, 2004b, 2005c).

The Ranger District initiated access and travel management (ATM) planning in 1999 and began conducting roads analyses for its road systems, using the roads analysis process (RAP) outlined in FS-643 (USDA Forest Service 1999a). Analyses were completed for roads within the Indian River, southeast Chichagof Island, Baranof Island, and Kruzof Island areas. This process provided an assessment of the extent and condition of the existing roads, which can be compared to the desired future condition for the Forest in order to identify needs for change. The Ranger District also held public meetings to invite public comment and identify preliminary issues. Recommendations documented in the roads analyses, supplemented by the input from public comment, led to the Proposed Action addressed in this Access and Travel Management EA.

The Forest Plan provides management direction for the Forest, and assigns lands to specific Land Use Designations (LUDs). These LUDs provide standards and guidelines that determine the desired future condition for each LUD; through goals and management prescriptions, the LUDs also determine what activities may take place. Some LUDs allow for development activities, while others emphasize retention of the natural state. The Sitka Ranger District contains ten LUDs, which allow for differing amounts and types of road construction, use, and development. These designations and the Forest Plan guidelines (USDA Forest Service 1997a) helped to determine the Proposed Action for this EA. The LUDs for the Sitka District, along with their Transportation Standards and Guidelines, are summarized below and shown on Figures 2 through 26.

> Wilderness (522,615 acres): Provide adequate and feasible access for economic and other purposes to owners of private land, including subsurface rights to land, valid mining claims, or other valid occupations, which are effectively surrounded by

Wilderness. Any existing roads in the Wilderness are closed to motorized uses unless authorized under Alaska National Interest Lands Conservation Act (ANILCA). New roads and new airstrips are not permitted. Use of snowmobiles, fixed-wing aircraft, and non-motorized methods of surface transportation for traditional activities is acceptable.

Semi-Remote Recreation (196,692 acres): Existing low standard roads are generally managed for use by high-clearance vehicles or OHVs. Generally, new roads are not constructed except to link existing roads or to provide access to adjacent LUDs.

Enacted Municipal Watershed (28,620 acres): Roads are permitted if necessary for routine operation, maintenance, and improvement of the municipal water system if it can be done without unacceptable degradation of water quality. Roads that provide for timber salvage are permitted after consultation with the affected municipality.

Scenic Viewshed (23,142 acres): Roads are located to meet the Visual Quality Objectives with special consideration given to minimizing the apparent landform modification during road location, design, and construction.

Remote Recreation (206,370 acres): New roads are not permitted except to access valid mining claims. Existing roads in the LUD are closed to motorized uses unless authorized under ANILCA. Use of snowmobiles, motorboats, and aircraft is permitted.

Modified Landscape (56,152 acres): Develop and manage cost-effective transportation systems. Give special emphasis to fish and wildlife habitat values. Provide recreation access where appropriate.

Wild River (3,332 acres): Permit no new roads, except to access valid mining claims or corridors in accordance with ANILCA Title XI (an additional 2,693 acres of Wild and Scenic River are also included in the LUD II acres).

Old-Growth Habitat Reserves (218,162 acres): New road construction is generally inconsistent with this LUD, but roads may be constructed if no feasible alternative is available to access adjacent LUDs. Manage existing roads to meet the Old-Growth Habitat Reserves Objectives.

Timber Production (464,012 acres): Develop and manage cost-effective transportation systems that integrate resource requirements consistent with LUD direction. Consider future recreational access in the location and design of new roads.

Special Interest Area (60,695 acres): Provide and manage a transportation system compatible with, or that will improve the interpretation of, the unique values of the Special Interest Area.

LUD II (133,009 acres): Existing roads are generally closed to highway vehicular use. New road construction is generally inconsistent with this LUD, but roads may be constructed if no feasible alternative is available to access adjacent LUDs. Manage existing roads to meet the LUD II Objectives.

Non-National Forest System Land (49,649 acres): Includes Native allotments, Native Corporation, State, and private lands.

Transportation and Utility Corridors: To provide for and/or facilitate the development of existing and future major public transportation and utility systems, including those identified by the State of Alaska and the Alaska Energy Authority. Consider potential conflicts and opportunities with future roads, timber harvest, and other management activities.

OHV access on the Ranger District is highly dependent on road condition. The most limiting factor for access is the lack of, or poor condition of fish stream crossing structures. Currently, more than 150 log stringer bridges on the Ranger District have failed or are in extremely poor condition, and the Ranger District has also removed numerous stream crossing structures to remediate fish habitat impacts. The operation of motorized or tracked vehicles or equipment in or across streams or other waters important for spawning, rearing, or migration of anadromous fish is unlawful without approved crossings and concurrence with the Alaska Department of Natural Resources Office of Habitat Management and Permitting. Several other factors make OHV access unacceptable in certain areas. These include legal access across private land, changes in LUDs in the Forest Plan, wildlife protection, and public safety. Figures 2 through 6 depict the existing condition of the National Forest System roads within the Ranger District.

Purpose and Need for Action

Due to increased resource concerns, changing objectives and use patterns, and reduced funding for roads maintenance, the Ranger District is reassessing its current road management strategy. The ATM Plan determined through a decision on this EA will provide a forest transportation system that best serves the current and anticipated management objectives and public uses on the Ranger District. The purpose of this project is to provide sustainable, efficient, and safe access to the forest resources and recreational opportunities on the Ranger District.

The need for this project is to reduce the number of unmaintained or inadequately maintained roads to better match the level of funding available for road maintenance and to eliminate or reduce risks of adverse environmental impacts and threats to public safety. Some roads on the Ranger District may need to be decommissioned in order to meet the desired future condition of the Forest as described by the Forest Plan. Finally, in order to protect and improve fish and wildlife habitat and other natural resources on National Forest System lands, there is a need to further evaluate and correct resource damage caused by roads and road use.

The road management strategies analyzed in this EA are guided by the Forest Plan (USDA Forest Service 1997a). Forest Plan goals include providing reasonable public access to the Forest while minimizing effects on natural resources and operating within the Forest's budget provided to the Forest Service. Providing for public safety is an integral part of these goals.

Proposed Action

The Proposed Action (Alternative 2) is one possible alternative for managing the existing National Forest road systems on the Ranger District. It would affect 22 separate road systems (Figures 2 through 6). The Proposed Action would reduce the amount of road open to highway vehicles by approximately 45 miles. These roads would be placed in storage, decommissioned, or converted to trails. Approximately 14.5 miles of unauthorized roads would be added to the Ranger District road system (they would become forest roads) and another 4.5 miles of unauthorized road would be converted to OHV trails. All other unauthorized roads would remain off the road system and be allowed to revegetate if they have not already done so.

Under the Proposed Action, six road systems would remain open for OHV use (with certain exceptions within each system). Seven road systems would be closed to OHV use until fish crossing conflicts can be resolved. OHV access would not be allowed on the remaining nine road systems. OHV access would be prohibited on all unauthorized roads with minor exceptions (Tables A-1 and A-2 in Appendix A). Implementation of the Proposed Action would begin in 2006. A more detailed description of the Proposed Action can be found in Chapter 2.

Decision Framework

Given the Purpose and Need, the District Ranger for the Sitka Ranger District will review the Proposed Action and other alternatives in order to decide how the Ranger District road system will be managed to meet Forest Plan objectives, public needs, and budget limitations. The decision will include changes in road maintenance levels, access, and the type of access that will be permitted on National Forest System roads on the Ranger District. A finding of the significance of the effects and consistency with standards, guidelines, goals, and objectives of the Forest Plan and other laws and regulations will be included in this decision.

Public Involvement

In addition to the following specific activities, the Sitka Access and Travel Management project has been listed on the Tongass National Forest Schedule of Proposed Actions available on the Forest Service Web site. The proposal was provided to the public and other agencies for comment during scoping (March 14, 2005 to April 14, 2005). To date, the public has been invited to participate in the project in the following ways.

Public Mailing

A scoping brochure describing the Proposed Action and soliciting public comment was mailed to 471 individuals, organizations, institutions, and industry representatives that had previously shown interest in Forest Service projects on the Sitka Ranger District. Interested parties included federal and state agencies, Alaska Native groups, municipal offices, businesses, interest groups, and individuals. A total of 125 responses were received regarding the project and the Ranger District's Proposed Action, including 71 members of Sitka Recreational Riders, Inc. The majority of respondents (111) were from Sitka. Seven

were from Tenakee Springs, six were from other cities in Alaska, and one was from Utah. Some individuals also included additional comments with their submissions.

Local News Media
An announcement about the project and public meetings was published in the *Juneau Empire* on March 14 and 15, 2005 and the *Daily Sitka Sentinel* from March 14 through 18, 2005. Public service announcements were also made on Sitka's Raven Radio (KCAW) prior to public meetings.

Public Meetings
Public meetings were held in Tenakee Springs and Sitka on March 22 and 24, 2005, respectively. A meeting was also held in the community of Angoon on May 18, 2005. There were 16 attendees at the Tenakee Springs meeting, over 100 at the Sitka meeting, and approximately 12 at the Angoon meeting. Prior to the meetings, scoping brochures were sent to the local community centers in Sitka, Tenakee Springs, and Angoon. During the public meetings, scoping brochures were distributed to the participants and maps illustrating the Proposed Action were available for public review. Following the presentation, the public was prompted to ask questions and was encouraged to provide written comments to the Forest Service.

Web Site
A Web site (http://www.SitkaATM-EA.com) was created for users on both high-speed and dial-up Internet connections to access the scoping brochure and download it if needed. Sixteen of the responses were received through the Web site.

Meetings with Native Groups
Forest Service staff met with representatives of the Angoon Community Association on May 18 and December 15, 2005, Shee Atika Incorporated on June 15, 2005, and Sealaska Corporation on June 24, 2005. Forest Service staff also met with representatives of the Sitka Tribe of Alaska for informational ATM meetings on May 31, 2005 and November 10, 2005.

Contacts with Other Agencies
The following government agencies were contacted:

U.S. Fish and Wildlife Service
U.S. Army Corps of Engineers
National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service
Alaska Department of Fish and Game
Alaska Department of Transportation
Alaska Department of Natural Resources
City and Borough of Sitka, Office of Government Relations

No permits, licenses, and/or certifications from federal or state agencies are needed for this project.

Issues

Preliminary issues were identified through extensive review of existing Forest Service documents, including the roads analyses produced for the District, the Forest Plan, and other resource reports and NEPA documents. Following the scoping, the Interdisciplinary Team developed an updated list of issues. Issues were separated into two groups: significant and non-significant issues. Significant issues were defined as those directly or indirectly caused by implementing the Proposed Action. Non-significant issues were identified as those: 1) outside the scope of the Proposed Action; 2) already decided by law, regulation, Forest Plan, or other higher level decision; 3) irrelevant to the decision to be made; or 4) conjectural and not supported by scientific or factual evidence. The Council on Environmental Quality (CEQ) NEPA regulations require this delineation in Sec. 1501.7 to: "…identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3)…" A list of non-significant issues and reasons regarding their categorization as non-significant may be found in the project record and discussed under Non-Significant Issues below. The Forest Service identified motorized access for recreation and for subsistence as significant issues that had been raised in the past and during public scoping for this EA. These issues were addressed through the alternatives.

Issue 1: Motorized Access for Recreation
Closing Roads to Motorized Access, Especially OHV Access, due to Resource Concerns would Reduce Important Recreational Opportunities on the Ranger District.

Many residents of the remote communities such as Sitka and Tenakee Springs rely heavily on National Forest System roads to access recreational opportunities and to enjoy outdoor activities. Roads provide access to cabins; beaches; camping, fishing, and hunting sites; and trails, and create opportunities for viewing wildlife and appreciating the scenery of the Forest. These experiences represent an important part of the region's lifestyle, and also support the local economy, including over 70 outfitter/guide services that provide opportunities for tourists and residents.

Comments relating to motorized recreational access represented a significant portion of all the comments received during the scoping process. In general, the majority of participants commenting on recreational access felt that the Proposed Action would significantly reduce important recreational opportunities due to the closure of many roads to motorized use, and recommended that the Forest Service should try to keep as many roads open as possible. Recreational riding was ranked as the highest use by OHV riders who use District roads for recreational riding, camping, hunting, and fishing.

The Forest Service has identified roads with inadequate stream crossings where motorized access was determined to cause detrimental effects to water resources, habitat, and fish populations, and sites of erosion or soil damage. Some respondents commented that many of these sites, in their estimate, were inappropriately identified, and that there is little or no damage to resources due to OHV use in these places. Closing roads to OHV access due to resource concerns would reduce important recreational opportunities on the District.

The miles of roads available for OHV or motorized recreation would be used to measure the relative impact of road closure to recreational access.

Issue 2: Motorized Access for Subsistence
Closing Roads to Motorized Access due to Resource Concerns would Reduce Access for Subsistence on the Ranger District.

Many scoping comments were made about the loss of access for subsistence. Roads have been used to reach sites for hunting; fishing; and gathering berries, mushrooms, and firewood. Subsistence concerns were also identified in the Ranger District's roads analyses. Subsistence activities are protected by legislation, including ANILCA Section 811. The Proposed Action provides for non-motorized subsistence access. The Forest Service has identified roads with inadequate stream crossings where motorized access was determined to cause detrimental effects to water resources, habitat, and fish populations, and sites of erosion or soil damage. Some commentors felt that by closing these roads to motorized access, the Proposed Action would limit access for subsistence in some areas.

Non-Significant Issues

In addition to motorized access for recreation and for subsistence, the following issues were raised through scoping and agency and tribal consultation: subsistence, existing roads in the Old-Growth Habitat LUD, fisheries/water quality, public safety, road maintenance costs, the National OHV Plan and the Final Rule, the Southeast Alaska Transportation Plan Road Corridors, and unauthorized access across private land. These issues are described in more detail below, as are the reasons for considering them non-significant.

Existing Roads in the Old-Growth Habitat LUD

This issue is dealt with by the Forest Plan, which allows existing roads to remain open if needed for future management. Roads not needed may be closed. Many roads within the Old-Growth Habitat LUDs have naturally closed due to lack of road maintenance. Some of these roads may be used in the future to perform second-growth silvicultural treatments in previous timber harvest units to meet LUD goals and objectives. Existing OHV use on the existing roads in these LUDs is minimal. The Proposed Action preserves motorized access to roads necessary for short-term timber management activities; it also places roads into storage that are not needed in the short term, but may be necessary for long-term resource uses.

Fisheries/Water Quality

Some scoping comments stated that roads that do not have adequate stream crossings should be closed. Fish populations may be negatively affected by road sediment introduced at stream crossings, particularly if maintenance has been insufficient to meet the standards and guidelines outlined in the Forest Plan. Alaska State statute, AS 21.14.870, does not allow motorized access across anadromous streams without adequate stream crossings. The Proposed Action would close roads that do not have adequate stream crossings, at least until repairs are made.

Public Safety

The District's Road Condition Survey (RCS) data and road analyses document over 150 cases where log stringer bridges are deteriorating and in some instances have failed, throughout Sitka Ranger District. Use of these bridges poses a hazard to public safety. In addition, some roads have been built on erosive soils and in areas subject to landslides. These roads may be unsafe for public motorized access. Consequently, the Proposed Action calls for certain roads posing threats to public safety to be closed to motorized use until they can be repaired or decommissioned.

Road Maintenance Costs

Current funding provided for road maintenance is inadequate to prevent further resource damage to open roads at their current Objective Maintenance Level (OML). As a consequence of the mounting shortfall, under the Proposed Action, roads not needed for short-term resource management would be placed in storage. Roads not needed for long-term management would be decommissioned or converted to trails. This would reduce the cost of road maintenance and reduce ongoing resource damage due to inadequate road maintenance. Routes that are converted to trails will increase the trail programs costs for maintenance.

National OHV Final Rule

The National OHV Rule was released in November 2005. This Access and Travel Management Plan incorporates the Final Rule.

Southeast Alaska Transportation Plan Road Corridors

The Southeast Alaska Transportation Plan (SATP), proposal in 2004, included transportation and utility corridors designed to better link the communities in Southeast Alaska. Individual scoping participants believed that certain roads proposed to be stored or decommissioned should remain open to preserve the potential corridors outlined in the SATP. Representatives of the State of Alaska Department of Transportation also requested that the Forest Service maintain and protect the roads aligning with these routes. The Proposed Action allows roads in these corridors, as recommended.

Unauthorized Access onto Private Lands

Private property owners have the right to deny access to the public across their land. The Proposed Action will close all roads crossing private lands, unless the Government holds an easement allowing public access.

CHAPTER 2 ALTERNATIVES, INCLUDING THE PROPOSED ACTION

This chapter describes and compares the alternatives considered for the Sitka ATM project. It includes a description and maps of each alternative considered. This section also presents the alternatives in comparative form, sharply defining the differences between each alternative and providing a clear basis for choice among options by the decision maker and the public.

The Forest Service uses the term "Maintenance Level" to describe the level of service provided by, and maintenance required for each forest road. The Objective Maintenance Level (OML) is the proposed maintenance level to be assigned as a result of this document, considering road management objectives, traffic needs, budget constraints, and environmental concerns. Forest roads are assigned to one of four separate Objective Maintenance Levels. Roads assigned to OML-1 are considered closed to standard vehicles, while roads assigned to OML-2, 3, or 4 are considered open. A brief description of these OMLs can be found under Definitions on page vii .The Proposed Action and Alternative 3 call for changes to the Objective Maintenance Levels on several roads on the Ranger District. These changes are detailed in Table A-1 in Appendix A.

The District Ranger considers three alternatives in this EA. In addition to a No Action Alternative (Alternative 1), two action alternatives, including the Proposed Action (Alternative 2), are considered in detail. Under the No Action Alternative, no changes to road management would take place in the project area. The other alternatives represent different means of meeting the Purpose and Need for this project by responding with different emphases to the significant issues discussed in Chapter 1. The alternatives were designed to fully comply with the Tongass Forest Plan including all applicable Standards and Guidelines. Maps of all alternatives are provided within this chapter. The maps for Alternative 1, the No Action Alternative, represent the current condition of the project area.

Roads on Non-Federal Land

During scoping for this project, representatives of Alaskan Native groups expressed concern regarding the management of roads that impact Native allotments. Owners of these private lands have requested that roads on their properties not appear on project maps except for where the Ranger District has secured easements. Therefore, certain roads familiar to local users may not be depicted in the maps included in this EA.

Alternative 1: No Action

Under the No Action Alternative (Alternative 1), current management plans would continue to guide management of the roads on the Ranger District. All system roads would be managed as designated by the Forest Plan, existing road management objectives, and previous NEPA decisions (1992, 1994, 1996, 1999, and 2003). No changes to passenger vehicle access or OHV access would be made on forest roads as part of this project. Roads already scheduled for conversion to storage would be stored. Currently, all forest roads are open to OHVs, with the exception of Sitka local roads and where there is inadequate passage

across fish streams (See Appendix A-2). The operation of motorized or tracked vehicles or equipment in or across streams or other waters important for spawning, rearing, or migration of fish is unlawful until the Forest Service obtains concurrence with the Alaska Department of Natural Resources Office of Habitat Management and Permitting; under this and the other alternatives, the Ranger District intends to stop unlawful use of roads. The Sitka local roads (listed in Appendix A) are closed to OHVs due to the incompatibility of mixed traffic occurring at the same time in conjunction with the State of Alaska restrictions governing mixed traffic on state highways.

The OHV Rule requires an analysis for roads where mixed use by OHVs and highway legal passenger vehicles is anticipated and will require a documented engineering judgement and/or engineering study by a qualified engineer, designated by the Regional Engineer. This affects Roads #7540FI, #7540CB, #7546, #7520, #7551, and #75511 on the Ranger District. None of the Sitka local roads allow mixed traffic (see above).

For the purpose of displaying all 22 road systems, the Ranger District has been divided into five areas: Indian River, Southeast Chicagof Island, Upper Baranof Island, Lower Baranof Island, and Kruzof Island. Figures 2 through 6 display the Existing Conditions of the roads on the Ranger District.

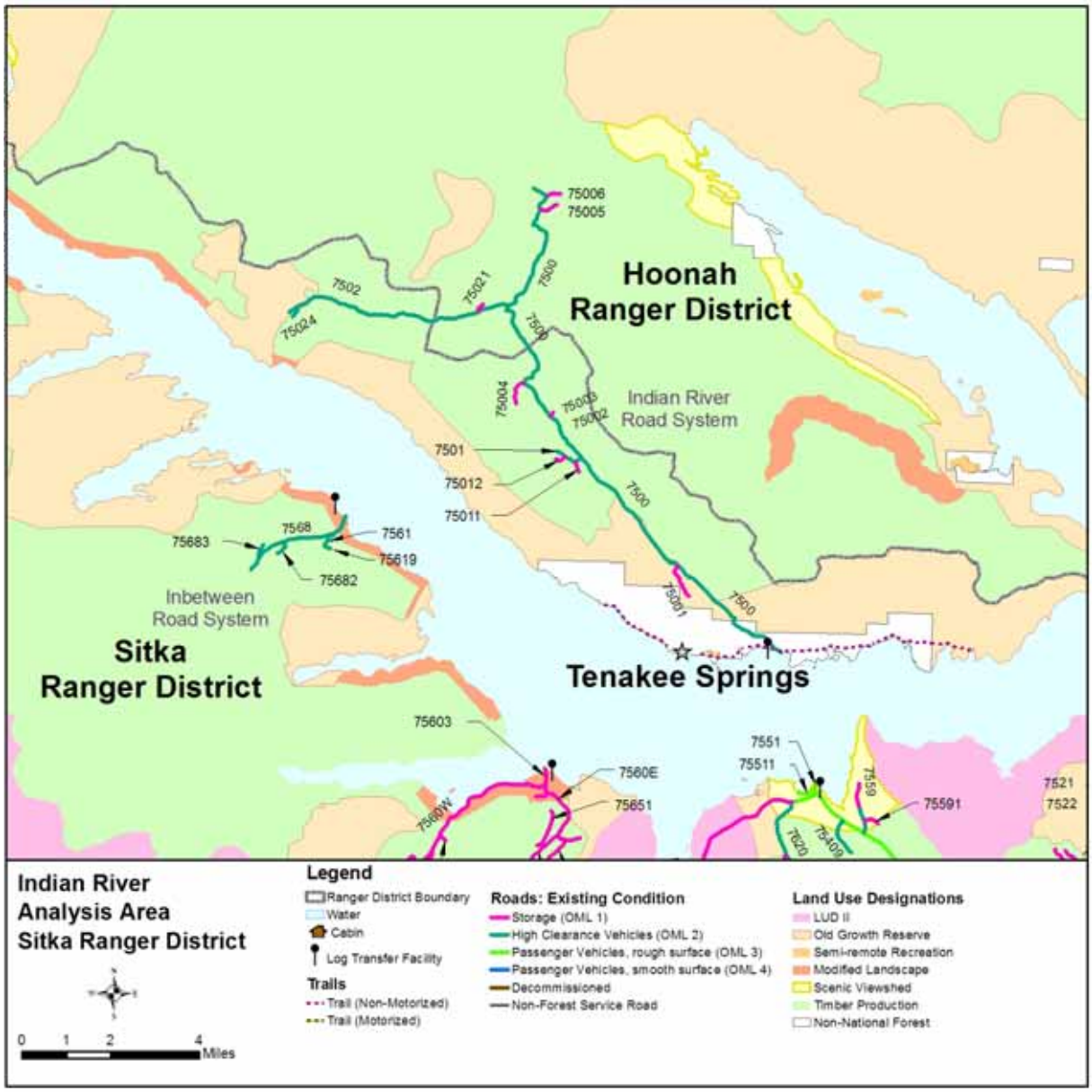

Figure 2. Indian River Analysis Area: Existing Condition for Passenger and High-Clearance Vehicle Access

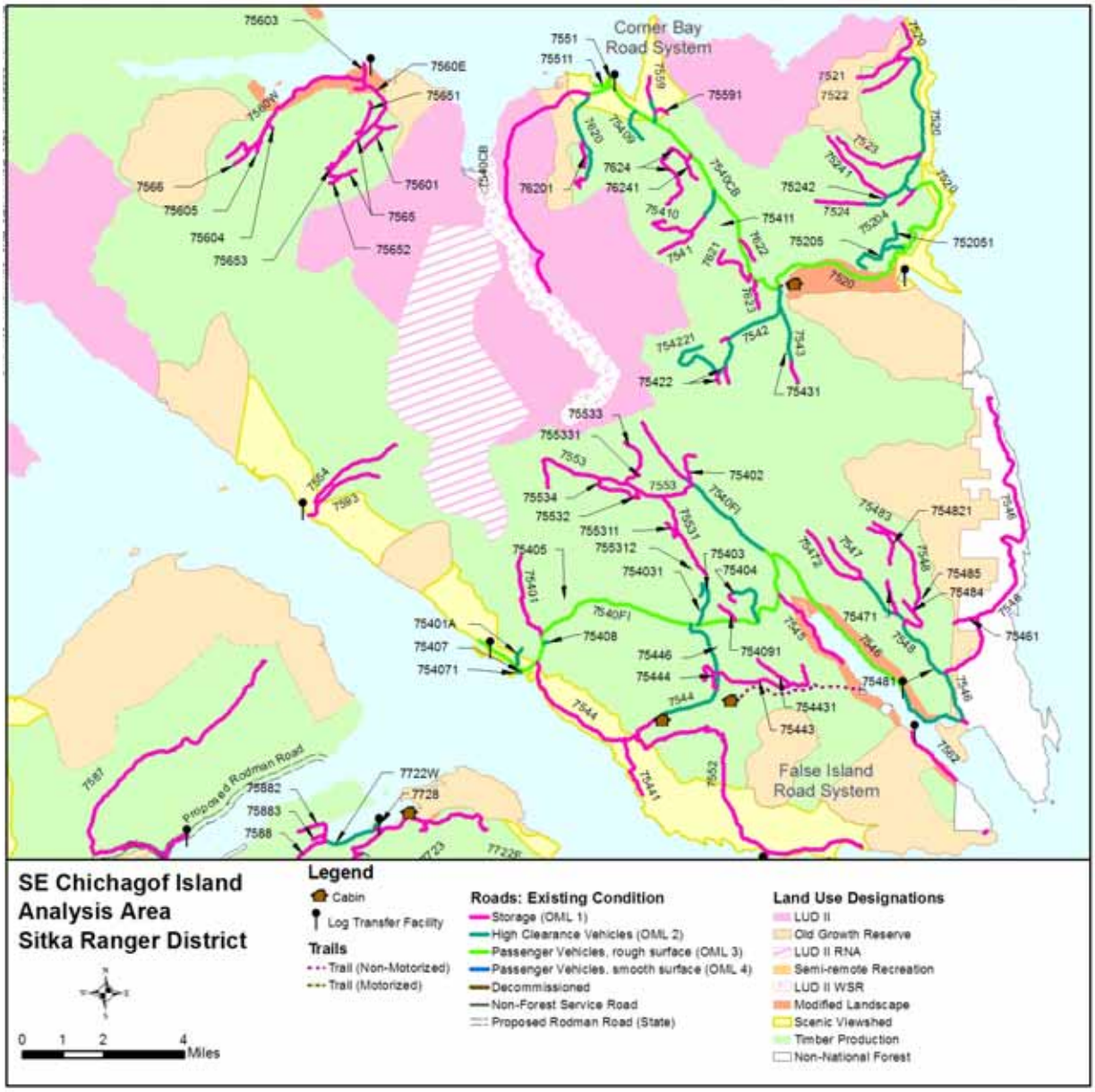

Figure 3. Southeast Chichagof Island Analysis Area: Existing Condition for Passenger and High-Clearance Vehicle Access

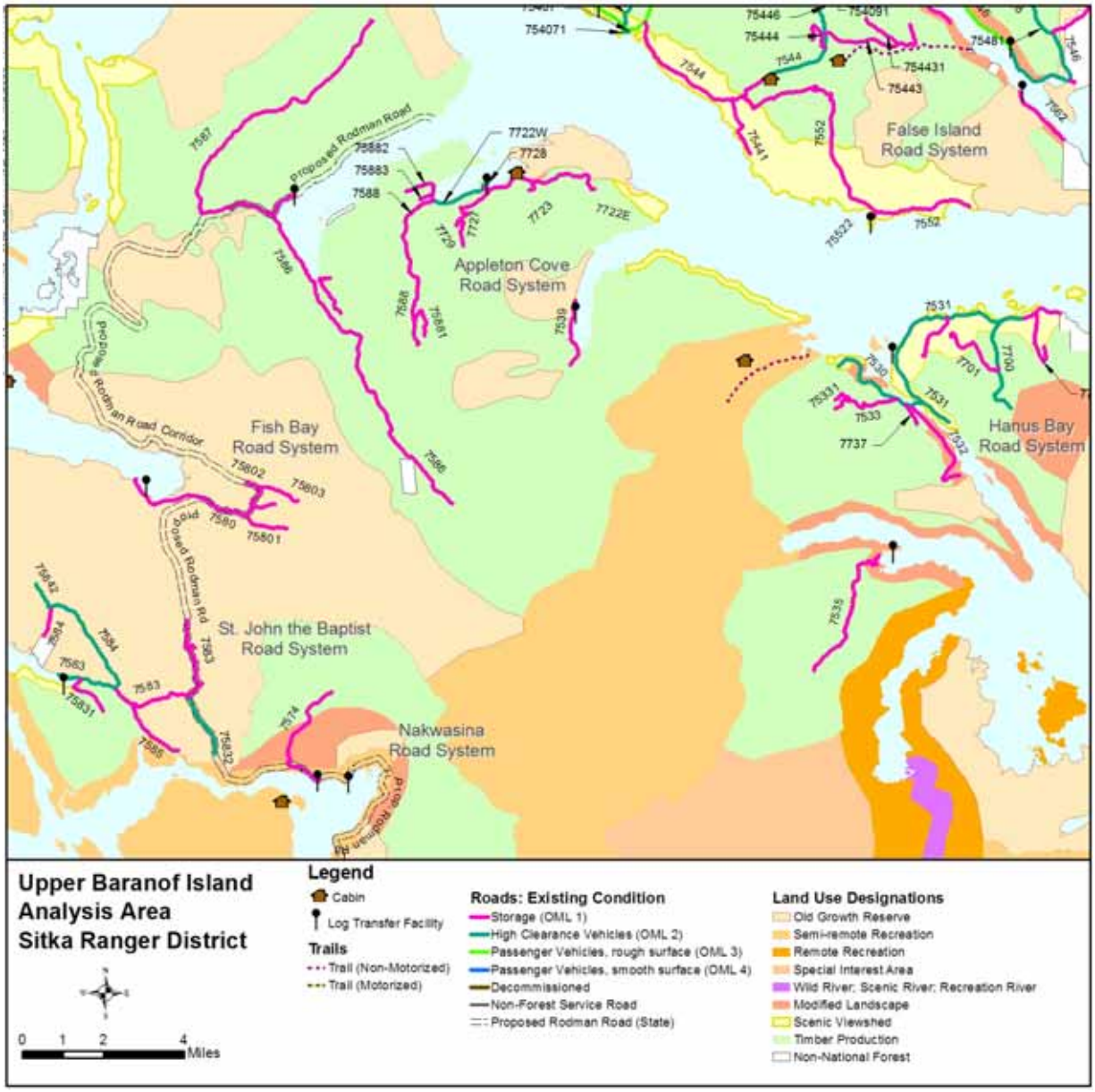

Figure 4. Upper Baranof Island Analysis Area: Existing Condition for Passenger and High-Clearance Vehicle Access

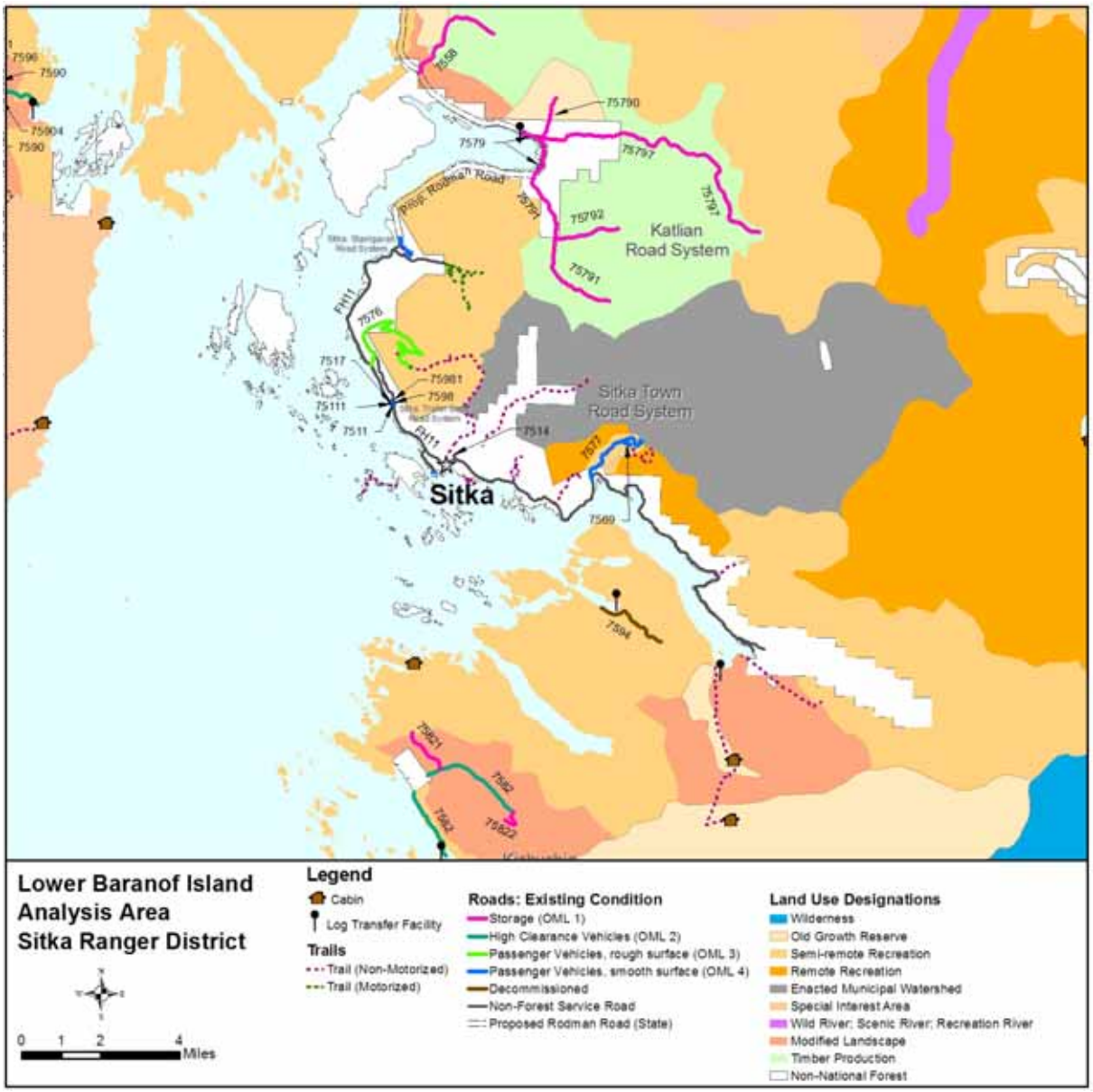

Figure 5. Lower Baranof Island Analysis Area: Existing Condition for Passenger and High-Clearance Vehicle Access

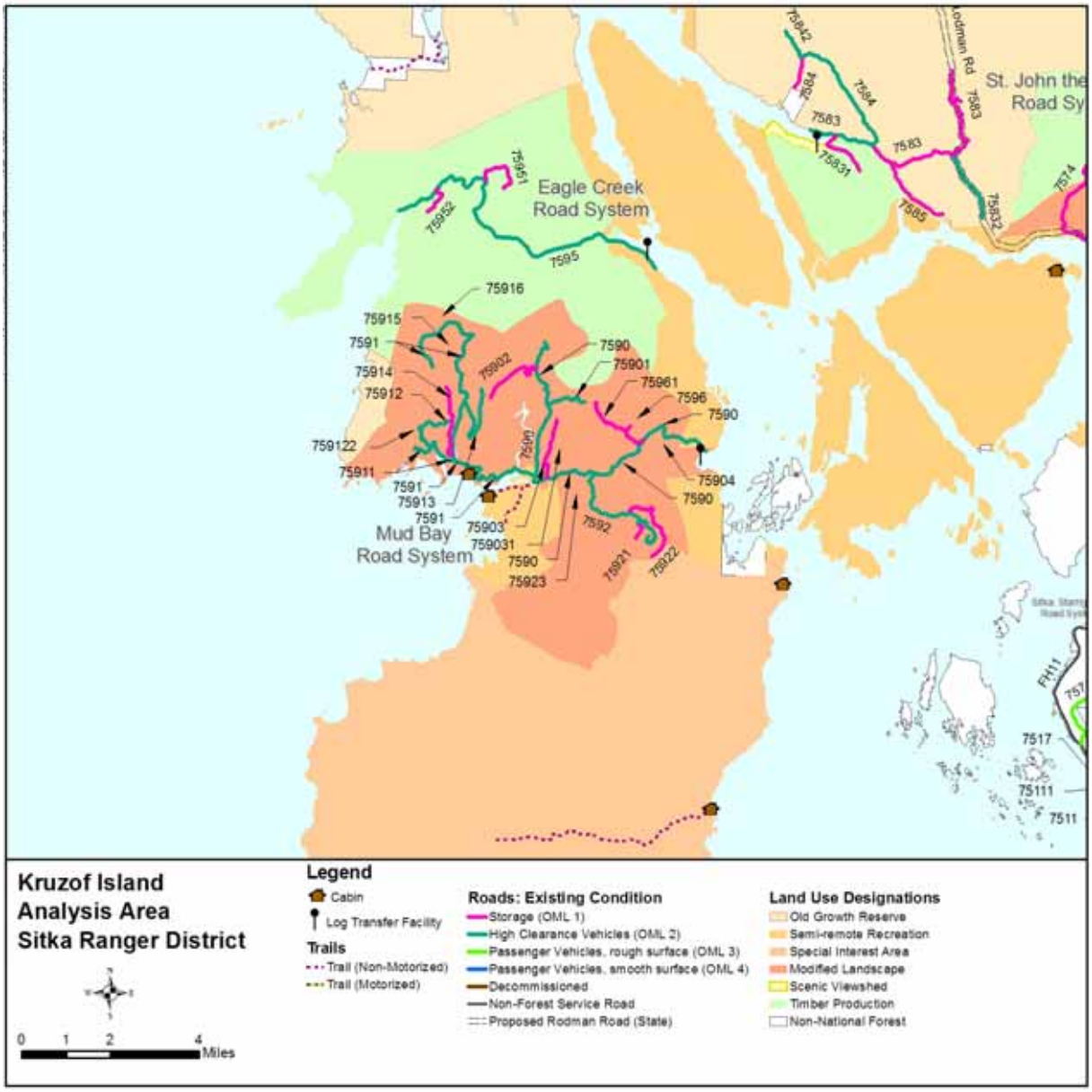

Figure 6. Kruzof Island Analysis Area: Existing Condition for Passenger and High-Clearance Vehicle Access

Alternative 2: The Proposed Action

Under the Proposed Action, forest roads that are not needed for resource management in the short term but are needed for long-term management would be stored (see Table A-1 in Appendix A and Figures 7 to 11). Roads placed in storage would have drainage structures removed and water bars installed. Roads not needed for long-term management would be decommissioned and, in some instances, converted to trails. Decommissioned roads would have their drainage structures removed and road surfaces would be scarified and revegetated. Any identified hazards to public safety would be corrected. The Proposed Action would affect 22 separate road systems. Changes to these road systems are based on the findings of the four roads analyses. Approximately 48 miles of roads that are currently open to passenger and high-clearance vehicle traffic would be closed. Approximately 3.4 miles of stored roads would be open to high-clearance vehicles. Approximately 16 miles would be decommissioned, approximately 22 miles would be converted to trails, and the remainder would be stored (Table 1). Except as noted below, unauthorized roads would not be added as National Forest System roads and would be allowed to revegetate if they have not already done so. Approximately 14.5 miles of unauthorized roads would be added to the National Forest Road System as forest roads and another 4.5 miles would be converted to OHV trail.

The Proposed Action also designates which roads would be open to OHV use. Forest roads that do not have approved fish passage structures would be closed to OHV use. Six road systems would remain open for OHV use (with certain exceptions within each system). Seven road systems would be closed to OHVs until fish crossing conflicts with OHV access can be resolved. OHV access would not be allowed on the remaining nine road systems. OHV access would be prohibited on all unauthorized roads with minor exceptions. Details are displayed in Table A-2 in Appendix A and Figures 12 to 16.

Two existing OHV trails, Starrigavan and North Beach, would be maintained. Existing non-motorized trails would remain non-motorized.

Indian River – Proposed Action for Passenger Vehicle Access

Approximately 2.1 miles of Road #7500 and 0.6 mile of #7501 would be placed in storage. Approximately 0.7 mile of Road #75001 would be decommissioned.

Southeast Chichagof Island – Proposed Action for Passenger Vehicle Access

Approximately 2.5 miles of Road #7545 (False Island road system) would be decommissioned. Approximately 3.3 miles of Road #7544 (False Island road system) would be converted to an OHV trail. Approximately 3 miles of Roads #7568, #7561, and #75619 (Inbetween road system) would be placed into storage. Passenger vehicle access would not change on the Crab Bay, Oly Creek, and Corner Bay systems under the Proposed Action.

Upper Baranof Island – Proposed Action for Passenger Vehicle Access

An unauthorized segment totaling 1.8 miles would be added to the Hanus Bay system as a stored road. Most roads of the Appleton Cove system would remain in storage. The maintenance level would be increased on 3.4 miles of Road #7722E, opening this section to high clearance passenger vehicles. In addition, three unauthorized segments totaling approximately 5 miles would be placed in storage. Passenger vehicle access would not change on the Upper Baranof Island, Kelp Bay, Noxon, Rodman Bay, and Saook systems.

The Fish Bay system, totaling approximately 7 miles of stored roads, would be decommissioned. Approximately 4.5 miles of unauthorized roads on the Nakwasina system would be added to the Forest transportation system as OHV trail.

Lower Baranof Island – Proposed Action for Passenger Vehicle Access

The Sitka Local road system would remain open under the Proposed Action. The maintenance level would be reduced on Road #7577, the Blue Lake Road (2.2 miles), but it would still be open to passenger vehicle use. Approximately 0.5 mile of unauthorized roads would be added to the system as roads accessible to passenger cars.

Roads in the Kizhuchia road system are currently designated as open; however, private property limits access to this small system approximately 1.0 mile from the marine access point. All roads in this system (approximately 8 miles) would be placed in storage.

The Camp Coogan road system (2 miles) has recently been decommissioned, it is closed to all vehicle traffic. Also, the Katlian road system currently is stored and closed to passenger vehicles. A portion of the system is also now located in an Old-Growth Habitat LUD, this road segment would be converted to a trail (8.4 miles, Roads #7590 and #75797). Two of the roads in this system (#75791 and #75792) totaling approximately 4.9 miles would be decommissioned on National Forest System lands because they have become overgrown.

No changes would be made to the Lisa Creek road system.

Kruzof Island – Proposed Action for Passenger Vehicle Access

Currently there are two remote road systems on Kruzof Island: Mud Bay and Eagle Creek. The Proposed Action calls for the storage of approximately 21 miles of roads in the Mud Bay system. A portion of Road #75961 (0.6 miles) would be decommissioned because it was built on very erosive soil and has experienced numerous landslides. Twenty-two unauthorized road segments, totaling approximately 5.25 miles, would be added to this system as stored roads.

Multiple major stream crossing structures on the Eagle Creek road system have failed, and pose a hazard to both public safety and natural resources. This system (8.3 miles) would be placed in storage and closed to passenger vehicles. Two short unauthorized segments totaling 0.07 mile would be added as stored roads.

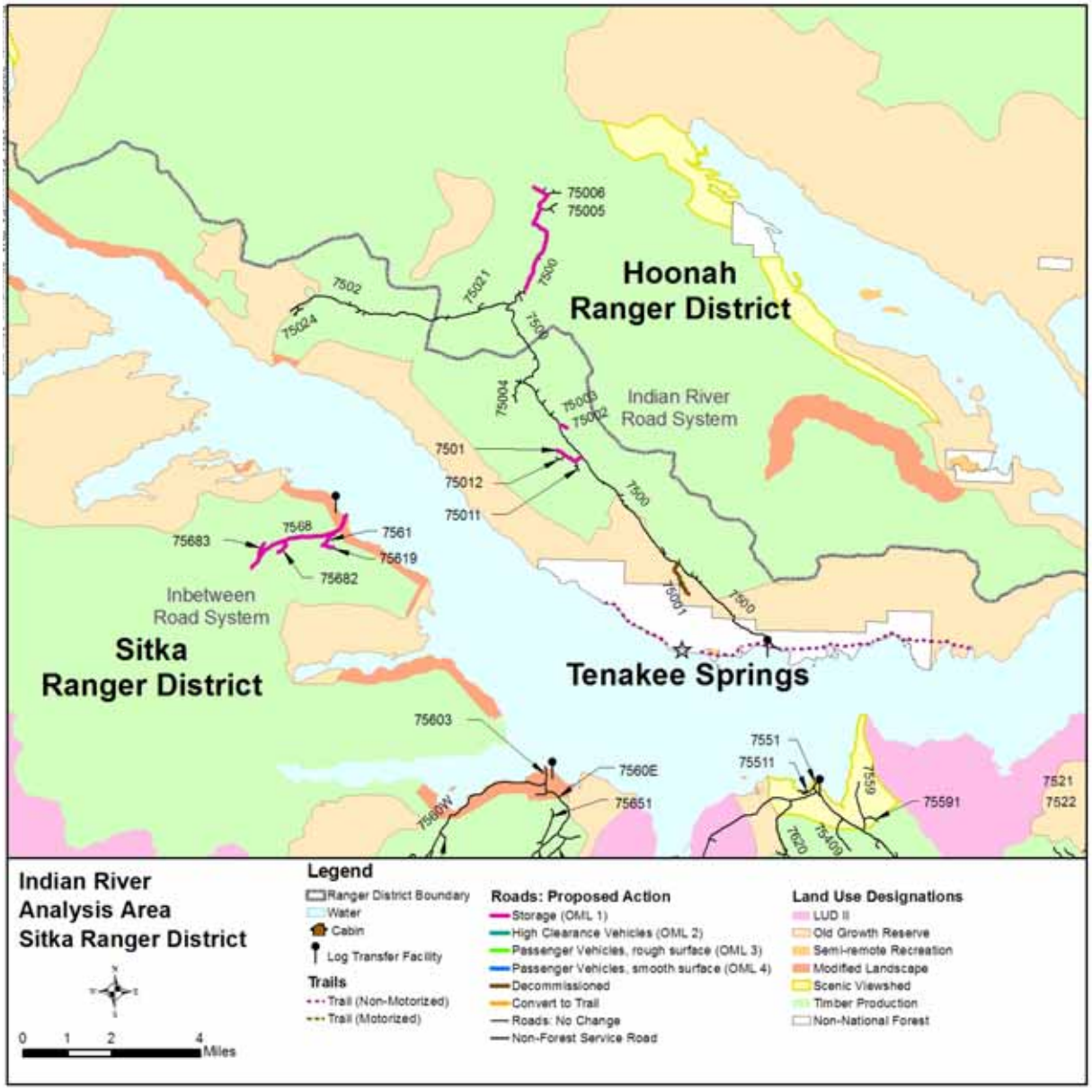

Figure 7. Indian River Analysis Area: Proposed Action for Passenger and High-Clearance Vehicle Access

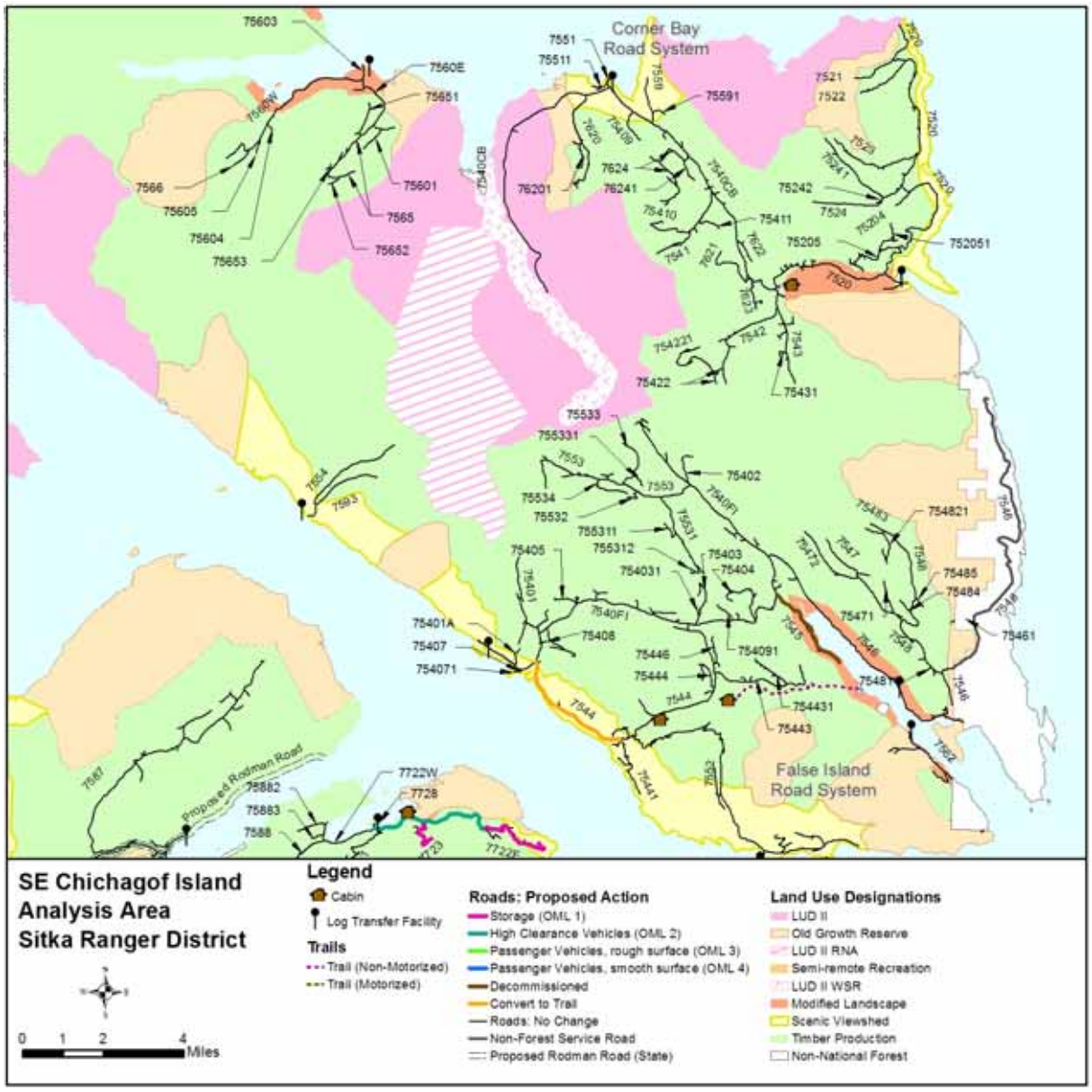

Figure 8. Southeast Chichagof Analysis Area: Proposed Action for Passenger and High-Clearance Vehicle Access

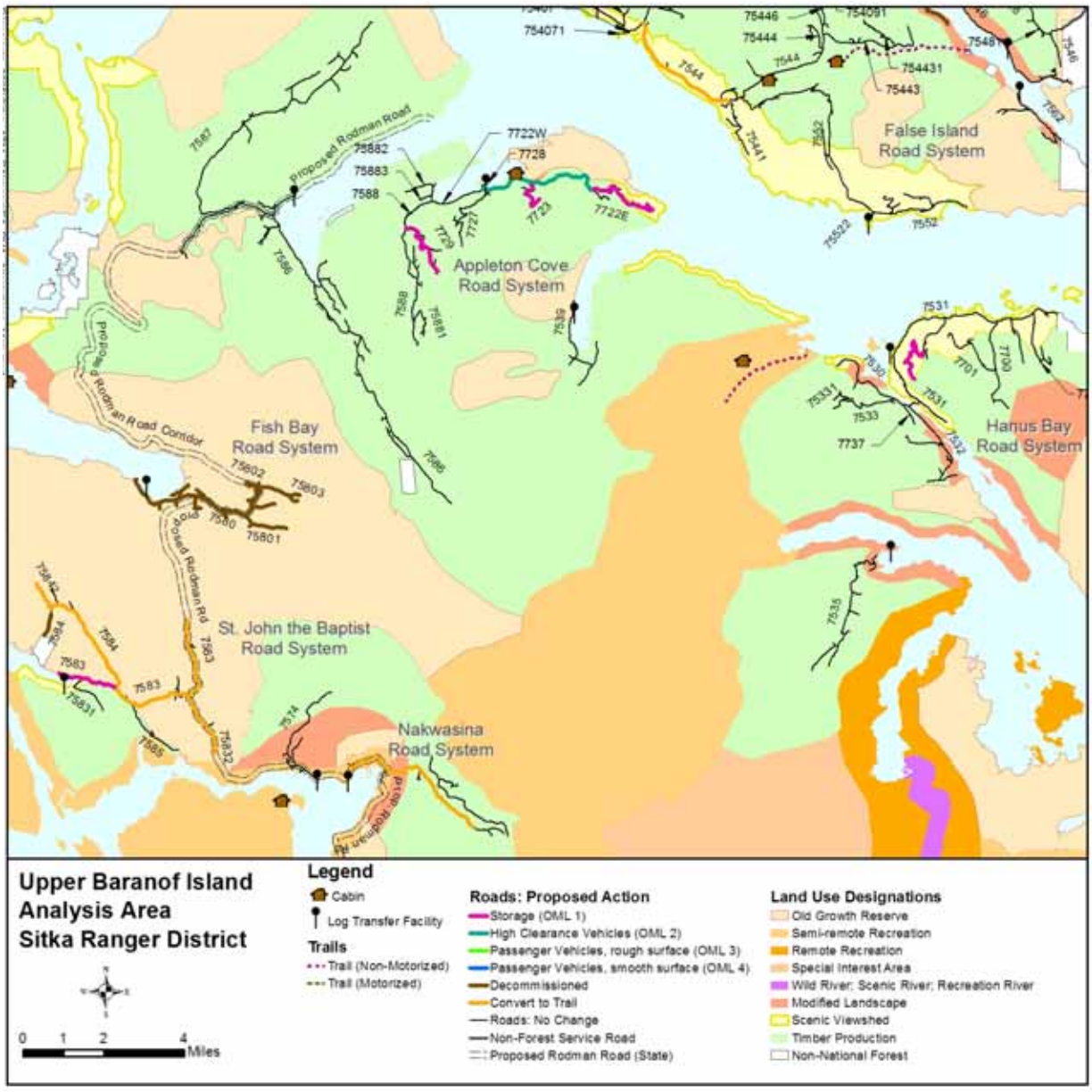

Figure 9. Upper Baranof Island Analysis Area: Proposed Action for Passenger and High-Clearance Vehicle Access

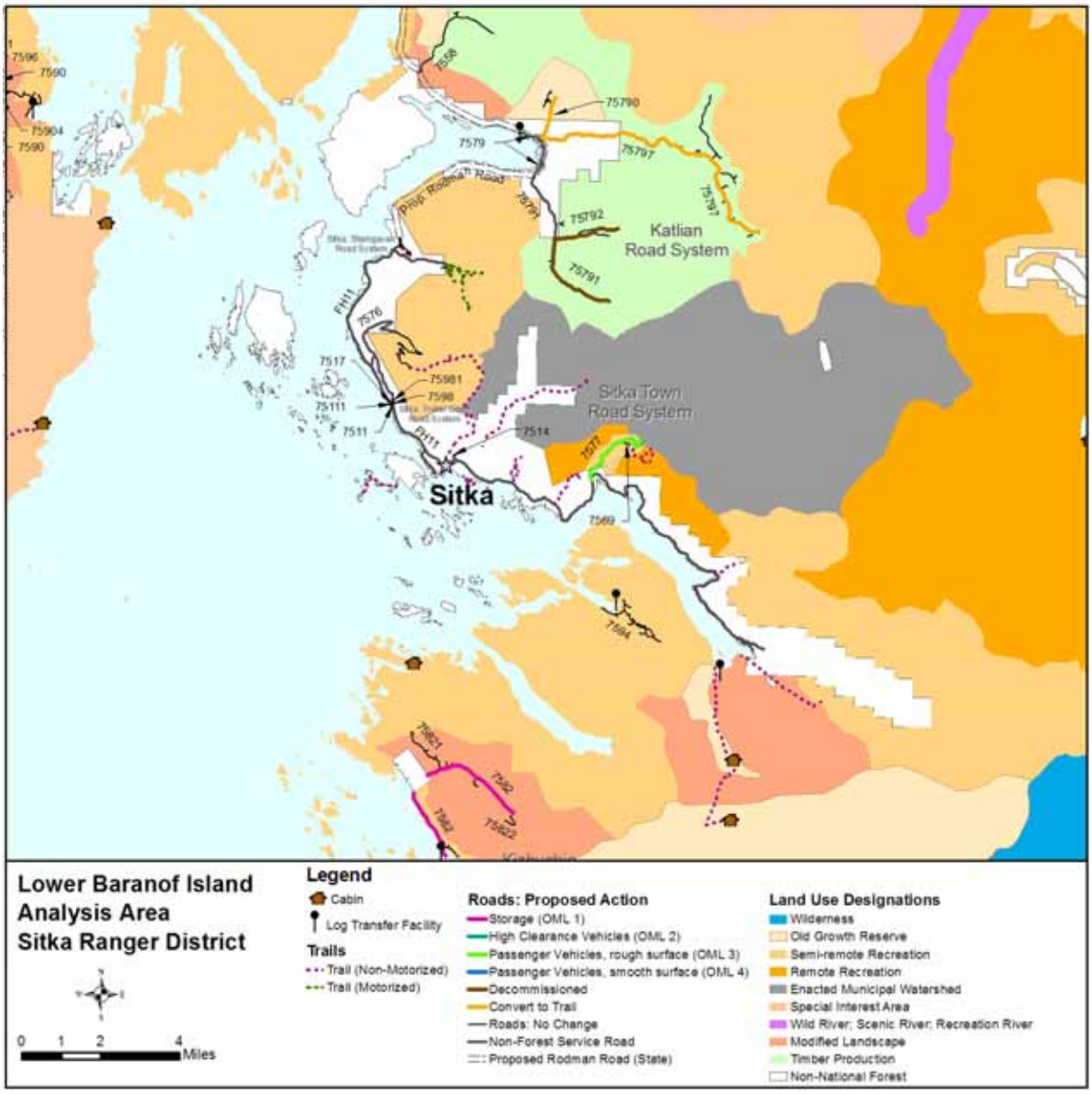

Figure 10. Lower Baranof Island Analysis Area: Proposed Action for Passenger and High-Clearance Vehicle Access

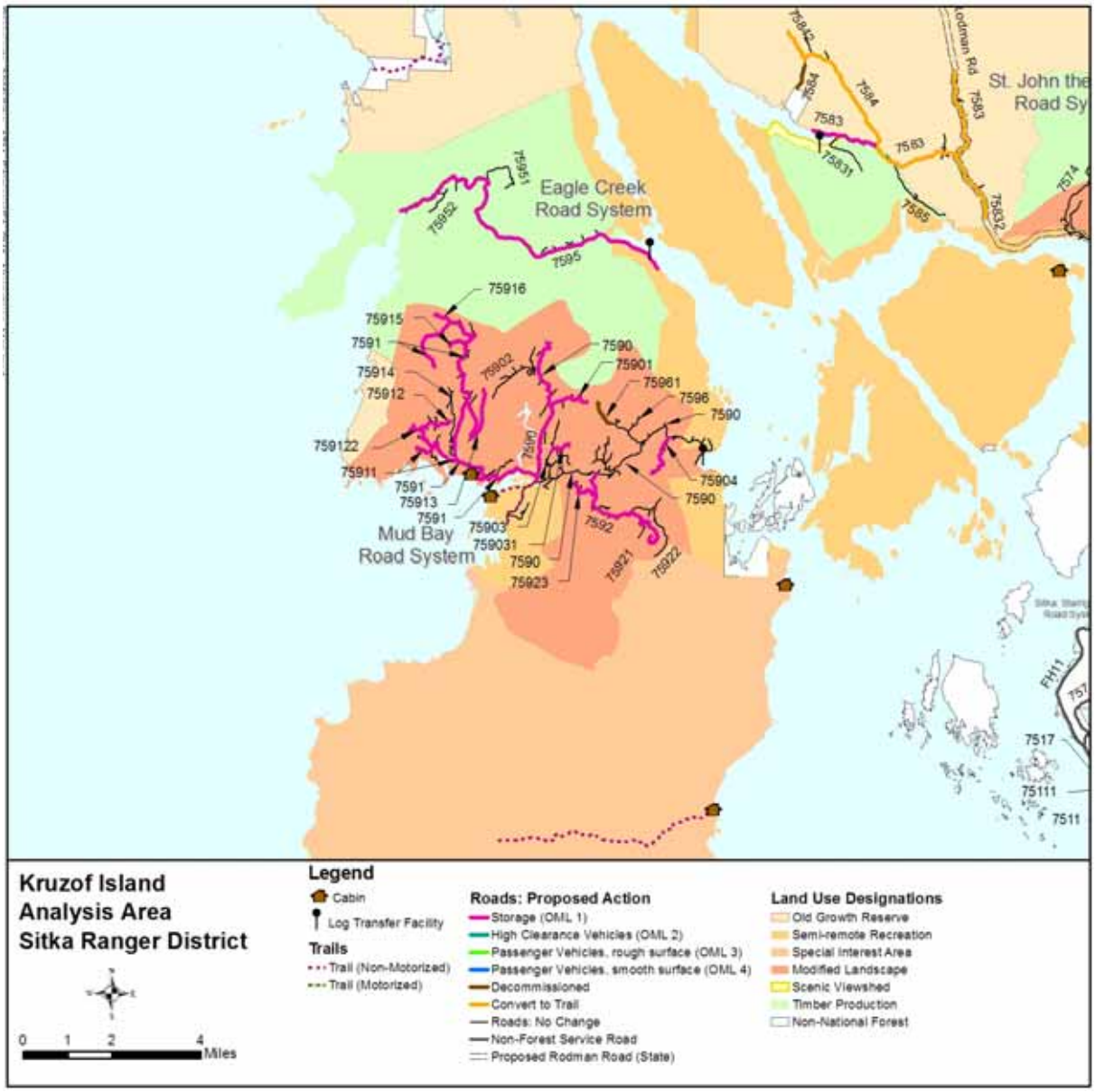

Figure 11. Kruzof Island Analysis Area: Proposed Action for Passenger and High-Clearance Vehicle Access

Off-Highway Vehicle (OHV) Access

Figures 12 through 16 depict the Proposed Action for OHV access. An OHV is any motor vehicle that is designed or retrofitted primarily for recreational use off road, including all-terrain vehicles (ATVs), minibikes, amphibious vehicles, snowmobiles, off-highway motorcycles, go-carts, motorized trail bikes, and dune buggies. OHV access on the Ranger District is highly dependent on road condition. The most limiting factor for access is the lack of, or poor condition of fish stream crossing structures. Currently, more than 150 log stringer bridges on the Ranger District have failed or are in extremely poor condition, and the Ranger District has also removed numerous stream crossing structures to address fish habitat impacts. The operation of motorized or tracked vehicles or equipment in or across streams or other waters important for spawning, rearing, or migration of anadromous fish is unlawful without concurrence with the Alaska Department of Natural Resources. Several other factors make OHV access unacceptable in certain areas. These include legal access issues, changes in LUDs in the 1997 Forest Plan, subsistence conflicts, wildlife protection, public safety, and the length of a road system. These conditions were considered in the determination of the OHV designations in the Proposed Action. OHV use would be permitted on most roads with the exception of areas where fish, wildlife, vegetation, water, or active timber sales necessitate closure.

Indian River – Proposed Action for OHV Access

This system would be open to OHV use with a few exceptions. Road #7500 would remain open to milepost (MP) 11.9 where there is a failed bridge. Roads #75001 and #75004 would be closed. Roads #75005, #75006, #7501, #75011, and #75012 would be closed until repairs are completed.

Southeast Chichagof Island – Proposed Action for OHV Access

The Corner Bay road system would remain open to OHV use with a few exceptions. Road #7541 would be closed after MP 0.8. Road #7543 would be closed after MP 1.5 until repairs are made. Road #7621 would be closed after MP 1.1. Road #7623 would be closed. Road #7624 would be closed after MP 0.7. Road #75409 would be closed after MP 0.1. Road #7540, the Corner Bay Road would be closed to OHV use for the first 1.0 mile, past the removed Hook Creek bridge, and would be designated open to OHV use to MP 6.7. Roads #7559, #75591, #75410, and #76241 would be closed to OHV use.

False Island system roads #7545, #7547(last 1.36 miles), #7552, #75443, #754431, #75461, and #75522 would not be available for OHV use. Roads #7544 (from MP 3.8 to the end), #7553, #75531, #755311, #755312, #75532, #75533, #75534, and #75401 would be closed until repairs are made. Road #7544 would be open to MP 3.8.

The Crab Bay road system has many unimproved fish stream crossings, and would be closed to OHV use until these are repaired. The Oly Creek road system would also be closed to OHV because of its poor condition. The Inbetween system would be closed to OHV use.

Upper Baranof Island – Proposed Action for OHV Access

The Hanus Bay system would remain open for OHV use, with a few exceptions. Road #7730 would be closed until repairs can be made. Road #7740 would be open to the private property boundary. Road #7532 would be open to MP 1.1; fish crossing structures would

require replacement or concurrence with Alaska Department of Natural Resources before the remainder of the road is opened to OHV use. Segments of Roads #7533, #75331, and #7701 would be closed pending repairs or approval of alternative crossings.

The Appleton Cove road system would be open for OHV use, with a few exceptions. Roads #75881, #75882, and #75883 would be closed to OHV use until stream passage is provided. Road #7722E would be open as far as a removed bridge at MP 3.4, and Road #7588 would be open as far as a removed bridge at MP 0.37.

Much of the St. John the Baptist road system would be converted to OHV trails. Some stream crossing structures require replacement or permitted stream crossings before this system could be opened to OHV use. Until work is completed, this system would remain closed to OHV access.

The Fish Bay road system would be decommissioned. It lacks acceptable fish crossing structures and is in extremely poor condition; consequently, it would be closed to OHV use. Kelp Bay, Rodman Bay, and Saook systems are also in extremely poor condition, and would not be available for OHV use unless future timber sale activities repair or expand them.

The Noxon system would be closed to OHVs until stream crossings are repaired or alternatives are approved.

Certain roads on the Nakwasina system, an unauthorized system, would be added as a trail. This trail would include approximately 4.5 miles, and would be available for OHV use after appropriate stream crossing structures are built or alternative crossings are approved.

Lower Baranof Island – Proposed Action for OHV Access

No changes would be made to the current OHV designations of the Sitka Local road system. Starrigavan trail would remain open. Harbor Mountain would be available for use during the winter when it has been determined that there is adequate snow.

Most of the roads on the Katlian system have inadequate fish crossing structures. The first 0.53 mile of #7579 up to the intersection with Road #75797, Road #75797, and Road #75790 would be closed to OHVs until stream crossings are repaired or alternatives are approved. The remainder of Road #7579, and Roads #75791 and #75792, are closed to OHV use.

The Lisa Creek system would be closed to OHV use due to a lack of legal access on a portion of road, in addition to fish stream crossing problems.

Roads in the Kizhuchia system would be closed pending repairs.

The Camp Coogan system, has been decommissioned.

Kruzof Island – Proposed Action for OHV Access

The Mud Bay system would remain open to OHV use with a few exceptions. Roads #75911, #75912, and #75913 would be partially closed until improvements to fish stream crossings can be made. Road #7596 past MP 0.4 and a portion of Road #75961 would be closed until repairs are made. The remainder of Road #75961 would be decommissioned because it was built on very erosive soil and has experienced numerous landslides.

Multiple major stream crossing structures on the Eagle Creek road system have failed and pose a hazard to both public safety and natural resources. This system would remain closed to OHVs until the stream crossings are repaired.

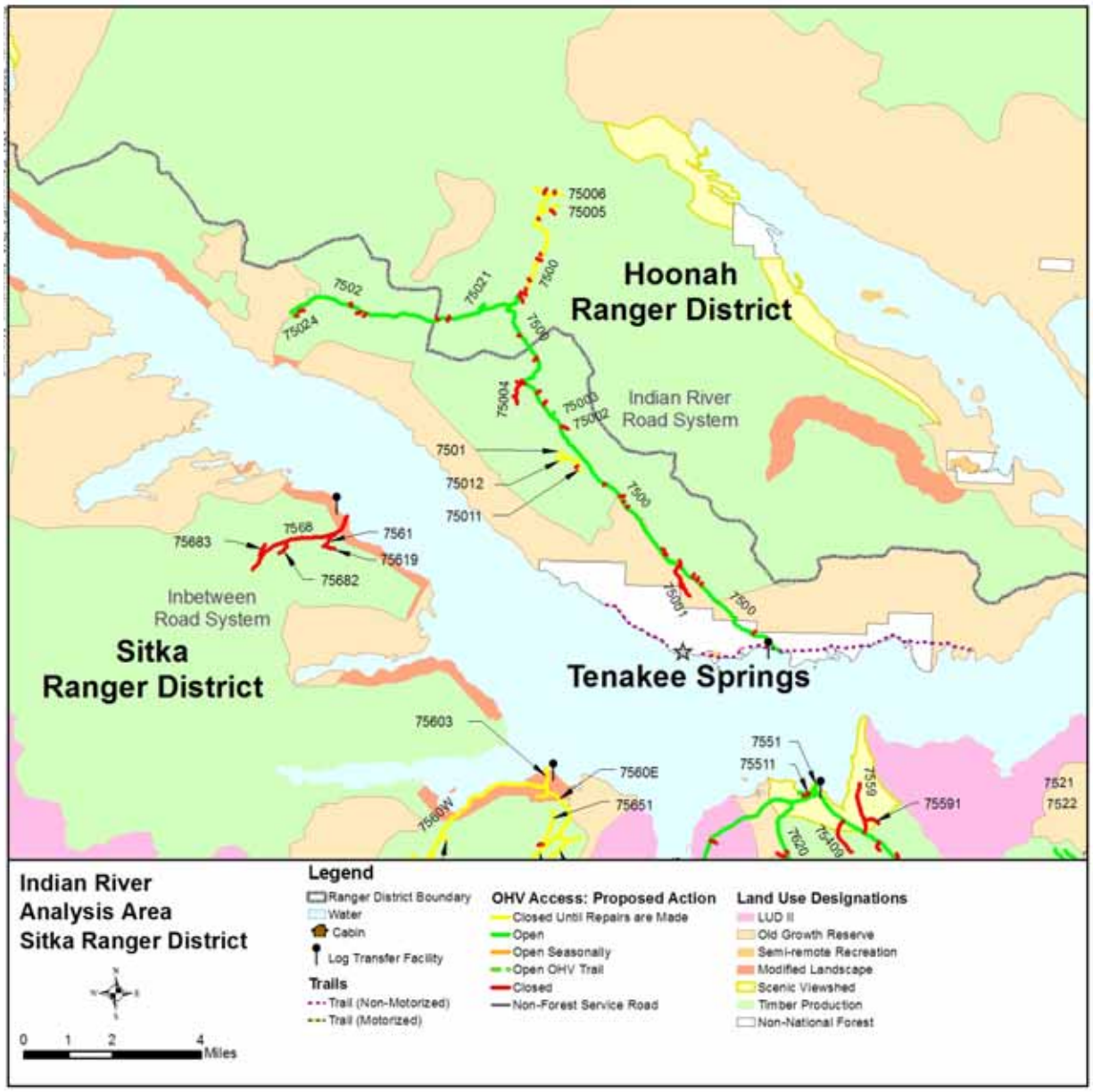

Figure 12. Indian River Analysis Area: Proposed Action for OHV Access

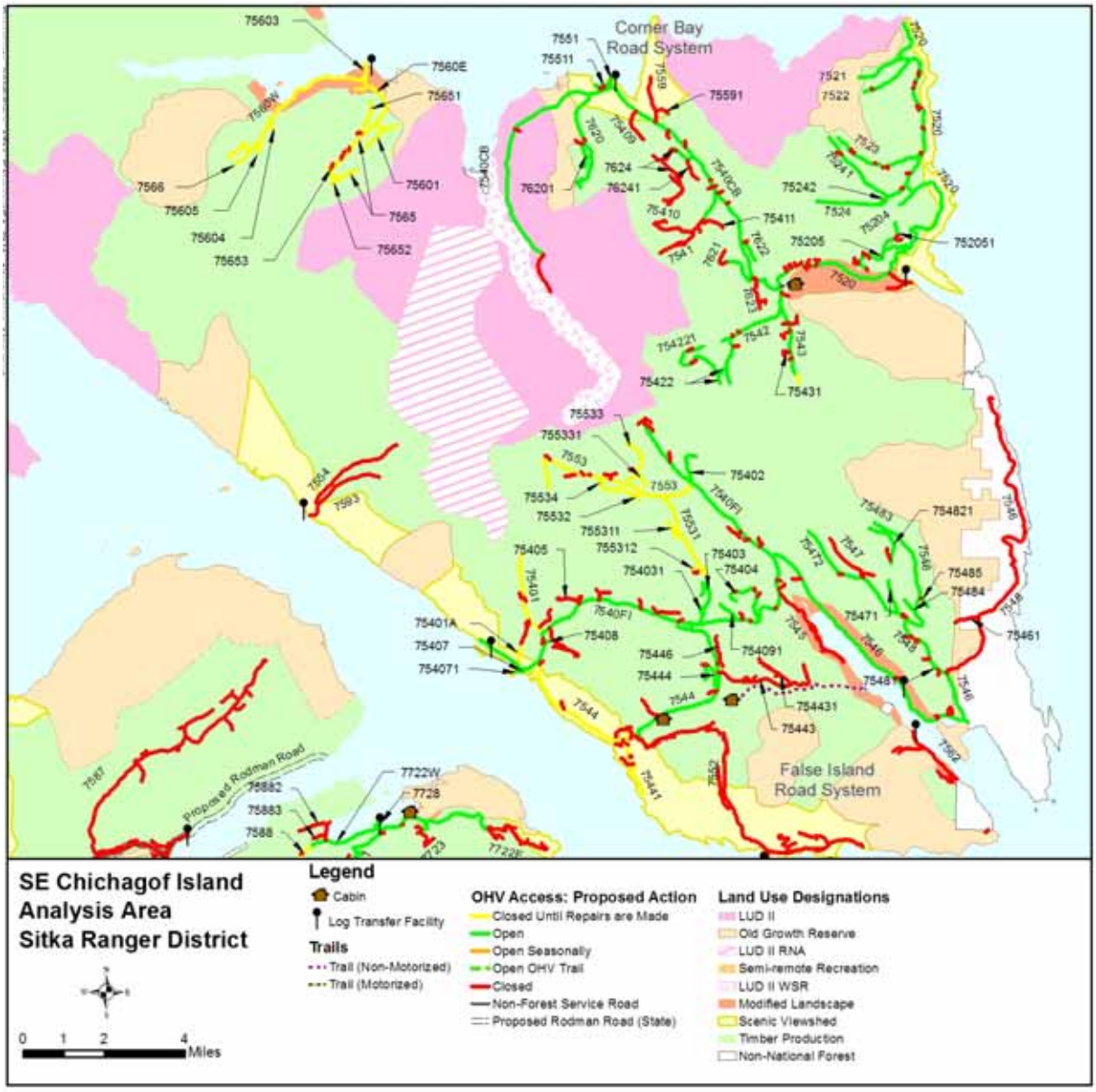

Figure 13. Southeast Chichagof Island Analysis Area: Proposed Action for OHV Access

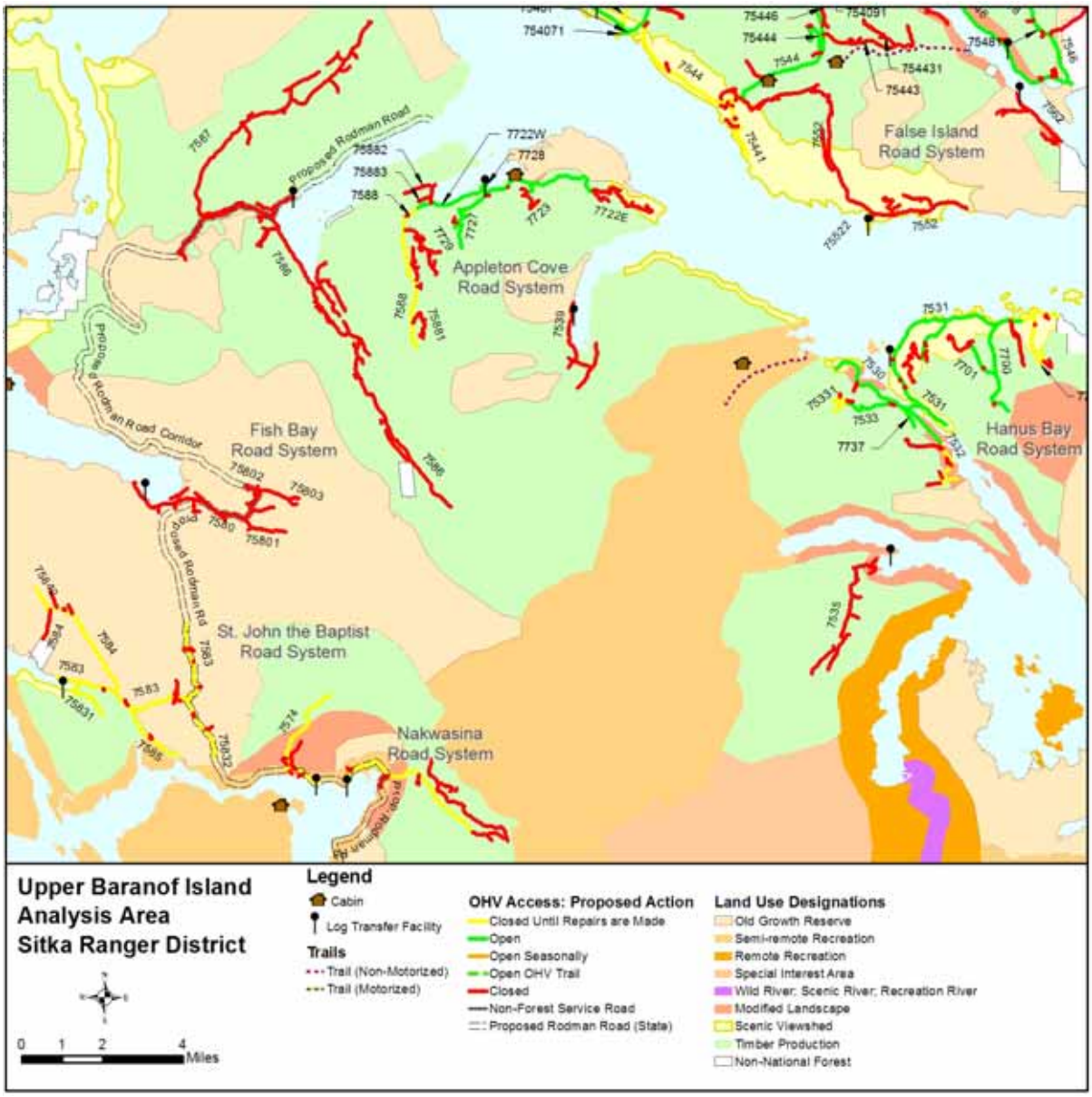

Figure 14. Upper Baranof Island Analysis Area: Proposed Action for OHV Access

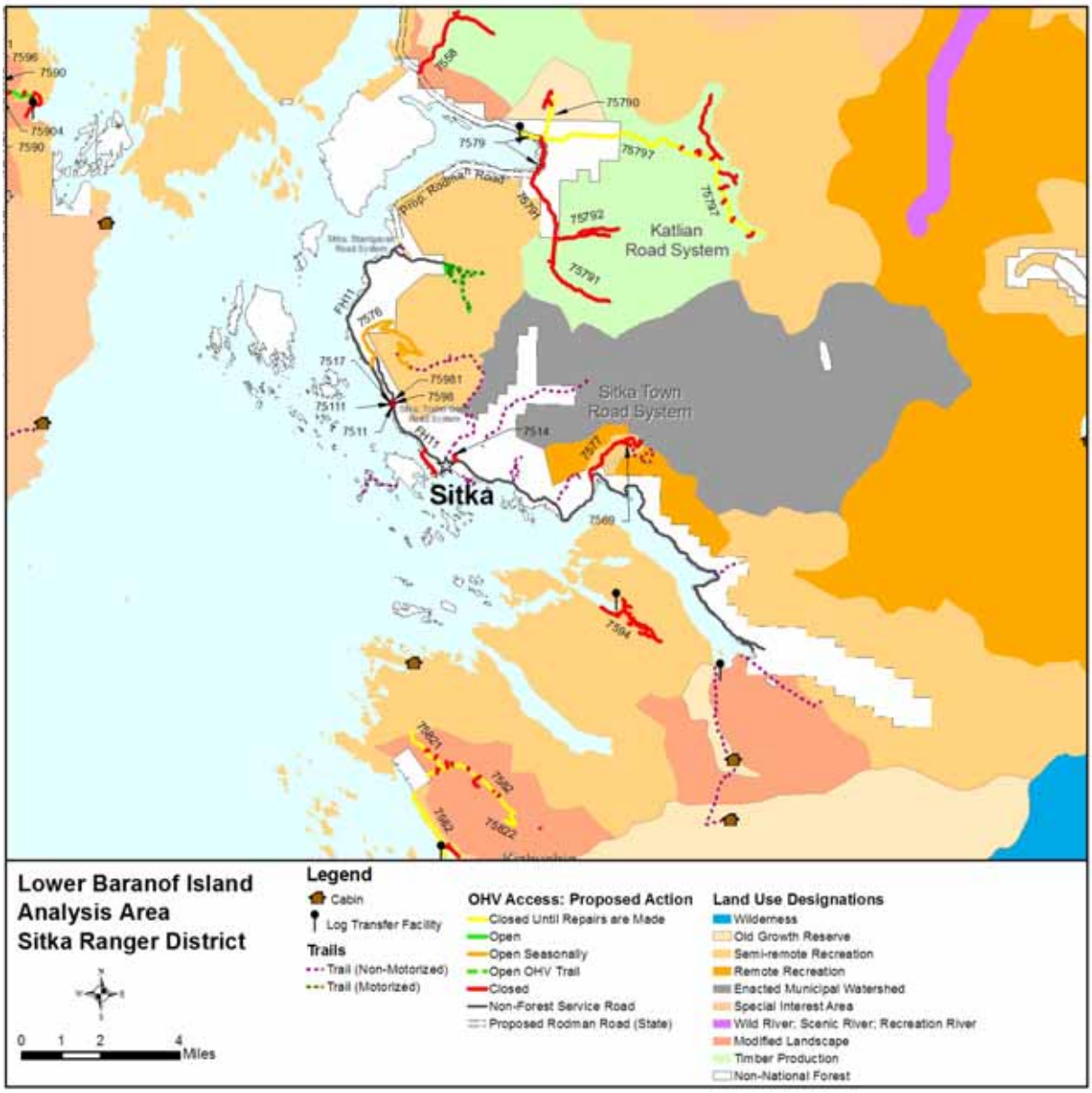

Figure 15. Lower Baranof Island Analysis Area: Proposed Action for OHV Access

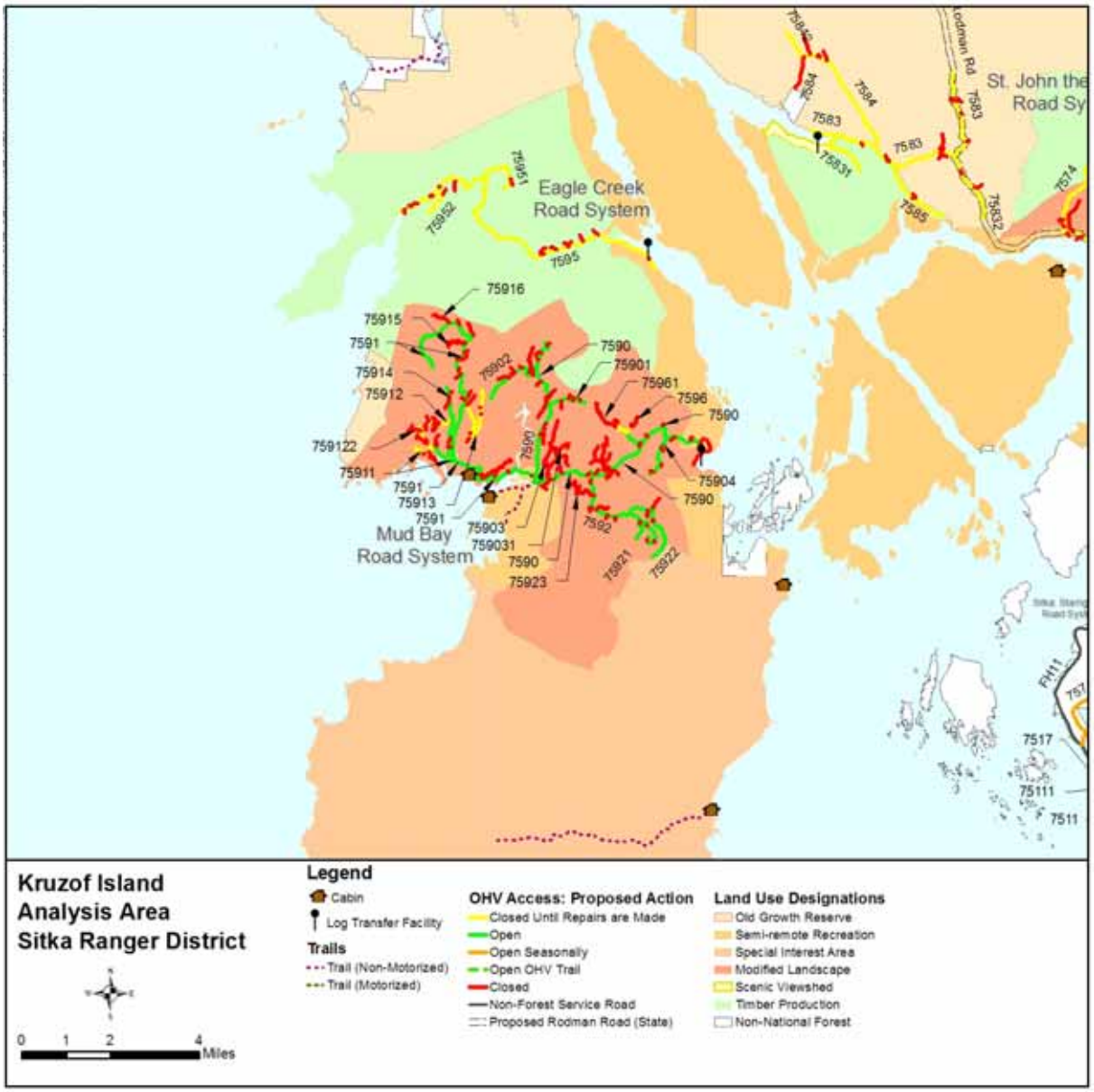

Figure 16. Kruzof Island Analysis Area: Proposed Action for OHV Access

Alternative 3

Alternative 3 was developed in response to concerns identified during scoping. Like the Proposed Action, Alternative 3 addresses the goals outlined in the Purpose and Need for the project, but is designed to balance the public concerns about diminished opportunities for OHV access for recreation and subsistence with the need for resource protection. Under Alternative 3, no roads would be decommissioned or converted to OHV trails; however, approximately 48 miles of road open to passenger vehicles would be stored. Also, approximately 19 miles of unauthorized roads would be added to the National Forest Road System as forest roads (refer to Table A-1 in Appendix A).

Under Alternative 3, the Ranger District would actively work toward making all forest roads on the Ranger District open to OHV use. The Ranger District would actively pursue partnerships to facilitate improved access, including adopt-a-road agreements to maintain roads. All forest roads on the Ranger District with approved fish passage structures would be open to OHV use. Forest roads on the Ranger District that do not currently have approved fish passage structures or unsafe crossing structures would be closed to OHV use until appropriate access structures can be installed. No other forest roads would be closed to OHV use. Forest roads with unsafe or failing stream crossing structures on fish streams would receive the highest priority for remedial action. Also, no roads would be converted to OHV trails.

Several factors were considered in the development of the priority work list to open roads presently unavailable for OHV use. Priorities to repair roads were ranked in consecutive order under the "Alternative 3 Priority" column (see Table A-2 in Appendix A). The priority to repair these identified problem areas was based on a combination of the following conditions:

- current and anticipated use patterns;
- size and scope of repairs needed within a limited budget;
- the amount of access obtained by correcting a problem area;
- the difficulty of transporting equipment to repair sites;
- grouping of roads to maximize mobilization funding;
- legal access conditions including agreements with native corporations on existing easements; and
- acquisition of new easements.
- subsistence
- recreational access

Two existing OHV trails, Starrigavan and North Beach, would be maintained. Existing non-motorized trails would remain non-motorized.

Alternative 3 includes the creation of a monitoring plan to monitor days of OHV use on the Ranger District's major road systems (Mud Bay, False Island, Corner Bay, St. John the Baptist, Appleton, Indian River, and Hanus Bay). This will include gathering accurate OHV use information on these road systems. Other road systems would be monitored informally. This information would be used to evaluate road conditions and uses, and to address areas of potential resource damage before it occurs.

Figures 17 to 21 and Table A-1 (in Appendix A) show how Alternative 3 would affect passenger vehicle access and Figures 22 to 26 and Table A-2 (in Appendix A) show OHV access under Alternative 3.

Passenger Vehicle Access

Indian River – Alternative 3 for Passenger Vehicle Access

Alternative 3 differs from the Proposed Action for this road system in one respect: Road #75001 (0.7 mile) would remain stored instead of being decommissioned.

Southeast Chichagof Island – Alternative 3 for Passenger Vehicle Access

Under Alternative 3, Road #7545 (2.5 miles) would remain in storage rather than be decommissioned, as in the Proposed Action. A portion of Road #7544 (3.3 miles) would remain in storage rather than be converted to an OHV trail.

All roads in the Inbetween system including, #7568, #7561, and #75619, would be placed into storage.

There would be no change in passenger vehicle access on the Crab Bay, Oly Creek, and Corner Bay systems under Alternative 3.

Upper Baranof Island – Alternative 3 for Passenger Vehicle Access

In terms of passenger vehicle access, Alternative 3 does not differ greatly from the Proposed Action for the roads in this area.

Approximately 1.8 miles of unauthorized road would be added to the forest road system as a stored road, as it would be under the Proposed Action.

Most roads of the Appleton Cove system would remain in storage. The maintenance level on 3.4 miles of Road #7722E would not change. Three unauthorized segments totaling approximately 5 miles would be added as stored roads.

There would not be any changes to the Kelp Bay, Noxon, Rodman Bay, and Saook systems under Alternative 3.

The Fish Bay system, approximately 7 miles, would remain stored. None of these roads would be decommissioned under Alternative 3.

Under Alternative 3, the majority of unauthorized roads on the Nakwasina system would remain unauthorized. However, 4.5 miles would be added to the forest road system as a stored road.

Lower Baranof Island – Alternative 3 for Passenger Vehicle Access

Alternative 3 does not differ from the Proposed Action for Sitka local roads.

On the Kizhuchia road system, where private property limits access, Road #7582 would be stored under Alternative 3 until access is resolved. A short segment of Road #75821 (0.05 mile) would remain stored rather than decommissioned.

The Camp Coogan road system (2 miles) has been decommissioned.

Under Alternative 3, the Katlian road system would remain in storage, closed to passenger vehicles. No roads would be converted to OHV trails or decommissioned.

No changes would be made to the Lisa Creek road system.

Kruzof Island – Alternative 3 for Passenger Vehicle Access

As under the Proposed Action, Alternative 3 calls for the storage of approximately 21 miles of roads in the Mud Bay system. Instead of decommissioning a portion of Road #75961 (0.6 mile), the road would remain in storage. Twenty-two segments of unauthorized road, totaling approximately 5.25 miles, would be added to this system as stored roads.

The Eagle Creek road system (8.3 miles) would be placed in storage and closed to passenger vehicles under this alternative. Two short unauthorized segments totaling 0.07 mile would be added to the system as stored roads.

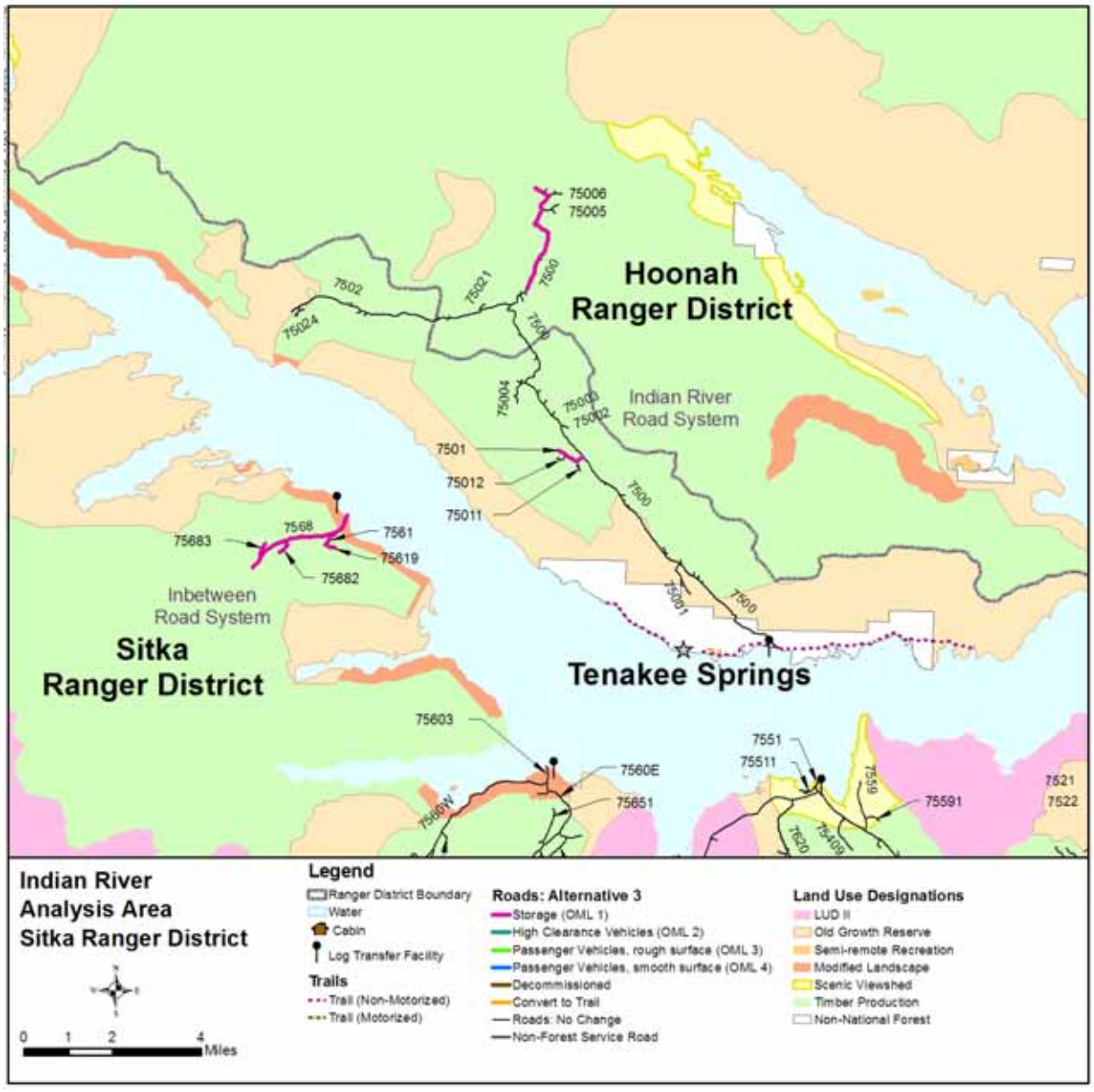

Figure 17. Indian River Analysis Area: Alternative 3 for Passenger and High-Clearance Vehicle Access

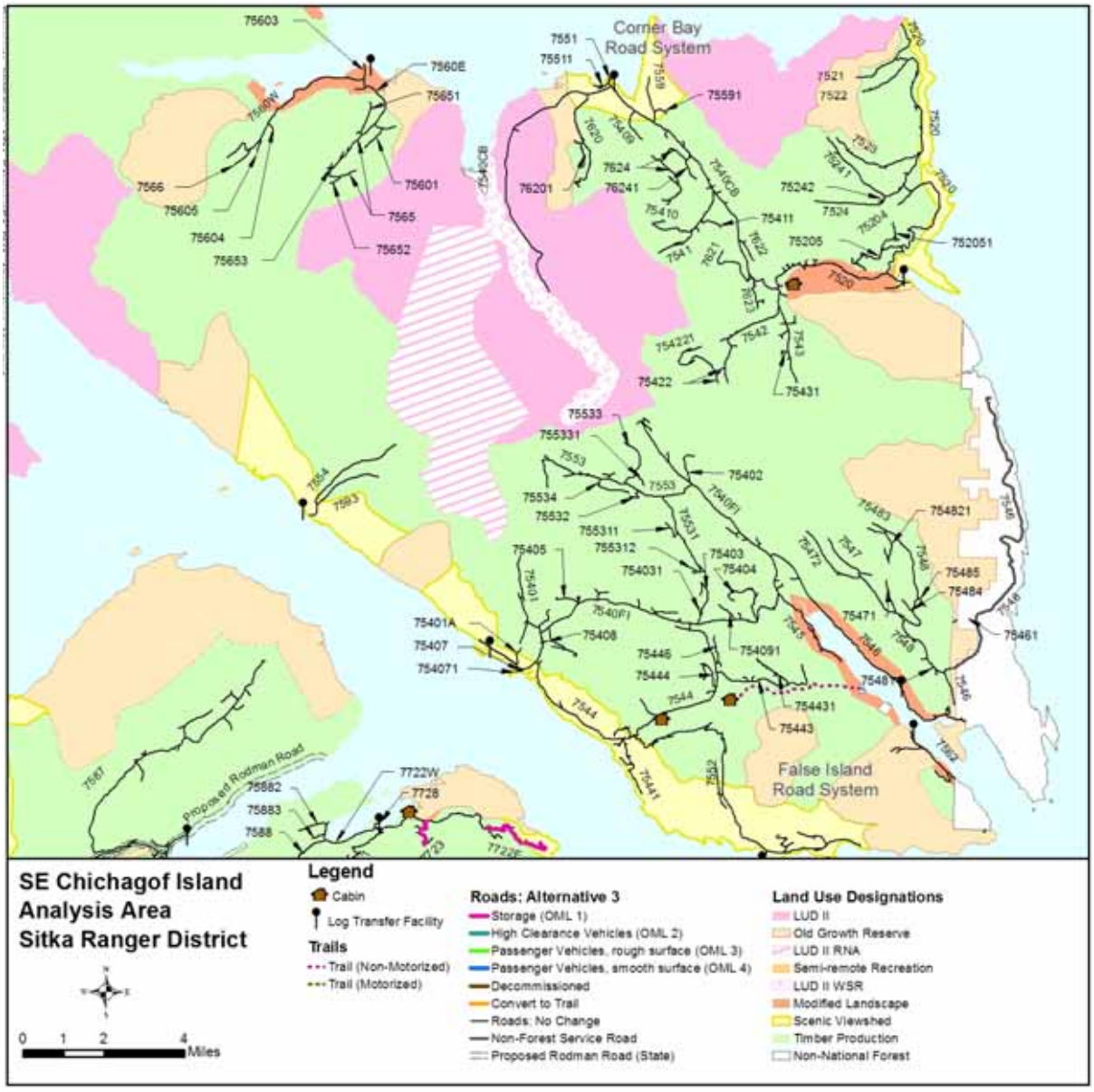

Figure 18. Southeast Chichagof Island Analysis Area: Alternative 3 for Passenger and High-Clearance Vehicle Access

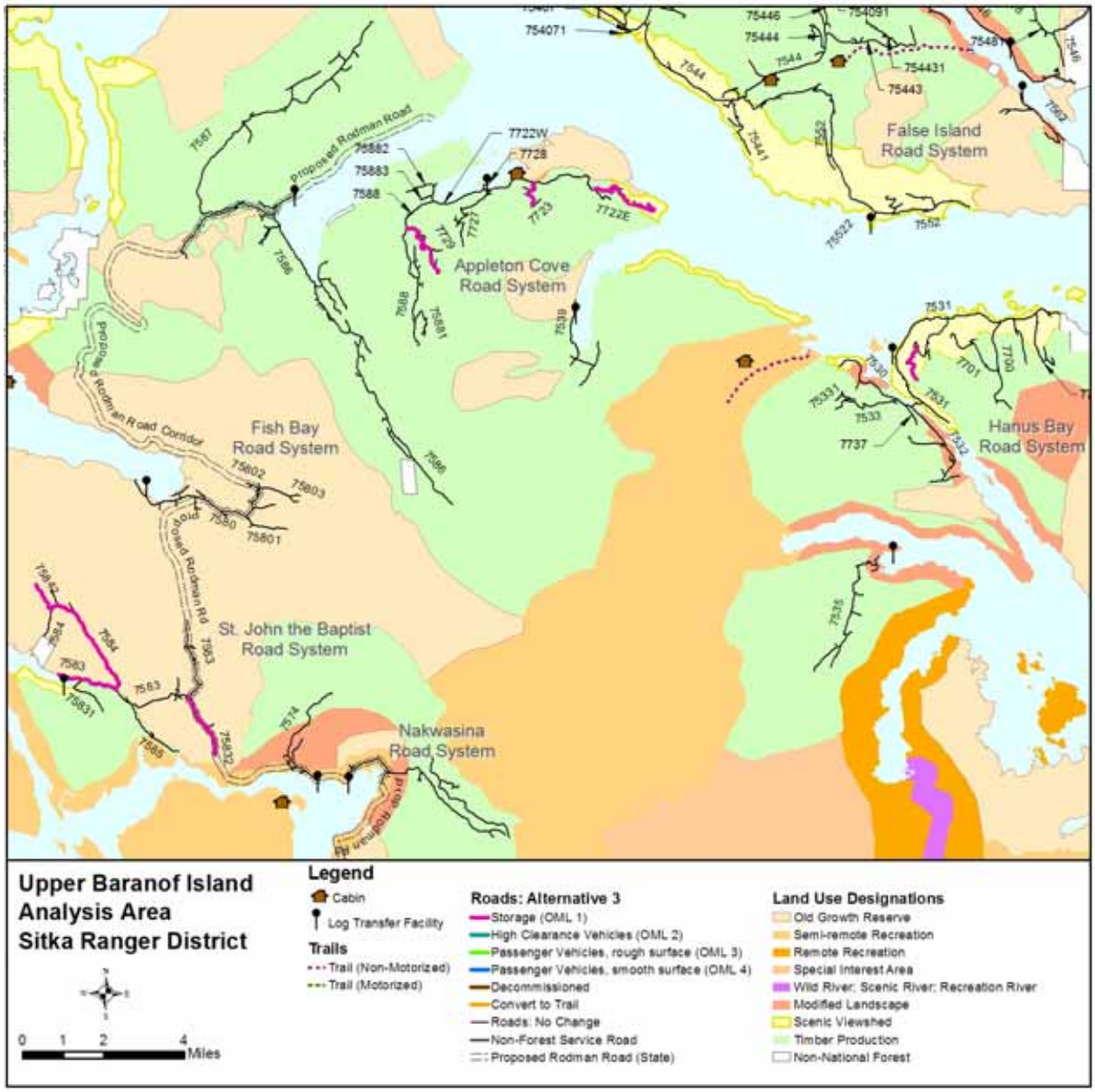

Figure 19. Upper Baranof Island Analysis Area: Alternative 3 for Passenger and High-Clearance Vehicle Access

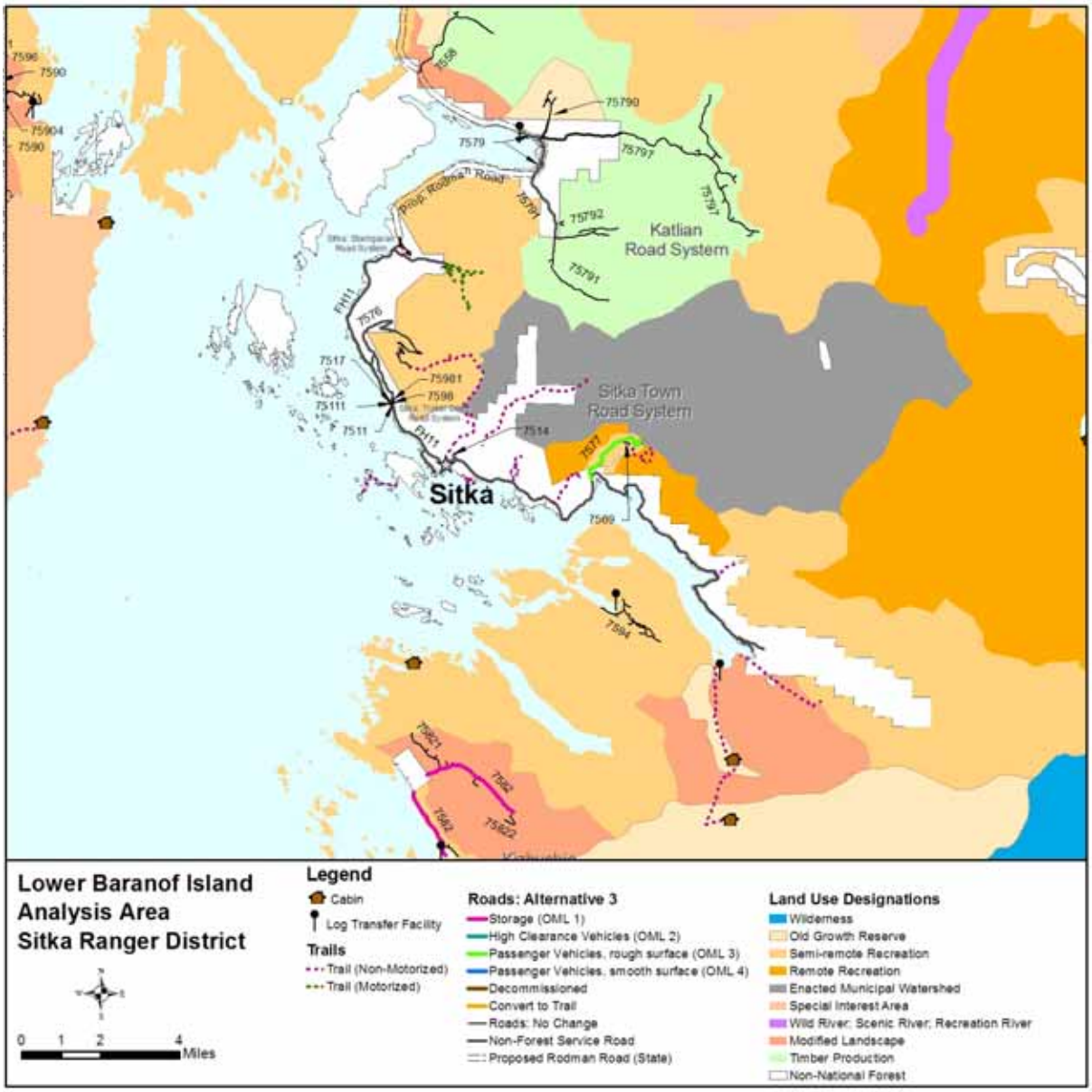

Figure 20. Lower Baranof Island Analysis Area: Alternative 3 for Passenger and High-Clearance Vehicle Access

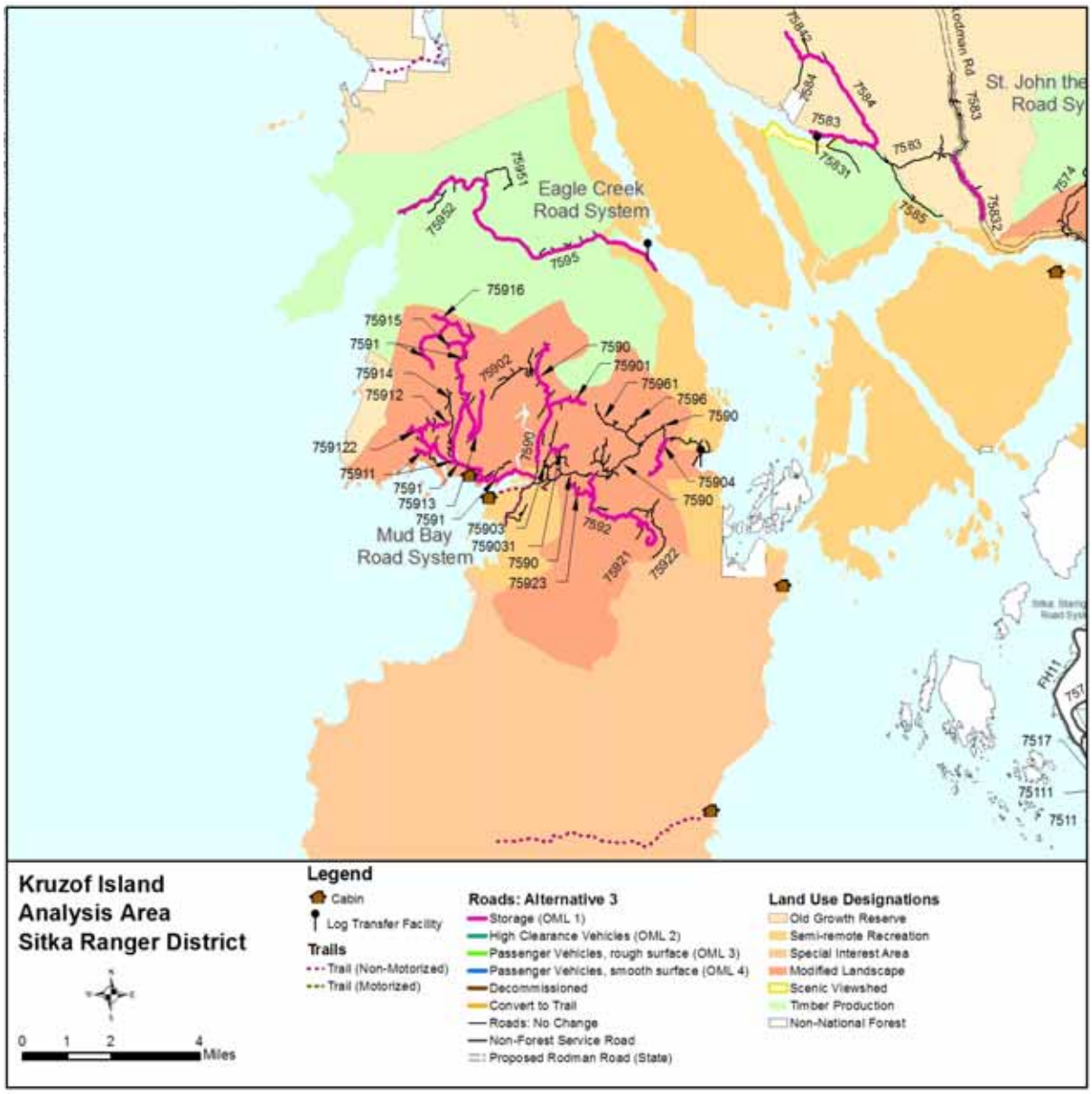

Figure 21. Kruzof Island Analysis Area: Alternative 3 for Passenger and High-Clearance Vehicle Access

Off-Highway Vehicle (OHV) Access

Indian River – Alternative 3 for OHV Access

Alternative 3 for the Indian River road system is identical to the Proposed Action, with a few exceptions. Roads #75001 and #75004 would be closed until repairs can be made or permitted crossings can be approved. Road #7500 would remain open to MP 11.9 where there is a failed bridge, and Roads #75005, #75006, #7501, #75011, and #75012 would be closed until repairs could be made.

Southeast Chichagof Island – Alternative 3 for OHV Access

Under Alternative 3, the Corner Bay road system would remain open to OHV use with a few exceptions. Nine roads that were designated as closed to OHV under the Proposed Action (Roads #75409, #7541, #75410, #7559, #75591, #7621, #7623, #7624, and #76241) would be closed until repairs can be made or stream crossings can be approved. Road #7543 would be closed after MP 1.5 until repairs are made. A portion of Road #7540, the Corner Bay Road, from MP 1.0 to MP 6.7, would be designated for OHV use only.

OHV use would be permitted on most False Island roads with the exception of areas where fish, wildlife, vegetation, water, or active timber sales necessitate closure. Roads #7545, #7547, #7552, #75443, #754431, #75461, and #75522, which would be designated as closed under the Proposed Action, would be considered closed pending repair or stream crossing approval under Alternative 3. Roads #7553, #75531, #755311, #755312, #75532, #75533, #75534, and #75401 would be closed until repairs could be made, and Road #7544 would remain open to MP 3.8.

The entire Crab Bay road system has many unimproved fish stream crossings, and would be closed to OHV use until these could be repaired, or an alternative is approved.

The Oly Creek and Inbetween systems would also be closed to OHV until stream crossings could be repaired or approved.

Upper Baranof Island – Alternative 3 for OHV Access

Alternative 3 for the Hanus Bay system is different from the Proposed Action in that Road #7701 would be closed to OHV use until repairs can be made, rather than being permanently closed. Road #7730 would also be closed until repairs on it can be made. Road #7740 would be open to MP 0.65 and closed until repairs can be made up to the private property boundary. Road #7532 would be open to MP 1.1, where fish crossing structures would require replacement or permitted stream crossings before these roads could be opened to OHV use. In addition, segments of Roads #7533, #75331, and #7701 would be closed pending repairs or approval of alternative crossings.

The Appleton Cove system is in good condition and would be open for OHV use with the exception of a few roads where fish stream crossing structures would need to be repaired or replaced before OHV access could be approved. These include Roads #7722E and #7588, both designated as open to the point of removed bridges. Under Alternative 3, Roads #75881, #75882, and #75883 would also be closed to OHV use until repairs can be made to stream crossings, or alternative crossings are approved.

Road #75842 on St. John the Baptist would be designated as closed pending repairs rather than permanently closed. Otherwise it is the same as the Proposed Action.

All roads of the Fish Bay road system would be designated closed until fish crossing structures are repaired or replaced, or until crossings can be approved. The Kelp Bay, Rodman Bay, Noxon, and Saook systems would also have this designation under Alternative 3.

Finally, approximately 4.5 miles of road on the Nakwasina system would be available for OHV use after appropriate stream crossing structures could be built or an alternative is approved.

Lower Baranof Island – Alternative 3 for OHV Access

Under Alternative 3, no changes would be made to the current OHV designations of the Sitka local road system. Starrigavan trail would remain open and Harbor Mountain would be available for conditional use during the winter.

Most of the roads on the Katlian system have inadequate fish crossing structures and OHV use would be prohibited there until these are corrected.

The Lisa Creek and Kizhuchia road systems would be considered closed to OHV use.

The Camp Coogan system has been decommissioned and is closed.

Kruzof Island – Alternative 3 for OHV Access

Three roads that would be designated as closed under the Proposed Action would be considered closed pending repairs under Alternative 3. These include Roads #75903, #759031, and #75961. Three roads would be partially closed until improvements to fish stream crossings can be made (Roads #75911, #75912, and #75913).

Multiple major stream crossing structures on the Eagle Creek road system have failed and pose a hazard to both public safety and natural resources. This system would remain closed to OHVs until the stream crossings are repaired.

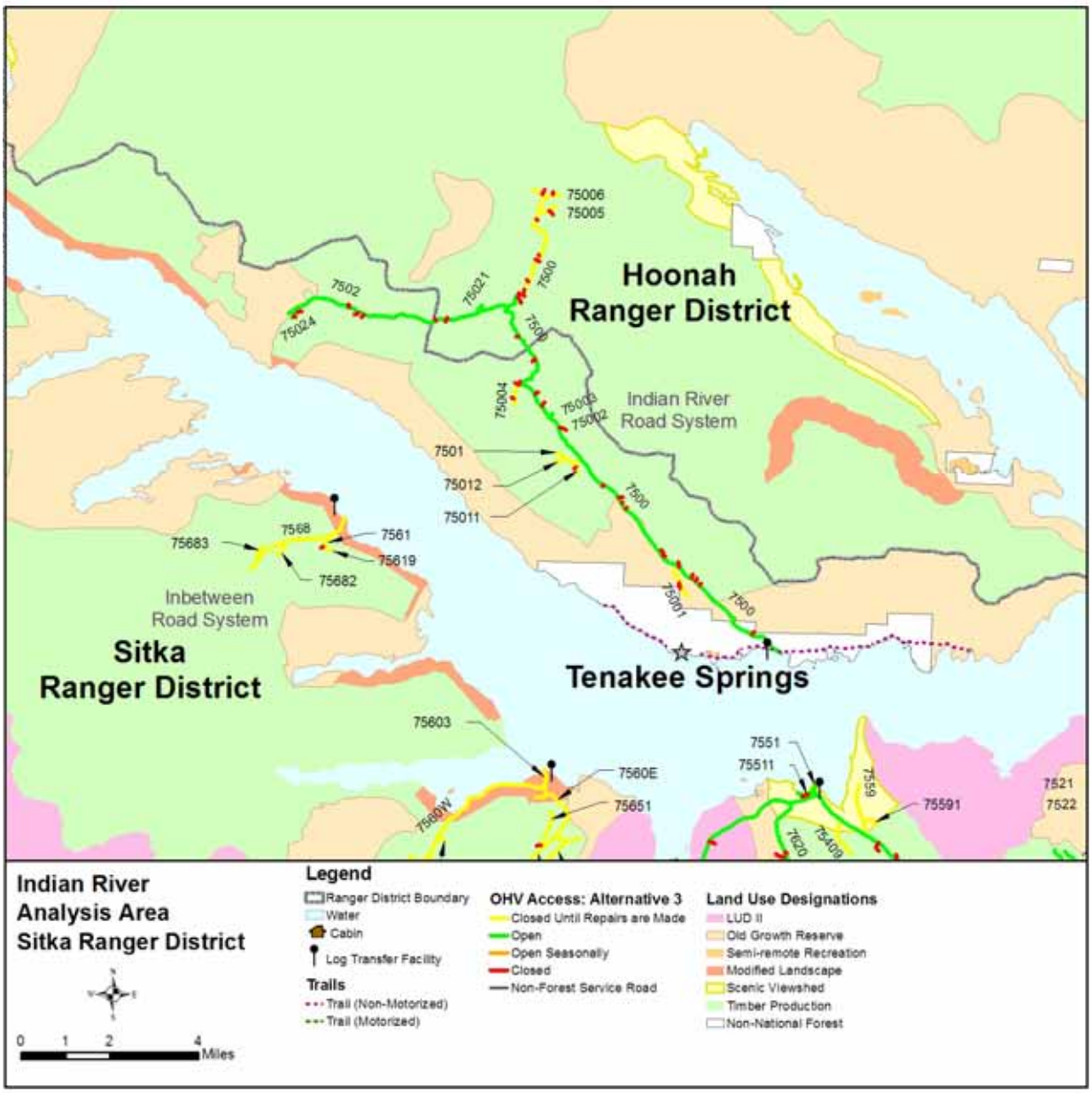

Figure 22. Indian River Analysis Area: Alternative 3 for OHV Access

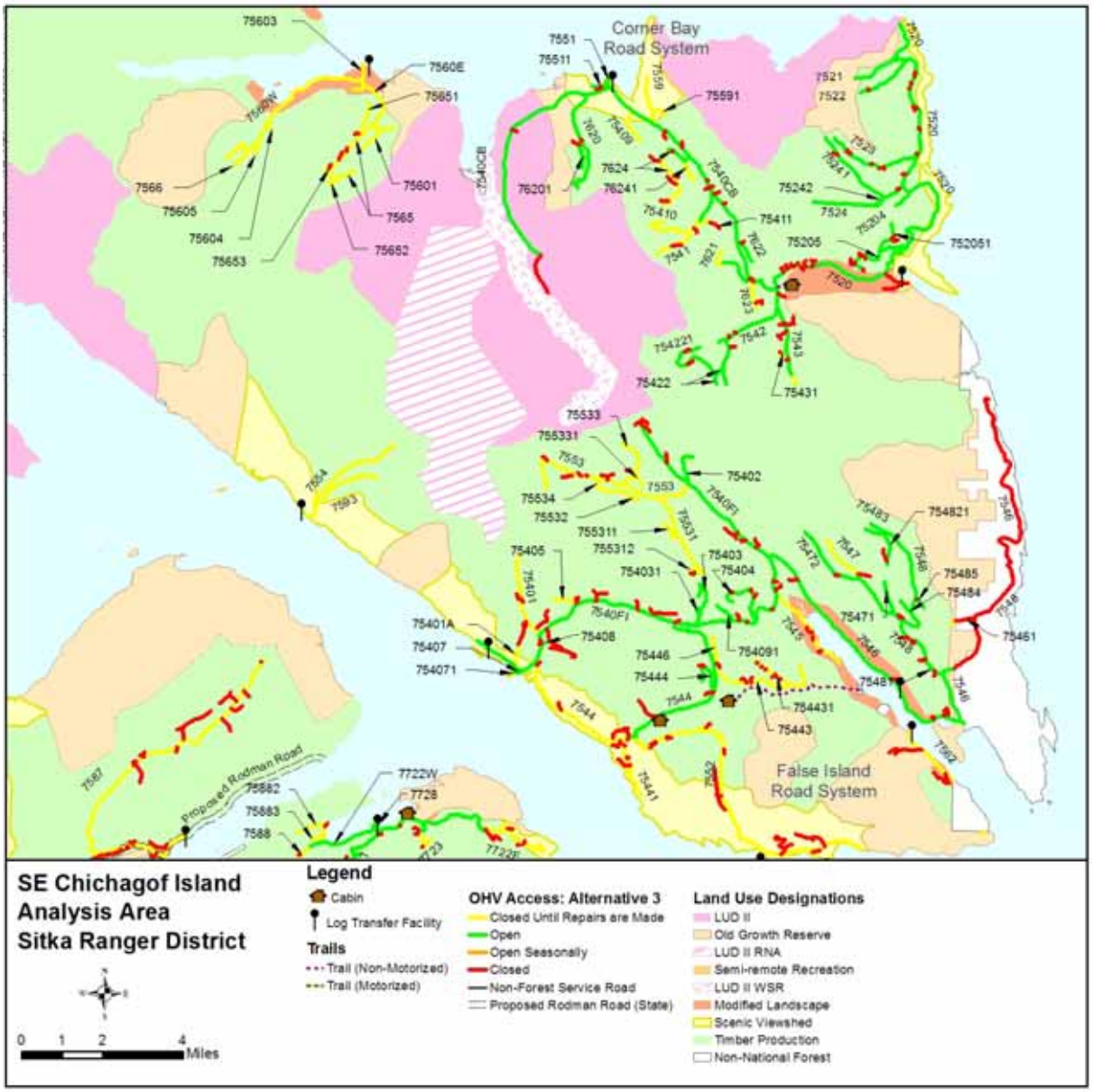

Figure 23. Southeast Chichagof Island Analysis Area: Alternative 3 for OHV Access

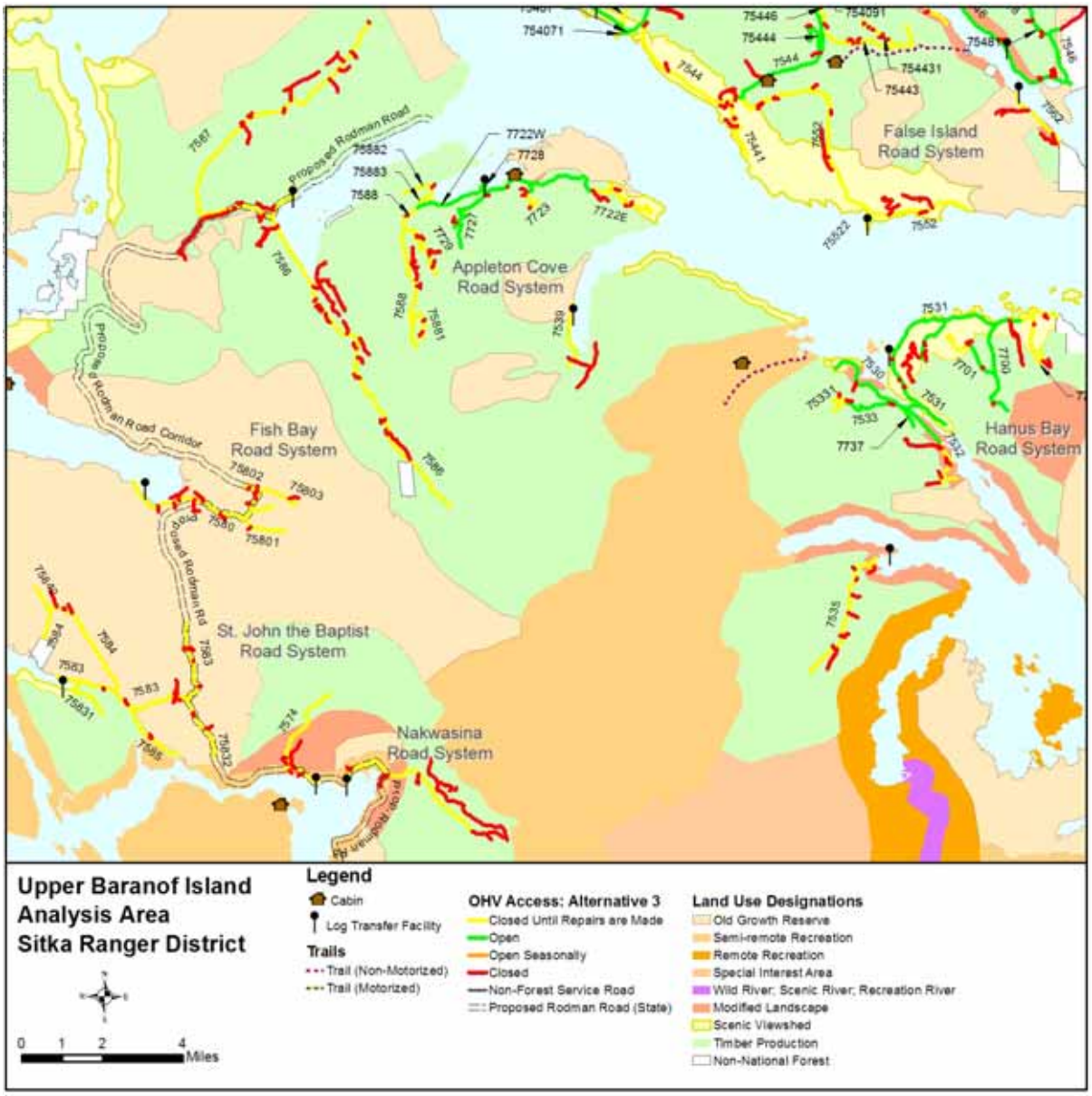

Figure 24. Upper Baranof Island Analysis Area: Alternative 3 for OHV Access

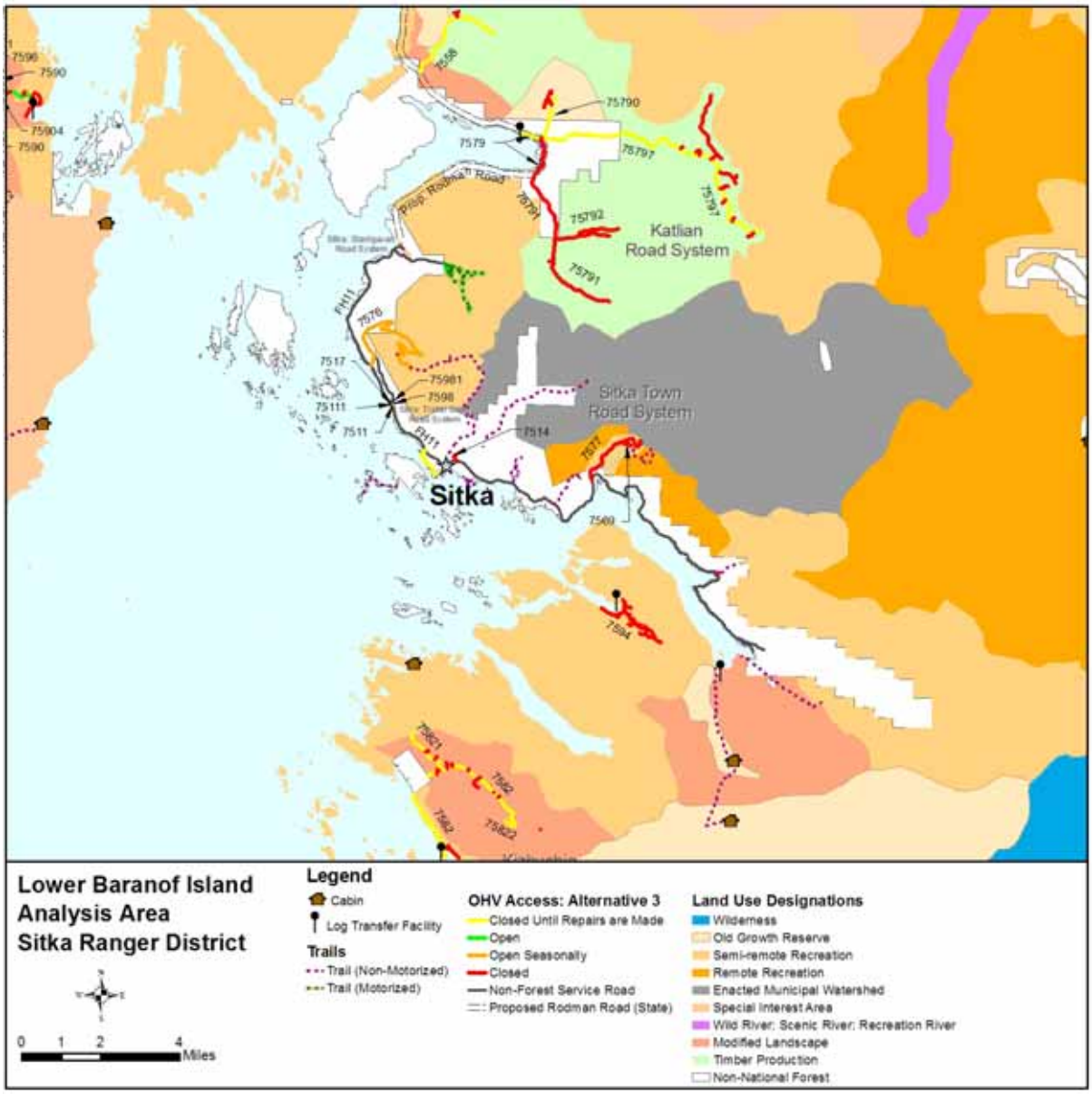

Figure 25. Lower Baranof Island Analysis Area: Alternative 3 for OHV Access

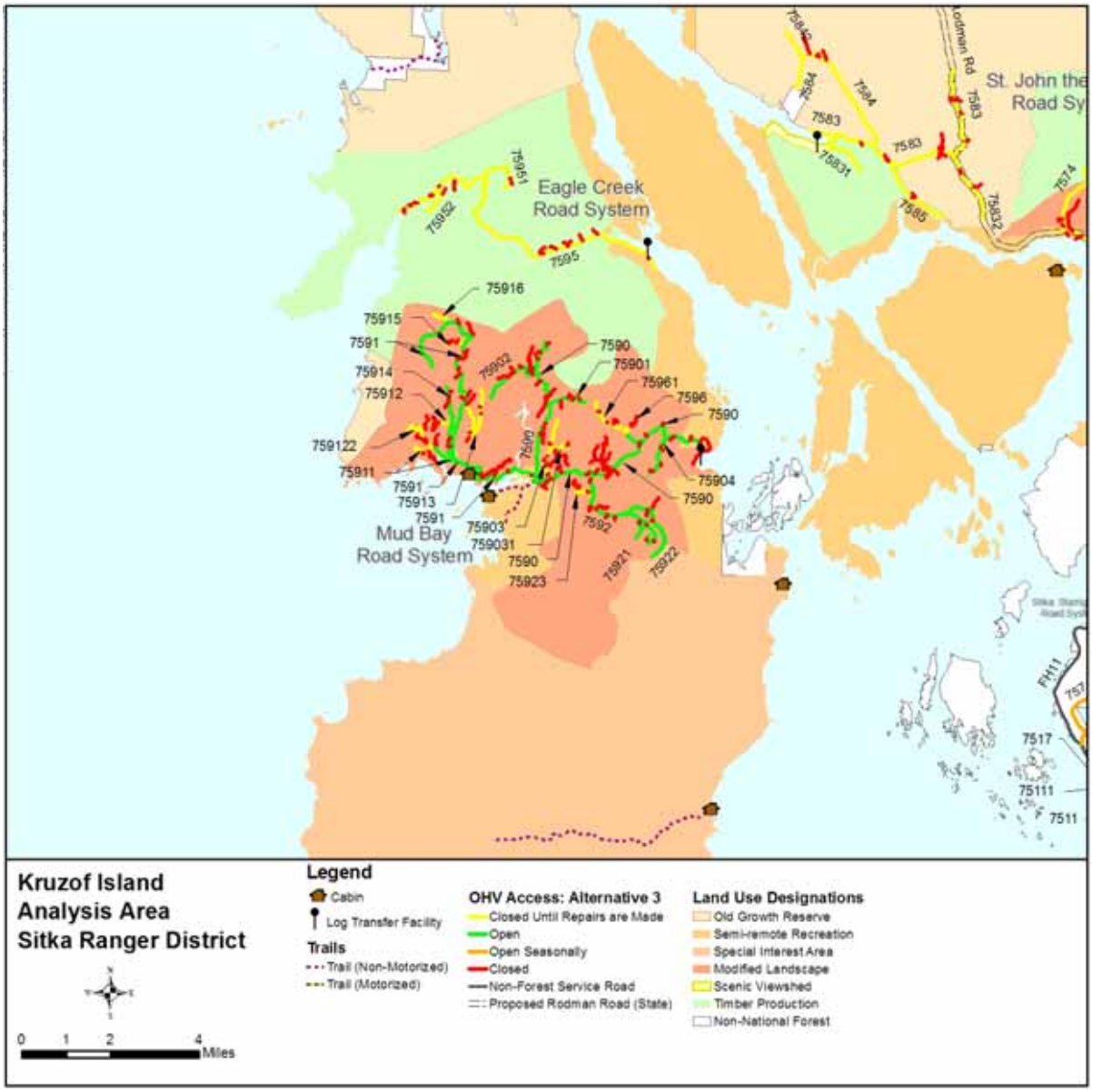

Figure 26. Kruzof Island Analysis Area: Alternative 3 for OHV Access

Mitigation Common to All Alternatives

The following mitigation measures would be implemented under each of the road management alternatives as needed to protect resources:

- Avoid work near mountain goat kidding areas during the kidding season (May 15 to June 15).
- Avoid activity around bald eagle nests during nesting season (March 1 to May 31 and if nest is established from June 1 to August 31).
- Minimize activities within 500 feet of important bear foraging areas on Class I streams during the late summer bear feeding period (e.g., July and August).
- Minimize activity around heron and raptor nests during the nesting season (March 1 to July 31).
- Provide site-specific stream protection prescriptions consistent with objectives identified under BMPs 12.6 and 12.6a. Objectives may include the following: 1) maintain the natural flow regime; 2) provide for unobstructed passage of storm-flows; 3) restore the natural course of any stream that has been diverted as soon as practicable; 4) maintain natural channel integrity to protect aquatic habitat and other beneficial use; and 5) prevent adverse changes to the natural stream temperature regime.
- Minimize erosion potential by restricting the operating schedule and conducting operations during lower risk periods.
- Minimize the erosive effects of concentrated water flows from transportation facilities and the resulting degradation of water quality through proper design and construction of drainage control systems.
- Minimize the impact on water quality, stream courses, and fisheries resources from the installation of bridges, culverts, and other stream crossings.
- Maintain all roads in a manner that provides for soil and water resource protection by minimizing rutting, road prism failures, sidecasting, and blockage of drainage facilities.
- Protect surface and subsurface soil and water resources from harmful nutrients, bacteria, and chemicals through proper disposal of solid waste and use of alternative construction materials.
- Conduct instream operations within fish timing windows.
- Wash construction equipment prior to entering the project area to avoid transporting weed seeds.
- Reseed or replant disturbed areas along roadsides with native species following ground-disturbing activities. In addition, road surface materials (rock, gravel, etc.) should be obtained from areas that do not contain weedy species. After reseeding/replanting occurs, the area should be monitored for new weed species that may be introduced.

It is difficult to revegetate areas that occur on volcanic ash soils. Therefore, revegetation techniques for these areas should use plant species that can germinate in volcanic soils

and low nutrient soils conditions. Using live plants instead of seed mulch may also be more productive when revegetating. Additional measures for erosion control on volcanic ash soils should include soil amendments, fertilizer, or the addition of organic materials to the ash layer.

Monitoring

Implementation and effectiveness monitoring would be completed for project work approved under any alternative, as would normal Forest Plan monitoring. In addition, Alternative 3 includes the creation of a monitoring plan to monitor days of OHV use on the Ranger District's major road systems (Mud Bay, False Island, Corner Bay, St. John the Baptist, Appleton, Indian River, and Hanus Bay. This plan would include scheduled monitoring of OHV traffic using a combination of pneumatic traffic counters, electromagnetic counters, and/or video cameras. Other road systems would be monitored informally. This information would be used to evaluate road conditions and uses, and to address areas of potential resource damage before it occurs.

Comparison of Alternatives

This section provides a summary of the effects of implementing each alternative. Information in Table 1 is focused on activities and effects where different levels of effects or outputs can be distinguished quantitatively or qualitatively among alternatives.

Table 1. Comparison of Alternatives

	Alternative 1, No Action	Alternative 2, Proposed Action	Alternative 3
Road Management (maintenance level)			
Storage (miles) OML-1	208.0	229.0	275.9
High-clearance vehicles (miles)[1/] OML-2	122.2	76.7	73.3
Passenger cars, rough surface (miles) OML-3	37.8	38.0	38.0
Passenger cars smooth surface (miles) OML-4	3.7	4.0	4.0
Decommissioned (miles)	0	16.4	0
Forest road converted to trail (miles)	0	22.4	0
Unauthorized road added to trail system (miles)	0	4.5	0
Total (miles)[3/]	**371.7**	**391.2**	**391.2**
Unauthorized roads added to road system	0	14.5	19
OHV Access			
Open (miles)[4/]	356.2	193.2	193.2
Closed pending repairs (miles)	0	101.9	184.4
Closed (miles)	9.8	90.4	7.9
Open seasonally (miles) #7576	5.7	5.7	5.7
Total (miles)	371.7	391.2	391.2
Subsistence			
Resource distribution and abundance	No change	No substantial change	No substantial change
Access to resources, short term	No change	Minor decrease	Minor decrease
Access to resources, long term	No change	Minor decrease	No change
Competition	No change	No change	No Change
Old-Growth Habitat LUDs			
Open to passenger vehicles (miles)	7.7	2.1	1.6
Open to OHV use (miles)	24.4	4.6[5/]	4.6[5/]
Closed to OHV use pending repairs (miles)	0	10.0	19.7
Closed to OHV use (miles	0	9.8	0.1
Water Quality			
Roads closed on hazardous soils (miles)	0	34.5	37.8
Road/stream crossings removed or repaired	0	89	92
Road/stream crossings closed for repair	0	180	295
Open roads on RMAs[6/] (miles)	26	20	20
Roads on wetlands (miles)	75.0	70.6	63.1
Fisheries			
Fish passage blockages removed (red pipes)	0	34	33
Miles of Level 2, 3, 4 to Maintain	163.7	118.7	115.3

Note: Numbers are based on GIS analysis and may not be exact. Numbers may not match other tables or add exactly due to rounding.

1/ High-clearance vehicles includes all vehicles with ground clearance greater than 5 inches.

2/ An additional 4.5 miles of unauthorized road would be converted to OHV trail under the Proposed Action.

3/ Totals for the Proposed Action and Alternative 3 include unauthorized roads added to the system.

4/ Includes roads without acceptable stream crossings.

5/ Portions of open OML-2 and OML-3 roads providing access to adjacent developmental LUDs, such as Road #7500.

6/ RMA = Riparian Management Area

CHAPTER 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS

Introduction

This chapter briefly describes the affected environment and the environmental consequences of each alternative by significant issue and by other environmental concerns. It also presents the scientific and analytical basis for the comparison of alternatives presented in Chapter 2. Direct, indirect, and cumulative effects are disclosed. Effects are quantified where possible, but qualitative discussions are also included.

The following discussion of resources and the potential effects associated with each of the alternatives takes advantage of existing information included in the Forest Plan Final Environmental Impact Statement (EIS); other project Environmental Assessments (EAs); project-specific resource reports and related information; roads analyses; and other sources as indicated. Where applicable, such information is briefly summarized and referenced to minimize duplication.

This EA hereby incorporates by reference the project planning record and the specialist/resource reports contained in the planning record (40 CFR 1502.21). The planning record for this project includes all project-specific information, including resource reports and other results of field investigations used to support the analysis and conclusions in this EA. The planning record is located at the Sitka Ranger District Office in Sitka, Alaska, and is available for review during regular business hours. Information from the record is available upon request.

Analyzing Effects

Environmental consequences are the effects of implementing an alternative on the physical, biological, social, and economic environment. The Council on Environmental Quality (CEQ) regulations implementing the National Environmental Policy Act (NEPA) include a number of specific categories to use for the analysis of environmental consequences. Several of these categories are applicable to the analysis of the proposed project and alternatives. They form the basis of much of the analysis that follows and are explained briefly below.

Direct, Indirect, and Cumulative Effects

Direct environmental effects occur at the same time and place as the initial cause or action. Indirect effects occur later in time or are spatially removed from the action. Cumulative effects result from the incremental effects of actions, when added to other past, present, and reasonably foreseeable future actions. Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time.

Unavoidable Adverse Effects

Implementation of any action alternative may cause some adverse environmental effects that cannot be totally mitigated or avoided. The application of Forest Plan Standards and Guidelines, Best Management Practices (BMPs), project-specific mitigation measures, and monitoring are all intended to further limit the extent, severity, and duration of potential effects. Such measures are discussed throughout this chapter.

Available Information

Much of the Tongass National Forest resource data resides in an electronic database formatted for a geographic information system (GIS). The Forest uses GIS software to assist in the analyses of these data. GIS data are available in tabular (numerical) format and as plots displaying data in map format. For this EA, all the maps and most of the numerical analyses are based on GIS resource data. GIS data are useful for comparing alternatives, but the numbers displayed in this analysis are not exact and road miles may differ from actual distances measured on the ground.

Analysis of the Alternatives by Significant Issue

Two issues were identified as significant for this project and analyzed in detail for each alternative: motorized access for recreation and for subsistence. The affected environment and potential effects of each alternative on motorized access for recreation are described in the following subsection.

Issue 1: Motorized Access for Recreation

Affected Environment

Off-Highway Vehicle Use

Many of the scoping comments received for this project addressed off-highway vehicle (OHV) uses and access priorities, with a number of these comments offering detailed information relating to uses and access on specific roads or road systems. Road systems with the highest reported use include Mud Bay and False Island, followed by St. John the Baptist and Rodman Bay. Recreational riding was reported to be the second most important use on roads within the project area, following subsistence hunting, fishing, and gathering (USDA Forest Service 2005a). Riding for recreation is important to the local community and individual roads are used to access to recreation sites, including cabins, beaches, and fishing areas, and are valuable for recreational OHV use (USDA Forest Service 2005a). OHV access to within 20 yards of the Sitkoh Lake cabin allows access for the elderly and disabled (USDA Forest Service 2005a).

Cabins and Campgrounds

There are 24 cabins located within the project area. The majority of these cabins are located along a lake or ocean shore and accessed by boat or float plane. Recorded visits in 2004 ranged from 7 visits and 19 recreation days for Suloia Lake cabin to 663 visits and 1,237 recreation days for Allan Point cabin (USDA Forest Service 2004d). Two of the 24

cabins areas within the project area may be accessed by road or a combination of road and OHV trail. These are the west Sitkoh Lake cabin and North Beach Cabin. Two other cabins are reached by foot trails off of roads, Shelikof Cabin and Kook Lake Cabin (Table 2).

Table 2. Public Use Cabins with Road Access and OHV or Short Foot Trail

Area/Road System	Cabin Name	Access Road #	2004 Percent Usage[1/]
Southeast Chichagof Island			
False Island	Sitkoh Lake Cabin (West)	7544	11.0
Corner Bay	Kook Lake Cabin[2/]	7540CB and 7542	16.8
Kruzof Island			
Mud Bay	North Beach Cabin[3/]	7591	26.4
Mud Bay	Shelikof Cabin[2/]	7590	NA

1/ Percent usage is calculated by dividing the number of days the cabin is occupied by the number of days the cabin is available for use each year. Availability ranges from 354 days per year to 362 days per year.
2/ Foot trails leading to the Kook Lake, and Shelikof cabins may be accessed via the roads identified above.
3/ North Beach Cabin and West Sitkoh Lake Cabin may be accessed via an OHV trail from Road #7591 and #75441 respectively.
Source: USDA Forest Service 2004d

There are two campgrounds located on National Forest System (NFS) lands within the project area: Sawmill Creek and Starrigavan. Sawmill Creek campground is located off Blue Lake Road #7577, approximately 1.4 miles north of Sawmill Creek Road. The Blue Lake Road is maintained under a cost share agreement with the City of Sitka and is closed and gated to the public during the winter for public safety. Starrigavan campground is located north of Sitka along Starrigavan Creek. Access to the campground and parking lot is via Road #7513.

Hiking and Trails

There are 32 hiking trails within the area. Seventeen of these trails are only accessible by boat or floatplane. Users generally access other trails by foot or by driving OHVs to the point where the trail begins. The Starrigavan Valley Trail is accessed off of the City of Sitka maintained Nelson Logging Road and would not be affected under any of the proposed alternatives. Five trails on NFS lands are accessed by Forest Roads: Beaver Lake, Harbor Mountain-Gavan Hill, North Beach, Port Mary, and Shelikof (Table 3). In addition, Road #7500 crosses the City of Tenakee Springs trail.

Hunting and Fishing

Recreational hunting in the project area is limited to visitors from urban areas in Southeast Alaska (Juneau and Ketchikan) and other areas outside Alaska. Residents of Juneau accounted for approximately 17 percent of total documented deer harvest in the project area in 2003 (Alaska Department of Fish and Game [ADF&G] 2004). Hunting by rural Alaskans, including residents of Sitka, Tenakee Springs, and Angoon, is by definition considered subsistence hunting and is addressed in the Subsistence Resource Report. Some hunting by local residents may, however, be primarily recreational in nature.

Table 3. Potentially Affected Hiking Trails

Area/Road System	Trail Name	Access Road #
Indian River		
Indian River	Tenakee Springs	7500[1/]
Lower Baranof		
Blue Lake	Beaver Lake	7577 (Blue Lake Road), 7569
Harbor Mountain	Harbor Mountain-Gavan Hill	7576
Kruzof Island		
Mud Bay	North Beach	7591, Twin Lakes
Mud Bay	Port Mary	7590, Iris Meadows
Mud Bay	Shelikof	7590, Iris Meadows

1/ Road #7500 crosses the East Tenakee trail. It does not provide access to the trailhead.
Source: Alaska Natural History Association 2002; USDA Forest Service 2005b

An average of 15 brown bear guides use the Sitka Ranger District annually. Use is spread throughout the project area, but commonly used areas include Hoonah Sound, the southern portion of Chichagof Island, and Tenakee Inlet. Use is authorized geographically through large guide-use areas. One brown bear hunter is authorized to run a temporary camp at the saltwater terminus on an old roadbed (Road #7560) in Crab Bay (USDA Forest Service 2004c).

Recreational fishing is one of the major recreational uses of the project area. One outfitter has a fishing camp during the summer months in "The Basin" on Kelp Bay. Use of this area is concentrated on saltwater and freshwater fishing streams in Kelp Bay (USDA Forest Service 2004c).

Outfitter/Guide Use

Approximately 70 guides and outfitters are authorized to operate on NFS lands within the project area. Clients engage in freshwater fishing; sightseeing; brown bear, and goat hunting; and backpacking. Most outfitter/guide operations are boat based. Very few clients spend more than one hour on shore at a single location and an estimated 90 percent of clients never venture further than one-half mile from the shoreline. Use of roads and trails by outfitters and guides is relatively minor, with use fluctuating from year to year depending on the amount of business and client needs (USDA Forest Service 2004c). Outfitter/guide use of project area roads is summarized by area and road system in Table 4.

Approximately one-quarter of the 70 outfitter/guides that use the project area are estimated to use the trail system. With the exception of the institutional groups (schools), most guided trips hike only short distances due to terrain and weather. A small percentage of outfitter/guide businesses depend on weekly use of the trail system to maintain a viable business. Some businesses have expressed a desire for more trail opportunities (USDA Forest Service 2004c).

Table 4. Outfitter/Guide Road Use

Area/Road System	Road #	Number of Outfitter/ Guides	Identified Uses
Southeast Chichagof Island			
False Island	7540, 7544	1	High-clearance vehicle roads used for biking and hiking tours. Bicycle or foot passage to Sitkoh Lake. Operates floating lodge at False Island
Crab Bay	7560	1	Temporary brown bear hunting camp at the saltwater terminus of the old roadbed in Crab Bay
Upper Baranof Island			
St. John the Baptist	7583, 7584, 7585	3	Access to goat hunting at higher elevations in fall and winter.
Fish Bay	7580	2	Access to goat hunting at higher elevations in fall and winter
Nakwasina		2	Access to goat hunting at higher elevations in fall and winter.
Rodman	7586,7587	2	Access to goat hunting at higher elevations in fall and winter.
Noxon	7574	2	Access to goat hunting at higher elevations in fall and winter.
Saook	7539	2	Guided hikes by mid-sized cruise ship companies.
Lower Baranof Island			
Sitka Local	7577	6	Daily bicycle tours in summer. Access to Beaver Lake trail and Sawmill Creek campground.
	7576	2	Van tours up Harbor Mountain road.
Kruzof Island			
Mud Bay	7590	4	Backpacking and bicycle riding by wilderness therapy institution. Access to recreational cabins. Guided foot and bicycle tours. Guided ATV tours between Mud Bay and North Beach.

Source: USDA Forest Service 2004c

Trails currently used by outfitters/guides include Sadie Lake, Mist Cove, Lake Eva, Mount Edgecumbe, Goulding Lake, Dry Pass, Mirror Harbor, Beaver Lake, Starrigavan Valley, Indian River, and Gavan Hill/Harbor Mountain. Beaver Lake is the only one of these trails that may be accessed from a road system that would be affected under one or more of the proposed alternatives (see Table 4). One commercial outfitter/guide and four institutional outfitter/guides are authorized to use this trail. The largest amount of use is from the commercial outfitter, who was authorized 260 service days in 2004 (USDA Forest Service 2004c).

Environmental Effects – Direct and Indirect Effects

Off-Highway Vehicles Use

Under the No Action Alternative, nearly all of the project area road system would continue to be open to OHV use (USDA Forest Service 1997b) until the OHV Rule is implemented on the Tongass. However, state laws prohibit the crossing of streams where there are inadequate crossing structures; although, some level of OHV use does occur on these roads. Under the No Action Alternative, inadequate stream crossings and lack of legal access on private lands

would continue to prevent OHV access to approximately 185 of the 372 miles of forest roads in the project area. Also, many older log stringer bridges and log culverts are unsafe. Under the No Action Alternative, lack of legal access and unsafe bridges would continue to restrict motorized access for recreation.

Under the Proposed Action, approximately 193 miles of roads would remain open to OHV use, approximately 102 miles would be closed until repairs can be made to roads and/or legal access can be obtained, and approximately 85 miles would be closed. An additional 5 miles of unauthorized roads would be added to the road system as closed roads. The Proposed Action would limit OHV access to nearly half the mileage that is currently designated as open. However, most of roads that would be temporarily or permanently closed under this alternative, while currently designated as open, are not legally passable due to inadequate stream crossings and/or lack of legal access. Under this alternative, approximately 205 miles would be open to OHV use in the long term, including approximately 22 miles that would be converted to OHV trails, and 4.5 miles of currently unauthorized road being added as an OHV trail. Under Alternative 3, approximately 193 miles of roads would remain open to OHV use, and approximately 184 miles would be closed until repairs can be made to roads and/or legal access can be obtained. Alternative 3 would provide the same open mileage as the Proposed Action in the short term, but, in the long term, approximately 184 miles of roads would be opened after repairs are made and/or legal access is obtained, rather than 102 miles under the Proposed Action. In addition, approximately 22 miles of road that would be converted to trail under the Proposed Action would remain roads under Alternative 3, and approximately 16 miles of road that would be decommissioned under the Proposed Action would remain in the road system (and open to OHV use) under Alternative 3. Therefore, in the long term, nearly the entire road system could be open to OHV use under this alternative.

The current road system provides access to a low number of users due to the distance from communities and remoteness; while some motorized recreational users will be impacted by road management changes in Alternatives 2 and 3, the impacts are expected to be minimal. In all alternatives, the Ranger District intends to stop unlawful use of roads.

Cabins and Campgrounds

There would be no change to access to cabins and campgrounds under the No Action Alternative.

There would be no change in management for the roads leading to the west Sitkoh Lake cabin and Kook Lake cabin in the Southeast Chichagof Island analysis area under either the Proposed Action or Alternative 3. The section of Road #7544 that leads to the west Sitkoh Lake cabin would remain unchanged (high-clearance vehicles) and open for OHV access. The portion of this road that follows the shoreline (referred to as Ocean Boulevard) would, however, be converted to a trail under the Proposed Action and closed to OHV access until repairs are made. Under Alternative 3, this portion of the road would be placed in storage and closed to OHV use until repairs are made. The change in management under either alternative is not, however, expected to affect access to west Sitkoh Lake cabin. The sections of road providing access to the foot trail leading to Kook Lake cabin would remain unchanged (passenger cars, rough surface) and open for OHV use under all three alternatives.

There would be changes in access management for the road leading to the North Beach cabin, which is located in the Kruzof Island analysis area. Road #7591, which provides

access to the OHV trail to North Beach cabin, would be closed to passenger vehicles (the road would be stored), but would remain open to OHV use under both the Proposed Action and Alternative 3. There would be no change to the management of Road #7590, which provides access to the trail leading to the Shelikof cabin.

The roads providing access to the Sawmill Creek and Starrigavan campgrounds, both located in the Lower Baranof analysis area, would be open to highway vehicles and closed to OHV access under all alternatives. The maintenance level for Road #7577, also known as Blue Lake Road, which provides access to the Sawmill Creek campground, would be reduced to passenger car, rough road (OML-3) under both the Proposed Action and Alternative 3. The road providing access to the Starrigavan Creek campground would remain unchanged (passenger cars, smooth surface).

Hiking and Trails

There would be no change in motorized access to hiking trails under the No Action Alternative.

There would be no change in management for Roads # 7590 (up to mp. 5.25), which provides access to the Port Mary and Shelikof trails and #7500 (up to mp. 11.85) which crosses the East Tenakee trail, under either of the action alternatives. Both of these roads would continue to be maintained for high-clearance vehicles and open for OHV access.

The maintenance level for Road #7577 (Blue Lake Road), which provides access to the Beaver Lake trail (in the Lower Baranof analysis area) would be reduced to passenger car, rough surface, under the Proposed Action and Alternative 3. The road would continue to be open seasonally. This would also be the case for Road #7576, which provides access to the Harbor Mountain-Gavan Hill trail. It would still be possible to access these trails by passenger vehicle.

Road #7591, which provides access to the North Beach trail, would be closed to passenger vehicles (the road would be stored), but it would be open to OHV use under both action alternatives. Project actions associated with road storage could produce noise that may temporarily diminish the recreation experience for hikers, but this disturbance would be of short duration.

There will be no change to Road #7542, which provides access to the Kook Lake trail, under either of the action alternatives. This road will continue to be maintained for high-clearance vehicles and open for OHV access.

Hunting and Fishing

The risks of adverse direct and indirect impacts to deer are expected to be low under all alternatives (see the Management Indicator Species Resource Report). Effects on deer are not expected to have noticeable effects on recreational hunting in the area. Similarly, road improvements under the Proposed Action and Alternative 3 are not expected to affect legal OHV access for hunting in most areas in the short term. The Proposed Action and Alternative 3 would, however, have the long-term effect of increasing the miles of roads and trails that are legally passable for OHV use and, therefore, extending the area available for recreational hunting (approximately 97 miles under the Proposed Action and approximately 180 miles under Alternative 3).

The two main road-related issues affecting fish habitat within the project area are road/stream crossings and roads within Riparian Management Areas (RMAs). Providing for fish passage at road crossings of streams is critical for fish movement and water quality. Improperly located or installed culverts, culverts that have failed, or crossings that are not functional can restrict fish movement and decrease water quality through the input of sediment into stream systems (see the Fisheries Resource Report for further discussion). Negative effects to fish habitat affect fish populations, which in turn have the potential to affect recreational fishing. The No Action Alternative would allow for continued improvements to fish habitat based on concurrence with the state Department of Natural Resources. The Proposed Action and Alternative 3 would have additional positive impacts on fish habitat in the project area, both in terms of road/stream crossings and roads located within RMAs (see the Fisheries section). The Proposed Action and Alternative 3 would result in the removal or repair of twice as many road-stream crossings without fish passage as the No Action Alternative, and would remove or repair more miles of existing road within RMAs. These improvements would likely have positive effects on fish populations and could result in a small, but positive effect to recreational fishing. As described in the paragraph above, the Proposed Action and Alternative 3 would have the long-term effect of increasing the miles of roads and trails that are legally passable for OHV use but reduce the roads usable by high clearance vehicles; therefore, the area available for recreational fishing by OHV users would be extended while the area available by high clearance vehicles is reduced. However, most recreational fishing throughout the Tongass occurs by boat in saltwater, so impacts to recreational fishing are expected to be minimal.

Outfitter/Guide Use

Existing outfitter/guide use of the potentially affected road systems is summarized in Table 4. The No Action Alternative would have no effect on these operations and effects under the Proposed Action and Alternative 3 would be primarily limited to short-term noise disturbance and temporary access limitations while road improvements are taking place. Road #7590 in the Kruzof Island analysis area is the only road that receives motorized use by outfitter/guides; the other roads are primarily used for hiking, walking, and bicycle tours (see Table 4). The last 3.87 miles of Road #7590 would be placed in storage but remain open to OHV use under both action alternatives.

Changes in road management levels under the Proposed Action would include conversion of Roads #7583 and #7584 (Upper Baranof Island analysis area) and the shoreline portion of #7544 (Southeast Chichagof Island analysis area) to trails. These roads would not be converted to trails under Alternative 3. In addition, the maintenance level for Road #7577 (Blue Lake Road), which provides access to the Beaver Lake trail, would be reduced (to passenger car, rough surface, OM-3) and closed to OHV use. There would be no changes in maintenance levels for the other roads identified in Table 4 and none of the identified changes would be expected to affect the existing outfitter/guide operations, beyond the potential short-term disturbance discussed above.

In general, the road improvements and access modifications associated with the Proposed Action and Alternative 3 would be expected to have small, but positive effects for outfitters and guides that offer fisheries opportunities to clients. Further, general improvements to OHV access may provide future opportunities for outfitters/guides interested in providing OHV opportunities for clients.

Issue 2: Motorized Access for Subsistence

Affected Environment

Residents of the communities of Sitka, Tenakee Springs, and Angoon use the project area for subsistence purposes. Sitka and Tenakee Springs are located within the project area on Baranof Island and Chichagof Island, respectively. Angoon is located on Admiralty Island across Chatham Strait from the project area.

Residents of other Alaska subsistence communities, including Elfin Cove, Haines, and Petersburg, also harvest wild resources within the project area but to a lesser degree.

Subsistence use is summarized for Sitka, Angoon, and Tenakee Springs in Table 5. Fish comprised more than half of total subsistence harvest for Sitka and Angoon, and 40 percent of harvest by Tenakee Springs residents. Land mammals, primarily deer, comprised approximately one-quarter of total subsistence harvest for Sitka and Angoon residents and 41 percent for Tenakee Springs residents.

Table 5. Subsistence Use by Community

	Sitka[1/]	Angoon[1/]	Tenakee Springs[1/]
Population (2000)	8,835	572	104
Percent of Households Harvesting a Subsistence Resource	83	93	90
Per Capita Subsistence Harvest (Pounds)	205	224	330
	Percent of Total Subsistence Harvest		
Fish	54	58	40
Salmon	28	37	15
Non-Salmon	26	21	35
Terrestrial Mammals[2/]	25	23	41
Deer	22	23	41
Marine Mammals	4	4	2
Birds and Eggs	<1	<1	<1
Marine Invertebrates[3/]	13	13	13
Vegetation	3	2	3

1/ Data for Sitka and Angoon are from 1996; data for Tenakee Springs are from 1987. These are the most recent data available.
2/ Moose account for approximately 3 percent of total Sitka subsistence harvest, but do not occur within the project area (the Sitka Ranger District).
3/ Marine invertebrates include clams, crab, and shrimp.
Source: ADF&G 2005; USDA Forest Service 2003

Habitat requirements for the key fish and wildlife resources harvested within the project area are summarized in the Subsistence Resource Report. The Sitka Access and Travel Management project is most likely to affect access to subsistence resources that are located away from the shorelines, primarily land mammals, vegetation, and salmon and other fish species associated with Class I streams.

Deer comprise the majority of terrestrial mammal subsistence harvest for all three communities. Detailed deer harvest data compiled for the Wildlife Analysis Areas (WAAs) that comprise the Sitka Ranger District indicate that Sitka residents accounted for 71 percent

of total documented deer harvest in the project area in 2003, while Tenakee Springs residents accounted for 5 percent (ADF&G 2004).

Deer harvest data compiled for 1995 through 2003 are summarized by WAA, road system, and potentially affected community in Table 6. This table identifies total documented harvest by WAA for each community and also indicates the percentage of total community harvest each WAA accounted for over this period.

Table 6. Documented Deer Harvest by Road System and WAA, 1995 to 2003

		Deer Harvested[1/]			Percent of Total Community Harvest[2/]		
Area/Road System	WAA	Sitka	Tenakee Springs	Angoon	Sitka	Tenakee Springs	Angoon
Indian River							
Indian Road	3526	27	137		<1	18	
Southeast Chichagof Island							
Inbetween and Crab Bay	3629	27	137		<1	18	
Corner Bay, [3/]	3628	5	16		<1	2	
	3627	57	201		<1	26	
False Island and Oly Creek	3308	607	77	114	3	10	6
Upper Baranof Island							
Rodman Bay, Appleton, and Saook	3313	1,004			4		
Hanus Bay	3315	550		140	2		7
Kelp Bay	3731	248	0	57	1		3
Fish Bay	3314	1,097			5		
St. John the Baptist, Noxon, and Nakwasina	3001	3,543	3		15	<1	
Lower Baranof Island							
Lisa Creek	3001	3,543	3		15	<1	
Katlian, Starrigavan Bay, Harbor Mountain, Sitka Local, and Blue Lake	3002	2,804	3		12	<1	
Camp Coogan and Kizhuchia	3003	1,198	3		5	<1	
Kruzof							
Eagle Creek	3104	1,536			6		
Mud Bay[4/]	3104	1,536			6		
	3105	1,144			5		
Total[5/]		13,599	577	254	57	75	13

WAA = Wildlife Analysis Area: A division of land used by ADF&G for wildlife analysis.
1/ Total documented deer harvest by community for those WAAs that include road systems.
2/ Total documented harvest by WAA and community divided by total harvest within the project area by community.
3/ The Corner Bay road system also extends into WAA 3308,.
4/ The Mud Bay road system extends into two WAAs, as shown.
5/ Total documented harvest within WAAs that include road systems divided by total project area harvest.
Source: ADF&G, various years

Data on documented deer harvest by transportation type are only available at the Game Management Unit (GMU) level, which is a larger unit of measurement used by ADF&G. GMU 4, which includes the project area, also includes Admiralty Island and North Chichagof Island. Data for 2003 indicate that hunters accessing the area by boat accounted for 76 percent of the deer harvested in this area. Hunters using airplane access accounted for 11 percent. Access by highway vehicle, OHV, and foot accounted for 9 percent, 2 percent, and 1 percent, respectively (ADF&G 2004).

Many of the scoping comments received for this project addressed OHV uses and access priorities, with a number of these comments offering detailed information relating to uses and access on specific roads or road systems. Overall, subsistence hunting and fishing (and gathering associated with both activities) was reported to be the most important use on roads within the project area, followed by recreational riding and camping, and recreational hunting and fishing (USDA Forest Service 2005a).

Environmental Effects – Direct and Indirect Effects

ANILCA Section 810 stipulates that when an action taken by a Federal agency may affect public lands, the agency with primary jurisdiction should evaluate the effects of the action on subsistence uses and needs. Three factors related to subsistence uses are specifically identified by ANILCA: 1) resource distribution and abundance, 2) access to resources, and 3) competition for the use of resources. The following sections address each of these factors in turn.

Resource Distribution and Abundance

The following sections discuss the potential effects of the alternatives to the following subsistence resources: salmon and other finfish, terrestrial mammals, marine mammals, marine invertebrates, and vegetation.

Salmon and Other Finfish

The two main road-related issues affecting fish habitat within the project area are road/stream crossings and roads within RMAs. Providing for fish passage at road crossings of streams is critical for fish movement and water quality. Improperly located or installed culverts, culverts that fail, or crossings that are not functional can restrict fish movement and decrease water quality through the input of sediment into stream systems (see the Fisheries Resource Report for further discussion). Negative effects to fish habitat affect fish populations, which in turn have the potential to affect subsistence fishing. The No Action Alternative would not improve fish habitat in the project area. It would not improve fish passage or reduce the miles of road within RMAs. The Proposed Action and Alternative 3 would have positive impacts on fish habitat in the project area, both in terms of road/stream crossings and roads located within RMAs. The Proposed Action and Alternative 3 would result in the removal or repair of twice as many road-stream crossings without fish passage as the No Action Alternative, and would remove or repair more miles of existing road within RMAs. These improvements would likely have positive effects on fish populations and could result in a small, but positive effect to subsistence fishing compared to the No Action Alternative (see the Fisheries Resource Report).

Road repair activities related to decommissioning under the Proposed Action and structure removal under the Proposed Action and Alternative 3 may result in localized inputs of

sediment and disturbance to the riverbed within the immediate area of the repair. This may cause minimal damage to small areas of fish habitat. In addition, this activity could result in the temporary displacement of individual fish at the site of repair. These effects, which are expected to be temporary and of short duration, would be mitigated by following Forest BMPs during road repair activities (see the Fisheries Resource Report). They are not expected to affect subsistence fishing.

Terrestrial Mammals

There is generally a low risk of adverse impacts to terrestrial animals and their habitats under all three alternatives at the species level, and no risk at the landscape level (see also the Biological Evaluation in the Planning Record). Important species include Sitka black-tailed deer, brown bear, and mountain goat. There would be no change to current conditions under the No Action Alternative. Impacts under the Proposed Action are expected to be low because any vegetation removal would be limited to existing roadbeds and the areas immediately adjacent to these roads. High-value bedding, foraging, and winter use habitats would not be significantly affected by disturbance associated with road maintenance activities (e.g., storage or decommissioning roads), or indirectly by activity along roads (see the MIS Resource Report in the Planning Record). Impacts under Alternative 3 would be similar to those under the Proposed Action for deer, and mountain goat, but slightly greater for brown bears due to the higher level of OHV access. Therefore, none of the alternatives are expected to affect the distribution or abundance of subsistence species for hunting.

Marine Mammals and Marine Invertebrates

None of the alternatives is expected to result in direct or indirect effects to either the habitat or populations of any marine mammal (the threatened or endangered species present on the Sitka Ranger District) or marine invertebrate species (see the Biological Evaluation in the Planning Record).

Vegetation (Edible Plants)

The risk of adverse impacts to vegetation is expected to be low under all three alternatives. Closing roads to passenger vehicles, as proposed under Alternatives 2 and 3, would likely increase protection of plant resources by reducing the introduction of non-native plants along roadbeds. The seeds of non-native plants are dispersed by vehicular traffic. Mitigation measures would limit the introduction of non-native species during project work (see Chapter 2).

Access to Resources

None of the proposed alternatives would affect access by boat or airplane and there would be no effect to coastal subsistence activities.

Data on documented deer harvest by transportation type for GMU 4 indicate that hunters accessing the area by boat and airplane accounted for 87 percent of deer harvested in the project area in 2003. Hunters using highway vehicles and OHVs, as their primary means of access accounted for 9 percent and 2 percent, respectively (ADF&G 2004). Therefore, a reduction in OHV access would not affect the large majority of subsistence hunters.

Under the No Action Alternative, approximately 164 miles of road are open to high-clearance and passenger vehicles. The project area is currently managed as open to OHV use unless designated otherwise (USDA Forest Service 1997a,b). However, state laws prohibit the crossing of streams where there are inadequate crossing structures. Under this

alternative, inadequate stream crossings would continue to limit OHV access to approximately 185 of the existing 372 miles of road. Under No Action and the other alternatives, the Ranger District intends to educate people about unlawful use of roads.

Under the Proposed Action, approximately 119 miles of road would be open to high-clearance and passenger vehicles. Approximately 193 miles of roads would be open to OHV use, approximately 97 miles would be closed until repairs can be made to roads, and approximately 90 miles would be closed (including unauthorized roads added to the road system as stored roads). In the short term, the Proposed Action would limit OHV access to approximately half the mileage that is technically designated as open. However, much of the road that would be either temporarily or permanently closed under this alternative, while currently designated as open, lacks legally passable stream crossings and/or rights-of-way. Under this alternative, approximately 97 miles of road that currently lack stream crossings and/or legal access would be open after repairs are made. This would result in an increase in OHV access compared to the No Action Alternative, in the long term.

Under Alternative 3, approximately 115 miles of road would be open to high-clearance and passenger vehicles. Approximately 193 miles of roads would remain open to OHV use, approximately 180 miles would be closed until repairs can be made to roads, and approximately 8 miles would be closed pending legal access agreements. Alternative 3 would provide the same open mileage as the Proposed Action in the short term, but it would also provide the opportunity for approximately 180 miles of roads to be opened to OHV use after repairs are made and legal access is acquired, rather than approximately 97 under the Proposed Action. In addition, approximately 22 miles of road that would be converted to OHV trail under the Proposed Action would remain roads under Alternative 3, and approximately 16 miles of road that would be decommissioned under the Proposed Action would remain in service under Alternative 3. Thus, Alternative 3 would not restrict motorized access for subsistence in the long term.

The miles of road suitable for passenger cars would remain essentially unchanged under both the Proposed Action and Alternative 3. There would be a net reduction in roads open to high-clearance vehicles of approximately 46 miles and 49 miles under the Proposed Action and Alternative 3, respectively. More than half of this reduction would be associated with the Mud Bay road system on Kruzof Island (WAA 3104). This area accounted for 6 percent of total documented deer harvest for Sitka residents between 1995 and 2003; however, most of the hunters using WAA 3104 do not access the area using high-clearance vehicles due to the difficulty of transporting large vehicles by boat. While these roads would no longer be open to high-clearance vehicles, they would remain open to OHV use.

Approximately 16 miles of road would be decommissioned under the Proposed Action (see Table 5). Decommissioned roads would be closed to all forms of motorized access, including OHV use. Many of the decommissioned roads are small segments of road, or individual roads in large systems. In these cases, the action would not result in a significant effect to subsistence access. One entire road system, Fish Bay, would be decommissioned. These roads are located in an Old-Growth Habitat LUD, and all have marked vegetative encroachment. This road system includes several log stringer bridges and culverts in poor condition. The Fish Bay road system is located in the Upper Baranof Island analysis area within WAA 3314, which accounted for 5 percent of total documented deer harvest for Sitka

residents between 1995 and 2003 (Table 6). It is unknown how much of this harvest was taken by motorized versus non-motorized users. Refer to Appendix A for a detailed list of changes in maintenance levels and of roads proposed for decommissioning or conversion to trails.

Approximately 4 miles of the Katlian road system in the Lower Baranof Island analysis area would be decommissioned under the Proposed Action. These roads have become extremely overgrown and the former roadways were indistinguishable. It is unlikely that these roads, in their present condition, provide any substantial motorized access for subsistence activities. The Katlian road system is located within WAA 3002, which accounted for 12 percent of deer harvest by Sitka residents from 1995 though 2003, but this WAA also includes the city of Sitka and a number of other access roads (Table 3). The Camp Coogan road system was recently decommissioned. These areas would continue to be available to non-motorized hunters.

Closure of the roads on Fish Bay and Katlian might lead to the displacement of a limited number of motorized hunters and gatherers, who would likely begin to rely on resources accessible through other nearby systems. Overall, this number would be minimal and would not be expected to result in measurable depletion of resources in other sites across the Ranger District, or in increased competition for the users of other nearby localities.

No roads would be decommissioned under the No Action Alternative or Alternative 3.

Competitive Effects

Increased access to an area can result in an increase in competition for resources. This is a particular concern if there is an increase in non-rural resident hunting. No new roads or trails would be constructed under any of the alternatives. Therefore, there would be no new opportunities for access and no direct effects to subsistence use or resources.

Implementation of any project alternative is not anticipated to cause disproportionate adverse human health or environmental effects to minority or low-income populations because legal access (by OHVs) to subsistence resources will slightly increase compared to the No Action Alternative in the long term, and with the slight increase in motorized access, effects are expected be the same to all populations (see findings above).

Non-Significant Issues

Roads in Old-Growth Habitat Land Use Designations (LUDs)

Affected Environment

Old-growth forests are ecosystems distinguished by old and large trees and related structural attributes associated with later stages of stand development (USDA Forest Service 1997b). Structural attributes include larger tree sizes and more variation in tree size and spacing, large dead standing or fallen trees, broken or deformed tops and bole and root decay, multiple canopy layers, and canopy gaps and understory patchiness (USDA Forest Service 1997b). Old-growth forests provide critical nesting, foraging, rearing, denning, and cover habitat for old-growth forest-associated species, including Sitka black-tailed deer; American marten; brown bears; goshawk; and cavity- or snag-dependent species such as flying squirrels, woodpeckers, and owls. Large dead or defective trees provide nesting sites for owls and bald eagles, as well as foraging sites for woodpeckers, sapsuckers, brown creepers,

and other species. Old-growth forests also provide roadless refugia where disturbance from human activities is minimal. Management emphasis in the Old-Growth LUD is to "maintain areas of old-growth forests and their associated natural ecological processes to provide habitat for old-growth associated resources" (Forest Plan, page 3-75). Management objectives include maintaining viable populations of old-growth-associated species while supporting sustainable subsistence and recreational uses.

Roads decrease the quality and quantity of habitat for old-growth associated species through disturbance and habitat fragmentation, and increase the risk of overexploitation through hunting and trapping. Black-tailed deer, mountain goats, American marten, and brown bear are sensitive to overharvesting and overtrapping in areas with extensive road systems. Roads also increase the potential for wildlife/vehicle collisions and brown bear/human conflicts, which could result in “defense of life and property” mortality and increased hunting mortality. In maintaining consistency with Old-Growth Habitat LUD objectives, roads may be closed if their use contributes to disturbance or damage to wildlife, wildlife habitat, or productivity, and OHV access may be prohibited if it degrades or disturbs wildlife and habitats. Decommissioning and/or storing roads in Old-Growth LUD in the project area would increase habitat quality for many species by reducing disturbance and fragmentation. There are approximately 24.4 miles of road located in the Old-Growth LUD in the project area, 32 percent of which is open to high-clearance vehicles; OHV use is currently permitted on all of these roads (Table 7). While new road construction is generally incompatible with this land use, existing roads are permitted if consistent with old-growth forest management objectives. Many existing roads in areas designated as old-growth reserves were established prior to the implementation of the Forest Plan.

Environmental Effects – Direct and Indirect Effects

There would be no change in road maintenance levels or OHV access within Old-Growth Habitat LUDs under the No Action Alternative. The Proposed Action and Alternative 3 would decrease highway vehicle access in the Old-Growth Habitat LUD from 7.7 miles under Alternative 1 to 2.1 and 1.6 miles, respectively (Table 7). Road miles available for OHV access substantially decreased under the Proposed Action (60 percent). OHV access under Alternative 3 would be reduced in the short term; however, nearly all roads would be open after repairs are completed to stream crossing structures and right-of-way agreements are concluded. Consequently, the integrity of the Old-Growth Habitat LUD in the project area, and associated wildlife species, would receive the most protection under the Proposed Action.

Under the Proposed Action there would generally be lower risk of adverse impacts to MIS (i.e., for individual animals) and no risk at the landscape level (i.e., for populations of MIS). There would generally be a low to moderate risk under the No Action Alternative and Alternative 3, due to the greater OHV access compared to the Proposed Action. Under both action alternatives, vegetation removal would be limited to existing road and trail beds and areas immediately adjacent to them. Mitigation measures required by the Standards and Guidelines in the Forest Plan are expected to protect high-value nesting, foraging, and winter use habitats from disturbance associated with road maintenance activities (e.g., storage or decommissioning roads), or indirectly by activity along roads.

Table 7. Maintenance Level and OHV Use Designation in the Old-Growth LUD

	Miles of Road		
Maintenance Level	No Action	Proposed Action	Alternative 3
1 (Stored)	16.7	3.4	22.8
2 (High clearance)[1/]	7.7	2.1	1.6
Decommissioned	0.0	9.0	0.0
Converted to trail	0.0	9.9	0.0
OHV Access	**No Action**	**Proposed Action**	**Alternative 3**
Open	24.4	4.6[2/]	4.6[2/]
Closed pending repairs	0	10.0	19.7
Closed	0	9.8	0.1

1/ High-clearance vehicles are vehicles with ground clearance greater than 5 inches.
Numbers are based on GIS analysis and may not be exact.
2/ Portions of open OML-2 and OML-3 roads providing access to adjacent developmental LUDs, such as Road #7500.

Water Quality

Affected Environment

Southeast Alaska is characterized by a wet maritime climate with annual precipitation of up to 90 inches per year. Temperatures range from an average of 32 degrees Fahrenheit in winter to an average of 60 degrees Fahrenheit in summer, with most rainfall occurring in the fall and winter months (USDA Forest Service 2003), often during storm events. Heavy rain on steep, forested slopes leads to extensive dissection of the landscape by streams, and an abundance of lakes and wetlands. This topography and climate also lead to frequent modification of the landscape by landslides, as described in the Soils and Geology Resources Report. The surface water hydrology of Southeast Alaska is characterized by high stream densities on relatively steep slopes. Approximately 3,912 miles, or approximately 61 percent, of the 6,435 stream miles in the project area are in high-gradient confined channels, and 515 miles, or 8 percent, of the stream miles are on floodplains.

The distribution of wetlands in the Tongass is dominated by palustrine and forested wetlands. Muskegs comprise approximately 40 percent of the wetland area of the Tongass (USDA Forest Service 2003). Wetlands contribute to water quality and quantity through flood flow moderation, groundwater recharge and discharge, and protection of water quality, largely by removing sediment.

Standards and Guidelines for soil and water in the Forest Plan include the requirement to "seek to avoid adverse impacts to soil and water resources (such as accelerated surface erosion or siltation of fish habitat) when conducting land use activities on wetlands, floodplains and riparian areas." This is done through proper road placement and maintenance as described in the Forest Plan, and following BMPs. Additionally, watershed analysis can be used to assess the current state of watersheds in order to minimize cumulative effects. Watershed analysis considers a variety of factors that would lead to degradation of soil and water resources.

The Unified Federal Policy for Watershed Management (February 2000) directed all agencies to develop consistent maps of watersheds at several scales to be used in future planning efforts. Tongass Watershed Associations represent 5th level hydrologic units in the

national system of watershed mapping. This led to the identification of 25 Watersheds of Concern (WOC) for the Tongass. Five 5th field watersheds (5th field HUCs) were identified as Watersheds of Concern in watershed analyses conducted as part of the Four Roads Analyses recently completed for the project area (Figure 27). These watersheds include Freshwater Bay (1901020304), Basket Bay (1901020308), Peril Strait (1901020309), Kruzof Island (1901020310), and Sitka Sound (1901020311). Refer to the Water Quality Resource Report for additional details and the location of watersheds.

Sediment Generation and Hydrology by Watershed

Water quality on the Tongass generally is dominated by the effects of sediment. Other water quality components (pH, dissolved oxygen, or contaminants) are less affected by road use in forested areas of the Tongass. As described in the Soils and Geology Resources Report, landslides and erosion are natural processes, but the amount of sediment and the size and frequency of landslides can be increased by timber harvest and the presence of roads (USDA Forest Service 2001).

There are approximately 529 miles of forest and unauthorized roads within the project area, approximately 371 miles of which are forest roads. The Forest Plan does not set a specific limitation for road density for water quality on the Forest. However, road density offers a method to identify watersheds where road density itself may be adversely affecting water quality through road erosion or changes to the hydrology of the watershed from the road network. The analysis shows that road densities are low in all watersheds in the project area, even when unauthorized roads are included. Road densities do not exceed 0.04 mile per square mile for any 5th field watershed in the project area. Therefore, road density itself is not a major concern for the project area. Road density by watershed is displayed in Table 2-1 in the Water Resources Report.

Wetland Roads

Approximately 75 miles of road cross wetlands, approximately 41 miles of which are in storage. Roads on wetlands occur in all watersheds, but most of the roads in wetland areas occur in the following watersheds: Moore Mountain (1901020307), Basket Bay (1901020308), Peril Strait (1901020309), Kruzof Island (19010203010), and Sitka Sound (1901020311).

Environmental Effects – Direct and Indirect Effects

The replacement of log stringer bridges with sturdier structures, such as metal bridges, as well as the maintenance of drainage structures and repair of road surface, are issues identified in recent road analyses that would affect water quality. Putting roads into storage or decommissioning roads to focus repair and maintenance efforts on those roads that are essential to the road network should generally improve water quality by reducing ongoing sources of sediment input and potential for slope or road bed failure from inadequately maintained or constructed roads.

The Clean Water Act (Sections 208 and 319) recognized the need for control strategies for nonpoint source pollution. Soil and water conservation practices (BMPs) were recognized as the primary control mechanisms for nonpoint source pollution on National Forest System lands. Following BMPs while doing road activities will allow us to improve from the current condition, and comply with Alaska Water Quality Standards as directed by the Clean Water Act.

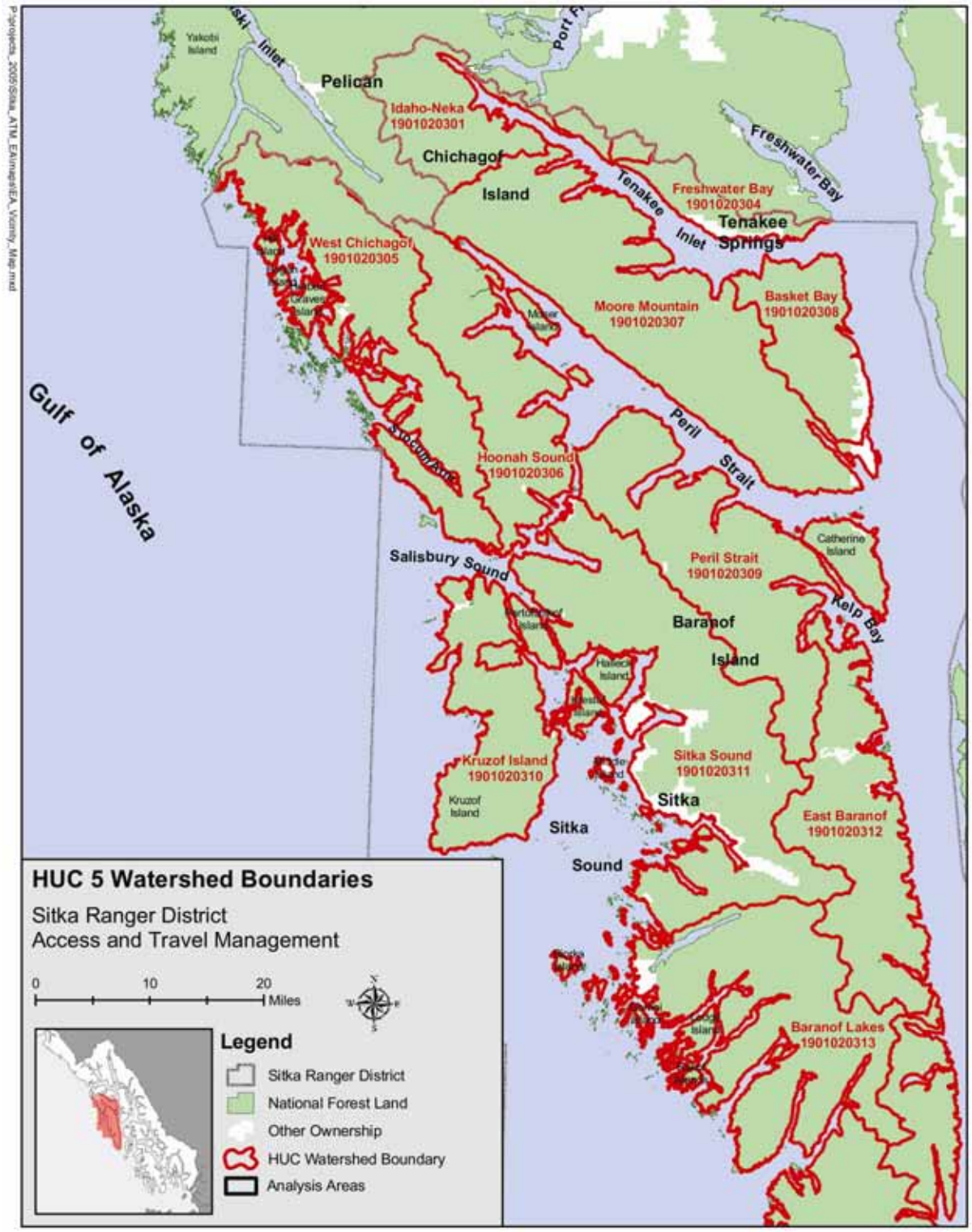

Figure 27. HUC 5 Watershed Boundaries

Both the Proposed Action and Alternative 3 would increase the miles of road in storage or decommissioned status over the current system. The No Action Alternative has 208 miles of road in storage. The Proposed Action would decommission 16.3 miles of road and have 229 miles of road in storage. Alternative 3 would not decommission any roads, but would have 271 miles of road in storage. The Proposed Action would close approximately 90 miles of road to OHV use and another 102 miles of road would be closed to OHV use until stream crossings can be repaired. Alternative 3 would close approximately 8 miles of road to OHV use and another 185 miles of roads would be closed to OHV use until stream crossings can be repaired. In total, both the Proposed Action and Alternative 3 would reduce the amount of roads and trails that currently are at risk for harming water quality.

Road Miles on Wetlands

Under the No Action Alternative, no changes to roads on wetlands would occur. Under the Proposed Action and Alternative 3, changes to the road network on wetlands would decrease the miles of road available for passenger vehicles in these areas and in the Proposed Action there would be a decrease in the miles available for OHVs, potentially improving water quality in wetland areas by reducing sediment delivery to the adjacent wetland. Under the Proposed Action, approximately 4.3 miles of roads crossing wetlands would be decommissioned and less than 0.1 mile would be placed in storage. Under Alternative 3, no roads would be decommissioned but approximately 11.9 miles would be placed in storage in the short-term.

Riparian Areas and Streams

Roads in riparian areas and road/stream crossings are discussed under the Fisheries section of this chapter.

Karst

There are no significant changes to road management with respect to roads on karst under any of the alternatives. Therefore, there are no significant differences among their direct or indirect effects to water quality related to karst. Roads will continue to have the same impacts on karst in all alternatives. Refer to the Soils and Geology Resources Report for a discussion of karst.

Fisheries

Affected Environment

Aquatic Habitat

There are approximately 1,892 miles of Class I streams, 1,743 miles of Class II streams, and 2,804 miles of Class III streams within the project area. Class I streams contain habitat for anadromous fish, Class II stream are habitat for resident fish, and Class III streams influence the water quality for fish-bearing streams.

Fish Species

Fisheries in the Ranger District contribute to the economic, recreational, and subsistence needs of area residents and visitors to the area. No fish species in the analysis area are federally listed as endangered or threatened; no fish species in the analysis area are on the Region 10 Sensitive Species List. The Management Indicator Species (MIS) for the Tongass National Forest are pink *(Oncorhynchus gorbuscha)* and coho salmon *(O. kisutch)*, Dolly Varden char *(Salvelinus malma)*, and cutthroat trout *(O. clarki)*. Streams within the analysis area that are noted for high production include: the Kadashan and Sitkoh rivers, and the

Saltery, Crab, Corner, Buckhorn, Kook, Basket, White Rock, and Sitkoh creeks (USDA Forest Service 1999b).

Anadromous fish need unrestricted access to available habitat in order for adults to reach spawning habitat. Barriers to spawning migration may cost extra energy to fish or delay spawning past the optimal timing. Juveniles need unrestricted access to rearing areas upstream and downstream of spawning areas. Barriers to fish passage can also affect resident fish, which move to access seasonal habitat and food resources. Blockages can reduce the genetic diversity of fish by only allowing the strongest fish to get above the blockage.

The Clean Water Act (Section 33 CFR 323.3(B)) states: "the design, construction, and maintenance of the road crossing shall not disrupt the migration or other movement of those species of aquatic life inhabiting the waterbody." Several Forest Service documents, including the Tongass Land Management Plan, require fish passage at all road crossings. Drainage and crossing structures that have failed or are in poor condition can cause erosion problems. Plugged culverts can cause water to run over the road, perched culverts can cause fill slope erosion, and crushed or non-functional culverts can also cause water to flow over the road.

Currently, 133 road/stream crossings of streams have been identified as not having adequate fish passage. Thirty-three of the 133 road/stream crossings of streams identified as not having adequate fish passage are on roads designated for storage. Culverts on roads placed in storage are removed or bypassed as part of ongoing maintenance. Blockages on the remaining 100 crossings would remain. These blockages would continue to affect at least one life stage of salmonids. Another 141 road/stream crossings that do provide fish passage would remain.

Sediment that reaches stream channels can degrade water quality, fish habitat, channel stability, and structure. Hicks et al. (1991) notes that excess fine sediment can reduce the survival of eggs in spawning gravel; however, the Washington Forest Practices Board (1994) suggests that a 100 percent increase in sediment is needed before significant effects on fish habitat can be observed. Short-term increases in localized conditions are outweighed by long-term decreases in chronic sediment delivery to streams. Localized effects of sediment input can be avoided by juvenile fish species, and actions that cause localized sediment input should be conducted outside of the spawning window. After the first high flow, the effects of short-term construction sediment will be gone from the stream. Long-term decreases in the overall delivery of fine sediment to streams will reduce degradation of fish habitat from chronic sediment delivery.

The majority of sediment delivery in the Ranger District is due to landslides and disturbance from human activities (USDA Forest Service 1997b). Of landslides surveyed, Swanston and Marion (1991) found that only 3 percent of landslides reach stream channels. Forest roads are the most significant source of surface erosion caused by human actions.

Salmon require specific stream gravel sizes for reproduction (Furniss et al. 1991). Sediment from roads can cement gravels together or cover them so that salmon are unable to dig their spawning beds (Furniss et al. 1991). Sediment decreases the habitat available to the aquatic macroinvertebrates on which young fish feed and can also reduce the flow of water to salmon

eggs laid in the substrate, causing eggs to suffocate (Furniss et al. 1991). Increased flows and sedimentation from roads can cause channel aggradations that can reduce the amount of stream habitat available for rearing juvenile salmon in a river.

Roads located within the ripiarian management area (RMA) have the highest probability of contributing sediment to streams due to their proximity to the stream channel. An analysis of the RMAs in the project area shows that approximately 72.1 miles of road are currently within RMAs for Class I, II, and III streams. Approximately 45.4 miles are currently in storage and not under active use by highway and high-clearance vehicles (see the Water Resources Report).

In summary, roads in RMAs have reduced the quality of fish habitat while culverts have impeded fish passage and reduced quality of fish habitat. These factors have impacted MIS fish species in the project area compared to natural conditions.

Environmental Effects – Direct and Indirect Effects

The direct and indirect effects of the alternatives on fish species and fish habitat can be compared using two factors: the number of road crossings of streams that are removed or repaired under each alternative, and the length of roads that are within RMAs for Class I, II, and III streams.

Fish Passage

Providing for fish passage at road crossings of streams is critical for fish movement and water quality. Improperly located or installed culverts, culverts that fail, or crossings that are not functional can restrict fish movement and decrease water quality through the input of sediment into stream systems. Culverts can block fish migration due to vertical barriers, debris blockages, and excessive water velocities (USDA Forest Service 2002b). Currently, there are 133 road crossings of streams that were identified as not having adequate fish passage for either adult or juvenile salmonids, or both. These ratings were established through road condition surveys (RCSs) and documented in road analyses that have been conducted in the project area.

Under the No Action Alternative, no additional culverts would be removed as part of this project (although 33 culverts are scheduled to be removed as part of ongoing maintenance). Existing fish passage blockages would continue to affect at least one life stage of MIS fish and other salmonids. Another 141 road/stream crossings that do provide fish passage would remain. While these crossings do not currently impede fish passage, there is a risk that storm damage to these culverts could create blockages in the future.

The Proposed Action and Alternative 3 remove or repair 32 and 33 crossings that lack adequate fish passage, respectively. The difference between the Proposed Action and Alternative 3 in this indicator is not meaningful. Both action alternatives would improve fish passage within the project area compared to the No Action Alternative. In addition, the Proposed Action and Alternative 3 would remove 57 and 59 crossings that do provide passage, respectively. While these crossings do not block fish passage, removing them reduces the risk that sediment will enter the water at these points. Both alternatives would reduce the risk of sediment entering streams compared to the No Action Alternative and will minimize the effect of roads on floodplain function by reducing the amount of sediment and restoring natural flow paths.

Roads in Riparian Management Areas (RMAs)

Changes in the condition and use of roads within the RMAs are another measure of potential direct and indirect effects to MIS fish and fish habitat associated with the action alternatives. No roads would be decommissioned, placed in storage, or converted to OHV trails as part of the No Action Alternative. Roads in RMAs that impact MIS fish and fish habitat would continue to do so.

Under the Proposed Action, approximately 3.5 miles of road would be decommissioned; approximately 2.7 miles of this is in a Class I stream buffer and approximately 0.7 is within a Class II stream buffer (see Tables 8 and 9, also refer to the Water Resources Report and Fisheries Resource Report). Decommissioning these roads would result in improvements to fish habitat because, over time, these roads would revegetate, and would no longer be a potential source of sediment that could end up in streams. Roads that are decommissioned would be closed to OHV use. Approximately 7.6 miles of road in RMAs would be converted to trails. These roads would be closed to passenger and high-clearance vehicles, as would roads placed in storage. Under the Proposed Action, an additional 17.4 miles of road in RMAs would be closed to OHV use compared to the No Action Alternative.

Table 8. Roads in RMAs by Maintenance Levels and OHV Use (miles)

Maintenance Level	Alternative 1	Alternative 2[1/]	Alternative 3[1/]
Storage (OML-1)	45.4	43.8	54.9
High-clearance vehicle (OML-2)	18.7	12.6	12.6
Passenger car, rough surface (OML-3)	7.5	7.5	7.5
Passenger car, smooth surface (OML-4)	0.5	0.6	0.6
Decommissioning	0	3.5	0
Convert to OHV trail	0	7.6	0
OHV Use[2/]			
Open	71.3	31.7	31.7
Closed	2.1	19.6	3.1
Closed for repair	0	24.3	40.8

1/ Under the Proposed Action and Alternative 3, approximately 2 miles of unauthorized road in RMAs would be added to the system.
2/ Includes existing OHV trails.
Numbers are based on GIS analysis and may not be exact. Numbers may not match other exactly due to rounding.

Table 9. Roads within Class I, II, and III RMAs by Maintenance Levels

Maintenance Level	Alternative 1	Alternative 2[1/]	Alternative 3[1/]
Class I Streams			
Storage (OML-1)	28.1	26.7	34.9
High-clearance vehicle (OML-2)	10.3	6.3	6.3
Passenger car, rough surface (OML-3)	4.0	4.0	4.0
Passenger car, smooth surface (OML-4)	0.1	1.3	0.1
Decommission	0	2.7	0
Class II Streams			
Storage (OML-1)	10.6	10.7	12.3
High-clearance vehicle (OML-2)	5.6	4.4	4.3
Passenger car, rough surface (OML-3)	2.4	2.4	2.4
Passenger car, smooth surface (OML-4)	0.3	0.3	0.3
Decommission	0	0.7	0
Class III Streams			
Storage (OML-1)	6.7	6.5	7.8
High-clearance vehicle (OML-2)	2.8	1.9	1.9
Passenger car, rough surface (OML-3)	1.1	1.1	1.1
Passenger car, smooth surface (OML-4)	0.1	0.1	0.1
Decommission	0	0.1	0

1/ Under the Proposed Action and Alternative 3, approximately 2 miles of unauthorized road in RMAs would be added to the system.
Numbers are based on GIS analysis and may not be exact. Numbers may not match other tables exactly due to rounding.

Another 24.3 miles of road in RMAs would be repaired before being re-opened for OHV use. The road surface would remain as a potential source of sediment to clog stream gravel. Culvert repair on these roads would likely have increased risk of sedimentation in the short term, but long-term stabilization of crossings would improve fish habitat. However, there would be a continued risk of sediment delivery to streams because the road surface would continue to be disturbed by OHV use. Use of any stream fords along these trails may also introduce sediment into aquatic habitat.

Under Alternative 3, approximately 9.4 miles of road in RMAs would be placed in storage, compared to the No Action Alternative. Approximately 6.8 of these miles are in Class I stream buffers, approximately 1.7 are within Class II stream buffers, and approximately 1.1 miles are within Class III stream buffers (see Tables 8 and 9, also refer to the Water Resources Report and Fisheries Resource Report). No roads would be decommissioned under Alternative 3; therefore, no long-term sources of sediment would be removed. Approximately 40.8 miles of road within RMAs would be repaired before being re-opened for OHV use, while an additional 1.0 mile would be closed to OHVs compared to the No Action Alternative. As with the Proposed Action, road culvert repair prior to OHV use would likely have increased risk of sedimentation in the short term, but long-term stabilization would improve fish habitat. However, continued use by OHVs on these roads

would increase the risk of sediment delivery to streams because the road surface would continue to be disturbed by vehicles. Use of any stream fords along these trails may also introduce sediment into aquatic habitat.

Both the Proposed Action and Alternative 3 would have beneficial effects for fish habitat and MIS fish species compared to the No Action Alternative because more road segments within the RMAs would be decommissioned, placed in storage, or repaired. The Proposed Action would have the greatest benefit for water quality, fish habitat, and MIS fish in terms of potential to reduce sediment sources over the long term, because it would decommission roads and would close more roads to OHV use than the No Action Alternative or Alternative 3.

Essential Fish Habitat

This assessment follows the agreement dated August 25, 2000 between the National Marine Fisheries Service and the Forest Service and includes: 1) a description of the proposed action; 2) an analysis of individual and cumulative effects of the action on Essential Fish Habitat (EFH), the managed species, and associated species such as major prey species, including affected life histories; 3) the Forest Service's views regarding effects on EFH; and 4) a discussion of proposed mitigation, if applicable.

The Proposed Action and alternatives to the Proposed Action are described in Chapter 2. The Soil, Water Quality, and Fisheries sections of this chapter contain specific discussions of road management by alternative and its effects on the aquatic environment. This analysis assumes fish habitat would benefit by removing crossing structures on Class I and II streams. The more crossings removed from these stream classes, the greater the long-term benefit, even though short-term sediment inputs would be expected during structure removal. Removing culverts reduces the possibility that culverts will become blocked by debris and fail during a storm or block fish passage until repaired.

EFH in this analysis includes all stream segments and lakes where commercially fished salmon species occur during any period of the year. In essence, this includes all Class I stream and lake habitat on the Ranger District. Anadromous species in the project area include coho, pink, chum, and sockeye salmon, steelhead, sea-run cutthroat, and Dolly Varden char. These species spawn, incubate, and rear primarily in the lower stream reaches. The juvenile coho, sockeye, steelhead, cutthroat, and Dolly Varden char feed predominantly on aquatic and terrestrial insects in freshwater. Juvenile chum and pink salmon feed in estuary and nearshore habitats.

Potential effects of roads on EFH would be degraded water quality and altered physical stream habitats. Removal of roads and culverts may cause small, localized reductions in water quality during implementation, but improve water quality thereafter. Degraded water quality results from increased water temperature or suspended sediment. Potential changes in physical habitat include filling pools with sediment and changing substrate composition. Pools are important for rearing and over-wintering of juvenile coho and other fish. Higher sediment (fines) levels in the substrate can reduce survival of fish eggs and change the assemblages of aquatic insects used by fish for food.

None of the alternatives would cause detectable effects (positive or negative) on the managed fish species because Forest Plan direction and applicable BMPs would be applied during

implementation of road closure, decommissioning, and maintenance activities, and the scale of the project area is small compared to EFH as a whole. Forest Plan direction and BMPs were developed through interagency negotiation and provide state-of-the-art protection of fish habitat.

Occasionally, Forest Plan direction and BMPs are not fully implemented or are not fully effective. Thus, there is always some risk to EFH when management actions are taken. The risk of this project is minimal. Stream crossing structures would be removed on closed or decommissioned roads, which would reduce their potential for failure during storms. This action would also remove structures that interfere with natural fish movement patterns. On the open roads, efforts to restore fish passage through improperly installed stream culverts would continue. Thus, all the action alternatives would benefit salmon streams by closing roads and removing stream crossing structures. Approximately 2, 20, or 3 miles of road in RMA are permanently closed in Alternatives 1, 2, and 3, respectively (Table 8). These restoration actions would reduce the current risk and negative effects of roads on EFH in the project area.

Public Safety

The Ranger District's Road Condition Survey (RCS) data and road analyses document more than 154 cases where log stringer bridges are deteriorating and in some instances have failed, particularly on road systems located on Baranof Island and Southeast Chichagof Island. Use of these bridges poses a hazard to public safety.

Unsafe bridges would be replaced as funds become available as part of ongoing road maintenance under all alternatives. Under the Proposed Action, approximately 44 miles of roads would no longer be open for passenger and high-clearance vehicle use, reducing the risk of injury. Similarly, approximately 48 miles of roads would no longer be open for passenger and high-clearance vehicle use under Alternative 3. Therefore, the number of bridges that would need replacement would be lower under the action alternatives than under the No Action Alternative.

Road Maintenance Costs

Forest roads in Southeast Alaska are some of the most expensive to build in the nation. The isolated nature of the roads and the large amounts of rainfall in the region are two of the main reasons for these high costs. Rock is required for road stabilization and surfacing and often requires blasting. Other factors include the higher costs of shipping and labor, numerous drainage structures, and logistics. Road construction costs can range from $120,000 to $300,000 per mile for forest roads and $60,000 to $120,000 per mile for temporary roads (USDA Forest Service 2002a, 2004a, 2004b, 2005c).

Road maintenance funding is decided through the annual appropriations process in Congress. Based on the current funding formulas for the Tongass, each maintenance level is assigned a different funding level. Currently the Tongass no does not receive funds for the maintenance of closed roads (OML-1 roads) (USDA Forest Service 2005d).

Roads analysis reports completed for the Ranger District identified the existing NFS road miles by maintenance level and the estimated available annual maintenance funding per mile. These data are summarized by analysis area and maintenance level in Table 10. This table

also identifies the estimated annual funding needs for each area and the difference between the estimated available annual funds and the estimated annual funding needs. These data indicate that the estimated available funds range from just 4 percent of the needed funds for Kruzof Island to 19 percent of the needed funds for Indian River.

As the data in Table 10 suggest, funding levels have historically fallen short of funding needs. Maintenance that has not been performed due to inadequate funding is deferred for a future period. Estimated deferred maintenance needs are presented by analysis area in Table 11 and range from $526,444 to $1.86 million depending upon analysis area.

Table 10. Estimated Annual Funding by Maintenance Level and Analysis Area

Analysis Area/ Maintenance Level	Miles	Available Funding ($/Mile)[1/]	Total Funding ($)	Estimated Funding Needs ($)	Difference between Funding and Estimated Needs ($)
Indian River					
OML-1	2.8	0	0		
OML-2	21.0	375	7,864		
Total	23.8		7,864	40,778	(32,914)
South Chichagof Island[2/]					
OML-1	74.5	0	0		
OML-2	50.0	362	18,113		
OML-3	34.1	507	17,296		
Total	158.6		35,409	504,310	(468,901)
Baranof Island[3/]					
OML-1	89.5	0	0		
OML-2	29.3	342	10,031		
OML-3	5.6	1,013	5,673		
OML-4	4.2	1,250	5,288		
Total	128.7		20,991	170,582	(149,591)
Kruzof Island					
OML-1	11.4	0	0		
OML-2	34.8	342	11,902		
Total	46.2		11,902	264,696	(252,794)

Notes:
1/ These data were compiled from the Roads Analysis reports for these areas. Data are for the years the reports were completed (2002 through 2005). The Indian River and Baranof Island reports note that starting in FY 2005 funds will no longer be provided for the maintenance of OML-1 roads. The reports for South Chichagof Island and Kruzof Island, completed in 2002 and early 2004, included funding estimates for OML-1 roads. These estimated $/mile are excluded from the above summary.
2/ Slightly different funding rates per mile were assigned to the False Island and Corner Bay road systems that comprise this analysis area. The rates presented here are the average of the two sets of rates.
3/ The Upper and Lower Baranof Island analysis areas are combined in this summary.
Sources: USDA Forest Service 2002a, 2004a, 2004b, 2005c

Table 11. Estimated Deferred Maintenance Totals by Analysis Area

	Indian River	Southeast Chichagof Island	Baranof Island[1/]	Kruzof Island
Deferred Maintenance Needs ($)	526,444	1,864,643	1,127,250	935,918

Note:
1/ The Upper and Lower Baranof Island analysis areas are combined in this summary.
Sources: USDA Forest Service 2002a, 2004a, 2004b, 2005c

Direct and Indirect Effects

There would be no changes in road maintenance costs under the No Action Alternative. Maintenance that has not been performed due to inadequate funding would continue to be deferred for a future period. Under the Proposed Action, approximately 44 miles of road that is currently open would be closed to passenger and high-clearance vehicles. Approximately 16 miles of these 44 miles would be decommissioned, 22 miles would be converted to trails, and the remainder would be stored. Under Alternative 3, no roads would be decommissioned or converted to trails, but approximately 48 miles would be stored and closed to passenger and high-clearance vehicles. The Proposed Action would result in the greatest savings because roads would be decommissioned and no additional maintenance would be required on these roads. Savings would also accrue on roads converted to trails or stored. However, the savings in maintenance dollars on those roads that would be converted to trails will be far more than the costs of trail maintenance. The Proposed Action would increase trail mileage from approximately 50 to roughly 76.5 miles.

Alternative 3 would result in somewhat lower savings than Alternative 2 because all roads would be stored and would require some maintenance, while roads decommissioned under Alternative 2 would not require any maintenance. Both of the action alternatives would result in greater long-term savings than the No Action Alternative, which would not result in any savings.

Southeast Alaska Transportation Plan Road Corridors

The Southeast Alaska Transportation Plan (SATP), proposed in 2004, included transportation and utility corridors designed to better link the communities of the Sitka Ranger District to the continental highway system. Individual scoping participants believed that certain roads proposed to be stored or decommissioned should remain open to preserve the potential corridors outlined in the SATP. Representatives of the State of Alaska Department of Transportation also requested that the Forest Service maintain and protect the roads aligning with these routes. Proposed actions within road corridor options described in the SATP (Road to Rodman, Road to Baranof Hot Springs, etc.) will be delayed. The corridors of the following roads would be retained indefinitely in case they are needed for future road development:

- Road #7500: Hoonah-Tenakee Inlet Road Corridor
- Road #7540: Kadashan Road Corridor
- Roads #7580 and #75802: Rodman Bay Road Corridor
- Roads #7583 and #75832: Rodman Bay Road Corridor

- Road #7579: Rodman Bay Road.
- Roads #7586 and #7587: Rodman Bay Road Corridor

Heritage Resources

There will be no effects on historic properties listed in or eligible for listing in the National Register of Historic Places because the proposed action reduces current levels of access and no ground disturbance is planned outside the current road prism. Heritage resource surveys of various intensities have been conducted in the analysis area in accordance with the Regional Inventory Strategy. By following the provisions of the Programmatic Agreement signed July 29, 2002 between the Forest Service, Alaska State Historic Preservation Officer, and the Advisory Council on Historic Preservation, this action complies with Section 106 of the National Historic Preservation Act.

Threatened, Endangered, and Sensitive Plants and Invasive Plant Species

No threatened or endangered plants occur in the vicinity of the project area; therefore, effects on threatened and endangered plants were not considered further (see Biological Evaluation in Planning Record). Seventeen vascular plant species designated by the Regional Forester as sensitive in the Alaska Region potentially occur within the project area (see Biological Evaluation in Planning Record). Two sensitive plant species, *Poa laxiflora* (Loose-flowered bluegrass) and *Romanzoffia unalaschcensis* (Unalaska mist-maid), have been documented or reported to occur in the vicinity of the road system, but are outside of the area affected directly by the proposed project. Species surveys in the project area were not performed specifically for the proposed project.

Under the No Action Alternative, continued degradation of roads and areas adjacent to roads due to inadequate maintenance would result in further erosion and lack of soil stability, which could negatively impact habitat for sensitive plants in these areas. Conversely, inadequate maintenance could also allow native vegetation to re-establish on roads and adjacent areas, and result in improved habitat conditions. Over time, invasive plant species are likely to increase at least minimally in disturbed areas along roads under the No Action Alternative.

The Proposed Action and Alternative 3 would result in ground disturbing activities on existing roads. Road management activities under all alternatives have the potential of negatively impacting sensitive species directly if these species occurred on the roadbed. However, use of this habitat by sensitive species is very unlikely, and consequently direct effects are not anticipated. Indirect effects would include modifications of habitat due to changes in vegetation canopy, hydrology, and introduction of noxious weeds and other non-native plant species. Under the Proposed Action and Alternative 3, indirect effects of road maintenance including stabilized vegetation and additional road closures would likely be beneficial over time. To a small extent these beneficial effects would be offset by the increased likelihood of noxious weeds associated with ground disturbance during road maintenance and road use along other roads. However, the Proposed Action substantially reduces the total amount of road open to OHV access, which would impart greater beneficial indirect impacts to sensitive plant species than the other alternatives. None of the alternatives is likely to add to cumulative effects on threatened, endangered, or sensitive

plants because existing roads are unlikely to support threatened, endangered, or sensitive plants (see Biological Evaluation in Planning Record for further analysis).

Coastal Zone Management Act and Alaska Coastal Zone Management (ACMP)
Under the Coastal Zone Management Act (CZMA) of 1972, as amended, USDA Forest Service activities and development projects that affect the coastal zone must be consistent to the maximum extent practicable with the enforceable policies of the Alaska Coastal Management Program (ACMP).

The USDA Forest Service has determined that the Sitka Access and Travel Management project has only limited or indirect impacts on the coastal zone, and that Forest Plan Standards and Guidelines and mitigation measures applicable to the Sitka Access and Travel Management project meet or exceed the requirements of the State of Alaska Forest Resources and Practices Act.

Direct impacts to the coastal zone are expected to be minimal: no new roads would be constructed under any of the alternatives, all proposed activities are to occur within the existing road footprint, and road maintenance activities follow the stipulations of the Act. The majority of the planned closures are outside of the coastal zone and do not block access to the coastal zone; thus most closures would have no direct impact on the coastal zone or on recreational access to the coastal zone. Closing roads and removing culverts and bridges on proposed roads will reduce motorized recreational opportunities for some users. The current road systems provides access to a low number of users due to the distance from communities and remoteness; while some motorized recreational users will be impacted by road management changes in Alternatives 2 and 3, the impacts are expected to be minimal. Additionally, all roads will remain open to foot traffic (including decommissioned roads), and a decision to close a road or put it into storage does not preclude a later decision to open a road.

The proposed actions are expected to provide some indirect long-term improvement to the coastal zone through the reduction of sediment in streams. In the short-term, replacement or removal of culverts and bridges on roads may temporarily increase turbidity in the affected stream but applicable Forest Plan Standards and Guidelines and mitigation measures would be applied and sediment would settle before reaching the coastal zone. This project is categorized as FAA (1) – the Forest Service will provide the State with either a consistency determination or a negative determination. The project is considered to be consistent to the maximum extent practicable with the enforceable policies of the Alaska Coastal Management Program. Copies of this determination and supporting information will be provided to the State of Alaska, Department of Program Management and Permitting, for review as required by the CZMA.

Cumulative Effects

Cumulative effects include the combination of past, present, and foreseeable management actions in the project area. The current condition of the planning area is the result of past actions and natural processes. These are summarized in the Affected Environment sections of this EA and, in more detail, in the resource reports and the Forest Plan. The

environmental effects of the action alternatives are described in the Environmental Effects sections for each issue, and in the resource reports. Past timber harvest and associated road building have resulted in expanded motorized access for OHV users and other recreational users. The results of past recreation management include the development of cabins, campgrounds, hiking trails, and other recreation facilities that are available within the project area. However, roads constructed for timber harvest have also resulted in additional sediment reaching streams that, in some cases, has degraded fish habitat.

Cumulative impacts of this project include changes in the overall level of road maintenance in the project area and the accessibility of the project area for public use and resource management. Disturbance related to this project is not expected to contribute substantially to cumulative effects in the project area because all activities associated with the Proposed Action or Alternative 3 would be temporary and localized, and would occur periodically as time and funding allow.

Under the No Action Alternative, 33 of the 133 road/stream crossings of streams identified as not having adequate fish passage are on roads designated for storage as part of ongoing road maintenance activities. Culverts on roads placed in storage are removed or bypassed as part of ongoing maintenance. Blockages on the remaining 100 crossings would remain under the No Action Alternative, 65 under the Proposed Action (Alternative 2), and 66 under Alternative 3. These blockages would continue to affect at least one life stage of salmonids until repaired. In early 2005 the Sitka Ranger District met with the state of Alaska's Department of Natural Resource's Office of Habitat Management and Permitting (OHMP) and discussed a process to address the identified inadequate stream crossings. These identified crossings will be field verified to determine the severity and what method would provide acceptable passage and the costs associated with that remedy. Concurrence from OHMP on the method of repair, if necessary, would be obtained before the identified stream crossing could be fixed.

Another 141 road/stream crossings that do provide fish passage would remain. While these crossings do not currently impede fish passage, there is a risk that storm damage to these culverts could create blockages in the future. Both action alternatives would result in fewer road/stream crossings (84 and 82, respectively) that do provide fish passage remaining on roads open to highway and high-clearance vehicle traffic. Table 12 displays cumulative effects measures of alternatives for MIS fish species and fish habitat. The Proposed Action would have the greatest benefit for water quality, fish habitat and MIS fish in terms of potential to reduce sediment sources and removal of culverts that impeded fish passage, because it would decommission roads and would close more roads to OHV use than the No Action Alternative and Alternative 3.

Table 12. Cumulative Effects for MIS Fish Species

Alternative	Fish Passage Blockages Removed	Miles of Road Decommissioned in RMAs[1/]	Miles of Open Road in RMAs[1/]
No Action	33	0	27.6
Alternative 2	68	3.5	20.7
Alternative 3	67	0	20.7

1/ Includes roads open to passenger and high clearance vehicles
Numbers represent Class I, II and III RMAs. Numbers are based on GIS and may not be exact.

In general, any increase in road miles carries an increased risk for fish habitat from surface erosion of roads and cutbanks, increases in the frequency of landslides by destabilizing soils, changes in hydrology, increases in soil compaction, and increases in sediment. The actual impacts of present and foreseeable projects would depend on the level of planning to locate the roads and construct them in a way that creates a minimal impact to water quality and hydrology. Additionally, the impacts to hydrology and water quality are dependent on the level of maintenance and use given to roads.

Reconstruction of Road #7576, the Harbor Mountain Road (4.7 miles), is a foreseeable action in the future, but there are no road miles within RMAs and no road crossings in those sections of road. The project also includes the construction of new recreation facilities, including two ski trails and new viewing areas. Potential cumulative effects could include temporary disruptions to recreation activities on the Ranger District due to noise and temporary access limitations, such as the Harbor Mountain Project improvements and/or the Finger Mountain Timber Sales. This would also be the case if the proposed reconstruction of the Lake Eva Trail and/or extension of the Sitka Cross Trail were to take place at the same time as the Sitka Travel and Access Management project. These cumulative impacts would, however, be expected to be of short duration.

In 2005, the Duffield Peninsula Fish Habitat and Passage Improvement project removed seven culverts that were affecting fish habitat. This will lead to an overall improvement in habitat access for MIS fish and other fish species. In the future, this project is anticipated to remove 48 additional culverts that could significantly improve water quality and fish passage in the area.

An EIS has been completed for the Finger Mountain project; however, no sales have been sold. Effects on fish would primarily be due to the construction of 9.8 miles of new roads, 10.9 miles of temporary roads, and the reconstruction of 13.8 miles of existing roads. This project also includes an opportunity to improve culverts and drainage on 13.8 miles of existing roads that would be reconstructed. The EIS also includes a Forest Plan Amendment expanding Old Growth Reserves in the project area by several hundred acres.

The 2004 Southeast Alaska Transportation Plan identifies a number of road corridors within the project area where improvements may take place in the future, including the Hoonah-Tenakee Inlet Road Corridor (Road #7500), the Kadashan Road Corridor (Road #7540), and the Rodman Bay Road Corridor (Roads #7580, #7583, #75832, #7579, #7586, and #7587), but no firm plans have been identified to date. No firm, foreseeable actions have been identified, just the opportunity that roads may be extended to link road systems in the future.

CHAPTER 4 CONSULTATION AND COORDINATION

The Forest Service consulted the following federal, state, and local agencies; and tribes during the development of this EA:

Federal, State, and Local Agencies

U.S. Fish and Wildlife Service
U.S. Army Corps of Engineers
National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service
Alaska Department of Fish and Game
Alaska Department of Transportation
Alaska Department of Natural Resources
City and Borough of Sitka, Office of Government Relations

Tribes and Native Corporations

Sitka Tribe of Alaska
Shee Atika Incorporated
Sealaska Corporation
Angoon Community Association

CHAPTER 5 LITERATURE CITED

ADF&G (Alaska Department of Fish and Game). 2004. 2003 Deer Hunter Survey. Division of Wildlife Conservation. Accessed at: http://www.wildlife.alaska.gov/pubs/techpubs/mgt_rpts/dhs2003/dhs2003.cfm

ADF&G. 2005. Subsistence Resources: Community Profile Database. Accessed at: http://www.subsistence.adfg.state.ak.us/geninfo/publctns/cpdb.cfm:

Alaska Natural History Association. 2002. Sitka Trails. Alaska Natural History Association. Anchorage, Alaska.

Furniss et al. 1991. Road Construction and Maintenance. American Fisheries Society Special Publication, 19:297-323.

Hicks et al. 1991. Responses of Salmonids to Habitat Changes. American Fisheries Society Special Publication 19, p483-517.

Swanston and Marion. 1991. Landslide Responses to Timber Harvest in Southeast Alaska. *In* Proceedings of the Fifth Federal Interagency Sedimentation Conference, March 18-21, 1991, Lan, S.S. and Huang Kuo, Y. (editors), Las Vegas, NV, p10-49 to 10-56.

USDA Forest Service. 1996. Soil and Water Conservation Handbook—Best Management Practices. R-10 Amendment 2509.22-96-1. Alaska Region. October.

USDA Forest Service. 1997a. Tongass National Forest Land and Resource Management Plan. Alaska Region, R10-MB 338-CD.

USDA Forest Service. 1997b. Final Environmental Impact Statement, Tongass National Forest Land Management Plan Revision. Alaska.

USDA Forest Service. 1999a. Roads Analysis: Informing Decisions about Managing the National Forest Transportation System. Misc. Rep. FS-643. Washington D.C.: U.S. Department of Agriculture, Forest Service. 222 p.

USDA Forest Service. 1999b. Southeast Chichagof Landscape Analysis. Tongass National Forest. Technical Report R10-TP-68, Sitka, Alaska.

USDA Forest Service. 2002a. Southeast Chichagof Roads Analysis (SCIRAA). Tongass National Forest, Sitka Ranger District.

USDA Forest Service. 2002b. A Summary of Technical Considerations to Minimize the Blockage of Fish at Culverts on the National Forests of Alaska.

USDA Forest Service. 2003. Final Supplemental Environmental Impact Statement: Roadless Area Evaluation for Wilderness Recommendations, Tongass Land Management Plan Revision. Forest Service R10-MB-481b. Alaska.

USDA Forest Service. 2004a. Baranof Island Roads Analysis (BAR-RAP). Tongass National Forest, Sitka Ranger District. December 10, 2004.

USDA Forest Service. 2004b. Kruzof Island Roads Analysis (K-RAP). Tongass National Forest, Sitka Ranger District. February.

USDA Forest Service. 2004c. Outfitter/Guide Resource Report, Sitka Ranger District Roads and Trails. Tongass National Forest, Sitka Ranger District. November 10, 2004.

USDA Forest Service. 2004d. 2004 Cabin Use for the Sitka Ranger District. Tongass National Forest, Sitka Ranger District.

USDA Forest Service. 2004e. Moore Mountain-Basket Bay Landscape Assessment. U.S. Department of Agriculture, Forest Service, Tongass National Forest, Chatam Area, Sitka Ranger District, Sitka, Alaska.

USDA Forest Service. 2005a. Sitka Access and Travel Management Environmental Assessment. Identification of Issues and Recommendations.

USDA Forest Service. 2005b. Sitka Area-Trails Accessible from the Sitka Road System; Trails Accessible by Boat or Floatplane only. Updated April 4, 2001. Accessed at http://www.fs.fed.us/r10/tongass/recreation.

USDA Forest Service. 2005c. Indian River Roads Analysis. Tongass National Forest, Sitka Ranger District. December.

USDA Forest Service. 2005d. Sitka Ranger District Road Condition Survey. USDA Forest Service, Tongass National Forest, Sitka Ranger District, Alaska. June.

Washington State Forest Practices Board. 1994. Board Manual: Standard Methodology for Conducting Watershed Analysis, Version 2.1. Washington Forest Practices Board, November, Olympia, Washington.

APPENDIX A

DETAILED PRIORITIES FOR PASSENGER VEHICLE AND OFF-HIGHWAY VEHICLE ACCESS

Appendix A
Detailed Project Priorities for Passenger Vehicle and Off-Highway Vehicle Access

Table A-1 lists the objective maintenance level for roads that are affected by the Proposed Action or Alternative 3 for each analysis area. Table A-2 describes OHV access and the priority list for the evaluation and resolution of fish stream road crossings on existing district roads for each analysis area, which is relevant to OHV access under the alternatives. Table A-3 lists INFRA information for each unauthorized road converted to a forest road under the action alternatives. (See definitions at beginning of document)

Road miles on the following tables are derived from the INFRA database and are rounded. Road miles may vary slightly from the road miles in other tables in the EA that are based on GIS analysis.

Priorities for Road Storage Activities

Several factors would be used to develop a priority work list to convert roads that are currently available for passenger vehicle access into roads that would be stored, decommissioned, or designated as OHV trails, these include:

- intersection of roadways with Class 1 or 2 streams;
- presence of culverts that block fish passage;
- intersection of roadways with Class 3 or 4 hazardous soils;
- intersection of roadways with riparian areas;
- intersection of roadways with wetlands soils;
- presence of cut-slope erosion along the roadway;
- presence of landslides along the roadway;
- presence of road-surface erosion; and
- presence of deficient bridges.
- subsistence opportunities
- recreation opportunities

Table A-1a. Objective Maintenance Level by Alternative—Indian River

Road Number	Total Road Mileage	Affected Segment Mileage	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3
Indian River					
7500 (MP 11.9 to 14.0)	14.0	2.1	High Clearance	Stored	Stored
75001	0.7	0.7	Stored	Decommissioned	Stored
75002	0.2	0.2	Unauthorized	Stored	Stored
7501	0.6	0.6	High Clearance	Stored	Stored

Table A-1b. Objective Maintenance Level by Alternative —Southeast Chichagof Island

Road Number	Total Road Mileage	Affected Segment Mileage	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3
False Island					
7544 (MP 4.9 to 8.2)	8.2	3.3	Stored	OHV Trail	Stored
7545	2.5	2.5	Stored	Decommissioned	Stored
Inbetween					
7561	0.4	0.4	High Clearance	Stored	Stored
75619	0.1	0.1	High Clearance	Stored	Stored
7568	2.7	2.7	High Clearance	Stored	Stored
75682	0.4	0.4	High Clearance	Stored	Stored
75683	0.3	0.3	High Clearance	Stored	Stored

Table A-1c. Objective Maintenance Level by Alternative —Baranof Island

Road Number	Total Road Mileage	Affected Segment Mileage	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3
Hanus Bay					
7720 (MP 1.3 to 3.1)	3.1	1.8	Unauthorized	Stored	Stored
Appleton Cove					
7722E (MP 0 to 3.4)	5.7	3.4	Stored	High Clearance	Stored
7722E (MP 3.4 to 5.7)	5.3	1.9	Unauthorized	Stored	Stored
7723	1.3	0.9	Unauthorized	Stored	Stored
7729	1.9	1.9	Unauthorized	Stored	Stored
St. John the Baptist					
7583 (MP 0 to 1.6)	6.8	1.6	High Clearance	Stored	Stored
7583 MP 1.6 to 6.0	6.8	4.5	Stored	OHV Trail	Stored
75832	1.7	1.7	High Clearance	OHV Trail	Stored
7584 (MP 0 to 3.1)	3.9	3.1	High Clearance	OHV Trail	Stored
7584 (MP 3.2 to 3.9)	3.9	0.7	Stored	Decommissioned	Stored
75842	0.8	0.8	High Clearance	OHV Trail	Stored
Kizhuchia					
7582	5.6	5.6	High Clearance	Stored	Stored
75821 (MP 1.48 to 1.53)	1.5	.05	Stored	Decommissioned	Stored
Fish Bay					
7580	3.7	3.7	Stored	Decommissioned	Stored
75801	1.2	1.2	Stored	Decommissioned	Stored
75802	0.9	0.9	Stored	Decommissioned	Stored
75803	1.0	1.0	Stored	Decommissioned	Stored
Katlian					
7579	1.8	1.82	Unauthorized	Stored	Stored
75790	1.2	1.2	Stored	OHV Trail	Stored
75791 (MP 1.7 to MP 4.9)	4.9	3.2	Stored	Decommissioned	Stored
75792	1.7	1.7	Stored	Decommissioned	Stored
75797	7.2	7.2	Stored	OHV Trail	Stored
Sitka Town					
75111	<0.1	<0.1	Unauthorized	Passenger Car	Passenger Car
75131	<0.1	<0.1	Unauthorized	Passenger Car	Passenger Car
75132	<0.1	<0.1	Unauthorized	Passenger Car	Passenger Car
7515	0.1	0.1	Unauthorized	Passenger Car	Passenger Car
7517	<0.1	<0.1	Unauthorized	Passenger Car	Passenger Car
Sitka: Starrigavan					
75811	<0.1	<0.1	Unauthorized	Passenger Car	Passenger Car
75812	<0.1	<0.1	Unauthorized	Passenger Car	Passenger Car
Sitka: Trailer Court					
75981	<0.1	<0.1	Unauthorized	Passenger Car	Passenger Car
Nakwasina					
	4.5	4.5	Unauthorized	OHV Trail	Unauthorized

Table A-1d. Objective Maintenance Level by Alternative—Kruzof Island

Road Number	Total Road Mileage	Affected Segment Mileage	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3
Mud Bay					
7590 (MP 5.3 to 8.9)	8.9	3.6	High Clearance	Stored	Stored
759001	<0.1	<0.1	Unauthorized	Stored	Stored
759002Q	0.2	0.2	Unauthorized	Stored	Stored
759003Q	<0.1	<0.1	Unauthorized	Stored	Stored
75901	1.0	1.0	High Clearance	Stored	Stored
759021Q	0.3	0.3	Unauthorized	Stored	Stored
759022	0.2	0.2	Unauthorized	Stored	Stored
759031	0.4	0.4	Unauthorized	Stored	Stored
75904	1.1	1.1	Unauthorized	Stored	Stored
75905	0.1	0.1	Unauthorized	Stored	Stored
75906	0.1	0.1	Unauthorized	Stored	Stored
7591	8.2	8.2	High Clearance	Stored	Stored
75911	1.4	1.4	High Clearance	Stored	Stored
75912	1.4	1.4	High Clearance	Stored	Stored
759121Q	<0.1	<0.1	Unauthorized	Stored	Stored
759122	0.5	0.5	Unauthorized	Stored	Stored
75913	2.2	2.2	High Clearance	Stored	Stored
759141Q	<0.1	<0.1	Unauthorized	Stored	Stored
75915	0.6	0.6	Unauthorized	Stored	Stored
75916	0.5	0.5	Unauthorized	Stored	Stored
7592	3.5	3.5	High Clearance	Stored	Stored
759201Q	<0.1	<0.1	Unauthorized	Stored	Stored
759202Q	<0.1	<0.1	Unauthorized	Stored	Stored
759203	<0.1	<0.1	Unauthorized	Stored	Stored
759221Q	<0.1	<0.1	Unauthorized	Stored	Stored
759222Q	<0.1	<0.1	Unauthorized	Stored	Stored
75923	0.8	0.8	Unauthorized	Stored	Stored
759231Q	<0.1	<0.1	Unauthorized	Stored	Stored
759601	<0.1	<0.1	Unauthorized	Stored	Stored
75961 (MP .5 to 1.1)	1.1	0.6	Stored	Decommissioned	Stored
Eagle Creek					
7595	8.3	8.3	High Clearance	Stored	Stored
759501Q	<0.1	<0.1	Unauthorized	Stored	Stored
759511	<0.1	<0.1	Unauthorized	Stored	Stored

Table A-2a. OHV Access by Alternative—Indian River

Road Number	Total Road Mileage	Affected Segment Mileage	Alternative 1 No Action	Alternative 2 Proposed Action	Alternative 3	Alternative 3 Priority
Indian River						
7500 (MP 11.9 to 14.5)	14.5	2.1	Open	Closed Pending Repairs	Closed Pending Repairs	40
75001	0.6	0.6	Open	Closed	Closed Pending Repairs	46
75004	0.6	0.6	Open	Closed	Closed Pending Repairs	47
75005	0.4	0.4	Open	Closed Pending Repairs	Closed Pending Repairs	41
75006	0.3	0.3	Open	Closed Pending Repairs	Closed Pending Repairs	42
7501	0.6	0.6	Open	Closed Pending Repairs	Closed Pending Repairs	43
75011	0.3	0.3	Open	Closed Pending Repairs	Closed Pending Repairs	44
75012	0.3	0.3	Open	Closed Pending Repairs	Closed Pending Repairs	45

Table A-2b. OHV Access by Alternative—Southeast Chichagof Island

Road Number	Total Road Mileage	Affected Segment Mileage	Alternative 1 No Action	Alternative 2 Proposed Action	Alternative 3	Alternative 3 Priority
False Island						
75401	2.8	2.8	Open	Closed Pending Repairs	Closed Pending Repairs	28
7544 (MP 3.8 to 8.2)	8.2	4.4	Open	Closed Pending Repairs	Closed Pending Repairs	1
75441	1.6	1.6	Open	Closed Pending Repairs	Closed Pending Repairs	2
75443	3.0	3.0	Open	Closed	Closed Pending Repairs	66
754431	0.5	0.5	Open	Closed	Closed Pending Repairs	67
7545	2.5	2.5	Open	Closed	Closed Pending Repairs	71
75461	0.6	0.6	Open	Closed	Closed	NA
7547	2.9	1.3	Open	Closed	Closed Pending Repairs	70
7552	8.5	8.5	Open	Closed	Closed Pending Repairs	68
75522	0.3	0.3	Open	Closed	Closed Pending Repairs	69
7553	4.8	4.8	Open	Closed Pending Repairs	Closed Pending Repairs	12
75531	2.6	2.6	Open	Closed Pending Repairs	Closed Pending Repairs	13
755311	0.7	0.7	Open	Closed Pending Repairs	Closed Pending Repairs	17
755312	0.6	0.6	Open	Closed Pending Repairs	Closed Pending Repairs	18
75532	0.4	0.4	Open	Closed Pending Repairs	Closed Pending Repairs	14
75533	1.6	1.6	Open	Closed Pending Repairs	Closed Pending Repairs	15
75534	0.2	0.2	Open	Closed Pending Repairs	Closed Pending Repairs	16
Corner Bay						
75409 (MP 0.1 to 0.9)	0.9	0.8	Open	Closed	Closed Pending Repairs	75
7541 (MP 0.8 to 1.9)	1.9	1.1	Open	Closed	Closed Pending Repairs	76
75410	1.5	1.5	Open	Closed	Closed Pending Repairs	77
7543 (MP 1.5 to 1.7)	1.7	0.2	Open	Closed Pending Repairs	Closed Pending Repairs	72
7559	1.1	1.1	Open	Closed	Closed Pending Repairs	73
75591	0.4	0.4	Open	Closed	Closed Pending Repairs	74
7621 (MP 1.1 to 1.6)	1.6	0.5	Open	Closed	Closed Pending Repairs	78

Table A-2b. OHV Access by Alternative—Southeast Chichagof Island

Road Number	Total Road Mileage	Affected Segment Mileage	Alternative 1 No Action	Alternative 2 Proposed Action	Alternative 3	Alternative 3 Priority
7623	0.6	0.6	Open	Closed	Closed Pending Repairs	79
7624 (MP 0.7 to 2.6)	2.6	1.9	Open	Closed	Closed Pending Repairs	80
76241	0.6	0.6	Open	Closed	Closed Pending Repairs	81
Inbetween						
7561	0.4	0.4	Open	Closed	Closed Pending Repairs	82
75619	0.1	0.1	Open	Closed	Closed Pending Repairs	84
7568	2.7	2.7	Open	Closed	Closed Pending Repairs	83
75682	0.4	0.4	Open	Closed	Closed Pending Repairs	85
75683	0.3	0.3	Open	Closed	Closed Pending Repairs	86
Crab Bay						
7560E	2.1	2.1	Open	Closed Pending Repairs	Closed Pending Repairs	48
7560W	4.6	4.6	Open	Closed Pending Repairs	Closed Pending Repairs	49
75601	0.7	0.7	Open	Closed Pending Repairs	Closed Pending Repairs	50
75602	0.3	0.3	Open	Closed Pending Repairs	Closed Pending Repairs	51
75603	0.4	0.4	Open	Closed Pending Repairs	Closed Pending Repairs	52
75604	0.2	0.2	Open	Closed Pending Repairs	Closed Pending Repairs	53
75605	0.4	0.4	Open	Closed Pending Repairs	Closed Pending Repairs	54
7565	2.5	2.5	Open	Closed Pending Repairs	Closed Pending Repairs	55
75651	0.9	0.9	Open	Closed Pending Repairs	Closed Pending Repairs	56
75652	0.3	0.3	Open	Closed Pending Repairs	Closed Pending Repairs	57
75653	0.1	0.1	Open	Closed Pending Repairs	Closed Pending Repairs	58
7566	0.6	0.6	Open	Closed Pending Repairs	Closed Pending Repairs	59
Oly Creek						
7554	3.0	3.0	Open	Closed	Closed Pending Repairs	93
7593	1.5	1.5	Open	Closed	Closed Pending Repairs	94

Table A-2c. OHV Access by Alternative—Baranof Island

Road Number	Total Road Mileage	Affected Segment Mileage	Alternative 1 No Action	Alternative 2 Proposed Action	Alternative 3	Alternative 3 Priority
Hanus Bay						
7532 (MP 1.1 to 2.9)	2.9	1.8	Open	Closed Pending Repairs	Closed Pending Repairs	39
7533 (MP 1.2 to 2.1)	2.1	0.9	Open	Closed Pending Repairs	Closed Pending Repairs	37
75331	0.7	0.7	Open	Closed Pending Repairs	Closed Pending Repairs	38
7701(MP 1.3 to 2.0)	2.0	0.7	Open	Closed Pending Repairs	Closed Pending Repairs	36
7730	1.9	1.9	Open	Closed Pending Repairs	Closed Pending Repairs	35
Appleton Cove						
7722E (MP 3.4 to 5.7)	5.7	2.3	Open	Closed	Closed Pending Repairs	62
7588 (MP 0.4 to 3.9)	3.9	3.5	Open	Closed Pending Repairs	Closed Pending Repairs	19
75881	0.4	0.4	Open	Closed	Closed Pending Repairs	60
75882	1.2	1.2	Open	Closed	Closed Pending Repairs	61
75883	0.3	0.3	Open	Closed	Closed Pending Repairs	63
Saook						
7539	1.9	1.9	Open	Closed	Closed Pending Repairs	64
St. John the Baptist						
7583	6.8	6.8	Open	Closed Pending Repairs	Closed Pending Repairs	6
75831	1.3	1.3	Open	Closed Pending Repairs	Closed Pending Repairs	8
75832	1.7	1.7	Open	Closed Pending Repairs	Closed Pending Repairs	9
7584	3.9	3.9	Open	Closed Pending Repairs	Closed Pending Repairs	7
75842	0.8	0.8	Open	Closed	Closed Pending Repairs	11
7585	1.9	1.9	Open	Closed Pending Repairs	Closed Pending Repairs	10
Rodman Bay						
7586	10.0	10.0	Open	Closed	Closed Pending Repairs	91
7587	9.1	9.1	Open	Closed	Closed Pending Repairs	92

Table A-2c. OHV Access by Alternative—Baranof Island

Road Number	Total Road Mileage	Affected Segment Mileage	Alternative 1 No Action	Alternative 2 Proposed Action	Alternative 3	Alternative 3 Priority
Fish Bay						
7580	3.7	3.7	Open	Closed	Closed Pending Repairs	87
75801	1.2	1.2	Open	Closed	Closed Pending Repairs	88
75802	0.9	0.9	Open	Closed	Closed Pending Repairs	89
75803	1.0	1.0	Open	Closed	Closed Pending Repairs	90
Kizhuchia						
7582	5.6	5.6	Closed	Closed Pending Repairs/ROW	Closed Pending Repairs/ROW	29
75821	1.5	1.5	Closed	Closed Pending Repairs/ROW	Closed Pending Repairs/ROW	30
75822	0.6	0.6	Closed	Closed Pending Repairs/ROW	Closed Pending Repairs/ROW	31
Noxon						
7574	3.2	3.2	Open	Closed Pending Repairs	Closed Pending Repairs	33
Nakwasina						
	4.5	4.5	Unauthorized	Closed Pending Repairs	Unauthorized	34
Lisa Creek						
7558	2.6	2.6	Open	Closed	Closed Pending Repairs	65
Camp Coogan (Decommissioned in 2005)						
7594	2.1	2.1	Closed	Closed	Closed	NA
Katlian						
7579 (MP 0.0 to 0.5)	1.9	0.5	Open	Closed Pending Repairs	Closed Pending Repairs	4
7579 (MP 0.5 to 1.8)	1.9	1.4	Open	Closed	Closed	NA
75790	1.2	1.2	Open	Closed Pending Repairs	Closed Pending Repairs	32
75791	3.2	3.2	Open	Closed	Closed	NA
75792	1.7	1.7	Open	Closed	Closed	NA
75797	7.2	7.2	Open	Closed Pending Repairs	Closed Pending Repairs	5
Sitka: Starrigavan						
Trail			Open	Open	Open	NA
Sitka: Harbor Mountain						
7576	5.6	5.6	Open Seasonally	Open Seasonally	Open Seasonally	
Kelp Bay						
7535	4.3	4.3	Open	Closed	Closed Pending Repairs	96

Table A-2d. OHV Access by Alternative—Kruzof Island

Road Number	Total Road Mileage	Affected Segment Mileage	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3	Alternative 3 Priority
Mud Bay						
75903	1.6	1.6	Open	Closed	Closed Pending Repairs	24
75911	1.4	1.4	Open	Closed Pending Repairs	Closed Pending Repairs	2
75912	1.4	1.4	Open	Closed Pending Repairs	Closed Pending Repairs	3
75913	2.2	2.2	Open	Closed Pending Repairs	Closed Pending Repairs	20
7596 (MP 0.4 to 1.0)	1.0	0.6	Open	Closed Pending Repairs	Closed Pending Repairs	21
75961 (MP 0 to MP 0.5)	1.1	0.5	Open	Closed Pending Repairs	Closed Pending Repairs	22
75961 (MP 0.5 to 1.1)	1.1	0.6	Open	Closed	Closed Pending Repairs	23
Eagle Creek						
7595	8.3	8.3	Open	Closed Pending Repairs	Closed Pending Repairs	25
75951	1.3	1.3	Open	Closed Pending Repairs	Closed Pending Repairs	26
75952	0.8	0.8	Open	Closed Pending Repairs	Closed Pending Repairs	27

Table A-3. Unauthorized Roads Converted to Forest Roads Under the Proposed Action

Recommend Road #	Route Name	Begin Termini	End Termini	Beginning Milepost	Ending Milepost	Segment Length	Jurisdiction	System
75002		Road 7500	E0P	0.00	0.18	0.18	FS	NFRS
7720		Road 7531	E0P	1.30	3.06	1.76	FS	NFRS
7722E		Road 7722E	E0P	3.36	5.25	1.89	FS	NFRS
7723		Road 7722E	E0P	0.35	1.26	0.91	FS	NFRS
7729		7729	E0P	0.03	1.92	1.89	FS	NFRS
7579			E0P	0.00	1.90	1.90	FS	NFRS
75111		Road 7511	E0P	0.00	0.05	0.05	FS	NFRS
75131		Road 7513	E0P	0.00	0.06	0.06	FS	NFRS
75132		Road 7513	E0P	0.00	0.09	0.09	FS	NFRS
7515		FH11	E0P	0.00	0.14	0.14	FS	NFRS
7517		FH11	E0P	0.00	0.05	0.05	FS	NFRS
75811		Road 7581	E0P	0.00	0.02	0.02	FS	NFRS
75812		Road 7581	E0P	0.00	0.02	0.02	FS	NFRS
75981		Kramer Ave.	E0P	0.00	0.04	0.04	FS	NFRS
759001		Road 7590	E0P	0.00	0.04	0.04	FS	NFRS
759002Q		Road 7590	E0P	0.00	0.17	0.17	FS	NFRS
759003Q		Road 7590	E0P	0.00	0.05	0.05	FS	NFRS
759021Q		Road 75901	E0P	0.00	0.26	0.26	FS	NFRS
759022		Road 75902	E0P	0.00	0.15	0.15	FS	NFRS
759031		Road 75903	E0P	0.00	0.43	0.43	FS	NFRS
75904		Road 7590	E0P	0.00	1.08	1.08	FS	NFRS
75905		Road 7590	E0P	0.00	0.10	0.10	FS	NFRS
75906		Road 7590	E0P	0.00	0.10	0.10	FS	NFRS
759121Q		Road 75912	E0P	0.00	0.05	0.05	FS	NFRS
759122		Road 75912	E0P	0.00	0.48	0.48	FS	NFRS
759141Q		Road 75914	E0P	0.00	0.07	0.07	FS	NFRS
75915		Road 7591	E0P	0.00	0.56	0.56	FS	NFRS
75916		Road 7591	E0P	0.00	0.50	0.50	FS	NFRS
759201Q		Road 7592	E0P	0.00	0.07	0.07	FS	NFRS
759202Q		Road 7592	E0P	0.00	0.04	0.04	FS	NFRS
759203		Road 7592	E0P	0.00	0.04	0.04	FS	NFRS
759221Q		Road 75922	E0P	0.00	0.04	0.04	FS	NFRS
759222Q		Road 75922	E0P	0.00	0.05	0.05	FS	NFRS
75923		Road 7592	E0P	0.00	0.75	0.75	FS	NFRS
759231Q		Road 75823	E0P	0.00	0.06	0.06	FS	NFRS
759601		Road 7590	E0P	0.00	0.09	0.09	FS	NFRS
759501Q		Road 7595	E0P	0.00	0.03	0.03	FS	NFRS
759511		75951	E0P	0.00	0.04	0.04	FS	NFRS

Table A-3. Unauthorized Roads Converted to Forest Roads Under the Proposed Action (continued)

Recommend Road #	Route Status	Objective Maintenance Level	Operational Maintenance Level	Functional Class	Administration Organization	Surface Type	Lanes	Primary Maintainer
75002	Existing	1	1	Local	100531	IMP	1	FS
7720	Existing	1	1	Local	100531	IMP	1	FS
7722E	Existing	1	1	Local	100531	IMP	1	FS
7723	Existing	1	1	Local	100531	IMP	1	FS
7729	Existing	1	1	Local	100531	IMP	1	FS
7579	Existing	1	1	Local	100531	IMP	1	FS
75111	Existing	3	3	Local	100531	IMP	1	FS
75131	Existing	3	3	Local	100531	IMP	1	FS
75132	Existing	3	3	Local	100531	IMP	1	FS
7515	Existing	3	3	Local	100531	IMP	1	FS
7517	Existing	3	3	Local	100531	IMP	1	FS
75811	Existing	3	3	Local	100531	IMP	1	FS
75812	Existing	3	3	Local	100531	IMP	1	FS
75981	Existing	3	3	Local	100531	IMP	1	FS
759001	Existing	1	1	Local	100531	IMP	1	FS
759002Q	Existing	1	1	Local	100531	IMP	1	FS
759003Q	Existing	1	1	Local	100531	IMP	1	FS
759021Q	Existing	1	1	Local	100531	IMP	1	FS
759022	Existing	1	1	Local	100531	IMP	2	FS
759031	Existing	1	1	Local	100531	IMP	1	FS
75904	Existing	1	1	Local	100531	IMP	1	FS
75905	Existing	1	1	Local	100531	IMP	1	FS
75906	Existing	1	1	Local	100531	IMP	1	FS
759121Q	Existing	1	1	Local	100531	IMP	1	FS
759122	Existing	1	1	Local	100531	IMP	1	FS
759141Q	Existing	1	1	Local	100531	IMP	1	FS
75915	Existing	1	1	Local	100531	IMP	1	FS
75916	Existing	1	1	Local	100531	IMP	1	FS
759201Q	Existing	1	1	Local	100531	IMP	1	FS
759202Q	Existing	1	1	Local	100531	IMP	1	FS
759203	Existing	1	1	Local	100531	IMP	1	FS
759221Q	Existing	1	1	Local	100531	IMP	1	FS
759222Q	Existing	1	1	Local	100531	IMP	1	FS
75923	Existing	1	1	Local	100531	IMP	1	FS
759231Q	Existing	1	1	Local	100531	IMP	1	FS
759601	Existing	1	1	Local	100531	IMP	1	FS
759501Q	Existing	1	1	Local	100531	IMP	1	FS
759511	Existing	1	1	Local	100531	IMP	1	FS

Table A-3. Unauthorized Roads Converted to Forest Roads Under the Proposed Action (continued)

Recommend Road #	Administrative Organization	Service life	Traffic Service Level	Managing Organization	Traffic Management Strategy Passenger Vehicles	Traffic Management Strategy OHVs
75002	100531	I	D	FS	Eliminate	Allow
7720	100531	I	D	FS	Eliminate	Allow
7722E	100531	I	D	FS	Eliminate	Allow
7723	100531	I	D	FS	Eliminate	Allow
7729	100531	I	D	FS	Eliminate	Allow
7579	100531	I	D	FS	Eliminate	Allow
75111	100531	C	C	FS	Encourage	Discourage
75131	100531	C	C	FS	Encourage	Discourage
75132	100531	C	C	FS	Encourage	Discourage
7515	100531	C	C	FS	Encourage	Discourage
7517	100531	C	C	FS	Encourage	Discourage
75811	100531	C	C	FS	Encourage	Discourage
75812	100531	C	C	FS	Encourage	Discourage
75981	100531	C	C	FS	Encourage	Discourage
759001	100531	I	D	FS	Eliminate	Allow
759002Q	100531	I	D	FS	Eliminate	Allow
759003Q	100531	I	D	FS	Eliminate	Allow
759021Q	100531	I	D	FS	Eliminate	Allow
759022	100531	I	D	FS	Eliminate	Allow
759031	100531	I	D	FS	Eliminate	Allow
75904	100531	I	D	FS	Eliminate	Allow
75905	100531	I	D	FS	Eliminate	Allow
75906	100531	I	D	FS	Eliminate	Allow
759121Q	100531	I	D	FS	Eliminate	Allow
759122	100531	I	D	FS	Eliminate	Allow
759141Q	100531	I	D	FS	Eliminate	Allow
75915	100531	I	D	FS	Eliminate	Allow
75916	100531	I	D	FS	Eliminate	Allow
759201Q	100531	I	D	FS	Eliminate	Allow
759202Q	100531	I	D	FS	Eliminate	Allow
759203	100531	I	D	FS	Eliminate	Allow
759221Q	100531	I	D	FS	Eliminate	Allow
759222Q	100531	I	D	FS	Eliminate	Allow
75923	100531	I	D	FS	Eliminate	Allow
759231Q	100531	I	D	FS	Eliminate	Allow
759601	100531	I	D	FS	Eliminate	Allow
759501Q	100531	I	D	FS	Eliminate	Allow
759511	100531	I	D	FS	Eliminate	Allow