1995 Final
Mitkof Landscape Design

United States
Department of
Agriculture

Forest Service
Tongass National Forest, Stikine Area
Petersburg Ranger District

R10-MB-294

May 1995

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Summary

The Petersburg District Ranger asked the Mitkof Team to develop a landscape design for Mitkof Island. She told them to base the design on public preferences and ecosystem sustainability. We got as many people involved as possible. We received over 400 comments from a broad cross-section of people. We used the comments to help write the Final Design.

This Final Design is written as a proposal to the Petersburg District Ranger. The Ranger will choose how to act on the recommendations. Project proposals and Forest Plan Amendments would require National Environmental Policy Act (NEPA) analysis.

Introduction

The Petersburg District Ranger assigned a team to conduct a landscape analysis of Mitkof Island in January 1994. She asked the team to propose a landscape design that would address public preferences and ecosystem sustainability for Mitkof Island. She wanted the Analysis to address the following questions:

- How is the island used by humans, wildlife, and fish?
- Which uses or benefits do people want from the island?
- Where should we locate activities?
- What trade-offs can we make to deal with conflicts?
- What can we do to sustain the island ecosystem over time?

The Mitkof Landscape Design is our effort to address these questions.

Landscape Design Process

To gather ideas for the future of Mitkof Island, we held workshops, interviewed dozens of people in front of the Post Office, and mailed reply forms. We reviewed data and created maps. Then we developed a set of proposals that became the Preliminary Mitkof Landscape Design.

We started from Alternative P of the 1992 Supplemental Draft Forest Plan Revision even though it has not been officially adopted. We thought it was a better starting point than the current Forest Plan (1979) as amended in 1985, 1986, and 1991. We came up with a list of ideas for future projects and for recommended changes to Alternative P. We limited most of our project ideas to the next ten years and considered cumulative effects to the year 2060.

We drafted the Preliminary Design in the fall of 1994, sent it out for you to review, then held another workshop in February 1995. We used your comments on the Preliminary Design to make changes in the Final Design. Chapter 2 describes the Design by response to public preferences.

Why the Design is Written as a Proposal

You'll notice that the Design is written as a proposal. The words *propose...* and *recommend...* are common throughout. That's because we are proposing ideas to the Petersburg District Ranger. She will decide how to act on the recommendations. Any further actions would require National Environmental Policy Act (NEPA) analysis. You will have additional opportunities to comment on any project proposed in this document. Before acting on these proposals, we will conduct public scoping, develop alternatives, and display consequences.

All recommendations are subject to availability of funds, partnerships, and other methods of working with declining federal budgets.

Landscape Design Summary

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Anticipated Changes on State, City, and Private Lands

We anticipate a number of reasonably foreseeable developments on State, City, and private lands that may influence proposals in the Mitkof Landscape Design.

North End

- Dam construction in the Cabin Creek drainage and an access road and water pipeline from the City of Petersburg to the drainage.

Central

- Home sites and road access in the Ideal Cove area on State selected land.

Southeast

- Power to Ideal Cove would follow road access.
- Ferry terminal at South Blind Slough on State selected land.
- Power to south shore State lands would be routed on State land.

Southwest

- No reasonably foreseeable developments in this area.

Blind Slough and Crystal Mountain

- A power line from Crystal dam to Crystal Mountain partially on State land and partially on National Forest.

Fisheries Rehabilitation and Enhancement Projects (Map 7)

North End

2-5 Years

- Rehabilitate Falls Creek harvested streamside area
- Stock trout in Snow and Shrew Lakes
- Rehabilitate streamside area of creek two miles north of Bear Creek

Central

2-5 Years

- Rehabilitate Bear Creek harvested streamside area
- Stock trout in Goose Lake
- Place logs in Canyon Creek to create fish habitat
- Place logs in Bear Creek to create fish habitat

Southeast

1-2 Years

- Rehabilitate East Ohmer Creek harvested streamside area

Southwest

1-2 Years

- Stock trout in Wolf Track Lake

10-20 Years

- Provide fish passage over Sumner Creek falls

Blind Slough and Crystal Mountain

2-5 Years

- Provide fish passage from Ohmer Creek to beaver pond habitat

Recreation Projects (Map 4)

North End

1-2 Years

- Build winter recreation shelter south of existing shelter at Twin Creek
- Work with City of Petersburg to establish a cross-country ski area near Petersburg, including parking

2-5 Years

- Develop snowmobile/cross country ski trails in Twin Creek area
- Improve Raven's Roost Trailhead and parking

5-10 Years

- Construct shelter on Raven's Roost Trail
- Construct scenic turnouts with picnic tables along Cabin Creek Road

10-20 Years

- Provide RV and tent camping along Cabin Creek Road

When Proposed as Special Use Application

- Consider proposals for downhill ski area construction, which may require extension of Road 6207

Central

1-2 Years

- Allow all-terrain-vehicle use on Forty-Dollar Road (6227) and associated side roads (Map 5)

2-5 Years

- Construct fishing access trail along Bear Creek
- Construct LeConte Overlook pullouts for picnics and tent camping

5-10 Years

- Construct 2-3 parking spaces and interpretive signs describing second-growth trees

10-20 Years

- Improve road to LeConte Overlook for RV access, including pullouts, camping, and a turn-around area
- Construct picnic area at Bear Creek and Three Lakes Loop Road junction
- Construct high country trail north of Bear Creek, between Road 6227 and Road 6226

Southeast

1-2 Years

- Install wildlife interpretive signs along Three Lakes Loop Trail

2-5 Years

- Cooperate with State on providing access to Green's camp and re-establishing camping and picnicking opportunities

5-10 Years

- Cooperate with State on Dry Strait canoe and kayak launch and picnic area on State land (Blaquiere Point or at end of Mitkof Highway)
- Cooperate with State on tent and RV camping on State land along southeast shore

10-20 Years

- Construct Favor Peak Trail
- Construct Favor Peak shelter or tent pad after trail is constructed
- Construct hiking trail from end of Road 6221 toward the summit of Manzanita Peak. Allow all-terrain-vehicle use on existing roadbed.

Southwest

1-2 Years

- Cut alders to create or maintain openings along Road 6245 for views
- Allow all-terrain-vehicle use on Woodpecker Road west of Road 6287 junction, and on associated side roads (Map 5).

5-10 Years

- Construct Woodpecker Road vista point turnout close to saltwater, west of State land
- Construct fishing access trail to Sumner Creek

Only if we can prevent vandalism:

- Construct cabin off Snake Ridge Road

Blind Slough and Crystal Mountain

1-2 Years

- Design a Blind Slough Master Plan
- Build short wheelchair accessible fishing access trail and platform from Ohmer Creek Trail
- Upgrade Blind River Trail

2-5 Years

- Improved accessibility, parking, and add play structures at Picnic Area
- Improve accessibility to Man-Made Hole, add outhouse
- Maintain Blind Island for day-use by clearing brush, replacing boardwalk, adding picnic tables, and repairing grills
- Upgrade swan observatory to provide wheelchair access

5-10 Years

- Construct Crystal Mountain Trail from Snake Ridge Road

Currently Proposed in Special Use Applications

- Concessions including canoe and kayak rentals, food stand
- Power line from Crystal Dam to Crystal Mountain

Road Projects (Map 5)

In addition to the road projects listed below, we propose construction of roads necessary for harvesting timber.

North End

5-10 Years

- Re-route Twin Creek Road (6209) to reduce grade, add turnouts 10-20 Years
- Construct loop between Twin Creek (6209) and Frenchy Creek Roads (6208)
- Construct loop between Twin Creek (6209) and Pan Creek Roads (6205)

Central

1-2 Years

- Construct one or more small parking areas along the Three Lakes Loop Road (6235)

2-5 Years

- Resurface portions of the Three Lakes Loop Road (6235)

10-20 Years

- Reconstruct Froot Loop Road (40000) by grading, add turnouts

Southeast

2-5 Years

- Resurface portions of the Three Lakes Loop Road (6235)

5-10 Years

- Reconstruct the Dry Strait Bridges (6241)

Southwest and Blind Slough and Crystal Mountain

No road projects are proposed for these two areas.

Timber Harvest (Map 10)

North End

2-5 Years

- East Falls Creek (2-3 million board feet)
- Twin Creek Area (2-3 million board feet)

5-10 Years

- Frenchy Creek and West Falls Creek Area (2-4 million board feet)

Central

1-2 Years

- Overlook Area (6-8 million board feet) includes research alternatives to clearcutting)
- East Fork Area (2.2 million board feet)
- 11 Mile Blowdown (0.1 million board feet)
- Froot (2.8 million board feet)

Southeast

5-10 Years

- Dry Strait and Ohmer Creek (3-5 million board feet)
- South Blind Slough Area (2-3 million board feet)

Southwest

1-2 Years

- Road 6245 Salvage (Woodpecker) (less than 1 million board feet)

2-5 Years

- Woodpecker Road and West Woodpecker Road Area (10-12 million board feet)

5-10 Years

- Sumner Creek Area (3-4 million board feet)

Blind Slough and Crystal Mountain No sales planned

Wildlife Habitat Conservation Areas (Map 14)

We recommend establishing Habitat Conservation Areas (HCAs) as an amendment to the 1979 Forest Plan or as an inclusion in the Forest Plan Revision, whichever comes first. If the Revision is finished before adopting the proposed changes we recommend an amendment to the Tongass Land Management Plan Revision. If the Revision adopts a wildlife viability strategy other than HCAs, we recommend that comparable protection be provided.

Medium HCA

Blind-Crystal Medium HCA

Blind Slough is an important wildlife migration corridor, fishery, archeological, and recreation area. A number of wildlife species occur here that do not occur elsewhere on the Island. We excluded the Ohmer Creek Campground and the State selected area from this HCA. This HCA includes the Mitkof Highway, Snake Ridge Road, Three Lakes Loop Road, Woodpecker Road and the utility corridor. The utility corridor and roads may limit some wildlife movements.

Small HCAs

Dry Strait Small HCA

Most of the Dry Strait HCA contains medium-value marten habitat with some high-value marten habitat.[1] This HCA will provide a connection for animal dispersal between Mitkof Island and the mainland (Stikine Large HCA). This area and the State land to the east are probable the most important areas for animal movement between Mitkof and the mainland. This area also has highest-value and high-value deer winter habitat.

Goose Lake Small HCA

The Goose Lake HCA contains high-value and medium-value marten habitat. This HCA consists of large blocks of high-value, inland deer winter range. We designed this HCA to include the Three Lakes Loop Road because valuable habitat exists on both sides of the road.

[1] High-value marten habitat is capable of supporting between 1.8 and 2.71 marten per square mile. Medium-value marten habitat is capable of supporting between 0.9 and 1.8 marten per square mile.

Raven's Roost Small HCA

The Raven's Roost HCA contains some high-value and moderate-value marten habitat. The Cabin Creek area would probably provide additional habitat on the north end of the island for old-growth dependent species.

South Blind Slough Small HCA

The South Blind Slough HCA contains marten habitat. This HCA may provide a connection for dispersal with Vank, Sokolof, Greys, Rynda, and Zarembo Islands. This HCA contains highest-value and high-value deer winter habitat.[2]

Southwest Small HCA

The Southwest HCA contains high value marten habitat[3] and would provide animal dispersal between Mitkof and Woewodski Islands. This HCA would protect highest-value and high-value deer winter habitat. (The shape of this HCA was adjusted in the Final Design to include better wildlife habitat.)

Three Lakes Small HCA

Three Lakes HCA contains primarily medium-value marten habitat. This is an area of high species diversity due to the presence of the lakes and their surrounding habitats. This HCA was designed to be larger than a small HCA since it is an important link for animal movement between Mitkof and the mainland.

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[2] Highest-value deer winter habitat is capable of supporting at least 50 deer per square mile through moderately severe winters. Moderately severe winters are those with snowfall between 51 and 115 inches. High-value deer winter habitat is capable of supporting 30-49 deer per square mile through moderately severe winters.

[3] High-value marten habitat is capable of supporting between 1.8 and 2.71 marten per square mile. Medium-value marten habitat is capable of supporting between 0.9 and 1.8 marten per square mile.

Proposed Changes to Alternative P (1992)

Table 1-1 describes changes we propose in Alternative P of the 1992 Forest Plan Revision (Map 3). Alternative P recommends eight Land Use Designations for Mitkof. We propose two new Land Use Designations. The standards and guidelines for each Designation are listed in Appendix A. The goals of each Land Use Designation follow.

Alternative P Land Use Designations on Mitkof Island (Map 15)

Enacted Municipal Watershed: Meet the State of Alaska's Water Quality Standards for human use for enacted municipal watershed. This *Enacted Municipal Watershed* was established and is withdrawn from all forms of location, entry, or appropriation under the mineral and non-mineral land laws of the United States and set aside as municipal water supply reserves for the use and benefit of the people of Petersburg.

Modified Landscape: Provide a sustained yield of timber and a mix of resource activities. Recognize the scenic values of suitable timber lands viewed from popular roads, trails, marine travel routes, recreation sites, bays, and anchorages, and modify timber harvest practices accordingly.

Recreation River: Maintain, improve, and protect the essentially free-flowing character and outstandingly remarkable values of rivers and river segments. Provide recreation opportunities in a generally free-flowing river setting while allowing timber harvest, transportation, and other developments.

Riparian Area: Maintain riparian habitat for fish and other riparian-associated species and resources. Meet the requirements of the National Forest Management Act and the Tongass Timber Reform Act for the protection of fish habitat and/or water quality. Emphasize the maintenance and improvement of fish habitat and populations by integrating aquatic and land based ecosystems management.

Scenic Viewshed: Provide a sustained yield of timber and a mix of resource activities. Recognize the scenic values of suitable timber lands viewed from popular roads, trails, marine travel routes, recreation sites, bays and anchorages, and modify timber harvest practices accordingly.

Semi-Primitive Recreation: Provide mostly natural or natural-appearing settings for semi-primitive types of recreation. Provide opportunities for closeness to nature and self-reliance using motorized or non-motorized transportation.

Special Interest Area: Provide for the inventory, maintenance, interpretation, and protection of the existing characteristics and attributes of areas with unique cultural, geological, botanical, zoological, recreational, scenic, or other special features.

Timber Emphasis: Maintain and promote industrial wood production from suitable timber lands, providing a continuous supply of wood products. Manage for maximum sustained long-term timber yields.

Land Use Designation Proposals

We propose two new Land Use Designations for the Forest Plan Revision process, as summarized below (see Appendix B for a detailed description):

Deer Winter Habitat: The emphasis is to maintain high quality deer winter range. Generally, *Deer Winter Habitat* will contain a multi-layered canopy of trees to provide snow interception and an abundance of understory plants. *Deer Winter Habitat* areas may include second-growth stands from natural causes or previous timber harvest. Such stands will be managed to provide deer winter habitat in the future.

Municipal Watershed: The guidelines for *Municipal Watershed* would be the same as *Enacted Municipal Watershed.* The difference is the watershed would not be enacted by a federal law. The area is managed to meet water quality standards for potable use.

Table 1-1. Proposed Changes to Alternative P (1992).

North End

Location	Proposed Changes to Alternative P (1992)
Cabin Creek watershed, above the dam site	change from *Timber Emphasis* to *Municipal Watershed* to protect water quality
Raven's Roost Trail and Cabin	change from *Modified Landscape* to *Semi-Primitive Recreation* to protect scenic and recreation values
Small *Scenic Viewshed* Area	change from *Scenic Viewshed* to *Municipal Watershed* to protect water quality
Area south of Cabin Creek watershed	change from *Timber Emphasis* to *Scenic Viewshed* to make Land Use Designations consistent with the surrounding area
Area near Three Lakes	change from *Scenic Viewshed* to *Modified Landscape* to make Land Use Designations consistent with the surrounding area
Area south of Twin Creek Road	change from *Modified Landscape* to *Scenic Viewshed* to make Land Use Designations consistent with the surrounding area

Central

Location	Proposed Changes to Alternative P (1992)
Area near west Blind Slough	change from *Modified Landscape* to *Scenic Viewshed* to make Land Use Designations consistent with the surrounding area

Southeast

Location	Proposed Changes to Alternative P (1992)
Two Areas north of State land along Mitkof Highway	change from *Timber Emphasis* to *Deer Winter Habitat* to maintain blocks of highest-value and high-value deer winter range[4]
Along Dry Strait	Change from *Timber Emphasis* and *Modified Landscape* to *Deer Winter Habitat* to maintain a block of highest-value and high-value deer winter range

Southwest

Location	Proposed Changes to Alternative P (1992)
Along Woodpecker Road	change from *Modified Landscape* and *Scenic Viewshed* to *Deer Winter Habitat* to maintain a block of highest-value and high-value deer winter range
Sumner Basin	change from *Modified Landscape* to *Timber Emphasis* to allow more intensive timber harvest in an area where timber is available, area is not often seen, and with low value wildlife habitat
Snake Ridge Area	change from *Scenic Viewshed* to *Modified Landscape* to make Land Use Designations consistent with the surrounding area
West Blind Slough Area	change from *Modified Landscape* to *Scenic Viewshed* to make Land Use Designations consistent with the surrounding area
Along Wrangell Narrows south of State and private land	change from *Scenic Viewshed* to *Deer Winter Habitat* to maintain a block of highest-value and high-value deer winter range
Area north of Road 6281 and Sumner Creek	change from *Modified Landscape* and *Scenic Viewshed* to *Deer Winter Habitat* to maintain a block of highest-value and high-value deer winter range

Blind Slough and Crystal Mountain No changes are proposed for this area.

[4] Highest-value deer winter habitat is capable of supporting at least 50 deer per square mile through moderately severe winters. Moderately severe winters are those with snowfall between 51 and 115 inches. High-value deer winter habitat is capable of supporting 30-49 deer per square mile through moderately severe winters.

Chapter 2
Final Mitkof Landscape Design

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This chapter describes the Final Design in response to your comments. We used your initial comments in developing the Preliminary Mitkof Landscape Design. Then we used your comments on the *Preliminary* Design in shaping the *Final* Design. We organized the comments into themes and described how our proposals responded to what you told us.

The Final Design describes our rationale for projects and adjustments in the Forest Plan. It does not describe our management in detail, nor does it describe the Forest Plan standards and guidelines. For more information on these topics, please contact the Petersburg Ranger District.

(In the Final Design, we combined Chapters 2 and 3 from the Preliminary Design, moving the more detailed information into Appendix C.)

Introduction

Public Comments

Many people took time to tell the Forest Service what they liked about Mitkof Island, how they used the island, and how they'd like to see us manage National Forest Lands in the future. It's obvious that many care deeply about Mitkof Island and have much to say about how it should be managed.

What People Like

Most people had a long list of things they like to do on Mitkof Island. They talked about the island setting, closeness to saltwater and the forests, spectacular views, and easy access to nature. A number of people cautioned against changing much on Mitkof Island, saying they liked things the way they are. As one man said, "I hope my grandsons, who are now 3 and 6, are able to enjoy the same things on Mitkof Island that I always have."

Trade-Offs

Many people acknowledged that different people want different things from Mitkof Island. Some people talked about the need to diversify jobs. "Some timber, some tourism, some fishing, some value-added processing," they said, a variety of uses that would contribute to a stable economy over time. Others said it was crucial that resources be used at a rate that would allow a dependable, predictable supply. Some people talked about a balance between personal and commercial uses. This was especially true for commercial timber harvest and how it affects deer hunting, fishing, firewood gathering, and scenery.

Response to Comments

Chapter 2 is organized into themes or groupings of your comments. It describes the Final Design proposals and how they respond to what you told us. You'll notice that our proposals come first, then your comments, followed by our rationale. We described our proposals first so readers can easily skim the document to see what we've proposed. If you want more detail you may find it more satisfying to read the public comments first, then our proposals, and then our rationale.

Balance Among Uses

Mitkof Design Strategy

We agree that it makes sense to start with the current balance and adjust from there. We tried to continue providing a variety of uses, with no single use dominating. We think diversity is a strength in ecosystems as well as economies. We also tried to strike a balance that would sustain the island ecosystem. We did this by proposing a variety of projects and changes to Alternative P of the 1992 Forest Plan Revision effort.

1994 Comments

"A good balance already exists. I would like to see people obey Fish & Game regulations and quit trashing the roads." "I'd like for nothing to be taken away that now exists. Leave the balance as is." "No change, just manage what we've got." "Between 1930-1994 the community has been pretty balanced. Keep it that way. I've pretty much got everything I want."

"Maintain the diversity of current uses and expand recreational activities such as interpretive trails, picnic areas, and camping areas throughout the island road system."

"A perfect balance is never possible, but I think a compromise could be related. The biggest balancing needs to come between consumers of the forest products and [non-consumptive] users of the forest." "I like recreation as long as it doesn't put people out of work. Concern for the environment is good, except where it puts people out of work. People's lives are important." "I'd like to see protection of deer habitat and subsistence hunting, some conifer timber harvest, free-use, and firewood."

Economic Strategy

Economic Diversity

1994 Comments

"I'd like to see more economic development, including increased timber harvest and mining exploration. Better road maintenance. Emphasize natural resource development for manufacturing goods."

"More camping would promote ferry travel and might increase tourism. Personally, I get enough of this in Juneau. Still, it would be good for downtown businesses." "I'd like to see an economic analysis that compares the economy that can be provided with logging versus an economy based on recreation and tourism."

"I hope Petersburg doesn't grow too much and lose its rural character, and take away options. I would like the most progress with the least amount of people. Diversify: some tourism, probably nothing amazing."

"Diversify the economy. Develop tourism slowly so it doesn't get out of control." "Work toward stable jobs and maintaining income into the community. Maintain economic stability so the local economy is able to weather changes."

We recognize that communities and entrepreneurs will make most economic choices, not the Forest Service. Where we can, we want to support public preferences for economic stability on the National Forest. We think that having a diverse set of jobs is an economic and community strength. If something happens to one sector of the economy, it doesn't necessarily bring the whole economy down. That's why we have tried to provide for a variety of uses on the National Forest, including continued timber harvest, fishing, recreation, and tourism.

We didn't do a timber-vs-tourism economic analysis. We think it's important to include both timber-based and tourism-based jobs because they are both parts of the economic diversity adding to community stability.

Value-Added Wood Processing

Mitkof Design Proposal

We propose small, frequent timber sales with an emphasis on Small Business set-aside sales.

1994 Comments

"No more logging, but if you must: independent value-added sales of less than 1/4 million board feet, and no more clearcuts should only be offered. Consider seriously single tree selection!" "Manage timber stands along Three Lakes Loop for high value specialty products using long rotations and single tree and group selection." "Develop industry based on less timber harvest and more on value-added processing." "A small-scale operation could cut in the winter, hopefully only for value-added lumber." "Don't use a 300-year-old spruce for pulp -- [it makes a difference] what it's going to be used for."

1995 Comments

"Support new sustainable industries using timber for a more complete product then just logs." "...the public asked that value-added incentives be employed for timber harvest on the island. If we are indeed looking to the future, serious consideration should be given to providing steady employment with fewer board feet of timber. "

Local Processing

Federal law already requires that timber cut on National Forest land in Alaska be processed in Alaska before export; however, the processing can be nominal, such as sawing a round log into a squared cant. Round logs can be exported if there is no market in the State. In the past, the Forest Service has authorized the export of timber of little importance to local industry, including Alaska yellow-cedar and western redcedar. Approval has also been given to export utility-grade spruce and hemlock logs suitable only for the manufacture of pulp. There is, however, a growing demand by small, local operators for this timber. The Forest Service will review its practice of allowing the export of unprocessed timber. Keeping formerly exported species within the State may enhance the economic benefits for smaller operators and in time increase the economic

benefits to the State as a whole. The review is scheduled for completion by October 1995.

The Forest Service can offer timber or wood products in any quantity from one tree to many million board feet. We cannot limit our purchasers to local operators, nor can we control what the timber is used for once it is harvested.

Small Businesses

Businesses with fewer than 500 employees can apply for Small Business status. The Small Business Administration (SBA) works with the Forest Service to offer sales according to the business' needs as SBA set-aside sales. Fifty percent of the independent sale timber volume must be processed within the State by small businesses. If no bids are received, the sales are then re-offered. Any business, small or large, can then bid.

Rural Community Assistance

The Rural Community Assistance program may be the best tool to encourage value-added processing. Individuals and communities can apply for grants from the Forest Service or form partnerships to explore the possibilities.

Other Lands On Mitkof

Consider Cumulative Impacts

Mitkof Design Proposal

We will consider the cumulative effects of management of non-Federal lands on Mitkof whenever we conduct NEPA analysis on projects. When that occurs, the Forest Service team will display the cumulative effects of all past, present, and reasonably foreseeable actions, including those taken by others. We consulted the State in the Landscape Design process and will continue to consult with State, City, and other agencies on specific projects.

1994 Comments

"Cumulative impacts must be considered. For example, Mental Health Land Selections, and the [State] '1994 Timber Sale Initiative' planned for Mitkof Island, will reduce valuable critical deer habitat."

Public Involvement

Mitkof Design Proposal

We encourage you to comment on the projects listed in the Final Design or on any other concerns. The Final Design will be reviewed occasionally, particularly when situations change. For example, when the Tongass Land Management Plan Revision is finished we may need to revisit a number of issues. The Stikine Area Project Schedule comes out quarterly with a list of projects scheduled for NEPA analysis. If you would like a copy of the Project Schedule or would like to comment on any projects listed in the Design, contact the Petersburg Ranger District.

1994 Comments

"With the typical Forest Service approach to public involvement, you get a small minority of perhaps a couple percent of all the people who live in the area actually responding. And yet the Forest Service revises and bases its findings, at least in part, on those relatively few who actually respond. You need to somehow get a feeling for what the majority of the people in the area or community desires and what their needs are beyond assuming that those one or two percent of the citizens that actually show up at a public hearing represent those feelings."

1995 Comments

"Keep working with the people." "I highly endorse the effort that has been done and the preliminary design." "I think it's great that the Forest Service is soliciting ideas from the public users. I'd like to see surveys like this done every 10 years and the results published."

"This most likely is the worst attempt at trying to get public comment I have ever seen!"

"In addition to the responses from workshops, mailers, and comment boxes, I believe you would get a better or more complete answer to your concerns if you worked from a list of people who are permanent residents of Mitkof Island and represented all phases of social and economic life."

"I still question your attempts to get public opinion. How many of 350 comments repeat comments from the same person? What's wrong with [a

> voting process]? We do elect presidents by voting process who in-turn appoints Secretaries such as person in charge of your Agency."

We're sorry if the public involvement didn't work for some people. If you have any ideas how we might improve our effort next time, please contact the Petersburg Ranger District. This analysis would not have been possible without your ideas.

We didn't emphasize permanent residents because we wanted to hear from everyone who uses or cares about Mitkof Island. It's important that everyone have equal opportunity to influence the process. Permanent residents had many opportunities to tell us what they thought.

It's possible that some of the 400+ comments were repeats from the same person. That didn't bother us. We were more interested in the ideas than the votes. We wanted as many ideas as possible. We also wanted to understand different points of view. We proposed projects we thought would provide for a balance of needs while still sustaining the ecosystem. Voting on every proposal would not necessarily provide a balanced package, nor would it be likely to consider ecosystem sustainability.

Recreation (Map 4)

Mitkof Design Strategy

The five major objectives we considered when looking at recreation on Mitkof Island were:

- provide a wide variety of opportunities,
- locate the more-developed opportunities closer to town,
- locate the less-developed opportunities farther from town,
- separate conflicting uses with as little restriction as possible, and
- prevent all-terrain-vehicle damage to lands and streams.

We created a list of recreation opportunities desired on the island and looked for locations for some of the uses that are not available now. We propose projects to *consider* in the recreation planning process; they are not promises or commitments. These projects are listed in Chapter 1.

All Terrain Vehicles

Mitkof Design Proposal

We propose encouraging ATV road use in two areas: the west end of the Woodpecker Road (approximately one half mile past Road 6287) and the Forty Dollar Road, 6227, including all side roads. These are not off-road areas. ATVs are required to stay on the roads to limit resource damage. We suggest these roads because they seem to have less vehicle traffic than loop roads. We would post signs warning users of mixed traffic. We also propose to use the *Tread Lightly* program to help users learn how to avoid damaging resources.

1994 Comments

"Keep firearm use and 3 and 4 wheelers out of places where families are using recreation sites. People would be happier and feel safer. However, this would mean that areas would have to be patrolled more often and fines issued as necessary." "I would like to see some guidelines for snow conditions suitable for snowmobiles and 4-wheelers to minimize damage to muskeg areas." "Set up areas exclusively for off road vehicles."

1995 Comments

"A good location for ATV use would be at the end of Woodpecker, from the junction of 6287, you could close the road and have the end open for ATV use."

We recognize that some kinds of uses don't mix as well as others. Multiple use means providing a variety of uses, but not necessarily in the same location, or at the same time. That's why we are proposing specific roads to encourage ATV use.

If needed, the Petersburg Ranger District will develop an All Terrain Vehicle (ATV) Plan to help reduce conflicts between users. The plan would consider guidelines for the depth of snow required for winter use. It will also address protection of muskeg, alpine, and other sensitive areas and suggest ATV trail locations.

Banana Point

1994 Comments

"The Banana Point picnic and camping area on south Mitkof Island is heavily used all summer. There exists no rest room facilities and the fecal build-up is heavy, odious and completely unacceptable in a civilized society." "I'd like to have a recreational area like that at Banana Point enlarged, improved so that people can take advantage of it; more access, easier to launch a boat."

The Forest Service and State of Alaska worked on a cooperative agreement to refurbish the Banana Point boat launch. New facilities were installed during 1994. The site now includes a new ramp, a breakwater, circle drive, parking, and rest rooms. The City, State, and Forest Service are sharing maintenance of this recreation site.

Blind Slough

Mitkof Design Proposal

We propose to manage Blind Island as a small picnic area with low-level maintenance. This includes clearing brush, replacing the boardwalk, adding picnic tables, and repairing the grills.

We propose developing a Blind Slough Master Plan. We think it is important to moderate recreation use in the area so it will not harm the values for which people find the area attractive. The idea is to provide a natural appearing environment with some rustic facilities. Future options include:

- designing facilities to reduce human disturbance to wildlife,
- concentrating or directing use in certain areas,
- displacing users to other areas outside of the Blind Slough area,
- assigning different days of week for different uses,
- charging fees, or
- starting a lottery for permits.

1994 Comments

"I would like to see the picnic area at Blind Island renewed in some small way to provide access and some facility for picnicking.

1995 Comments

My wife and I do not like the idea of a food concession and/or canoe rental at Blind Slough. Anyone seeking an outdoor experience should be able to bring everything with them from town, that they'll need. A canoe rental would encourage much more impact on the area and it's wildlife that would be undesirable!"

One individual has expressed interest in opening a food concession stand at Blind Slough Picnic Area. The Petersburg Ranger District will consider this application. We agree that we must be careful not to allow development in the Blind Slough and Blind River Area that would harm wildlife.

Cabins

Mitkof Design Proposal

We propose a possible location we think would make good cabin site. Currently vandalism is a problem with easily accessed cabins which makes the Forest Service hesitant to build new cabins on the Island.

- Snake Ridge Road: The views of south Blind Slough and Sumner Strait are distinctive and the location is convenient for hiking, hunting, picture taking, and berry picking.

Federal funding continues to decline, so a partnership would be important in making either of these cabins happen. Perhaps an adopt-a-cabin program might be one way we could work together to keep vandals from destroying them. If you have any ideas about funding or preventing damage, please talk to us.

1994 Comments

"We need a forest cabin that is easier to get to. There are a lot of children and physically challenged people who can't make it to Raven's Roost." "I would like more cabins on Mitkof. If properly located they could be multi-use for hunting, fishing, outdoor leisure and nature study. Many families are not able to leave Mitkof Island to go to a wilderness cabin. With Raven's Roost accessible only by those who are physically fit, or daring to take a helicopter ride, this is something missed by many since the removal of our National Forest cabin on Petersburg Creek." "I'd like to see more recreation cabins. This would provide better access to those unable to travel by skiff or plane." "Add two more cabins that are accessible year round and are equipped to accommodate handicapped users. If possible they should be located where a variety of recreation opportunities are available, such as fishing, skiing, bird & wildlife watching, hiking." " I'd like recreation cabins on Blind Slough and the Three Lakes area, accessible by a short trail from the road."

1995 Comments

"If additional road-accesed FS recreation cabin is desirable, building on Blind Slough in Section 5 or South Blind Slough at the outlet of Sumner Creek would provide a range of activities and site access. Both these sites provide the opportunity for both summer and winter recreation and

motorized and non-motorized recreation." "I like the cabin at Favor Peak."

"I do not believe any shelters or cabins should be built for exclusive use to one group - or that any cabins built which could be easily vandalized."

This is a particularly frustrating topic because we have such a difficult time keeping vandals away from any structures located within easy access. We realize that only a small proportion of people behave this way, but unfortunately, that's all it takes to keep facilities unusable for the rest of us. With limited funds we need to carefully examine new facilities and their yearly maintenance costs before proceeding.

We proposed Snake Ridge Road and Favor Peak locations in the Preliminary Design. In the Final Design we dropped the Favor Peak Cabin idea. While Favor Peak would make a good site, we already have a cabin on Raven's Roost that people can reach by hiking. We didn't recommend the South Blind Slough suggestion because one cabin will already require beating the odds on vandalism and funding.

Camping & Campgrounds

Mitkof Design Proposal

We propose a number of projects that would provide campground and individual camping on Mitkof Island (Chapter 1 for a list).

1994 Comments

"There should be more dispersed, single vehicle, camping pullouts designed and mapped for use." "Please develop a second picnic or camp area similar to Ohmer Creek, in addition to enlarging the Ohmer Creek Campground." "Possibly build a more remote campground as well as one closer to town that would be available to travelers from the ferry."

1995 Comments

"A campground at Cabin Creek is fine with me, although I think most of the appropriate sites are on state land."

Green's Camp

1994 Comments

"Resurrect Greens logging campground!! Rebuild the bridge so we can access it! It was very popular for the people of Petersburg, and visitors, for camping and picnics and other recreation. Is there anyway that the State and the Forest Service could work together to rebuild the bridge?" "Would like to see a cooperative project with the State to reestablish a recreational area at Green's Camp." "Develop road into Greens Camp. It's a beautiful area for camping."

This campground is on State selected lands. The main culvert washed out, eliminating vehicle access to the area. A large culvert or bridge is now needed to restore vehicle access. The campsites also need to be restored.

In the past few years, design work has been initiated for a bridge. The State, City, and Forest Service are discussing maintenance of the facilities. If an individual or group is interested in opening Green's camp, please contact the Forest Service or the City of Petersburg. Funding may be available through the Forest Service Rural Development Program.

Hiking Trails

Mitkof Design Proposal

We propose consideration of the following locations for new trails, two involving access to summits.

- If needed, we suggest improving the current route from Snake Ridge Road to Crystal Mountain. The muskeg and alpine habitats are fragile and cannot withstand increased use without damage, which may make it necessary to harden the trail surface with gravel or boardwalk. This type of terrain makes for difficult and expensive trail construction.
- We propose a trail from Mitkof Highway which would wind up onto the Favor Peak ridge, follow the ridge, and then come back down to Dry Strait Road.
- We propose construction of fishing access trails to Bear Creek, Sumner Creek, and a fishing platform on Ohmer Creek. This would let people

with a range of physical abilities to reach fishing areas. The trails will reduce damage associated with continued human use, such as trampling of muskegs and streamside vegetation.

- We are currently planning to upgrade the Blind River Rapids trail with construction planned for 1996-97.
- We are considering providing interpretive signs and parking in the natural second-growth stand, (Map 4) on Three Lakes Loop Road.
- Improving trailhead signs and other trail signs is a current project on the District..

1994 Comments

"More nature trails like Ohmer Creek." "I'd love to see some more hiking trails developed." "More boardwalk trails like Frederick loop trails that tied in with campgrounds in old growth forest like at Ohmer, especially for old folks." "Maybe more trails and access to the salt water on east side."

"Maybe an alpine trail with a shelter." "I'd like an alpine trail; it would be a great opportunity for access from existing roads." "Build a Snake Ridge to Crystal Mountain trail for alpine hiking." "How about a summit trail somewhere between two roads for hiking and camping?"

"I'd like to see mileage signs on the trailheads."

1995 Comments

"Trails are adequate for opening areas for most [people]." "I like the idea of a trail in the forest between Blind River Rapids and Blind Slough Picnic area built to a similar standard as the Frederick Point Board Walk. Short side trails would provide access to Blind Island and bird viewing." "I would like a gravel trail built up Crystal Mountain from the Snake Ridge Road to about 2340' elevation where you first break into the subalpine with the good views to the mainland. From 2340' to the summit I would like a lower standard, more primitive trail."

Picnicking

Mitkof Design Proposal

We propose providing small campsites and picnic areas along the LeConte Overlook Road. When the Cabin Creek Road is built, we will look for possible picnic areas there.

1994 Comments

"We need more picnic areas so they aren't over-crowded and over-used." "Maintain the diversity of current uses and expand recreational activities such as interpretive trails, picnic areas, and camping areas through-out the island road system." "Please, no more picnic tables overlooking clearcuts."

Raven's Roost

1994 Comments

"I'm a regular user of Raven's Roost. The views from there should be protected, and again, protection means just that. Any more 'modification' to the landscape is unacceptable, be it 100-acre clearcuts or partial removal in some form."

An area next to Raven's Roost cabin has been designated by Congress as *Enacted Municipal Watershed.* We don't expect to see timber harvest in this area except salvage at the request of the City. We propose changing the area southeast of Raven's Roost to *Municipal Watershed*[1]. We expect to see little or no timber harvest in this area either. The views from Raven's Roost are predominantly to the south and west. Much of this land is in State ownership.

Winter Recreation: Blind Slough and Raven's Roost

Mitkof Design Proposal

Snowmobilers are allowed to park trailers at the Blind Slough Picnic Area to off-load snowmobiles. We support the existing closure of the area to snowmobiles between the hatchery and Wrangell Narrows for the protection of wintering

[1] For a review of *Municipal Watershed* Land Use Designation see At-A-Glance in Appendix B.

swans. We propose no additional restrictions on snowmobiling at Raven's Roost at this time, due to difficult access and low use.

1994 Comments

"About 1980, Jeff Hughes and I held a public meeting to close Blind Slough below the bridge to snowmobilers in order to protect wintering swans. About 6 snowmobilers attended. All were supportive of the closure, but also expressed the concern that the Blind Slough hatchery is as far as the State plows the road and consequently it is an essential area for them to park and off load their machines. They wanted to be assured that they would not be denied the right to off load and access areas on their machines at the hatchery milepost."

"I've witnessed snowmobiles harassing the swans at Blind Slough, whether they realized it or not."

1995 Comments

"Closing Blind Slough and Raven's Roost to ATVs and Snowmobile is a good idea!" "Critical wintering areas for deer and moose should be put off limits to snowmobiles. There have been many cases where these animals have been chased by snowmobiles and that can deplete animals energy reserves to the point of death in winter." "Blind Slough Drainage all has to be closed to all motorized traffic - Raven's Roost closed to all motorized traffic." "If self-policing does not work, then general closures must be mandated." "I support making Blind Slough, a 3 Mile Skier Trail at Twin Creeks, Raven's Roost, and FS portion of snow bowl off-limit to snowmobilers and ATVs. All other areas should be open to snowmobilers." "No more noise and pollution in this area. Wildlife and useless intrusion don't mix. Recreational snowmobiling should not be allowed."

"Maybe open up Raven's Roost, but keep Blind Slough closed." "Closing Raven's Roost to snowmobilers sounds fine, but this is the only area I would close to them."

"Leave this area the way it is." "I see no need for any more restrictions." "No separation of user groups at Raven's Roost. Mother Nature keeps snowmobiles away from Raven's Roost except maybe once or twice a winter anyway." "I ski Blind Slough and have no problem at this time with snowmobilers using the area." "I think we should think very carefully about imposing regulations!" "I've never encountered a machine at Raven's

Roost. I think the current closure is adequate." "I have used this area for 22 years and will not give it up!"

Winter Recreation: Twin Creek

Mitkof Design Proposal

We propose no restrictions on winter recreation in Twin Creek Area at this time and will work with the City of Petersburg on establishing a cross-country ski area closer to town. This should help reduce conflicts in the Twin Creek area.

Don't Limit Snowmobiling

1994 Comments

"We've been snowmobiling off and on since we were kids. The last five years we have gotten real serious about it. All five of us own our own snowmobile, and we live for the weekends on the mountains. My husband and I sometimes sneak off during the week to get back to nature. There's nothing like getting to the top of the mountain, turning off your machine, listening to the silence, and having lunch. You ought to try it! Our favorite spots to snowmobile are Twin Creek, Falls Creek, and 3 Lakes Road. We park at the snow line and cruise off to where ever our adventure takes us." "Our family really enjoys snowmobiling in the winter months November through March. We go up Twin Creek Roadway. The four of us go out with our friends, about 20 or more machines, every weekend. "

"If it isn't broke, don't try to fix it! I own two snowmobiles and prefer to go to less popular areas such as Point. Frederick, Dry Strait and Woodpecker Cove instead of the Twin Creek Cabin areas. I don't like the idea of restrictions and 'gear conflicts'. " "In our years of snowmobiling, we have only ran into a few skiers in those areas. This year we've seen two skiers, a lot of sledders, and zero hunters. We haven't had a conflict with anyone we've run into up on the mountain. "

1995 Comments

"I don't see a big conflict between snowmobiles and skiers presently. Do not do anything." "I'm not convinced the conflict exists! I often recreate on the Raven's Roost Trail in the winter (snowshoeing, skiing) and have never encountered a snowmobile!" "I ski and I find a lot of the snowmachine

trails help me when I want to cover distances and I can always find areas that snowmachines can't go. I don't believe you have to mandate usages." "Cross country skiing and snowmachines can coexist. There are many areas that snowmachines cannot go because of physical impairments, yet skiers would have no problem."

"It seems to me that there is not a problem between snowmachinist and skier. Both can get along with each other. We do not need the Federal Government telling us that we can't do." "There is more than enough area for everyone. Please do not try to pit one group against another - this is public land for everybody."

"Create a staging area at Twin Creek for snowmobiles, separate from the shelter, to minimize accidents, between sledder and snowmobilers, but don't limit access to snowmobilers, this has been long-used by them as a recreation area. I'd rather see them at Twin Creeks than in town or at the Slough."

Cross-country Skiers Need Their Own Area

1994 Comments

"There are currently too many conflicts with snowmobilers and skiers. The snowmobilers just don't seem to understand that others would like to enjoy the peace and serenity of these areas without the noise and fumes." "I would like one area selected for cross-country skiing where snowmobiling and ATVs aren't allowed. I haven't been to Twin Creek the last two years because it isn't worth the effort required to arrive at an area with no hillside left without the snow chewed up, nor is it worth setting a ski trail only to have it run over." "There should be an area set up which is off limits to motorized machines, just for peace and quiet." "Snowmobiles and cross-country skiers must have separate areas. The Twin Creek Area, Raven's Roost, and all of Blind Slough should be reserved for non-motorized use."

"Designate a low level cross-country ski lane close to town for all age skiers, for recreation and possible competitions. Make Twin Creek ski trails accessible to skiers in the winter."

1995 Comments

"Snowmobiles can and do use any and all parts of Mitkof without access roads. Snowmobiles are an irritation to skiers and an assault on the environment however there is nothing practical that the Forest Service can do to change that situation at this time."

"At maximum, set one area aside for skiers. I don't think it should be the Twin Creek Area, just because skiers can't always reach the snow while snowmobilers can for the majority of the winter." "Sometimes I ski where snowmobilers go and it's fine. But I'd like one place where I could avoid the noise, the tracks, and inhaling deep lungs-full of gas-oil exhaust." "I am a skier, I prefer to ski in an area not over-run by snowmachines, but I am tolerant and do not want to deny others their source of recreation. We need a cross-country area more accessible and not as attractive to snowmobilers. I don't feel the need at this time to regulate at Twin Creek."

Coordinate with State and City to build an access road into North-end snow bowl and provide for skiing-only. Cross county skiers and snowmobiles do not mix, keep them separate."

"The Twin Creek Area is supposed to be a ski area now!" "I think boundaries should be drawn with skiing areas only." "Frequently, I prefer skiing without the sound and smells of snowmobiles cruising by. It is totally different and much quieter experience then skiing near snowmobiles."

"No need for unnecessary noise and pollution caused by snowmobiles. There are plenty of Forest Service Roads already available."

"Get snowmobilers off of highway at start of Twin Creek Road - provide parking for them."

Skiers feel the conflict with snowmobiling more than the other way around. As a result, we think it's important that skiers have some place to go where they can find the experience they want.

Blind Slough is closed to snowmobiles due to wildlife concerns not recreation conflicts.

By law the Forest Service can not use road maintenance funds to plow snow from roads for residential, timber, or recreation use. We'd like to see proposals

from groups or individuals that would like to plow snow from forest roads. This might allow access to parking in rock pits on the Twin Creek Road, which would alleviate current parking problems on the Mitkof Highway.

We'd like to see a cross-country ski area near town but have not heard any specific proposals. We would be happy to work with a ski club or Petersburg Parks and Recreation to develop plans for setting and maintaining a ski trail in that area.

Winter Shelter

Mitkof Design Proposal

We propose constructing a winter recreation shelter south of the Twin Creek shelter.

1994 Comments

"We're very interested in helping finance and construct a shelter up around the Twin Creek area for snowmobiles and skiers."

1995 Comments

"I feel there is a need for another shelter for everyone at the upper level of Twin Creek Trail. I strongly oppose changing this are to one user group or another." "I'd like to see a new Frenchy/Twin Shelter and snowmobile trail. Yes, definitely good idea and great location and view."

"Do not include any Forest Service funds for an exclusive snow machine shelter on Frenchy Creek." "I'm opposed to construction of any special interest cabin. I'm opposed to building the proposed Frenchy/Twin shelter and I think snowmobilers should pay 100% of cost. The Forest Service shouldn't put money into a snowmobile facility for the public, the maintenance cost too high." "I do not believe any shelters or cabins should be built for exclusive use to one group - or that any cabins built which could be easily vandalized."

We've begun project analysis to establish another shelter, for winter recreation in general, in the Frenchy/Twin muskegs south of the Twin Creek shelter.

Trails

Mitkof Design Proposal

We propose constructing skiing and snowmobile trails in the Twin/Pan and Twin/Frenchy areas. Future road construction may also add to ski and snowmobile opportunities in the area.

1995 Comments

Twin Creek Cross-Country Ski Trail: "Sign and provide bridges for a three- mile or so cross-country skier-only trail through the muskeg and woods in Twin Creek Area. This would only close a small corridor to snowmobilers, not the entire area. It would allow maintenance of a groomed ski track during desirable snow conditions. The objective of this trail is to provide cross-country skiing at 1000' to 1200' elevation with gentle, rolling terrain and easy to more difficult skiing. This complements skiing opportunities around town and at Blind Slough which are 0' to 500' elevation with easy access and generally easy terrain, and Raven's Roost and the Snow Bowl which are rugged access (or costly) and more difficult skiing at 1500' to 2500' elevation."

Twin/Pan Creek Ski and Snowmobile Trail: Build and sign a loop snowmobile/ski trail (not necessarily a road) from Twin Creek Road over into Pan Creek Drainage to encourage more dispersal of uses." "Build a Twin Creek/Pan Creek loop trail (possibly road) for snowmobiling and skiing. Although I like this idea, based on initial look at terrain and vegetation, costs and resource impacts are too high. Other options are better. This option should be included in any timber sale planned in this area." "I would like to see a loop built from Twin Creek Road to Pan Creek Drainage. But see no reason to restrict snowmobiling or skiing." "A road to Pan would make a nice loop!"

Snow Bowl Ski Trail: "Coordinate with the state and city to build an access or skier trail into the north-end of Snow Bowl for skiing and snowboarding only."

No Roads: "I do not want a road to Frenchy Creek!" "I think it's a waste of time and money to build a trail or road."

Winter Recreation: Downhill Skiing

1994 Comments

"Consider using the upper part of the Cabin Creek drainage for a possible downhill ski area." "Build a ski hill at the headwaters of Cabin Creek."

The Forest Service will consider special-use permit proposals for downhill ski development on National Forest lands. If someone proposes the Cabin Creek drainage as a downhill ski area they would have to comply with city standards for a *Municipal Watershed*[2].

2 For a review of *Municipal Watershed* Land Use Designation see At-A-Glance in Appendix B.

Road Management (Map 5)

Mitkof Design Proposal

We recommend the construction of a Twin Creek/Pan Creek loop, a Twin Creek/Frenchy Creek loop, and access to the snow bowl on the north end of the island next to the *Municipal Watershed*[3] (Map 5). These roads concentrate developed portions of the National Forest closest to town. We also propose improving the Twin Creek Road, the Froot Loop Road, and others as described in Chapter 1. Timber harvest on Mitkof Island will also require construction of new roads.

More Roads

1994 Comments

"More roads should be constructed and the existing roads should be maintained better. We need more roaded opportunities and less unroaded inaccessible areas. We need more roaded access for firewood cutting, free-use timber cutting, sport fishing, hunting and skiing." "More roads with access for driving, hunting, & fishing." "More roads would provide more access to the island, which would disperse users better. Of course, the increase in roads would cost taxpayers more to maintain." "We need more roads." "Commercial logging builds roads which give access to subsistence wood gatherers. In a practical sense without roads there is almost no subsistence wood gathering."

Loop Roads

"I'd like more road access to start out one place and travel a loop route without having to do a complete back track to get back to town. The current loop road as it is now is excellent. We need more opportunities like this." "Build the Frederick Road connect to town, no other loops." "Change the road system so roads lead somewhere besides a dead-end." "Build a road all the way around the island. Build a road connecting from Woodpecker to the fish hatchery." "Develop a road from the Woodpecker Road around to the fish hatchery so you don't have to drive one way, then turn around and backtrack." "Build a road all the way around the island." "I would like to see a road all the way around the island. I'd also like to see

[3] For a review of *Municipal Watershed* Land Use Designation see At-A-Glance in Appendix B.

a road and bridge connecting Petersburg & Mitkof Island with Wrangell & Wrangell Island." "Connect Dry Strait Road to Mitkof Highway" "I'd like to see a Frederick Point loop road."

We did not recommend a loop road between the Dry Strait Road and the end of Mitkof Highway. This area is important for wildlife species that migrate from the Stikine River onto Mitkof Island and islands farther west. This area is recommended for the Dry Strait Habitat Conservation Area (HCA).[4] We also think the area should remain less developed to provide a less developed recreational experience.

We also did not recommend a loop road between the end of the Woodpecker Road and Mitkof Highway. The Blind Slough area is crucial for wildlife habitat. Blind Slough has been recommended as a *Special Interest Area* for scenic and ecological values, in the 1992 Forest Plan Revision effort. In addition, we recommend the Blind-Crystal HCA (Map 14), for protection of species associated with old-growth habitat.

No More Roads

1994 Comments

"No more logging roads; we have enough roads already on Mitkof Island, 133 miles of forest roads plus 35 miles of State Highway." "Tongass timber harvest is a 'giveaway' and doesn't pay for roads. The taxpayer does! To the tune of $64 million in 1992!" "I believe there has already been too much logging and roading, and no more should be considered." "I do not want to see a road all the way around the island." "Allow more roads to go back to seed. This would keep a balance between new built roads. We are nearly saturated now." "No change. Manage what we've already got."

1995 Comments

"With 133 miles of road on Mitkof Island we do not support construction of anymore roads on the island. There is currently enough roaded recreation on the island. Emphasis should be placed on non-roaded recreation." "Don't build any more roads on Mitkof Island." "Maintain what we have and make no more. Multiple use." "No new road construction needed."

[4] For a review of HCAs and travel corridors turn to Viable Wildlife Populations in Chapter 2.

We plan to keep some roads open for recreation, subsistence use, and administration. While it would be cheaper to let them close, we consider their maintenance part of our multiple use mandate.

We recommend building the Twin/Pan, Twin/Frenchy, and Snow Bowl access roads because they are consistent with the theme of providing more developed recreation closer to town. These roads are most likely to be constructed if they are associated with timber sales. We propose construction of roads required for timber harvest because timber harvest is part of a diverse and strong economy in southeast Alaska. It's also consistent with the Forest Service' multiple use mandate.

We plan to allow most new timber roads to close naturally. Exceptions include Twin/Pan, Twin/Frenchy, and the Snow Bowl access road. Other new timber roads may be maintained in the future for specific access reasons, but we recommend maintaining them *only* if we are willing to commit to future maintenance funding. We don't expect the miles of maintained road on Mitkof to change considerably because some roads will be closed as others are built. In some cases, we may want to trade the maintenance from an old road to a new one and let the old one close naturally.

Table 2-1 shows the current Mitkof Island road density.

Table 2-1. Road Densities

	Total
FS Open Road Miles	94.9
Non-FS Road Miles	29.5
Total Miles	**124.4**
Total Square Miles (Area)	202.6
Road Density *	**0.61**

* Road Density is measured as miles of road per square mile of land (road miles/square mile).

Road Maintenance

Maintain These Roads

Mitkof Design Proposal

We propose to reconstruct and maintain the following roads to the *passenger car* standard as funding permits:

- Three Lakes Loop (6235)
- Woodpecker (6245)
- Dry Strait (6241)
- Frederick (6204)
- Twin Creek (6209)
- Snake Ridge (6246)
- Froot Loop (40000)
- Frenchy Creek (6208)

Mitkof Island road objectives include the following standards:

- passenger car,
- high clearance, and
- closed (naturally or with barriers).

See Appendix C for a list of proposed maintenance standards for each road on Mitkof Island.

1994 Comments

"There are safety problems on existing roads such as turnouts not being inter-visible [each pullout visible from the next]. Road standards change suddenly without warning, and sight and safety distances are less than desired. These should be corrected for existing roads and potential recreation." "I've nearly had a dozen or more head-ons with other vehicles on your logging roads. It's a wonder no one has sued you guys yet for constructing roads to such low standards in the first place. You ought to maintain those roads before you even think about building new ones."

"Stop maintaining logging roads that don't go to recreation sites." "Leave all roads open for firewood access." "We should do a better job of maintenance of existing roads and recreation areas." "Make the island

more accessible during the winter by opening up the main roads in the winter, including Three Lakes Loop Road, Mitkof Highway, and part of the Woodpecker Road. That would decrease the concentrations of users in currently used areas and may reduce friction between snowmobiles and cross-country skiers."

All Forest Service Roads were initially constructed for timber harvest. After construction, some became popular for recreation use. High clearance roads are not designed for passenger car traffic and should be driven cautiously at lower speeds.

We don't currently have funding to maintain all the roads on Mitkof Island. Some of the roads are no longer passable. Funding for road maintenance changes yearly. This funding determines the level of maintenance possible based on current needs. For this reason road maintenance will be based on a prioritized list using public comments and resource concerns.

By law the Forest Service cannot use road development or maintenance funding to plow roads for residential, or timber, or recreation use. We'd like to see proposals from groups or individuals that would like to plow to specific winter recreation areas.

1995 Comments

Three Lakes Loop, Woodpecker, Dry Strait, Twin Creek, Cabin (Frederick)

"Maintain all mainstem: Three Lakes, Woodpecker, Ideal Cove [Dry Strait]." "Three Lakes, Woodpecker, Dry Strait, Cabin Road (6204): These are all main roads that see a lot of use and we need to have a constant steady maintenance program for them instead of waiting for them to get into horrible shape and then trying to fix them." "6245 (Woodpecker) to junction of 6287. 6235 (Three Lakes Loop) access to lakes and viewpoints. 6241 (Dry Strait) to Cosmos Creek." "Woodpecker Road: Close during hunting season if there is a hunting season." "Twin Creek, Three Lakes Loop, Woodpecker: maintain all main roads and forest side roads. Would give good access to the general area." "Woodpecker Road, Three Lakes Loop, Dry Strait, Cabin Creek: Keep well maintained, picnic tables, connect loops." "Three Lakes Loop Road - maintain if funds available otherwise close it down and pull the culverts." "Three Lakes Loop maintain in present condition. Other roads as necessary for timber harvest and firewood."

"6235 (Three Lakes Loop Road): Keep graded - many tourists drive the Loop and fish at the lakes. It is one of the most used roads on the Island." "Twin Creek: Keep open to vehicles, access to unique area. " "Three Lakes Loop: Provides nice "loop" drive. Cabin Creek: would provide another "loop" drive. As many others as provide for firewood, timber harvest, and hunting." "Three Lakes Loop provides access to most of the Island to public. Woodpecker Cove accesses the rest of the Island. All other maintain only as many as needed and no maintenance in winter."

Snake Ridge

"I would close all roads except for the Mitkof Highway, Dry Strait, Woodpecker, Snake Ridge, Three Lakes Loop, Twin Creek, and Frederick roads." "Woodpecker Cove Road (all), Frederick Sound Road System, Dry Strait Road, and Snake Ridge Roads: Keep alder trees cut back when needed." "Three Lakes Loop Road maintain. Snake Ridge Road maintain - spectacular views of Sumner Strait."

Froot Loop

"Froot Loops Road. Maintain for trail, recreation purposes." "Maintain as roads: 6204 (Cabin/Frederick) 6209 (Twin Creek), 6205 (Pan Creek), 6235 (Three Lakes Loop), 40000 (Froot Loops), 6241 (Dry Strait), 40006 (Snake Ridge), 6245 (Woodpecker), State Highway 937 (coordinate with State)."

Frenchy Creek

"Maintain roads to areas presently used for recreation i.e. Twin Creek and Frenchy Creek." "Close (i.e. gate or pull structures) all roads except the following mainlines: Frenchy Creek, Three Lakes, Froot Loops, Dry Strait and Woodpecker. These roads should be maintained the rest should be closed."

Some of these roads are currently maintained to passenger car standards and while some segments need reconstruction to bring them up to this standard. Reconstruction will depend on funding.

Converting Trails to Roads

Mitkof Design Proposal

We propose converting Mink Road (6221) to a hiking and ATV trail. ATV use would be allowed on the existing roadbed, and hiking on the proposed Manzanita Peak trail from the end of the road.

1995 Comments

"Maintain as trails (or allow user-maintenance of road beds as trails): 6281 (East Sumner Mountain), 40006 (Snake Ridge) and 6246 (West Fork Ohmer Creek) (if not maintained as roads), 40227 (Knee), 6208 (Frenchy), and spur through Sec. 32 to 1700 foot contour, 6206, 6205 (Pan Creek), 6221 (Mink), 6222 (Ermine)."

Access For Firewood

Mitkof Design Proposal

We agree that it makes sense to allow firewood gathering before closing most roads. In many cases we propose to allow roads to grow closed. This means there will be time to gather firewood before the road closes. In cases where we want the roads closed for specific reasons, we will consider leaving them open for a season or two before closing them.

1995 Comments

"Please consider not water barring new logging roads - immediately after logging. Leave open for awhile if possible for recreation and personal use firewood, etc." "...(maintain) other roads as necessary for timber harvest and firewood."

All Terrain Vehicle (ATV) Road Use

Mitkof Design Proposal

We propose emphasizing ATV use on the Forty Dollar Road (6227) and at the west end of Woodpecker Road, approximately 1/2 mile past Road 6287. We recommend posting signs on these roads so motorists will expect mixed traffic. We show these as ATV recreation roads on Map 4. ATV use would not be allowed on these roads during moose and deer hunting seasons because of increased traffic. See Appendix C for a more detailed list of roads where ATV use is encouraged.

1995 Comments

A good location for ATV use would be at the end of Woodpecker. From the junction of 6287 you could close the road and have the end open for ATV use.

We agreed with this idea, however, we felt the amount of traffic does not warrant closure. With proper signs, the roads could be used safely by all. The areas are far from town and less travelled than many roads on the island.

Woodpecker Road Use During Hunting Season

1995 Comments

"Woodpecker Road: Close during hunting season if there is a hunting season." "Woodpecker Road -- close during hunting season."

We do not propose closing the road during hunting season. The hunting season is one of the most popular periods of use for the Woodpecker Road.

Scenery

Mitkof Design Proposal

We assumed that the 1992 Forest Plan Revision addresses general concern for scenic quality on Mitkof Island. We proposed some land use designation changes that will provide greater scenery protection (Chapter 1).

1994 Comments

"We have spectacular views of the surrounding islands and the Mainland." "I like to shoot video and photographs." "It's okay to have some development, but we ought to preserve the natural beauty." "I love the beauty of the scenery. I was born and raised here and still never tire of the natural beauty."

Viewing Areas

Blind Slough

Mitkof Design Proposal

This area is important for a variety of reasons including wildlife, fish, scenery, recreation, and ecologic and cultural values (Map 4). It is part of a proposed *Special Interest Area*[5] and Blind River is proposed as a *Recreation River* in Alternative P (1992). We also propose the Blind-Crystal HCA (Map 14). All of these proposals would help protect scenery.

Mitkof Highway

Alternative P (1992) identifies Mitkof Highway as a visually sensitive travel route. This means that during project planning, special consideration for views will be made.

A large portion of the land area along Mitkof Highway is within State and private ownership. The future appearance of these landscapes are not subject to the proposals of the Mitkof Landscape Design.

[5] For a review of *Special Interest Area* and *Recreation River* Land Use Designations see At-A-Glance in Appendix A.

Raven's Roost Cabin

An area next to Raven's Roost cabin has been designated by Congress as *Enacted Municipal Watershed.*[6] We don't expect to see timber harvest in this area except salvage at the request of City. We propose changing the area southeast of Raven's Roost to *Municipal Watershed.* We expect to see little or no timber harvest in this area either. The views from Raven's Roost are predominantly to the south and west. Much of this land is in State ownership.

Three Lakes Loop Road

Mitkof Design Proposal

Alternative P (1992) proposed the Three Lakes Recreation Area as *Semi-Primitive Recreation* which does not allow timber harvest except to benefit recreation. This applies only to the Three Lakes Recreation Area, not the entire loop road. In this Design, we propose locating Goose Lake and Three Lakes HCAs[7] (Map 14) near the Three Lakes Loop Road. The HCAs would help protect scenery.

We recognize the high level of concern for scenery along the Three Lakes Loop Road. Alternative P (1992) proposes that the entire Three Lakes Loop Road corridor be designated *Modified Landscape,*[8] requiring sensitivity to views.

The Falls Creek end of the Three Lakes Loop Road has been selected for ownership by the State of Alaska.

Twin Creek Road

The Land Use Designation for Twin Creek Road, [Alternative P (1992) *Scenic Viewshed*[9]] allows timber harvest with special attention provided for scenery. Emphasis would be on selection cutting, smaller clearcuts, longer time between timber sales, and less disturbance in areas within a quarter of a mile of the viewer. We propose extending the Twin Creek Road through the Pan Creek drainage to make a loop road.

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6 For a review of *Enacted Municipal Watershed* and *Municipal Watershed* Land Use Designations see At-A-Glance in Appendix A and B.

7 For a review of HCAs turn to Chapter 2, Viable Wildlife Populations.

8 For a review of *Modified Landscape, Timber Management,* and *Semi-Primitive Recreation* Land Use Designations see At-A-Glance in Appendix A.

9 For a review of *Scenic Viewshed, Deer Winter Habitat,* and *Timber Management* Land Use Designations see At-A-Glance in Appendix A and B.

Woodpecker Road

Mitkof Design Proposal

Most of the Woodpecker Road travels through proposed *Scenic Viewshed*[10] areas. Timber harvest is allowed with special consideration for scenic concerns. This designation recommends selection cutting, smaller clearcuts, longer time between entries, and less disturbance.

We propose locating the Southwest and South Blind Slough HCAs[11] (Map 14) along or near Woodpecker Road. We propose changing an area north of Woodpecker Road to *Deer Winter Habitat*[12] (Map 11). These changes would help protect scenery.

Wrangell Narrows

Mitkof Design Proposal

We propose locating the Southwest HCA (Map 14) on the southwest corner of Mitkof Island. This would preclude timber harvest in this portion of the view from Wrangell Narrows.

Alternative P (1992) recommends that the areas visible from Wrangell Narrows be designated *Scenic Viewshed*[13]. This designation allows timber harvest with special emphasis given to scenic concerns. This emphasis recommends selection cutting, smaller clearcuts, longer time between timber sales, and less disturbance in areas within one quarter of a mile of the viewer.

Creating and Maintaining Views

Mitkof Design Proposal

We propose two projects to enhance views along Woodpecker Cove:

1. create view openings along Road 6245, and
2. construct a vista point turnout on Woodpecker Road close to saltwater west of State land.

10 For a review of *Scenic Viewshed* Land Use Designation see At-A-Glance in Appendix A.
11 For a review of HCAs turn to Chapter 2, Viable Wildlife Populations.
12 For a review of *Deer Winter Habitat* Land Use Designation see At-A-Glance in Appendix B.
13 For a review of *Scenic Viewshed* Land Use Designation see At-A-Glance in Appendix A.

1994 Comments

"The great views would open up with clearcutting." "Develop more scenic vistas higher on the hills." "Maintain road at Woodpecker and put in picnic tables." In future, "campground and picnic area at Woodpecker Cove."

Silviculture

Mitkof Design Proposal

We propose leaving the choice of silvicultural systems to project level teams.

Reasons for Timber Harvest

There are many reasons for harvesting timber including:

- producing timber,
- providing moose browse,
- creating openings for scenic vistas, and
- removing hazard trees in campgrounds.

Clearcutting

1994 comments

"Limit clearcutting where visitors view them. [Otherwise] I favor clearcutting as the preferred harvest method. I think the Forest Service has done a good job on Mitkof." "I'd like to see clearcutting continue so berries will continue to be available for gathering."

1995 comments

"Because timber harvest, clearcutting in particular, is so closely tied to reduced habitat capability for deer we recommend no more clearcutting on Mitkof Island." "Clearcutting to enhance berry-picking. In some ways, I don't think I should have to point out how ludicrous this is, but I suppose I should for the survey - It's ludicrous."

Clearcutting is used in areas when:

- timber production is the main objective,
- blowdown is likely,
- natural reproduction of tree species is difficult, such as with Alaska yellow-cedar on some sites,
- emphasis is placed on certain tree species, uniform tree spacing, or other site management such as control of dwarf mistletoe,
- potential damage to remaining trees is unacceptable,

- there is some value to sunshine reaching the understory, for example to enhance moose forage,
- we intend to rehabilitate lands effected by forest insects or disease infestation,
- it is part of research design, and
- providing for utility lines, road corridors, recreation facilities or similar development.

Alternative Silviculture Systems

In order to meet a wide variety of objectives, we will consider alternatives to clearcutting:

- individual tree selection where single trees are removed in a harvest area, and
- group selection where small groups of trees (two acres or less) are removed.

Advantages to selection cutting include:

- maintaining canopy cover for deer winter range,
- creating and maintaining structure and species diversity;
- protecting aesthetic values.

Disadvantages include:

- high logging costs,
- damage to residual trees,
- limiting contracts to larger, more-experienced operators,
- difficulty tracking treatments,
- poor regeneration for some trees requiring bare soil for germination, and
- poor growth for shade-intolerant trees.

1994 comments

"Harvest with small clearcuts and selective cutting." "Slow down the level of clearcuts. I know this would result in a loss of jobs, and I don't like it, but ..." "Mitkof timber harvest should be small-scale, selective cutting with little or no more roads built." "Selective cut. Take out messy trees, not just because it's easy to get to (don't build a new road to do it)." "Selective harvest -- not high-grading -- sophisticated thinning."

1995 comments

"...support only single tree selection in stands of low value to deer and only to the extent that deer habitat capability will not be reduced."

Ecological Research on Alternatives to Clearcutting

Mitkof Design Proposal

We propose conducting research on alternatives to clearcutting on Mitkof Island because it would be easier for people to visit the site and see the results themselves. If the research is conducted on Mitkof Island we recommend the Canyon Creek area, based on the availability of enough area with similar aspect,[14] slope, and elevation.

This research would involve nine different harvest units between 40 and 50 acres in size, with densities varying from no-harvest to clearcut. (See Appendix C for more detail.) All blocks would be helicopter-logged.

Mitkof Locations

1995 Comments

West Falls Creek & Frenchy Creek Area

"West Falls and Frenchy: Generally, future timber harvest should be concentrated on the north end of the island." "... because it's closer to town." "... easy access and good public visibility." "... it's close to Petersburg." "... it's close to town and the area receives a lot of traffic. High visibility." "... If you want people to see the results put it in the most traveled area. I believe that would be the Three Lakes Loop. Beside the 40 acre clearcuts are already there." "... while recreating we can observe for ourselves on a seasonal and yearly basis the effects of each treatment. If the studies are out-the-road, I will rarely get there." "... this allows the highest visibility to the public."

"I would not support the West Falls and Frenchy area for visual reasons!"

[14] Aspect is the direction a hillside faces.

Canyon Creek and Overlook Area

"Canyon Creek and Overlook area or Dry Strait Area."

Dry Strait Area

"I like area the Dry Strait area. Do you plan on using the research to study moose? I would like to see the USFS implement the early harvest of second growth for moose." "Canyon Creek and Overlook area or Dry Strait Area." "Dry Strait area: Less effect on resources and values."

Sumner Creek Area

"I would not support the Sumner Creek area because of deer winter range."

Frenchy Creek and Pan Creek Area

"I prefer Pan Creek and Frenchy Creek areas for a location for the research. I would like tie roads constructed to provide loops for skiing, snowmobiling, 4-wheeling, mountain biking, and car driving close to town, and connecting Twin, Pan, and Frenchy Roads."

Anywhere on Mitkof Island

"I would like to see the research done here on the island but have no preference as to the area." "The area does not matter to me as long as we do it some place." "All are good. I also recommend dropping the finger of Blind-Crystal HCA and considering the area on the South entrance of Three-Lakes Loop Road." "No preference ... for this project to be meaningful, why not have broad range of cutting options visible to public? You may also wish to select a public oversight team that could provide reaction documentation over time." "With regard to the logging research, if it is located on Mitkof, I would like to see it outside the high and highest DWR and developed using non-helicopter methods so the local loggers can compete for the bidding. There should be a road to the site so people can walk through the stands and see the results first-hand."

Not On Mitkof Island

"Why do this study on Mitkof? Prince of Wales has a road system. Kuiu has a road system, just to name a few." "Research it somewhere else." "I prefer none. Locate on someone else's Island." "Avoid Mitkof for clearcut

study." "No research on alternatives to clearcutting on Mitkof Island. No one asked for this - but they did ask for an end to clearcutting." "We do not support the rational that Mitkof Island should be the target of this research because "many people could drive to the site to view the results."

Don't Do The Research At All

"Research not necessary." "I prefer none of the above. I don't feel there is a need to put forth more government spending. Clearcutting does the least damage has a better reforestation percentage and is the best habitat for deer to reach foliage and stay safe - just try walking through a clearcut!" "None - manage as you would the other forests produce maximum timber." "Honey, get the kids, let's go see the clearcut alternative before it grows back. Are you serious? I don't prefer any of these."

"Clearcut alternatives have been widely researched already. Any alternative is better than clearcuts. It's past time for a change."

There has been limited use of alternatives to clearcutting in Alaska. The social, logistic, and economic effects from alternative silviculture systems are not well known, nor are the long term effects on the ecosystem. In response to these concerns, the Forest Service is conducting a research study. We identified potential sites on Mitkof Island (Map 10) and in the Missionary Valley area on Kupreanof Island. Only one site will be selected. In addition to new harvest units, existing clearcuts and partial harvests will be studied.

Conduct on Sites Already Harvested

1995 Comments

"Conduct research on clearcuts and partial cutting in proposed timber sales and existing partial cuts from years ago." "... If you want to study clearcuts there are plenty of them out there already." "We also suggest that if research of this type be conducted, that much of it can be done in stand of timber that were previously harvested using selective methods. Numerous stands already exist where logging was conducted by individuals and small scaled timber operations, and the data that could be gathered could prove invaluable." "No more clearcuts necessary in order to study them. There is plenty of them available and it is time to implement them."

Units must be harvested with similar equipment at the same time for valid comparison. It is also easier to do a comparison when units are side-by-side on similar sites to reduce error. In addition to new harvest units, existing clearcuts and partial harvests will be studied.

Conduct As Part of Sales Already Planned

1995 Comments

"Conduct this research within the scope of sales already planned. No new areas should be logged simply for research. Alternatives are a great idea though!" "I doubt that you will find out anything new with a partial cut but if you want some to study you could do them in the context of a regularly planned sale." "If you're going to cut 360 acres, why don't you have a timber company donate the land for research out of a sale. The Forest Service and the public should get at least some benefit from "giving" timber companies our trees." "Research on alternatives to clearcutting should be conducted in currently proposed timber sales." "It appears to us that this proposal is actually a timber sale disguised as research project."

We looked at planned sales but due to logistics, research needs, and other economic factors, those areas were not feasible. The volume on this research study will be advertised and sold as part of the timber sale program. We propose these areas for timber harvest even if the research does not occur.

Time Frame for Results

1995 Comments

"How long will it take to determine the results of the project and make recommendations?"

Some social, economic, and logistical questions will be answered within a few years of harvest. Other questions will take longer.

Use Ground-Based Yarding Systems

1995 Comments

"Let's try to do some harvest research in all these areas. We can do these partial harvests and clear cuts with equipment on the ground instead of bringing in expensive helicopters." "Research study needs to use ground system not helicopter. What is the point of doing research on individual tree selection if it can't be widely and economically used." "With regard to the logging research, if it is located on Mitkof, I would like to see it outside the high and highest value deer winter range and developed using non-helicopter methods so the local loggers can compete for the bidding." "The research project sounds good with the exception of the helicopter logging requirement."

For a research study to be valid all units must be harvested using the same method. Helicopter logging is the only method by which this can be accomplished.

Soils, Water, and Fish

Soils

Mitkof Design Proposal

We propose a number of watershed restoration projects, as listed in Chapter 1. In addition to the watershed projects, rehabilitation projects will be done when needed, for example during road construction. These rehabilitation projects may include:

- road revegetation and drainage structure maintenance,
- planting grass, alder, or willow on slide areas,
- quarry rehabilitation, and
- rehabilitation of other disturbed areas.

Soil Erosion

When soils are exposed, gravity, precipitation, or running water can cause erosion, particularly on steep slopes. Two major types of soil erosion occur on Mitkof Island, surface erosion and landslides. Each of these has the potential to effect water quality, fish habitat, and nutrients available for plant growth.

Most soils on Mitkof Island are resistant to surface erosion because they are protected by an organic layer interwoven with roots and covered by vegetation. Timber harvest and road construction have the greatest likelihood of increasing the erosion rate by exposing soils.

Landslides are the dominant process of natural erosion in Southeast Alaska and occur during or immediately after periods of heavy rainfall when soils are saturated. Steep slopes are naturally unstable and when disturbed by blasting, road constructing, side casting of excavated material, or logging practices, landslides may occur.

Unstable Soils

We did not include areas with unstable soils in estimating the levels of harvest. Unstable soils were mapped and inventoried using aerial photographs with some field verification. We recognize that not all the areas were mapped correctly due to the immense task of ground verifying large expanses of land. We will refine

our inventory of high-hazard soils during project-level analysis, which may add to or decrease the land base eligible for timber harvest.

Water Quality

Mitkof Design Proposal

We propose that project level teams use the Watershed Sensitivity Model to assess cumulative effects as part of the analysis for major ground disturbing projects. (Appendix C). We recommend that managers consider limiting projects in watersheds approaching the threshold of concern.

Watershed Sensitivity

We used the Stikine Area Watershed Sensitivity Model to look at how sensitive the land is to disturbance, such as timber harvest and road construction. The model uses soil and stream characteristics of each watershed to describe land *sensitivity*. Sensitivity class may be low, moderate, high, or extreme. Next, the value of the watershed is rated for anadromous fish and human water supply. This is referred to as the *user class*. The values for fish habitat are based on ratings from the Alaska Department of Fish and Game and range from very low to high. If the watershed use includes drinking water, it is assigned a high user class.

Sensitivity to Disturbance: The results show that most of the island is in the low-to-moderate range for sensitivity to disturbance. Of the major named watersheds, only Sumner Creek fell into the high-sensitivity category.

User Class: Four watersheds were rated high for use: Blind Slough and Falls Creek for anadromous fish, and Cabin Creek and Reservoir Creek for human water supply. None of the watersheds are close to the threshold of concern suggested by the model (Table D-2, in Appendix C). The analysis indicates that cumulative watershed concerns are not a limiting factor on Mitkof Island at this time.

Municipal Watershed

1995 Comments

"We are pleased with the Design's treatment for the City of Petersburg's existing and future municipal watersheds. We specifically support the

proposed new *Municipal Watershed* land use designation. Our sole concern is that the management prescriptions for fire suppression and pest management associated with both watershed designations allow for the possibility that chemicals could be used for these purposes. We recognize, as a practical matter, it is unlikely that the U.S. Department of Agriculture Forest Service would apply potentially harmful chemicals in the watersheds. To remove all doubt, however, we suggest that the Design specifically preclude the use of chemicals for fire suppression or pest management in the watersheds."

"Until the City of Petersburg actually develops the congressionally designated "*Municipal Watershed*", the areas should retain its current "timber emphasis" designation and be available for harvest."

The Forest Service and the City of Petersburg share a common management goal in the Cabin Creek and the City Creek: to protect the quality and quantity of Petersburg's existing and future water supply. The Forest Service has demonstrated this commitment by:

- past management, in cooperation with the City of Petersburg, of federal lands within the City Creek watershed;
- the language included in the proposed revision to the Tongass Land Management Plan protecting municipal watershed values; and
- proposing the current Cabin Creek watershed land allocation change from *Timber Emphasis* to *Municipal Watershed*[15].

These actions demonstrate the Forest Service's goal of meeting the State of Alaska's Water Quality Standards for potable use within municipal watersheds. The use of chemicals for fire and pest suppression is contrary to management direction within these watersheds. We will not prescribe chemicals that will effect water quality within these watersheds.

It would be inconsistent to allow timber harvest and road construction that might influence the water quality for human use in the interim.

The State of Alaska has selected the reservoir site and the City of Petersburg could choose to harvest timber that would be flooded by the reservoir. Salvage

15 For a review of *Timber Emphasis* and *Municipal Watershed* Land Use Designations see At-A-Glance in Appendix A and B.

logging in the rest of the watershed would be considered only at the request of the City.

Additional Potable Water Supplies

Water quality in smaller watersheds used for human water supply will be addressed at the project level.

Fish Habitat

Mitkof Design Proposal

We propose to: implement watershed restoration and fish enhancement projects, and use the sensitivity model to reduce the possibility of unacceptable cumulative effects.

1994 Comments

"We need logging... also, save trees where deer need habitat in heavy winters. I'd also like to see 1/4 mile buffers along major salmon & trout streams." "Include PacFish buffers." "I think there should be stream buffers that are big enough they won't blow down." "The current buffer strip requirements don't address the habitat needs of fish spawning in smaller streams." "We should have buffer strips along all streams, a minimum of 1000 feet."

1995 Comments

"... very disappointed that the PACFISH Strategy was not incorporated into the Analysis. It appears this is a political decision despite numerous requests from the public." "The Analysis failed to take a "hard look" at the PACFISH strategy, the best available scientific data relating to salmon habitat protection. Although the 1994 Interior Appropriations Bill exempts Alaska from applying PACFISH's interim standards in 1994, the Forest Service still has a duty under NEPA to disclose and analyze these interim standards in comparison to current riparian management standards."

"PACFISH is not appropriate for Southeast Alaska where most areas average well over 80 inches of precipitation per year, even in dry years. Most of Southeast Alaska has short rivers with cool water and steep

gradients, except on the valley floors. In addition, no EA/EIS has been prepared to discuss the implications of the strategy in Alaska. If the Forest Service is interested in fish habitat and resource management, they would be better off allowing some harvest in the Tongass Timber Reform Act 100' buffer zones in order to remove high value timber that can be removed without impacting the stream or buffer, and providing fish access/passage to areas that currently contain good habitat but no fish due to natural blockages." "Developing a more flexible policy than the TTRA mandated 100' buffer zone on Class I and Class II streams flowing into Class I streams is a great idea, but TTRA must be modified before you can proceed with research on smaller buffer zones and selective harvest of high value trees within the buffer zone."

Our goal is to maintain and restore aquatic habitat so the diversity and production of fish and other aquatic life is not diminished. The Anadromous Fisheries Habitat Assessment for the Tongass National Forest is currently under review by the Department of Agriculture and the Tongass Land Management Plan team. The Tongass Land Management Plan is being revised and Forest-wide changes in fish habitat management are expected.

Streamside Buffers

We have identified two different possibilities for stream buffers that may apply in the future depending on the results of the Forest Plan Revision:

Current Mitkof Island Strategy: This strategy includes Tongass Timber Reform Act requirements and additional guidelines for managing aquatic habitat. Tongass Timber Reform Act requirements include a minimum 100 feet buffer on either side of all Class I and Class II streams[16] with the exception of Class II's that flow directly into the ocean. No commercial timber harvest is allowed in these buffers. Buffers are extended beyond 100 feet on a site-specific basis to include unstable soil, maintain stream bank and flood plain integrity, and maintain water quality and large woody debris sources.

PacFish Strategy: The second approach applies to the Pacific Northwest but not Alaska. In 1994, Congress directed the Forest Service to review

16 Class I streams are streams that have
- anadromous fish,
- fish that do not go to sea but live in lakes and enter streams to spawn,
- streams with resident fish populations that are high quality, such as trophy size trout streams, and
- habitat upstream from fish barriers with reasonable enhancement opportunities for anadromous fish.

Class II steams have resident fish populations but no anadromous or high quality fish populations. Anadromous fish are those that come from oceans to spawn in freshwater. Resident fish are those that live their entire life in freshwater.

the Pacific Fish Strategy (PACFISH) to study the effectiveness of current procedures for protecting the habitat of anadromous fish in Alaska and determine if any additional protection was needed. The report is being reviewed by the U. S. the Forest Plan revision team. PACFISH includes interim buffers that are:

- 300 feet wide on both sides of fish bearing streams,
- 150 feet wide on both sides of permanently flowing streams with no fish,
- 150 feet around ponds, reservoirs, and wetlands greater than one acre,
- 50 to 100 feet on both sides of intermittent streams,
- 50 feet around wetlands less than one acre, and
- 50 feet around unstable soils.

No harvest is allowed within the interim buffer until a watershed analysis is conducted.

Inventory of Riparian Management Areas

We identified the most obviously sensitive areas that could influence the quality of riparian habitat (Map 6). These areas include streams, lakes, floodplains, important wetlands, high hazard soils,[17] stream side-slopes, and Tongass Timber Reform Act buffers. Land disturbing activities in these areas may affect aquatic resources. There aren't any standards and guides for these areas yet, except that no commercial timber harvest is allowed in Tongass Timber Reform Act buffers. We expect to see new standards and guides in the Forest Plan Revision and will apply them to sensitive areas.

Rehabilitation and Enhancement Projects[18]

Mitkof Design Proposals

We recommend the following streamside enhancement and rehabilitation projects (Map 7 and Chapter 1).

Rehabilitation of Harvested Streamside Areas: Place log or rock structures in the stream, thin hardwoods, and plant spruce or hemlock. We propose this

17 High Hazard soils are unstable soils with a high probability of producing landslides. They include most well drained soils on slopes of 75 percent or greater as well as some soils with restricted drainage on slopes greater than 65 percent. Nearly all natural occurring landslides start on these soils.

18 Rehabilitation restores site productivity, water quality, or other values. Rehabilitation may include planting trees and spreading grass seed.
Enhancement improves the existing condition.

treatment for East Ohmer Creek, Falls Creek, Bear Creek, and a creek approximately two miles north of Bear Creek.

Stocking Fish in Lakes: Stock trout in several small ponds which currently have no fish, providing year-round fishing opportunities. We propose stocking for Wolf Track Lake (SW corner of island), Goose Lake (south of Falls Creek), and Snow and Shrew Lakes, (south of Twin Creek).

Stream Habitat Diversity: Insert large woody debris to create variety within the stream. This will improve cover and trap spawning gravel. We propose this treatment for Bear Creek and Sumner Creek.

Fish Ladder Construction: Modify the bedrock falls on Sumner Creek to allow fish to move to habitat above the falls.

Fish Habitat Access: Insert baffled PVC pipe into beaver dams to enable juvenile anadromous and resident[19] fish to reach beaver pond habitat. We propose this treatment for a pond near the Ohmer Creek highway crossing.

1994 comments

"Restore Falls Creek and Big Creek [Bear Creek] watershed and streams to natural condition." "Need to enhance fish habitat on the island."

1995 comments

"With the increase in visitors it is necessary to enhance and rehabilitate our fish streams to provide better fishing opportunities and more fish. Stocking trout in barren lakes that are inaccessible to the majority of people should have a low priority. Stocking Bear, Cosmos, Sumner, Falls, and Ohmer Creeks should have a high priority." "Don't stock Wolf Track Lake because of the rough skinned newts."

"There is no problem with the fish projects, but they should be funded with hard dollars rather than with monies produced from timber sales."

The Alaska Department of Fish and Game is the agency primarily responsible for fish stocking projects. They currently stock Blind River and have stocked other Mitkof Island streams in the past. Stocking other Mitkof Island streams may be considered by the Alaska Department of Fish and Game in the future.

19 Anadromous fish are those that ascend from oceans to breed in freshwater. Resident fish are those that live their entire life in the same stream.

We propose stocking four barren lakes. They are easily to moderately accessible and afford year round fishing opportunities. The Forest Sciences Laboratory in Juneau is interested in studying the interaction between rough skinned newts and trout. Stocking of Wolf Track Lake may allow further study, however, all concerns will be examined before any fish are stocked.

Some fish projects are completed using funds collected from timber sales. These funds are collected according to law and are used to revegetate and improve the timber sale area.

Timber Management

Commercial Timber Harvest (Map 10)

Mitkof Design Proposal

We propose harvesting an annual average of 4.2 million board feet[20] of timber for both commercial use and personal-use on Mitkof Island (Map 9). This may not be the amount offered for sale every year. During some years there may be no sales while in other years we might offer twice the average. We propose a number of timber sales as listed in Chapter 1. The timber volumes are shown as ranges for each sale to allow for site specific planning.

We propose a number of adjustments to the Forest Plan (Chapter 1), some areas would reduce the harvest volume while other would increase the volume. We propose a number of HCAs in this Design. Timber harvest would not be allowed within HCAs or travel corridors unless it was a salvage sale of greater than 100 acres.

Continue Harvest

1994 comments

"I support a maximum yield timber harvest. Without this, economies will begin to destabilize and in the long run, put more and more people out of work. The timber industry is an important addition to SE Alaska, supplying both industry and indirectly, approximately 30% of the SE Alaska employment." "The Tongass Timber Reform Act (TTRA) of 1990 directed the Forest Service to 'seek to meet market demand' for the forest products industry. Your analysis must exhibit how Mitkof Island will contribute to seeking to meet demand." "I'd like to see them use the resources instead of just storing them. They should cut the timber and harvest it and plant it and make it work." "I would like to see more timber sales put up on Mitkof Island. We are not meeting the current demand for small local operators."

"Ninety percent of the Tongass National Forest is in some land use classification which prohibits timber harvest. It seems clear that demand

20 A unit of timber measurement equalling the amount of wood contained in a green, unfinished board one inch thick, twelve inches long, and twelve inches wide.

for unroaded and undeveloped forest activities can be met from these areas."

1995 comments

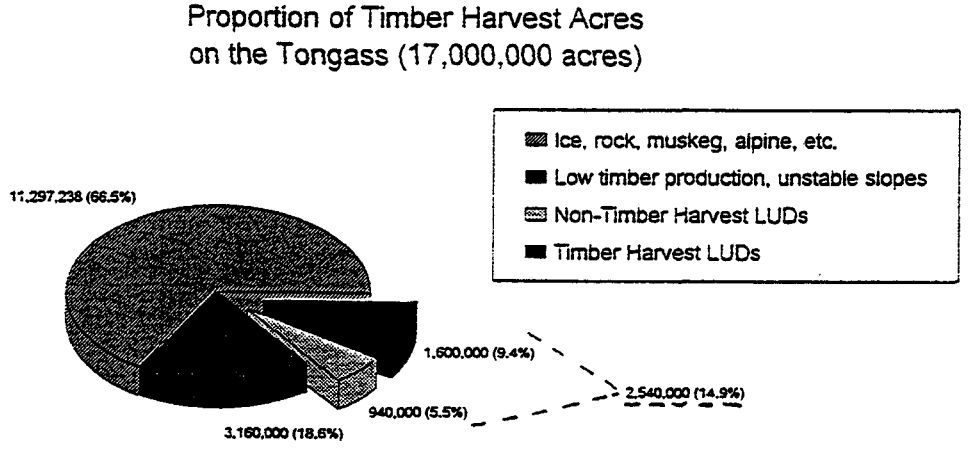
"We simply must get a steady timber sale program going here." "Get the maximum amount of wood for the timber industry to purchase available as soon as possible." "I feel it is important to start implementing the logging portion of this design so local timber harvesters will get back into the woods." "I would like to see at least one 3 to 5 MMBF timber sale from Mitkof Island every year." "It is more important to maintain jobs and revenue for the families of Petersburg, than to save a couple hundred deer." "I support timber harvesting to provide timber related jobs and open up new roads."

We will continue to harvest timber in the three land use designations in Alternative P (1992), three land use designations[21] allow harvest. These include:

- *Timber Emphasis,*
- *Modified Landscape, and*
- *Scenic Viewshed.*

We propose changing an area in the Sumner Range to *Timber Emphasis* from *Modified Landscape* to allow more intensive harvest in an area where timber is available, it is not often seen, and with low value wildlife habitat.

Figure 2-1. Proportion of Timber Harvest Acres on the Tongass In Alternative P (1992)



21 For a review of the Land Use Designation see At-A-Glance in Appendix A and B.

Limit Harvest

1994 comments

"Stay away from large clearcuts, reduce harvest levels. Calculate a sustained yield for the island, while preserving remaining high value wildlife habitat." "Conduct logging on all island Commercial Forest Lands (CFL) except for critical deer winter range (small scale logging, non-clearcut)." "We need logging not only for jobs but to produce wildlife habitat. Also, save trees where deer need habitat in heavy winters. Plus apply 1/4 mile buffers along major salmon & trout streams."

"Less timber harvest would be okay. A few old-growth blocks would be all right; just don't tie up all old-growth logging." "More small timber sales between 0 and 5 million board feet." "I'd like to see some small (a few thousand board feet) sales." "I would like to see the whole island protected from larger-scale, commercial logging. Ask local loggers what they would need to continue to operate. It would probably be 1 million board feet per year."

1995 comments

"Need to keep the diversity of economy with the logging but yet maintain a healthy huntable herd of deer." "I feel timber harvest should be reduced substantially. More care should be exercised in sustaining 120 year rotation while leaving significant old growth permanently." "No more clearcutting on Mitkof. Allow personal use timber harvest, some alternative logging methods, with less impact than clearcutting." "Allow salvage and personal use timber harvest. Allow timber harvest with individual-tree selection." "Support only single tree selection in stands of low value to deer and only to the extent that deer habitat capability will not be reduced." "Keep a balance of habitat and logging." "Cater to S.T.O. small clearcuts - large buffer strips. Real 120 year rotation. Most surviving old growth left as is."

We proposed two new land use designations that allow very little timber harvest:

- *Municipal Watershed*
- *Deer Winter Habitat*

In our timber volume calculations, we assumed that 20% of the potential volume could not be harvested due to concerns identified in project level analysis.

No Harvest

1994 comments

"I believe there has already been too much logging and roading, and no more should be considered." "I'm anti-logging. I'd like to see it left as-is, I guess." "Our economy has been doing just fine without a big logging industry on the island."

1995 comments

"I think that all cutting should stop, except for firewood cutting." "I prefer no more timber harvest on Mitkof."

Timber harvest is also not allowed in HCAs except in for salvage sales greater than 25 acres.

Salvage Sales

1995 comments

"Salvage sales often include a lot of "green" [trees] to make economical. Leave these areas alone until it's proven that methods are available." "A salvage sale should only consist of downed or dying trees and not be used as an excuse to cut dozens of acres of healthy trees in the surrounding area."

We salvage timber when there is insect infestation, dead, damaged, or down timber. In salvage sales we also harvest live trees if necessary for access, if they are not likely to survive, and for safety reasons.

Manage Second-Growth Timber

1994 comments

"Go ahead and cut all the second growth you want!" "Different harvests and second growth management. Continue to strive for balance much like now, but with more emphasis on creativity and innovation."

1995 comments

"The Three Lakes Loop Road has extensive second growth adjacent to the road and on spurs off the road. This second growth should remain available for harvest along with significant patches of blowdown (over 10 acres) in the adjacent old growth." "The Forest Service should investigate commercial thinning of second growth stands over 40 years old, and continue its pre-commercial thinning on Mitkof Island and the rest of the Petersburg Ranger District." "I would like to see the USFS implement the early harvest of second growth for moose."

We manage second growth stands by:

- pre-commercial thinning,
- green firewood cutting,
- pruning, and
- commercial harvest.

Helicopter Logging

1994 comments

"Try helicopter logging with less openings, or some single-tree selection." "Helicopter logging is good."

There may be more helicopter logging in the future. Actual locations for helicopter sales will be determined when we look at specific timber sale projects.

Other Forest Products

Firewood Cutting

Mitkof Design Proposal

Where possible we propose to leave roads open longer after timber harvest to allow firewood gathering. We propose tracking personal-use wood gathering to develop future recommendations for firewood management.

1994 comments

"The Forest Service needs to allow more access to trees for woodcutters in the community. Current wood cutting areas are deep in the forest and offer limited cutting, because most woodcutters can only reach 20 to 50 feet into the woods from the road. Woodcutters should be permitted to take green, standing hemlock within 50 feet of the road on logging roads. Whatever system is developed, more access is needed."

"Firewood, firewood, firewood..." "Leave all roads open for firewood access." "Make firewood more available." "Commercial logging builds roads which give access to subsistence wood gatherers. In a practical sense, without roads there is almost no subsistence wood gathering."

1995 comments

"Believe you should treat subsistence firewood cutting similar to subsistence use of wildlife and fish. Subsistence uses come first. If there is a remaining surplus, then commercial uses are okay. Presently commercial uses seem to have priority -- they get to cut hundreds of acres of green trees and subsistence users can generally only cut dead and down trees. I know there are a couple small green tree firewood cutting areas. Maybe spruce should not be included as okay for green tree firewood as have higher commercial value and possible less desirable than hemlock for burning." "Keep firewood and personal use open on Mitkof." "I oppose your policy of water barring the roads immediately after logging. There are a lot of broken pieces and tops of logs left at the landings that can be used as firewood instead of rotting away. If need be water bar 1 or 2 years later, multi-use."

Firewood gathering will continue to be allowed in most areas, but is not allowed in HCAs and travel corridors. Most roads that are currently available will remain open. An updated map is available at the Petersburg Ranger District. Firewood gathering would generally be allowed on new roads following timber harvest. We don't expect to build new roads for firewood gathering because of the expense.

Use of Western Redcedar and Alaska Yellow-cedar

1994 comments

"There are so few redcedars on the island that nobody should ever cut these, if future generations are ever to easily see them." "People must continue to be able to harvest red and yellow-cedar ."

1995 comments

"I am interested in saving for future generations exceptional stands of yellow cedar, these slow growing trees are special, and make beautiful furniture. Also, spruce of venerable age should not be eliminated in an effort to supply jobs and timber sale today. Please save some for tomorrow."

Redcedar and yellow-cedar will continue to be available for use. Yellow-cedar is widely distributed and readily available on Mitkof island. Redcedar is less common than yellow-cedar. Some redcedar trees will be preserved in *Special Interest Areas*, HCAs, and *Semi-Primitive Recreation*[22] areas.

22 For a review of *Special Interest Areas* and *Semi-Primitive Recreation* Land Use Designations see At-A-Glance in Appendix A.

Wildlife: Deer

Mitkof Design Proposal

We propose managing deer habitat using a number of approaches. These methods include:

- creating a new Land Use Designation called *Deer Winter Habitat*[23],
- establishing HCAs, and
- considering deer habitat during project planning.

We propose using these methods to maintain habitat capable of supporting 2,070 deer south of the City Limits. Deer *numbers* may vary due to factors such as predation, hunting pressure, and severity of winters. That's why we talk about maintaining *habitat capability* -- the number of deer the land is *capable of supporting*.

Minimum Habitat Capability

We propose maintaining habitat capable of supporting at least 2,070 deer on National Forest Lands south of the City Limits. This is the huntable area on National Forest lands.

Deer Winter Habitat Land Use Designation: (Map 11)

We propose designating six blocks of important *Deer Winter Habitat* in the southern half of Mitkof Island. The designated areas would protect habitat that can support approximately 2,070 deer during a moderately severe[24] winter. These areas become increasingly important during winters with extremely deep snow, acting as refuge, providing cover, and access to browse. We propose standards and guidelines for the management of this Land Use Designation (Appendix B).

Habitat Conservation Areas (HCAs)[25] (Map 14)

HCAs are designed to maintain the viability of species dependent on old-growth habitat such as marten and goshawk. Many of them also contain important deer winter habitat.

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23 For a review of *Deer Winter Habitat* Land Use Designation see At-A-Glance in Appendix B.
24 Moderately severe winters are those with between 51 and 115 inches of snow.
25 For a review of HCAs see Chapter 2, Viable Wildlife Populations.

Project Analyses

Many areas of highest-value and high-value deer habitat are within HCAs and the *Deer Winter Habitat* Land Use Designation, but some are outside these areas. We will also consider deer habitat during project level analysis. For example, timber harvest units might be designed with group selection and individual tree selection to avoid some of the best deer habitat that is not protected by other means.

Deer

1994 Comments

"Deer hunting is very popular on Mitkof Island. About 700 hunters participated in each of the last 3 years. Also, most of the hunting occurred on the south half of the island. To protect the remaining deer winter range on south Mitkof, logging should not be scheduled there. Plan future logging on the north half of the island." "The deer hunt on Mitkof Island is a good idea and should continue."

"Maintain critical deer habitat since demand for deer on Mitkof Island exceeds the supply -- you shouldn't be harvesting any more old-growth. Go ahead and cut all the second growth you want!" "Although I use roads to get to the places I hunt, I do not believe we need any more logging roads or clearcuts on Mitkof Island. I've observed that deer populations take a hard hit with the increased access roads provide." "No more logging on south Mitkof." "Too much deer winter range has been harvested. Stay away from large clearcuts, reduce harvest levels."

"Calculate a sustained yield for the island, while preserving remaining high-value wildlife habitat." "Conduct logging on all island CFL (*Commercial Forest Lands*) except for critical deer winter range (small scale logging, meaning non-clearcut)." "Save trees where deer need habitat in heavy winters." "Deer winter range should be protected. Clearcutting levels should not be allowed to adversely affect deer winter range." "Less timber harvest on coastal south-facing slopes." "Do not cut timber in deer winter range on entire south side of island facing Sumner Strait, Wrangell Narrows, and Dry Strait." "Manage for deer along Woodpecker Cove Road beginning at Ohmer Creek, along the beach fringe of Sumner Strait, following around on up the Narrows to the mouth of Blind Slough." "Protect all south facing slopes for valuable deer habitat. 'Protection' means no cutting."

1995 Comments

"Need to keep the diversity of economy with the logging but yet maintain a healthy huntable herd of deer." "Demand for deer far exceeds the supply as evidenced by the issuance of 750 permits each year with an average of only 166 deer harvested." "Maximize deer populations by focusing on maintaining optimum habitat." "I prefer that the deer population be allowed to return to historical levels by halting clearcut logging." "Seems like habitat capability for 2000 deer could help keep a huntable population of deer on the island while still allowing enough timber harvest on the island for timber supply jobs." "We need deer close to where people live. We really cannot travel to Kuiu to harvest deer. Loggers have camps established in remote areas and are able to operate away from the population centers."

Demand For Deer

Our analysis suggests that current and future demand for deer exceeds the habitat capability of the island. The island will not support unlimited demand for deer. We assume that the demand for deer will continue to grow according to the same growth rates estimated for the community of Petersburg.

Key Areas For Protection

We agree that south-facing slopes along the south end of Mitkof Island are some of the best habitat on the island. Much of the best beach habitat has been selected by the State of Alaska and is no longer managed by the Forest Service (Map 1).

Balancing Needs

Mitkof Design Proposal

We propose a balance between deer habitat and timber harvest by maintaining habitat capable of supporting at least 2,070 deer and harvesting an average of 4.2 million board feet of timber per year. The numbers describe the balance we expect as a result of all our recommendations. The deer and timber numbers are higher than we showed in the Preliminary Design because we mistakenly used the 1991 rather than 1992 allocations for Alternative P. We corrected this error in the Final Design.

Don't Balance

1995 comments

"I firmly believe we can have the higher [timber] harvest level and still have a healthy deer population." "It's not either/or; you can have [timber] harvest and deer." "I think maintaining a deer population is important, however, so is a timber program. I think they can go together." "Some deer, some timber, but no set targets. Allow flexibility with no magic number."

"I don't trust computer models. We should be able to work this out without a target." "I don't think trying to achieve a single magic number, derived from a computer model, is realistic. Simply be flexible and honest with land management practices."

More people want more of both resources. We need to acknowledge limits to Mitkof Island's productivity and define a balance. Without the numbers, the effort is meaningless. Computer models are not perfect, but they're the best tool we have for describing what balance we think is possible. It simply isn't possible to count every deer. A model is a way of applying our knowledge to an area and making some estimates.

Balance

1995 comments

"Along with [more deer] comes other values I desire. I also desire to maintain a timber industry on Mitkof Island. So if 3.4 million board feet is below a threshold to maintain a timber industry, I would chose the timber/deer mix that does." "It's more important to provide deer than timber from this island, but we still need an adequate supply of both." "Seems like habitat capability for 2000 deer could help keep a huntable population of deer on the island while still allowing enough timber harvest on the island for timber supply jobs."

"I think it is important to set aside the best deer habitat to provide for continued deer and wolf populations. " "I favor the modified Alternative P, with HCAs, plus protection of larger blocks (80 acres and up) of remaining high and highest deer winter range. I feel this is a good trade-off, and that the protection of the larger areas of key deer winter range is the best step we can take to assure some continued hunting." "Provide protection to the

larger areas of deer habitat. I do not want to see a flexible approach to deer winter habitat management. That would mean no deer later [because] the USFS would go for the Big Timber!" "I like the placement of HCAs and the use of the deer land use designation. I suggest that this be done for the larger areas of valuable deer habitat. Protect areas greater than 100 acres." "Designate three *Deer Winter Habitat* areas at the Forest Plan level, as proposed in the Mitkof Design. Allow salvage and personal-use timber harvest. Allow timber harvest with individual-tree selection system."

Jobs Over Deer

1995 comments

"In order to increase deer about 12% (1930 to 2160) you would have to decrease timber harvest 37% (5.4 to 3.4 million board feet). The economic trade-offs aren't worth it." "It is more important to maintain jobs and revenue for the families of Petersburg than to save a couple hundred deer. I feel that one deer per hunter or family is adequate. If you want more, there are plenty of other islands to go to... Forget the deer -- humans are more important! " "The loss of 370 deer (2300 with no cutting) doesn't seem enough to slow down logging." "There are plenty of deer in Wilderness Areas where timber harvesting is prohibited, and we need timber to support Alaska's timber industry!" I feel jobs are more important than 230 deer. The amount of deer hunting that will be reduced by this is minimal." "I do not perceive a pressing need to manage the forest for the sake of a deer population."

More Deer

1995 comments

"Deer populations on Mitkof Island have decreased drastically since the introduction of intensive timber harvest... The interest displayed in local deer hunting since the re-opening of the deer season on Mitkof in 1991 and the re-opening of the deer season on Kupreanof in 1993 has shown the value and importance of local deer populations in satisfying the high demand for deer that has always existed locally. The closure of the season imposed a hardship on many local residents who did not have transportation to areas farther away." "We need deer close to where people live. We really cannot travel to Kuiu to harvest deer." "Give the deer the benefit of the doubt. You must protect highest-value [habitat] for bad winters or you may lose the herd on this island."

"We support only single tree selection in stands of low value to deer, and only to the extent that deer habitat capability will not be reduced."
"Maximize deer populations by focusing on maintaining optimum habitat."
"I prefer that the deer population be allowed to return to historical levels by halting clearcut logging."

We think a balance between deer and timber is important. This balance will allow multiple use on Mitkof Island where everyone benefits to some extent. Huntable deer populations will be maintained, a variety of recreation opportunities will be provided, roads will be maintained, and timber will be harvested.

Wolf Control

1995 comments

"I feel you should take a look at decreasing the wolf population. They do a lot of damage to the deer population, especially in moderate to severe winter conditions."

Alaska Department of Fish and Game is primarily responsible for setting hunting and wolf trapping regulations which provide management tools for maintaining deer numbers.

Population Versus Habitat

1995 comments

"Such populations, by their very nature, are highly volatile and may be outside your power to manipulate and manage."

We are managing the habitat capable of supporting 2,070 deer. We are not managing for a specific population. This is an important distinction. Populations vary naturally according to several factors including:

- predation,
- weather conditions, and
- over population resulting in too little browse.

The population of deer will fluctuate around the habitat capability value.

Thinning for Deer Habitat

1995 comments

"Statements made in the Analysis that suggest thinning will improve projected habitat capability for deer are somewhat misleading. Although there may be an improvement following substantial thinning, it will be a minor improvement at best and should not even be suggested as a realistic management tool to improve habitat capability."

"Thinning and the production of even more fiber is the answer." "Anyone, including a biologist, who says you can't enhance deer habitat by vegetation manipulation is very narrow-minded to say the least. A better word is flat wrong. Through creative harvest techniques we can achieve both."

Most clearcuts on Mitkof Island are thinned by age 25. If we thinned stands periodically, we could increase forage production in stands 25 years of age and older. Thinning is very costly however, and has only short term benefits for wildlife. That's why we mentioned it in the Preliminary Design, but didn't calculate an increase in deer numbers.

Habitat Values Go Down

1995 comments

"The document shows deer numbers go down with no timber harvest from 2400 (Year 1994) to 2300 (Year 2060). Is this correct?"

Deer numbers go down because young stands that currently provide browse will close over, blocking sunlight and reducing the growth of plants used for forage. These areas will be of less value to deer in the future, until they mature and can provide winter forage.

Other Wildlife Benefit

1995 comments

"Deer are only one reason for allowing no timber harvest. Think about all the other wildlife. Think about tourism and what they, as the other owners, want to see." "By preserving the amount of habitat capable of maintaining the maximum number of deer, you also preserve the maximum amount of habitat for other species. This option is a realistic compromise between

> harvesting timber and preserving wildlife populations." "Even though you emphasize deer, I think a lot of other animals would do well to have additional habitat areas preserved for them. (Not all of us are into hunting.)"

We have considered other wildlife species in the HCAs, travel corridors, *Deer Winter Habitat* Land Use Designation, and some of our proposed Land Use Designation changes which provide habitat for other species. By providing good habitat for deer and moose we provide habitat for other species.

Wildlife: Migration

Mitkof Design Proposal

The medium and small HCAs we proposed should help maintain the habitat (Map 14) necessary for wildlife species to continue migrating to and from Mitkof Island. For the same reason, we recommended against road loops from Mitkof Highway to Dry Strait Road, and from Woodpecker Road to Mitkof Highway.

1994 comments

"Don't log any more in the Dry Strait area. The old-growth is needed for animal movement from the Stikine River." "Establish a small HCA at the southeast tip of Mitkof Island for wildlife populations from the Mainland." "Protect the wildlife migration area from Stikine River to Mitkof and islands farther west." "Maintain old-growth habitat on the southeast side of the island facing Dry Strait, from State land to north of Three Lakes area. This will maintain a natural migration corridor where wildlife can walk across Dry Strait." "I'm opposed to connecting a loop road between Dry Strait Road and Mitkof Highway because of the potential impact on wildlife migration between Dry Island and Mitkof Island."

1995 comments

"A Medium Habitat Conservation Area (HCA) should be included in the Dry Straits Area to compensate for the loss of the Three Lakes Medium HCA. We feel this is an important requirement that will insure the migration of wildlife from the Stikine and across Dry Straits that a small HCA will not provide for (since volume class requirements are not a component of small HCAs and also due to the larger size requirements for Medium HCAs)."

We do not propose a medium HCA for Dry Strait area because the HCA isn't necessary to meet the spacing recommendations from the 1993 Viable Populations Strategy. The proposed small Dry Strait HCA should meet the needs of wildlife migrating to and from the mainland.

Wildlife: Moose Habitat

Mitkof Design Proposal

We propose to prepare a moose management plan for the Three Lakes and Dry Strait areas (Map 12) prior to activities that would modify moose habitat. The plan would address the balance between moose habitat and other resources. The proposed plan may affect the average annual harvest in the Timber Management section.

The plan may include:

- going with current management,
- clearcutting small areas of lower volume, lower elevation stands for moose forage,
- retaining higher volume stands (below 1500 feet) for cover,
- thinning second growth stands to provide forage, or
- reducing the rotation age (period between harvest entries) of second growth stands to provide forage.

1994 Comments

"Introduce more moose. Start a wolf control program."

"Manage for moose at areas extending from Road 6235 (from Crane Lake to half way to Three Lakes Loop Road) winding down Dry Strait Road to point at Dry Strait. Focus on winter range and sustaining forage production in clearcuts." "Maintain a huntable moose population."

The Forest Service didn't introduce moose to Mitkof Island. The moose crossed over from the Stikine River Delta and the population is increasing naturally. The Alaska Department of Fish and Game is responsible for wolf control. We only propose managing moose habitat.

1995 Comments

"I really can't understand why you would consider clear-cutting an areas to raise moose. That cut will work in the short-term but then you've lost deer habitat and the pole stand will not serve moose or deer." "This strategy needs to be described more fully. Is this area to be managed primarily for wildlife, specifically moose, or for timber production? ... it appears this is

> really a timber management strategy in the guise of a wildlife strategy." "The proposed strategy appears to attempt to benefit moose at the expense of deer. The document does not clearly state that tradeoff for the public." "The decision to manage habitat for the benefit of one species over another is one the Alaska Department of Fish and Game will want to be involved in making." "The moose management strategy said it would have no effect on timber availability yet it only allows cutting low volume stands. Cutting 40 year stands for forage should take them out of timber production and the acreage should not be part of calculations of the ASQ."

We are not managing the habitat for the benefit of only one species. Elements of the plan may benefit both moose and deer by providing cover and forage. We will involve all interested people during development of this plan.

Wildlife: Viable Populations

Habitat Conservation Area Strategy

Mitkof Design Proposal

We propose locating one medium and six small HCAs on Mitkof Island to maintain viable populations of wildlife species that use old-growth forests (Map 14). We recommend that future roads be located outside of HCAs and wildlife travel corridors where practicable. Breaks in the travel corridor should not exceed 65 feet to ensure flying squirrel movements. Timber harvest would not be allowed except for salvage of areas 25 acres or greater.

We recommend leaving open the following roads within HCAs including: Snake Ridge, Three Lakes Loop, Woodpecker Cove, and the Mitkof Highway. HCA designation will not affect existing recreation facilities or new trail construction.

Medium HCAs[26]

We propose establishing the Blind-Crystal medium HCA, which differs from the Blind Slough Medium HCA in the May 1993 Viable Population Strategy and the Region 10 EA on interim management. The 1993 HCA did not meet the proposed guidelines for volume class since other uses in the area, including the hatchery, state land, picnic area, and campground, were not considered.

We do not recommend the Three Lakes medium HCA. We propose a *small* HCA in the Three Lakes Area instead.

Small HCAs[27]

The Viable Populations Strategy suggests that project-level teams identify small HCAs. We identified them in the Landscape Design because it is easier to see how the HCAs connect to each other at the landscape level. We recommend six small HCAs as shown on Map 14 and Table 2-2.

26 Medium HCAs are approximately 10,000 acres in size.
27 Small HCAs are 1,600 acres in size.

Table 2-2. HCAs Including Volume Class (Map 8) and Total Land Acres

HCA	Volume Class 4 and Greater	Volume Class 5 and Greater	Total Land
	Acres		
Southwest	1,590	889	1,835
South Blind Slough	1,105	523	1,650
Dry Strait	1,661	782	2,087
Three Lakes	2,384	1024	5,356
Goose Lake	1,684	1300	1,986
Raven's Roost	1,086	462	1,911
Blind-Crystal	5,927	2640	12,927

We recommend that the precise location of these HCAs be adjusted when necessary at the project level. They can be made larger or smaller as long as they still meet the objectives for medium and small HCAs.

1994 Comments

"Species diversity is a benefit to us all." "I'd like to see wildlife travel corridors maintained between timber harvest areas."

"Implement a wildlife viability strategy similar to the Habitat Conservation Area (HCA) approach." "Be cautious about allowing firewood gathering or selective cuts in HCAs."

1995 Comments

"HCAs are very good idea that needs to realized." "I think the HCAs are well-designed."

"I am opposed to locking up any more land in HCAs. If the Forest Service feels that these aren't good areas for timber sales in the foreseeable future, fine, but let's not lock these areas up forever." "HCAs are a violation of NEPA. No HCAs have been legally adopted. You cannot implement." I am 1000% AGAINST HCAs or setting aside the highest or high value deer areas. This would be a single resource use of the area." "Do not and I repeat do not continue with the HCA concept. I think it is wrong and a misuse of public lands to lock land up for this reason."

The Forest Service manages habitat to maintain viable populations of all native and desired non-native wildlife species. A viable population is one which has the number and distribution of reproductive individuals so it continues to exist and is well distributed. The HCA strategy will help insure the survival of viable populations of species which use old-growth forests (Appendix C).

HCAs will not become a reality until they are approved as part of the Forest Plan. We are simply recommending locations for consideration in a NEPA process.

HCAs are not a single resource use. These areas can be used for recreation and hunting as well as providing wildlife habitat.

Salvage in HCAs

1995 Comments

"You need to lower the 100-acre cutoff on salvaging blowdown. Even a 50 acre blowdown is a big chunk of land and an incredible waste of wood."

In the Preliminary Design we based our recommendation on the Viable Population study. The Region 10 EA, however, does not describe a minimum are for salvage. We now propose salvage of areas 25 acres or greater in HCAs. For areas smaller than 25 acres we recommend leaving them as a component of old-growth habitat.

A Second Medium HCA

1995 Comments

"Include a Medium HCA along Dry Strait to compensate for the loss of the Three Lakes HCA for no-adverse impact." "Replace Medium Habitat Conservation Area in Three Lakes with another HCA of the same size, in Dry Strait for example." "I'd like to request medium Habitat Conservation Area in the Dry Strait Area be added to compensate for the loss of the Three Lakes Medium HCA." "A Medium Habitat Conservation Area (HCA) should be included in the Dry Straits Area to compensate for the loss of the Three Lakes Medium HCA. We feel this is an important requirement that will insure the migration of wildlife from the Stikine and across Dry Straits that a small HCA will not provide for (since volume

class requirements are not a component of small HCAs and also due to the larger size requirements for Medium HCAs)."

"In lieu of a halt to clearcuts on Mitkof, implement the full recommendations of the blue ribbon committee on HCAs. Include the Medium HCA at Three Lakes."

We recommend against the Three Lakes *medium* HCA for the following reasons:

- Some of the best wildlife habitat in the proposed medium HCA is in the Ideal Cove State land selection.
- Based on our knowledge of the area, we felt that several small HCAs would better include the most valuable wildlife habitat.
- It isn't needed to meet the spacing requirements for medium HCAs. The Blind-Crystal HCA (Mitkof Design version) and Stikine HCA are 6.0 miles apart and the Blind-Crystal and Lindenberg Peninsula HCAs are 1.5 miles apart. These distances fall within the Viable Population team recommendation of 8 miles between medium and large HCAs.

HCAs Are Not Land Use Designations

1995 Comments

"A key element of the Mitkof Landscape Design is the protection of important wildlife habitat through the proposed network of HCAs. Although a number of HCAs are proposed we note that large portions of many of the HCAs continue to have timber harvest prescriptions in the actual forest plan Alternative P. Chapter Four's summary of proposed changes to Alt. P does not include any changes in prescriptions in the forest plan we remain skeptical that actual management will be for wildlife habitat, notwithstanding the stated intentions of the landscape design plan."

Our goal in proposing locations for HCAs is to provide for wildlife viability. We're following the Forest Plan Amendment approach, which means the HCAs take precedence over the underlying land use designation. This approach may change with new information. For example, the Forest Plan Revision Team is considering a number of strategies for wildlife viability, including (1) relying on more non-timber-harvest land use designations across the landscape *without*

providing reserves, (2) emphasizing alternatives to clearcutting, resulting in a lighter touch on the landscape, and (3) providing a reserve system like HCAs, which might include use of an *Old Growth* land use designation.

Volume Class 5 in Small HCA

1995 comments

"A second reservation we have about changing to the small HCAs is that medium HCAs have some minimum requirement for acreage in volume class 5 and above, whereas there is no requirement for such composition in the small HCAs. The higher volume classes are clearly an important part of the habitat mix for a viable population strategy. We would like to see some assurance that the composition of at least one of the small HCAs includes a block of mid and high volume old growth equal to what a medium HCA requires."

When we designed the proposed HCAs we considered habitat and identified boundaries according to wildlife needs. Most of the small HCAs have 25% or greater area in volume class 5. Volume class and total acres for each HCA are displayed in Table 2-2.

Wildlife Travel Corridors

Mitkof Design Proposal

We propose travel corridors that connect HCAs. These were designed with our knowledge of current wildlife use. All corridors will be at least 200 feet wide (Map 14). Roads should not cross travel corridors unless no other options are available. Road breaks should be no wider than a flying squirrel can glide (65 feet).

1995 comments

"With regard to travel corridors between HCAs, I think it is more important to determine the likely travel route between the blocks and manage that for a forested condition, rather than trying to force an old-growth connection between Raven's Roost and Goose Lake. I think protecting a straighter corridor would be preferred, even if that corridor is not all Vol. 4 old growth. The necessity of Vol. 4+ old-growth for dispersal movements has not been verified to my knowledge and is largely

based on gliding distances of flying squirrels, an animal whose habits are relatively unknown in southeastern Alaska."

"It is encouraging to see wildlife travel corridors proposed. However, most are clearly too narrow and circuitous to be effective at the distances they span... As the small Mitkof HCAs are a substitute for a medium HCA and some are 6 miles or more apart, we believe corridors need to be at least 1000+ feet wide to be effectively used by wildlife. Admittedly biologists are still wrestling with the question of what constitutes effective movement corridors for wildlife."

We based our travel corridors on width recommendations from the 1993 Viable Populations Strategy. We would prefer more direct routes, but due to previous harvests we could not map through second growth stands. Biologists are studying wildlife movements to determine what makes an effective wildlife travel corridor. If new information becomes available we suggest that more direct corridors be established.

Goshawk Guidelines

1995 comments

"If the Regional Forester chooses to limit timber harvest within the goshawk home range, then the Mitkof Landscape Design will need to be revised to put more small and medium HCAs into the home range and eliminate the HCAs in the S.W. Mitkof." "If the Regional Forester chooses to limit timber harvest within the goshawk home range, Petersburg Creek and the Stikine River both qualify as large and medium HCAs, and could be used as such without reducing the timber base as they are already unavailable for timber harvest."

We recommended locations for HCAs to establish a connected network of reserves. This approach is intended to provide for wildlife viability across the landscape and doesn't coincide with the goshawk area.

Retention

1995 comments

"Noticeably absent from the Analysis is the relationship of the proposed HCAs to wildlife retention. Although the Forest Service all but ignored the stringent wildlife retention factors as required under the current

TLMP, the public should have some assurance included in the Analysis that these mapped retention areas would remain unchanged."

The Tongass Land Management Plan Revision does not contain retention. We think the retention acre requirements in the 1985/86 Tongass Land Management Plan can be met by HCA blocks, the old-growth contained in Tongass Timber Reform Act stream buffers, beach fringe, and estuary buffers.

Road Densities

1995 comments

"Bears, marten, and wolves are all sensitive to road density and locations yet no mention of these species was made in the Road Management Objectives section. Decisions on road closures and maintenance levels also need to be made on an island-wide ecosystem scale rather than only a project level so the needs of these species can be addressed."

We used the wolf as an indicator species to assess road density because wolves are more sensitive to roads than most species. Since access to wolves for hunting and trapping is available by boat in coastal areas, the miles of coastline must also be considered. (Where roads are adjacent to the beach, road miles are counted and coastal miles are not.) Table 2-3 shows the road density on Mitkof with and without coastal miles. Studies indicate wolf habitat is threatened if road density exceeds 1.0 miles of open road per square mile. The Forest Plan Revision Team is working on a wolf assessment and considering road density guidelines. We will follow their recommendations in project level analysis.

Table 2-3. Road Densities on Mitkof Island with and without Coastline Miles

Total Miles of Open Road, Forest Service and non-Forest Service	124.4
Total Square Miles (Area)	202.6
Road Density	0.614
Coastline*	54.6
Total Road Density with Coastline	0.9

* Miles of coastline were not counted within the City Limits, since discharge of firearms and trapping are not legal. Coastal miles were not counted if a road existed adjacent to the beach (~ 500ft), since the road miles were already counted.

Wildlife: Bird Habitat

Grouse

1994 Comments

"What is the Forest Service doing to insure that I can continue to hunt hooters? I use much of the same area for hooter hunting as I do for deer hunting." "Protect deer and hooter populations on the island."

We expect our proposals such as Habitat Conservation Areas (HCAs)[28] to support huntable populations of grouse.

Variety of Bird Species

1994 Comments

"There are a number of areas on Mitkof Island that are extremely important for bird nesting and migration and should be protected. These areas include:

- Four-ponds wetland northeast of Frenchy Creek (breeding).
- The southern shoreline from Dry Strait to South Blind Slough (migration).
- The valley between the two Blind Sloughs (major migration route). Blind Slough & Blind River (major wintering, migration, breeding, staging). The Crystal Mountain alpine area (habitat, migration).
- The marsh at the head of the Crane Lake trail is important habitat for common yellowthroats and cedar waxwings.
- The Three Lakes area (foraging)."

"The valley between the two Blind Sloughs is a major migration route for waterfowl, passerines, sandpipers, and raptors. Blind Slough and Blind River are major bird habitat areas on Mitkof Island and in southeast Alaska. They contain a major swan wintering area and migration, wintering, and breeding habitat for dozens of species."

28 For a review of HCAs see Chapter 2, Viable Wildlife Populations.

Areas in the Mitkof Design proposal will provide protection in the following ways:

- Four-ponds wetland northeast of Frenchy Creek: TLMP Revision guidelines for waterfowl management would provide adequate protection.

- The southern shoreline from Dry Strait to South Blind Slough: This is State land. We will pass this comment to the State.

- Blind Slough and the Crystal Mountain area: We propose the Blind-Crystal HCA[29] in this area. In Alternative P (1992) Blind River is proposed as a *Recreation River*[30], and the area is proposed as a *Special Interest Area.*

- The Three Lakes area and the marsh at the head of the Crane Lake trail: This area is a proposed HCA and a proposed *Semi-Primitive Recreation* Area which will afford protection to bird species.

29 For a review of HCAs see Chapter 2, Viable Wildlife Populations.
30 For a review of *Special Interest Areas, Recreation River,* and *Semi-Primitive Recreation* Land Use Designations see At-A-Glance in Appendix A.

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List of Preparers

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Glossary

Glossary

These definitions apply to Forest Service land management and planning. Meanings may differ when used in another context. Glossary definitions are not legal unless otherwise noted. Definitions were shortened, paraphrased or adapted to fit local conditions and for ease of understanding.

A

Allowable Sale Quantity (ASQ) — The maximum quantity of timber that may be sold in each decade from suitable scheduled lands covered by the Forest Plan.

All Terrain Vehicle (ATV) — Any vehicle which is restricted by law from operating on public roads for general motor vehicle traffic. Includes motorbikes, minibikes, trailbikes, snowmobiles, dune buggies, three-wheelers and four-wheelers, and four-wheel drive, high clearance vehicles. Sometimes referred to as Off-Road Vehicle or "ORV".

Anadromous fish — Fish which mature in the ocean, returning to inland waters to spawn. Salmon and steelhead are examples.

B

Basal Area — Basal area of a tree is a cross-section measurement taken 4 1/2 feet from the ground, usually expressed in square feet. Basal area of a stand is the average basal area, per acre of all the trees in a stand.

Blowdown (Windthrow) — Trees that have been uprooted by the wind.

Board-foot — A unit of timber measurement equalling the amount of wood contained in a green, unfinished board one inch thick, twelve inches long, and twelve inches wide.

C

Clearcut — A harvest method in which all trees are cleared in one cut.

D

Deer Winter Habitat Is a classification of deer habitat based on the ability of the habitat to support deer during winter months. The following list explains the categories:

- *Highest-value* deer winter habitat is capable of supporting at least 50 deer per square mile through moderately severe winters.
- *High-value* deer winter habitat is capable of supporting 30-49 deer per square mile through moderately severe winters.
- *Medium-value* deer winter habitat is capable of supporting 20-29 deer per square mile through moderately severe winters.
- *Low-value* deer winter habitat is capable of supporting less than 20 deer per square mile through moderately severe winters.

Desired Future Condition The anticipated condition of a landscape after applying management practices. Management practices can range from no action to major development such as a campground.

E

Ecosystem A complete, interacting system of organisms considered together with their environment (for example; a marsh, a watershed, or a lake).

Estuary Tidal habitats and adjacent tidal wetlands occasionally diluted by freshwater runoff from the land.

F

Forest Plan Source of management direction for an individual Forest specifying activity and output levels for a period of 10-15 years. Management direction in the plan is based on the issues identified at the time of the plan's development.

H

Habitat Capability A theoretical estimate of the number of birds or mammals that a habitat can sustain. This estimate may differ from observed populations.

Habitat Conservation Area (HCA) Area to be maintained for species associated with old-growth forest. The term is part of the strategy developed by the Viability Committee, referring to various sizes of areas as listed below.

Large HCAs: 40,000 acres total with:
1)20,000 acres old-growth with a volume of over 8,000 board feet of timber per acre, including at least,
2) 10,000 acres old-growth with a volume of over 20,000 board feet per acre,
3)Class I stream if in brown bear habitat, and
4)less than 20 miles apart from edge to edge.

Medium HCAs: 10,000 acres total with:
1) 5,000 acres old-growth with a volume of over 8,000
board feet of timber per acre, including at least,
2) 2,500 acres old-growth with a volume of over 20,000
board feet of timber per acre, and
3) less than 8 miles from nearest large or medium HCA

Small HCAs 1,600 acres total with
1) 800 acres of old-growth with a volume of over 8,000
board feet of timber per acre.

L

Land Use Designation LUD A defined area to which specific land management direction is applied.

M

Marten Habitat Is a classification of marten habitat based on the ability of the habitat to support marten. The following list explains the categories:

- *High-value* marten habitat is capable of supporting 1.8 to 2.71 marten per square mile.
- *Medium-value* marten habitat is capable of supporting 0.9 to 1.8 marten per square mile.

Multiple use The management of large areas of land for a variety of uses.

O

Old-Growth Habitat Old-growth forests are distinguished by:

- old trees
- larger-than-average trees for species and site,
- wide variation in tree size, age, and spacing,
- accumulations of large dead standing and fallen trees,
    - trees with broken or deformed tops or decay,
- openings in the canopy, and
- multiple canopy layers.

P

PACFISH A strategy for managing Pacific anadromous fish habitat on Federal lands, initiated in response to broad declines of anadromous fish in the Pacific Northwest. PACFISH does not apply in Alaska.

Partial Cut A timber harvest method that removes only a portion of the stand.

R

Rehabilitation The long-term placement of land back into its natural condition or state of productivity.

Retention The amount of harvestable timber land set aside to protect other resource values.

Rotation/ Rotation Age	The planned number of years between the regeneration of a stand of trees and its final cutting at a specified stage of maturity. These rotations define the time over which an entire stand of timber would be harvested.

S

Salvage	Harvest of trees that are dead, dying, or otherwise unlikely to survive, often due to blowdown, insect damage, and disease. Salvage also may include removal of trees for operation of the sale.
Second-growth timber	Forest growth that has regenerated naturally or been planted after the stand has been harvested or otherwise removed.
Seed tree	Small number of seed-bearing trees left singly or in small groups after timber harvest to provide seed for regeneration of the site.
Selection Cutting	The removal of trees individually or in small groups, to develop or maintain an uneven aged-stand.
Shelterwood Harvest	The removal of a stand of trees through a series of cuttings designed to establish a new crop with seed and protection provided by a portion of the stand.
Silvicultural System	Management techniques designed to provide desired products and achieve desired vegetative conditions in the future.
Snag	A dead standing tree usually greater than 5 feet tall and six inches in diameter at breast height. The interior of the snag may be sound or rotted.
Standards and Guidelines	Requirements which preclude or impose limitations on resource management activities, generally for the purposes of environmental protection and safety.

Stream Class A means to group stream channels based on their fish production values. There are three classes on the Tongass National Forest, as listed below:

Class I are streams that have
- anadromous fish,
- fish that do not go to sea but live in lakes and enter streams to spawn,
- streams with resident fish populations that are high quality, such as trophy size trout streams, and
- habitat upstream from fish barriers with reasonable enhancement opportunities for anadromous fish.

Class II Streams with resident fish populations but no anadromous or high quality fish populations. Anadromous fish are those that come from oceans to spawn in freshwater. Resident fish are those that live their entire life in freshwater.

Class III Streams with no fish populations but have potential water quality influence on the downstream aquatic habitat.

Streamside Area The area next to and including a stream, lake, or estuary.

Subsistence The customary and traditional uses by rural Alaska residents of wild renewable resources for direct, personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible by-products of fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption; and for customary trade.

T

Thinning The practice of removing some of the trees in a stand so that the remaining trees will grow faster due to reduced competition for nutrients, water, and sunlight. Another objectives is to remove trees that would probably die due to competition before the end of the rotation.

U

Unstable Soils Soils with a high probability of producing landslides. They include most well drained soils on slopes of 75 percent or greater as well as some soils with restricted drainage on slopes greater than 65 percent. Nearly all natural occurring landslides start on these soils.

V

Value Comparison Unit (VCU) A geographic area that encompasses a drainage basin containing one or more large stream systems.

Viable population The number of individuals of a species required to ensure the long-term existence of the species in natural, self-sustaining populations adequately distributed throughout their range.

W

Watershed The land area that contributes water to a drainage or stream.

Wetlands Areas that are covered by water often enough to support plant and animal life that require saturated soils for growth and reproduction. Wetlands generally include muskegs, marshes, bogs, sloughs, potholes, river overflows, mud flats, wet meadows, seeps, and springs.

Wild and Scenic Rivers Rivers or sections of rivers designated by congressional actions under the 1968 Wild and Scenic Rivers Act, as wild, scenic, or recreation by an act of the Legislature of the State or States through which they flow. Wild and scenic rivers may be classified and administered under one or more of the following categories:

Wild River Rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

Scenic River Rivers or sections of rivers that are free of impoundments, with watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

Recreational River Rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Wildlife Travel Connective links of certain types of vegetation between patches of suitable habitat which are necessary for certain species to facilitate movement of individuals between patches of suitable habitat.

Wildlife Travel Corridor Connective links between patches of suitable habitat which are necessary for certain species to facilitate movement of individuals. Examples include corridors connecting HCAs and beach fringe areas.

Appendix A
Land Use Designations on Mitkof Island
(Proposed in 1992 Forest Plan Revision Effort)

ENACTED MUNICIPAL WATERSHED

Land Use Designation MW

The emphasis of this Land Use Designation is to meet the State of Alaska's Water Quality Standards for domestic use for enacted municipal watersheds of Ketchikan, Sitka and Petersburg. These enacted municipal watersheds were established and are withdrawn from all forms of location, entry, or appropriation under the mineral and nonmineral land laws of the United States and set aside as municipal water-supply reserves for the use and benefit of the people of the three communities.

Goals

To maintain the enacted municipal watersheds of Ketchikan, Petersburg, and Sitka as municipal water supply reserves for these communities, in a manner that meets State of Alaska Water Quality Standards for domestic use.

Objectives

Limit most management activities to the protection and maintenance of natural resources. Fish enhancements, and watershed and wildlife habitat improvements, may occur if they are compatible with the municipality's watershed management objectives.

Classify forested land as unsuitable for timber production. Consider salvage logging only at the request of the municipality.

Limit facilities and roads to those necessary for municipal water supply purposes.

Limit recreation uses to those authorized by the municipality and to those that will not affect water quality or flow.

Desired Future Condition

Lands managed as Enacted Municipal Watersheds are generally in a natural condition. Facilities or structures to provide domestic water may be present. Uses or activities that could adversely affect water quality or supply do not occur. These watersheds provide domestic water that meets all State Water Quality Standards for domestic use.

At-a-Glance . . .

Cultural Resources	Locate, evaluate and protect significant cultural resources. Interpretation may be provided, although interpretation may generally occur outside LUD boundaries.
Facilities	Facilities are limited to those structures which are necessary to administer and supply water for domestic use. No Forest Service administrative facilities are constructed. Facilities such as dams, reservoirs, and pipelines are consistent with the LUD emphasis.
Fire	All wildfires are suppressed using suppression action that minimizes suppression costs and resource damage. Management ignited prescribed fire may be used to maintain or improve watershed characteristics.

Fish	Fish habitat projects may occur if they are compatible with municipal watershed management objectives.
Forest Health	Pest suppression and prevention measures are implemented to protect the watershed and adjacent resources.
Lands	Special use authorizations are limited to those which support water development activities and which safeguard the quality and quantity of municipal water supplies. Before a special use authorization is issued, written concurrence of the municipality is required.
Minerals	These watersheds are withdrawn from mineral entry subject to valid existing rights.
Recreation	Only recreation use authorized by the municipality is allowed.
Soil and Water	Soil and water protective measures are applied to protect the watersheds and water resources for domestic use. Soil and water improvement occurs on all disturbances that threaten watershed management values.
Subsistence	Subsistence uses are allowed in accordance with applicable Federal, state, and municipal regulations.
Timber	Forested land is classified as unsuitable for timber production. There is no scheduled harvest, but timber may be salvaged at the request of the municipality under conditions which safeguard the quantity and quality of water. Personal use wood and Christmas tree cutting activities are usually incompatible with LUD objectives.
Trails	Trail systems are limited to those which are necessary to administer the municipal watershed.
Transportation	Road systems are limited to those necessary to administer the municipal watershed.
Visual Resource	Visual Quality Objectives are based on the management activities authorized in the watershed.
Wildlife	Wildlife habitats are managed for uses compatible with the municipality's watershed management objectives.

MODIFIED LANDSCAPE

Land Use Designation ML

Goals

To provide a sustained yield of timber and a mix of resource activities while minimizing the visibility of developments in the foreground distance zone.

To recognize the scenic values of suitable timber lands viewed from identified popular roads, trails, marine travel routes, recreation sites, bays, and anchorages, and to modify timber harvest practices accordingly.

To maintain and promote industrial wood production from suitable timber lands, providing a continuous supply of wood products to meet society's needs.

To seek to provide a supply of timber which meets annual and planning-cycle market demand from the Tongass National Forest, consistent with the standards and guidelines of this LUD.

To seek to provide a supply of timber to those purchasers qualifying as small businesses.

Objectives

Within this Land Use Designation, apply the Visual Quality Objectives of Partial Retention, in the foreground distance zone, and Modification, in the middleground and background distance zones, for all the Visual Priority Travel Routes and Use Areas identified in Appendix F. Apply the Maximum Modification VQO to all other areas.

Suitable forest lands are available for timber harvest. Even-aged, two-aged, and uneven-aged systems may be used, consistent with the adopted VQO's. Other timber management objectives include:

- seek to reduce clearcutting when other methods will meet land management objectives;
- identify opportunities for diversifying the wood products industry (such as special forest products, and value-added local production);
- use forest health management to protect resource values;
- improve timber growth and productivity on commercial forest lands;
- plan, inventory, prepare, offer, sell, and administer timber sales and permits to ensure the orderly development of timber production;
- emphasize the overall reduction of costs, increase of revenues, and improvement of public service within the timber program.

Provide a spectrum of recreation opportunities consistent with the capabilities of this Land Use Designation. Semi-primitive to Roaded experiences may be present.

Avoid changes to the current recreation settings and opportunities where possible, with some emphasis on the Visual Priority Travel Routes and Use Areas. Manage changed settings in accordance with the appropriate Recreation Opportunity Spectrum class.

Design roads according to the applicable Visual Quality Objective.

Consider opportunities for providing for the elevational migration of wildlife, and silvicultural techniques which establish and prolong the forest understory in critical wildlife habitat areas.

Desired Future Condition

In areas managed under the Modified Landscape Land Use Designation, forest visitors, recreationists, and others using popular travel routes and use areas will view a somewhat modified landscape. Management activities in the visual foreground will be subordinate to the characteristic landscape, but may dominate the landscape in the middle and backgrounds. Within the foreground, timber harvest units are typically small and affect only a small percentage of the seen area. Roads, facilities, and other structures are also subordinate to the foreground landscape. Recreation opportunities associated with natural-appearing to modified settings are available. A variety of successional stages provide a range of wildlife habitat conditions. A sustained yield of timber is produced.

At-a-Glance . . .

Cultural Resource	Locate, evaluate and protect significant cultural resources. Identify opportunities for interpretation of cultural resources for public education and enjoyment.
Facilities	Administrative facilities are located and constructed to be compatible with the Visual Quality Objectives of the Land Use Designation.
Fire	All wildfires are suppressed using a suppression action that minimizes fire suppression costs and resource damage. Prescribed fire, to improve natural ecological processes, is not presently used, but may be considered in the future.
Fish	Aquatic biological habitat productivity is maintained or improved. Fisheries enhancement projects may occur. The Riparian Area Land Use Designation applies along riparian areas.
Forest Health	Forest health management principles are applied to the extent necessary to maintain the scenic quality of the area and the health of the forest.
Minerals	Lands are open to mineral entry. Although Visual Quality Objectives may be exceeded during mineral development, visual standards and guidelines minimize or reduce the visual impact of mining activities. Post-development reclamation seeks to meet visual objectives for the area. Access for minerals is coordinated with timber sale road location when practicable.
Recreation	Roaded Modified recreation experiences, and in some cases, Roaded Natural and Semi-Primitive Motorized recreation experiences generally result after timber harvest activities.
Soil and Water	Emphasis is on the maintenance of high water quality. Soil cover is maintained and slope failure associated with management activities is minimized.
Subsistence	Subsistence use is allowed in accordance with applicable Federal and state regulations.

Timber	Suitable forested land is available for timber management. Timber harvest may include even-aged, two-aged, and uneven-aged silvicultural systems designed to meet the visual and timber objectives. Personal use woodcutting activities are compatible with this Land Use Designation provided that management objectives are met.
Transportation	A network of roads may be developed in association with timber harvest activities while meeting the Visual Quality Objectives of the Land Use Designation.
Visual Resource	As seen in the foreground, management activities are subordinate to the characteristic landscape. In the middle to background distances, activities may dominate the seen area, but are designed to be compatible with form, line, color and texture found in the landscape.
Wildlife	A wide variety of successional stages provide a full range of wildlife habitat conditions. Silvicultural treatment provides healthy tree stands, vegetative diversity, and forage production for wildlife populations.

RECREATIONAL RIVER

Land Use Designation RR

Goals

To manage designated river segments according to the "Wild and Scenic Rivers Act (Public Law 90-542), "National Wild and Scenic Rivers System; Final Revised Guidelines for Eligibility, Classification, and Management of River Areas" (Federal Register Volume 47, Number 173, 1982), and direction in Forest Service Manuals and Handbooks.

To maintain, improve and protect the essentially free-flowing character and outstandingly remarkable values of rivers and river segments designated as Recreational Rivers and included in the National Wild and Scenic Rivers System.

To provide recreation opportunities in a pleasing, though modified, generally free-flowing river setting, while allowing timber harvest, transportation, and other developments.

To manage recommended Recreational River segments to maintain their outstandingly remarkable values and classification eligibilty until designated by Congress, or until three years has elapsed since the time they were recommended to Congress.

Objectives

Manage Recreational River segments to maintain a free-flowing river resource, while providing for access and use consistent with the Wild and Scenic Rivers Act and the Alaska National Interest Lands Conservation Act (ANILCA).

Permit timber harvest on suitable timber lands if adjacent lands are being managed for that purpose, in accordance with the standards and guidelines for the stated Visual Quality Objectives.

Manage recreation use and activities to meet the levels of social encounters, on-site developments, methods of access, and visitor impacts indicated for the desired Recreation Opportunity Spectrum class, generally Roaded Natural.

Permit roads to access, parallel, or cross the river. In general, design access roads to accommodate passenger cars, and open them to public use.

Apply the Partial Retention Visual Quality Objective to areas within the corridor seen from the river, roads, and recreation facilities, and Modification to all other areas within the river corridor.

Desired Future Condition

Recreational Rivers and river segments are in a generally unmodified to modified, essentially free-flowing condition. Ecological processes and changes may be affected by human uses. The outstandingly remarkable values for which the river was designated remain outstanding and remarkable. Recreation users have the opportunity for a variety and range of experiences in a modified but pleasing setting. Resource activities and developments may be present within the river corridor, and may dominate some areas. A variety of visual conditions occur. Interactions between users may be moderate to high. A sustained yield of timber may be produced.

At-a-Glance . . .

Cultural Resources	Locate, evaluate and protect significant cultural resources. Interpretation may be provided.
Facilities	Administrative facilities and public information centers are allowed in the river corridor provided they do not have adverse effects on the values this LUD is intended to protect.
Fire	Suppression actions and prescribed fire are used to maintain the scenic quality of this Land Use Designation.
Fish	Aquatic biological habitat productivity is maintained or improved. Projects may be identified and implemented which create or improve angling opportunity or that help meet the objectives of the Interagency Regional Salmon Plans.
Forest Health	Forest health is maintained or improved to protect Recreational River values.
Lands	No development of hydroelectric power facilities is permitted for: 1) projects exempted from licensing by the Federal Energy Regulatory Commission or 2) projects on rivers designated through Sections 2, 3, and 5(a) of the Wild and Scenic Rivers Act. The Forest Service will recommend that FERC not license a project on a river found eligible and suitable for inclusion in Wild and Scenic Rivers System. If the project is necessary, impose conditions on any license issued that the outstandingly remarkable characteristics and the free-flowing nature of the river be protected. Existing low dams, diversion works, and flood control works may remain; but new structures which affect the free-flowing character of the river are generally prohibited.
Minerals	Lands are open to mineral entry. Existing and new activity must minimize surface disturbance, sedimentation, air pollution, visual impairment, and meet State Water Quality Standards. Reasonable access is permitted.
Recreation	Use and activities are managed for the safety and convenience of the user, and protection and interpretation of the river resources. Experiences may include those requiring moderate isolation to those influenced by humans in a modified setting. Recreation facilities may include campgrounds, picnic areas, lodges, resorts, and interpretive sites, and similar facilities.
Soil and Water	Land use activities are carried out in a manner which controls sediment and protects water quality.
Subsistence	Subsistence use occurs in accordance with Federal and state regulations and may be seasonally prevalent throughout this Land Use Designation.
Timber	Suitable forested land is available for harvest and is included in the Allowable Sale Quantity calculation if the adjacent Land Use Designation allows timber harvest.
Transportation	Roads are generally compatible, and provide for conventional motorized use. Both motorized and non-motorized trail opportunities may be provided.

Visual Resource	All management activities within the area are integrated in such a way that the natural environment and landscape characteristics remain predominant as seen from the river. Existing developments may occasionally dominate the landscape. Visual enhancement activities are aimed at maintaining diversity and harmony in the landscape.
Wildlife	Emphasis is on maintaining habitat conditions for indigenous species and improving wildlife viewing opportunities.

TIMBER PRODUCTION

Land Use Designation TM

Goals

To maintain and promote industrial wood production from suitable timber lands, providing a continuous supply of wood products to meet society's needs.

To manage these lands for maximum sustained long-term timber yields.

To seek to provide a supply of timber which meets annual and planning-cycle market demand from the Tongass National Forest, consistent with the standards and guidelines of this LUD.

To seek to provide a supply of timber to those purchasers qualifying as small businesses.

Objectives

Within this Land Use Designation, apply the Visual Quality Objectives of Modification in the foreground distance zone, and Maximum Modification in the middleground and background distance zones, for all the mapped Visual Priority Travel Routes and Use Areas identified in Appendix F. Apply the Maximum Modification VQO to all other areas.

Locate and design timber harvest activities primarily to meet timber objectives. Suitable forest lands are available for timber harvest; even-aged, two-aged, and uneven-aged systems may be used. Other timber management objectives include:

- seek to reduce clearcutting when other methods will meet land management objectives;
- identify opportunities for diversifying the wood products industry (such as special forest products, and value-added local production);
- use forest health management to protect resource values;
- improve timber growth and productivity on commercial forest lands;
- plan, inventory, prepare, offer, sell and administer timber sales and permits to ensure the orderly development of timber production;
- emphasize the overall reduction of costs, increase of revenues, and improvement of public service within the timber program.

Provide a spectrum of recreation opportunities consistent with the capabilities of this Land Use Designation. Manage recreation use to be compatible with the timber production objective. Manage changed recreation settings in accordance with the appropriate Recreation Opportunity Spectrum class.

Plan a complete road network that will eventually access all suitable timber lands.

Consider wildlife habitat needs in project planning.

Desired Future Condition

In areas within the Timber Production Land Use Designation, all suitable timber lands are managed for the production of sawtimber and other wood products on an even-flow, long-term sustained yield basis. An extensive road system provides access for timber management activities, recreation uses, hunting and fishing, and other public and administrative uses. Management activities will generally dominate most seen areas. Tree stands are healthy and in a balanced mixture of age classes from

young plantations to trees of harvestable age, usually in 40 to 100 acre stands. Recreation opportunities associated with roaded settings, from Semi-primitive to Roaded Modified, are available. A variety of wildlife habitats, predominantly in the early and middle successional stages, are present.

At-a-Glance . . .

Cultural Resources	Locate, evaluate and protect significant cultural resources. Interpretation may be provided.
Facilities	Permanent administrative facilities are constructed to be compatible with this Land Use Designation objective.
Fire	All wildfires are suppressed using a suppression action that minimizes fire suppression costs and resource damage. Management ignited prescribed fire may be used for silvicultural site preparation, wildlife habitat improvement, and insect and disease protection.
Fish	Aquatic biological habitat productivity is maintained or improved. Fisheries enhancement projects may occur. The Riparian Area Land Use Designation applies along riparian areas.
Forest Health	Forest pest management activities emphasize forest health through pest prevention and suppression. Timber stand improvement, sanitation, and salvage are encouraged.
Lands	Only those uses which are compatible with LUD objectives are authorized. Avoid issuing, or limit the duration of, permits for uses which require natural surroundings.
Minerals	Lands are open to mineral entry. Access is coordinated with timber sale road location when practicable.
Recreation	Roaded Modified, and, in some cases, Roaded Natural and Semi-primitive Motorized, recreation experiences generally result after timber harvest activities.
Soil and Water	Emphasis is maintaining high water quality and soil cover, minimizing slope failure, and reducing the degree of risk and potential effects from mass-wasting resulting from timber harvest and road construction.
Subsistence	Subsistence use is allowed in accordance with applicable Federal and state regulations.
Timber	Suitable forested land is available for timber harvest. Timber harvest may include even-aged, two-aged, and uneven-aged silvicultural methods. Silvicultural treatment is integrated with site and area development to provide healthy tree stands and to give consideration for vegetative diversity and forage production for wildlife. Personal use wood and Christmas tree cutting activities are fully compatible with this Land Use Designation.

Transportation	All forested lands scheduled for harvest will eventually be accessed by road.
Visual Resource	The characteristic landscape may be dominated by harvest activities. Although harvest activities may dominate the seen area, they are designed with consideration for existing form, line, and texture found in the landscape.
Wildlife	A wide variety of vegetative conditions, including early, middle, and late successional stages provides a range of wildlife habitat conditions.

RIPARIAN AREA

Land Use Designation RP

Goals

To maintain riparian habitat for fish and other riparian-associated species and resources.

To meet the requirements of the National Forest Management Act and the Tongass Timber Reform Act for the protection of fish habitat and/or water quality.

To emphasize the maintenance and improvement of fish habitat and populations by integrating aquatic and terrestrial ecosystems management.

Objectives

Manage the habitat for riparian-associated wildlife species in Class I stream and lake areas to achieve old-growth characteristics.

Prohibit commercial timber harvest within 100 feet of either side of Class I streams, and within 100 feet of those Class II streams which flow directly into Class I streams. Allow timber harvest in other areas where it does not conflict with the maintenance or improvement of riparian-associated resources.

Objectives for fish habitat management

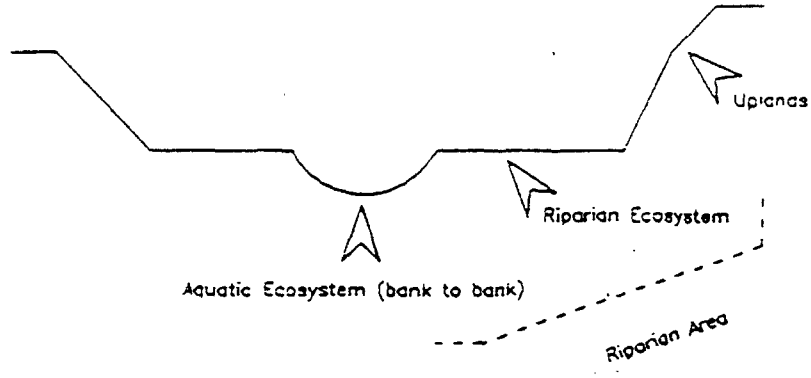
- Maintain or improve fish habitat capability;
- Maintain natural stream bank and stream channel processes;
- Maintain natural and beneficial quantities of large woody debris over the short- and long-term;
- Maintain water quality to provide for fish production;
- Maintain water temperatures at natural levels;
- Maintain or improve primary or secondary stream biological production in second-growth forests;
- Maintain fish passage through stream crossing structures.

Accomodate recreation facilities and use associated with water-related activities which avoid adverse effects on water quality and riparian shorelines.

Desired Future Condition

Riparian areas throughout the forest provide high-quality habitat for fish and riparian-associated wildlife species. A wide variety of vegetative conditions and types are present, benefiting a variety of species; also provided are reserve trees for wildlife, large trees for brown bear bedding areas, and associated waterfowl habitats. The areas also provide wildlife travel corridors.

Riparian-related definitions are indicated in the following schematic:



At-a-Glance . . .

Cultural Resources — Locate, evaluate and protect significant cultural resources. Interpretation may be provided.

Facilities — Facilities which are needed for the administration of the Riparian Area and which do not significantly reduce the capability of the area to maintain fish or wildlife habitat or water quality are permitted.

Fire — All wildfires are suppressed using a suppression action that minimizes fire suppression costs and minimizes the impact to water quality and fish habitat. Management ignited prescribed fire may be compatible with this LUD.

Fish — Habitat, including its protection, rehabilitation, and improvement, is emphasized. This emphasis includes management of the riparian area for the maintenance of stream banks, water quality, large woody debris, pools, and streambeds for resident and anadromous fish species and for downstream fisheries.

Forest Health — Forest health management principles are applied to maintain or improve forest health and the condition of the aquatic and riparian ecosystems.

Lands — Special uses dependent upon the riparian area, and which meet the fish, wildlife and water quality objectives for riparian areas, may be present.

Minerals — Lands are open to mineral entry. Mineral management activities are designed to maintain the present and continued productivity of anadromous fish and other foodfish habitat to the maximum extent feasible.

Recreation — Management of recreation use reduces or prevents adverse impact to riparian soils, stream banks, and wildlife and fish habitat. Recreation facilities that provide access to the water, such as trails and boat launches, may be constructed; other facilities should be located outside this Land Use Designation. Consider relocating existing facilities outside this LUD.

Soil and Water	Significant adverse impacts to the riparian habitat or soil and water resources are avoided. Best Management Practices are used to assure the protection of water quality and riparian habitat and to minimize the effects of activities on the beneficial uses of water.
Subsistence	Subsistence use occurs in accordance with applicable Federal and state regulations. Opportunities for harvesting fish and wildlife are maintained or improved.
Timber	Commercial timber harvest is prohibited within no less than 100 feet in width on each side of all Class I streams and on those Class II streams which flow directly into Class I streams. In other areas, commercial timber harvest is allowed where it is not in conflict with the maintenance or improvement of riparian-associated resources. Personal use woodcutting within 100 feet of Class I streams, within 100 feet of Class II streams which flow directly into Class I streams, and in other areas of this land use designation is discouraged; other suitable locations for personal use woodcutting should be used first.
Transportation	Transportation developments are located outside of this Land Use Designation to the extent practicable. Developments should not impair the production and migration of anadromous fish.
Visual Resource	Visual quality may vary based on the Visual Quality Objectives of the adjacent Land Use Designation.
Wildlife	Manage for old-growth characteristics habitat for riparian-associated wildlife species in anadromous and high-value resident fish (Class I) riparian areas.

SCENIC VIEWSHED

Land Use Designation SV

Goals

To provide a sustained yield of timber and a mix of resource activities while minimizing the visibility of developments in the foreground and middleground distance zones.

To recognize the scenic values of suitable timber lands viewed from selected popular roads, trails, marine travel routes, recreation sites, bays and anchorages, and to modify timber harvest practices accordingly.

To maintain and promote industrial wood production from suitable timber lands, providing a continuous supply of wood products to meet society's needs.

To seek to provide a supply of timber which meets annual and planning-cycle market demand from the Tongass National Forest, consistent with the standards and guidelines of this LUD.

To seek to provide a supply of timber to those purchasers qualifying as small businesses.

Objectives

Within this Land Use Designation, apply the Visual Quality Objectives (VQO's) of Retention, in the foreground distance zone, and Partial Retention, in the middleground distance zone, for all the Visual Priority Travel Routes and Use Areas identified in Appendix F. Apply the Maximum Modification VQO to all other areas.

Suitable forest lands are available for timber harvest. Even-aged, two-aged, and uneven-aged systems may be used, consistent with the adopted VQO's. Other timber management objectives include:

- seek to reduce clearcutting when other methods will meet land management objectives;
- identify opportunities for diversifying the wood products industry (such as special forest products, and value-added local production);
- use forest health management to protect resource values;
- improve timber growth and productivity on commercial forest lands;
- plan, inventory, prepare, offer, sell, and administer timber sales and permits to ensure the orderly development of timber production;
- emphasize the overall reduction of costs, increase of revenues, and improvement of public service within the timber program.

Perform viewshed analysis in conjunction with project development to provide direction for retaining or creating a visually-attractive landscape over time, and for rehabilitation of areas overly modified in the past.

Provide a spectrum of recreation opportunities consistent with the capabilities of this Land Use Designation. Semi-primitive to roaded experiences may be offered.

Avoid changes to the current recreation settings and opportunities where possible, with emphasis on the Visual Priority Travel Routes and Use Areas. Manage changed settings in accordance with the appropriate Recreation Opportunity Spectrum class.

Design roads and trails to be compatible with the characteristic landscape.

Consider wildlife habitat needs in project planning. Consider opportunities for providing for the elevational migration of wildlife, and silvicultural techniques which establish and prolong the forest understory in critical habitat areas.

Desired Future Condition

In areas managed under the Scenic Viewshed Land Use Designation, forest visitors, recreationists, and others using identified popular travel routes and use areas will view a natural-appearing landscape. Management activities in the visual foreground will not be evident to the casual observer, and in the visual middleground will be subordinate to the characteristic landscape. Within these viewsheds, timber harvest units are typically small and affect only a small percentage of the seen area. Roads, facilities, and other structures are either not visually evident or are subordinate to the landscape. A variety of successional stages providing wildlife habitat occur, although late successional stages predominate. Recreation opportunities in a range of settings are available. A sustained yield of timber is produced. In the areas managed for Retention or Partial Retention VQO's, timber yields are obtained through the use of small openings or uneven-aged systems.

At-a-Glance . . .

Cultural Resources	Locate, evaluate and protect significant cultural resources. Interpretation may be provided.
Facilities	Visual quality objectives are met when siting and constructing facilities for administrative use.
Fire	Suppression actions and prescribed fire are used to maintain the scenic quality of this Land Use Designation.
Fish	Aquatic biological habitat productivity is maintained or improved. Fisheries improvement projects may occur. The Riparian Area Land Use Designation applies along riparian areas.
Forest Health	Pest prevention and suppression measures are implemented to maintain or enhance scenic quality and forest health.
Lands	Special use structures may be present, if they are consistent with LUD objectives.
Minerals	Lands are open to mineral entry. Visual standards and guidelines minimize or reduce the visual impact of mining activities, although Visual Quality Objectives may not be met during mineral development. Post-development reclamation seeks to meet visual objectives.
Recreation	Recreation experiences may range from those requiring a semi-primitive setting to those obtainable in roaded settings.
Soil and Water	High water quality and soil cover are maintained. Slope failure associated with management activities is minimized.
Subsistence	Subsistence activities occur in accordance with Federal and state regulations and may be seasonally prevalent.

Timber	Suitable forested lands are available for harvest, however, harvest activities are limited to ensure compliance with visual standards and guidelines. Personal use woodcutting activities are compatible if they meet LUD objectives.
Transportation	Roads and trails may be present and are designed and constructed to be compatible with elements found in the characteristic landscape. They may enhance recreational opportunities.
Visual Resource	Management activities are not apparent to the observer in the foreground and are subordinate to the characteristic landscape in the middle to background distances.
Wildlife	Management emphasizes maintenance of late successional stages, although early and middle successional stages may occur. Habitat improvement may occur and is designed to be visually compatible.

SEMI-PRIMITIVE RECREATION

Land Use Designation SP

Goals

To provide predominantly natural or natural-appearing settings for semi-primitive types of recreation.

To provide opportunities for a moderate degree of independence, closeness to nature, and self-reliance in environments requiring challenging motorized or non-motorized forms of transportation.

Objectives

Manage recreation use and activities to meet the levels of social encounters, on-site developments, methods of access, and visitor impacts indicated for the Semi-primitive Recreation Opportunity Spectrum classes. Enclaves of concentrated recreation developments or mangement activities in adjacent Land Use Designations may cause the ROS setting to become Roaded Natural.

Determine on a case-by-case basis whether roads, trails, and other areas are suitable and open for motorized recreation activities. If so, incorporate into Off-Highway Vehicle (OHV) plans. If not, the use of boats, aircraft, and snowmachines for traditional activities is identified and allowed.

Permit small-scale, rustic recreation facilities, and occasional enclaves of concentrated recreation facilities.

Apply the Partial Retention Visual Quality Objective to any developments, facilities, or structures.

Fish enhancement and wildlife habitat improvement may occur.

Desired Future Condition

Areas in the Semi-primitive Recreation Land Use Designation are characterized by generally unmodified natural environments. Ecological processes and natural conditions are only minimally affected by past or current human uses or activities. Users have the opportunity to experience a moderate degree of independence, closeness to nature, solitude and remoteness, with some areas offering motorized opportunities and others non-motorized opportunities (except for the traditional uses of boats, aircraft, and snowmachines). Interactions between users are infrequent. Facilities and structures are minimal, and rustic in appearance or in harmony with the natural setting.

At-a-Glance . . .

Cultural resources	Locate, evaluate, and protect significant cultural resources. Interpretation may be provided.
Facilities	Administrative and other authorized structures are located and designed to reduce adverse effects on recreation opportunities.
Fire	All wildfires are suppressed using a suppression action that minimizes fire suppression costs and resource damage. Management-ignited prescribed fire,

	to improve natural ecological processes, is not presently used, but may be considered in the future.
Fish	Aquatic biological habitat productivity is maintained or improved. Fisheries enhancement projects may occur.
Forest Health	Pest prevention and suppression measures consistent with this Land Use Designation may be implemented to protect the recreational settings and adjacent resources.
Lands	Uses consistent with the Semi-primitive Land Use Designation are allowed.
Minerals	Lands are open to mineral entry. Mineral activities should be compatible with the objectives of this Land Use Designation to the maximum extent feasible. Mitigation of effects on recreation and visual resources are emphasized.
Recreation	The setting is managed to provide a natural-appearing environment generally remote from human developments. Recreation use is managed to provide low to moderate numbers of encounters between visitors. In some areas, motorized recreation opportunities are provided and traditional motorized access may occur. Small scale, rustic recreation facilities such as recreation cabins, shelters, and docks, and occasional enclaves of concentrated recreation facilities may exist.
Soil and Water	Land use activities are carried out in a manner which avoids serious and adverse impacts to soil and water quality.
Subsistence	Subsistence activities occur in accordance with Federal and state regulations and may be seasonally prevalent throughout this Land Use Designation.
Timber	Forested lands are classified as unsuitable for timber production. Silvicultural treatment is conducted only to maintain or improve the desired recreation opportunity or to control insects and disease. Salvage, although the exception in this Land Use Designation, is limited to the results of catastrophic events, and must be compatible with Semi-primitive recreation objectives. Personal use wood from beach log salvage is fully compatible with this Land Use Designation. Cutting on the upland is discouraged, but if allowed, is limited to designated areas.
Transportation	The transportation system within the area may include foot or ski trails, and trails for motorized recreation. Existing low standard roads may be managed for high clearance and off-highway vehicles subject to off-highway vehicle management plans. New roads are generally not constructed in this LUD except to link existing roads or to access adjacent LUD's. Location and design of roads required to access adjacent Land Use Designations should consider compatibility with or improvement to the semi-primitive recreation opportunities. Roads and trails may be closed or seasonally restricted.
Visual Resource	All activities within this LUD are integrated in such a way that they are subordinate to the characteristic landscape. Rehabilitation techniques may be used to restore disturbed landscapes to be compatible with the semi-primitive setting. The Visual Quality Objective is Partial Retention.

Wildlife	Habitat management emphasizes maintenance of late successional stages, although early to middle successional stages may occur. Habitat improvement may occur.

SPECIAL INTEREST AREA

Land Use Designation SA

Goals

To provide for the inventory, maintenance, interpretation, and protection of the existing characteristics and attributes of areas with unique cultural, geological, botanical, zoological, recreational, scenic, or other special features.

Objectives

Provide opportunities for public study, use, and enjoyment of unique natural areas that are suitable to, and do not compromise, the characteristics of each area.

Allow only facilities and recreation developments that contribute to the interpretation of natural features or provide for compatible public uses, and that blend with the natural setting.

Provide for inventoried Recreation Opportunity Spectrum opportunities and activities, unless public use is specifically restricted for the protection of other resources.

Consider withdrawing each area from mineral entry, subject to valid existing rights, on a case-by-case basis, if mineral development would not be consistent with protecting the unique features of the area.

Apply the Retention Visual Quality Objective except around developed interpretive facilities, and other developments or structures.

Allow fish, wildlife, and/or soil and water improvements if they are compatible with the purposes for which each Special Interest Area was established.

Develop management plans for those Special Interest Areas needing specific direction for achieving these goals and objectives.

Desired Future Condition

All Special Interest Areas on the Tongass National Forest are characterized by generally unmodified environments in which unique natural features are preserved. They remain largely undisturbed by human uses or activities, except for localized interpretive purposes and, in some cases, recreation developments, and provide quality opportunities for public study, use, and enjoyment. Each is an example of one or more cultural, geological, botanical, zoological, paleontological, or other special features unique within the Tongass.

At-a-Glance . . .

Cultural Resources	Cultural resources are located, evaluated, and protected. Use may be regulated to maintain or protect unique values. Interpretive activities may be provided.
Facilities	Administrative, interpretive, and informational sites are allowed to accomplish Special Interest Area objectives.

Fire	Suppression actions and prescribed fire are used to protect and improve resources as determined by the Special Interest Area Management Plan.
Fish	Fish improvement projects may be allowed where they are compatible with Special Interest Area objectives.
Forest Health	Forest pest management measures consistent with this Land Use Designation are implemented to protect the unique features of the area.
Lands	Only authorizations which perpetuate the unique values that led to designation or proposal to designate as a Special Interest Area are permitted.
Minerals	Special Interest Areas may be withdrawn from mineral entry, subject to valid existing rights.
Recreation	Use and interpretation are developed when adequate provisions for protection are available and the resource is suitable for the activity.
Soil and Water	Natural conditions are maintained to perpetuate the unique qualities of the Special Interest Area.
Subsistence	Subsistence use is allowed in accordance with Federal and state regulations.
Timber	Forested land is classified as unsuitable for timber production. Cutting of trees is authorized for development and maintenance of interpretive services for Special Interest Areas. Cedar and spruce are available for continued artistic use, if not in conflict with Special Interest Area purposes. Personal use fuelwood and Christmas tree cutting activities are usually incompatible with LUD objectives.
Transportation	Roads and trails are permitted where they are compatible with the interpretive objectives for which the Special Interest Area was established.
Visual Resource	Special Interest Areas are managed for their visual integrity, with most areas in a natural-appearing condition. The Visual Quality Objective is Retention. Exceptions are for the developed recreation and interpretive portions of Mendenhall Glacier, Ward Cove, and Blind Slough Special Interest Areas.
Wildlife	Wildlife habitat improvement projects may be allowed where compatible Special Interest Area objectives.

Appendix B
Land Use Designations Proposed In Mitkof Design

DEER WINTER HABITAT
Land Use Designation DWH

Goals

To manage areas to maintain high quality deer winter habitat.

To manage second-growth stands which occur naturally or have been harvested so that they become valuable deer winter habitat in the future.

Objectives

Manage timber using individual tree or small group selection methods which do not reduce the value of deer winter habitat.

Allow facilities and permitted uses if they are compatible with the deer winter habitat goals. Locate roads outside this land use designation to the extent practicable.

Desired Future Condition

To maintain high quality deer winter habitat, generally containing mature and overmature trees in a multi-layered canopy providing snow interception and an abundance of understory shrubs and forbs.

At-a-Glance...

Cultural Resources	Locate, evaluate, and protect significant cultural resources. Interpretation may be provided when it is compatible with the management objectives for deer winter habitat.
Facilities	Permanent administration facilities and temporary facilities will be present if compatible with deer winter habitat management objectives.
Fire	All fires are suppressed using a suppression action that minimizes fire suppression costs and resource damage.

Fish	Aquatic biological habitat productivity is maintained or improved. Fisheries improvement projects may occur.
Forest Health	Pest prevention and suppression measures should be consistent with the objectives of this land use designation.
Lands	Special use activities compatible with deer winter habitat objectives may be present.
Minerals	Lands are open to mineral entry. Mineral activities should be compatible with the objectives of this land use designation.
Recreation	Small scale, rustic recreation facilities such as recreation cabins and shelters may exist. Foot, snowmobile, and ski trails are compatible with this land use designation.
Soil and Water	Soil and water resources are generally subject to natural changes only.
Subsistence	Subsistence use is allowed in accordance with applicable Federal and State regulations. Opportunities for harvesting wildlife and fish resources will be maintained or improved. Firewood gathering is limited to standing dead or downed trees.
Timber	Individual tree or group selection (usually 1/2 acre or less) are suitable uses if distributed across the landscape and do not degrade the value of the deer winter habitat. Harvest would not occur near existing roads since road openings degrade snow interception capability (see transportation). Timber salvage is acceptable as long as new roads are not constructed and standing live trees are not harvested.

Transportation	Roads are located outside this land use designation to the extent practicable.
Visual Resource	Management activities will generally meet the retention visual quality objective, except in occasional circumstances where the partial retention visual quality objective is applicable.
Wildlife	Wildlife improvements may occur emphasizing components of deer winter habitat such as canopy cover and understory vegetation.

Municipal Watershed

Land Use Designation MW

The emphasis of this Land Use Designation is to meet the State of Alaska's Water Quality Standards for human use for municipal watersheds. These goals and objectives are the same as for Enacted Municipal Watersheds except that they have not been enacted. (We propose that on Land Use Designation be used for both enacted and non-enacted municipal watersheds.)

Goals

To maintain municipal watersheds as municipal water supply reserves in a manner that meets State of Alaska Water Quality Standards for human use.

Objectives

Limit most management activities to the protection and maintenance of natural resources. Fish enhancements, and watershed and wildlife habitat improvements, may occur if they are compatible with the municipality's watershed management objectives.

Classify forested land as unsuitable for timber production. consider salvage logging only at the request of the municipality.

Limit facilities and roads to those necessary for municipal water supply purposes.

Limit recreation uses to those agreed to with the municipality and to those that will not affect water quality or flow.

Desired Future Condition

Lands managed as Enacted Municipal Watersheds are generally in a natural condition. Facilities or structures to provide domestic water may be present. Uses or activities that could adversely affect water quality or supply do not occur. These watersheds provide domestic water that meets all State Water Quality Standards for human use.

At-a-Glance...

Cultural Resources	Locate, evaluate, and protect significant cultural resources. Interpretation may be provided, although interpretation may generally occur outside LUD boundaries.
Facilities	Facilities are limited to those structures which are necessary to administer and supply water for human use. No forest Service administrative facilities are constructed. Facilities such as dams, reservoirs, and pipelines are consistent with the LUD emphasis.
Fire	All wildfires are suppressed using suppression action that minimizes suppression costs and resource damage. Management ignited prescribed fire may be used to maintain or improve watershed characteristics.
Fish	Fish habitat projects may occur if they are compatible with municipal watershed management objectives.
Forest Health	Pest suppression and prevention measures are implemented to protect watershed and adjacent resources.
Lands and Minerals	Special use authorizations are limited to those which support water development activities and which safeguard the quality and quantity of municipal water supplies. Before a special use authorization is issued, written concurrence of the municipality is required.
Recreation	Only recreation use that is compatible with municipal watershed management objectives may occur.
Soil and Water	Soil and water protective measures are applied to protect the watersheds and water resources for human use. Soil and water improvement

	occurs on all disturbances that threaten watershed management values.
Subsistence	Subsistence use is allowed in accordance with applicable Federal, State, and municipal regulations.
Timber	Forested land is classified as unsuitable for timber production. There is no scheduled harvest, but timber may be salvaged at the request of the municipality under conditions which safeguard the quantity and quality of water. Personal use wood and Christmas tree cutting activities are usually incompatible with LUD objectives.
Trails	Trail systems are limited to those which are necessary to administer the municipal watershed.
Transportation	Road systems are limited to those necessary to administer the municipal watershed.
Visual Resource	Visual Quality Objectives are based on the management activities authorized in the watershed.
Wildlife	Wildlife habitats are managed for uses compatible with the municipality's watershed management objectives.

Appendix C
Additional Information By Topic

Appendix C
Additional Information By Topic

Road Maintenance

Based on current funding levels, we propose the following maintenance standards for roads on Mitkof Island:

40000: Froot Loop Road
- current: high clearance
- desired: passenger car

40001: Pitt Road
- current: closed by brush
- desired: closed
- *emphasize ATV use here*

40003: Endhaul Road
- current: closed by brush
- desired: closed
- *emphasize ATV use here*

40004: Ridge Run Road
- current: high clearance
- desired: allow to close

40006: Snake Ridge Road
- current: high clearance
- desired: passenger car

40007: Upper Bruin Road
- current: high clearance
- desired: high clearance

40008: French Twin Road
- current: high clearance
- desired: allow to close

40010: Red Bear Road
- current: closed
- desired: closed

40083: Muck Road
- current: high clearance
- desired: allow to close

40100: Blind River Rapids Parking Area
- current: Paved
- desired: Paved

40227: Knee Road
- current: high clearance
- desired: high clearance

6200: Lake Road
- current: high clearance
- desired: high clearance

6201: Knobby Road
- current: high clearance
- desired: allow to close

6202: Cow Creek Road
- current: closed
- desired: closed

6204: Frederick (Cabin) Road
- current: high clearance
- desired: passenger car

6205: Pan Creek Road
- current: high clearance
- desired: allow to close

6206: Cabin Road
- current: high clearance
- desired: allow to close

6207: Climber Road
- current: high clearance
- desired: allow to close

6208: Frenchy Creek Road
- current: high clearance
- desired: passenger car

6209: Twin Creek Road
- current: high clearance
- desired: passenger car

6210: Paint Road
- current: high clearance
- desired: allow to close

6212: Boundary Road
- current: high clearance
- desired: allow to close

6220: Sam Peak Road
- current: closed
- desired: closed

6221: Mink Road
- current: closed
- desired: convert to trail
- *emphasize ATV use here*

6222: Ermine Road
- current: closed
- desired: closed

6223: Martin Road
- current: closed
- desired: closed

6224: Weasel Road
- current: closed
- desired: closed

6225: Falls Flat Road
- current: closed
- desired: closed

6226: Clap Trap Road
- current: closed
- desired: closed

6227: Forty-Dollar Road
- current: high clearance
- desired: high clearance
- *emphasize ATV use here*

6230: Upper Bear Creek Road
- current: closed by brush
- desired: closed

6231: Rove Road
- current: closed
- desired: closed

6232: Canyon Creek Road, to Overlook
- current: passenger car
- desired: passenger car

6232: Canyon Creek Road, Past Overlook
- current: high clearance
- desired: allowed to close

6233: North Blind River Road
- current: closed
- desired: closed

6234: Blind Slough Picnic Area Parking
- current: passenger car
- desired: passenger car

6235: Three Lakes Loop
- current: high clearance
- desired: passenger car

6238: Ohmer Creek Campground Road
- current: passenger car
- desired: passenger car

6241: Dry Strait
- current: high clearance
- desired: passenger car

6245: Woodpecker Road, to Road 6287
- current: high clearance
- desired: passenger car

6245: Woodpecker Road, past Road 6287
- current: high clearance
- desired: high clearance
- *emphasize ATV use here*

6246: West Fork Ohmer Creek
- current: high clearance
- desired: high clearance

6280: Crystal Lake Road
- current: closed
- desired: closed

6281: East Sumner Mountain Road
- current: closed/high clearance
- desired: closed

6282: Sumner Pass
- current: closed
- desired: closed

6283: South Sumner Mountain Road
- current: closed/high clearance
- desired: closed

6284: West Sumner Mountain Road
- current: high clearance
- desired: high clearance
- *emphasize ATV use here*

6285: Woodpecker Cove Road
- current: passenger car
- desired: passenger car

6286: Riva Ridge Road
- current: high clearance
- desired: high clearance
- *emphasize ATV use here*

6287: Point Alexander Road
- current: converted to interpretive trail
- desired: converted to interpretive trail

- **Passenger Car:** roads are designed for passenger car use and are not paved.
- **High Clearance:** roads are designed for high clearance vehicles and may damage passenger cars.
- **Closed:** roads are already closed, will be allowed to close naturally, or will be closed with a barrier.

Silviculture

Silviculture Systems in Southeast Alaska

Silvicultural systems are approaches to managing trees and plants to meet resource objectives. Examples of objectives include timber production and wildlife habitat, among others. Silvicultural systems can address more than one resources at a time. For example when harvesting trees for commercial use, we can leave groups of trees or individual trees to provide cover for wildlife. We often choose the silvicultural system based on what it takes to regenerate the stand. Some of the more common silvicultural systems include:

- **Group selection:** These systems remove small groups of trees, usually less than 2 acres. Portions of the stand are removed periodically. These may be accomplished using logging systems common in Southeast Alaska: cable, helicopter, and shovel yarders.

- **Individual tree selection:** These systems remove single trees based on individual characteristics, periodically removing a portion of the stand. There is high potential for damage to the remaining trees. Helicopter and/or shovel logging are the most commonly used harvest methods for this system.

- **Clearcutting systems:** These include removal of entire stands of timber in one cutting. Some trees may be kept for visual or wildlife needs. In southeast Alaska, clearcutting is currently more practical, safe, and economical for most harvest situations.

- **Seed-tree:** These systems remove mature timber in one cutting except for a small number of seed-bearing trees left singly or in small groups to provide seed for regeneration of the site. Though these systems may not meet timber objectives in Southeast Alaska, they could be used where there are limited sources of seed, for example, if few cedar trees remain in adjacent stands.

- **Shelterwood:** These systems remove mature timber in two or three cuttings. All harvest takes place in less than 20 years and is designed to *shelter* new seedlings from the sun with the remaining canopy.

Rotation Ages[1]

We predicted a rotation age for each Land Use Designation. The *Timber Emphasis*[2] rotation age is approximately 100 years. The rotation age of *Scenic Viewshed* and *Modified Landscape* is 170 years. We used these guidelines to estimate timber volumes in the Final Design. A stand with a 170-year rotation would have multiple entries for timber harvest extending over 170 years, at which time the entire stand would have been harvested. Then the rotation starts over. Each entry could harvest different units and the time between entries could vary. The amount of timber removed could also vary depending on resource objectives.

Land Use Designation and Timber Volume Estimates

Three land use designations permit timber harvest and count towards our 4.2 million board foot[3] estimate for the annual average harvest:

- *Timber Emphasis,*
- *Modified Landscape,* and
- *Scenic Viewshed.*

Timber Emphasis lands are likely to have the highest proportion harvested as clearcut. *Modified Landscape* lands are likely to have a lower proportion of clearcut, and more partial harvests. Clearcuts will generally be less obtrusive than on the *Timber Emphasis* lands. *Scenic Viewshed* lands are likely to have the fewest acres of clearcutting and the highest proportion of partial harvest. Clearcuts will be the least obtrusive in *Scenic Viewshed.*

In our timber volume calculations, we assumed that 20% of the potential volume could not be harvested due to concerns identified in project level analysis. Other Land Use Designations and HCAs will have some timber harvest but do not count toward our estimated, annual, average harvest.

Silvicultural Prescriptions

Silvicultural prescriptions will be completed during project-level analysis, when the silviculturist has more detailed and site-specific information.

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1 The rotation age is the planned number of years between the regeneration of a stand of trees and its final cutting at a specified stage of maturity. These rotations define the time over which an entire stand of timber would be harvested.

2 For a review of all Land Use Designations see At-A-Glance in Appendix A and B.

3 A board foot is a unit of timber measurement equalling the amount of wood contained in a green, unfinished board one inch thick, twelve inches long, and twelve inches wide.

Soils, Water, and Fish

Watershed Sensitivity

We used the Stikine Area Watershed Sensitivity Model to look at how sensitive the land is to disturbance, such as timber harvest and road construction. The model uses the soil and stream characteristics of each watershed to describe land *sensitivity*. Sensitivity class may be low, moderate, high, or extreme. Next, the value of the watershed is rated for anadromous fish and human water supply. This is referred to as the *user class*. The values for fish habitat are based on ratings from the Alaska Department of Fish and Game and range from very low to high. If the watershed use includes drinking water, it is assigned a high user class.

Sensitivity to Disturbance

The results show that most of the island is in the low-to-moderate range for sensitivity to disturbance. Of the major named watersheds, only Sumner Creek fell into the high-sensitivity category.

User Class

Four watersheds were rated high for use: Blind Slough and Falls Creek for anadromous fish, and Cabin Creek and Reservoir Creek for human water supply. None of the watersheds are close to the threshold of concern suggested by the model (Table C-1). The analysis indicates that cumulative watershed concerns are not a limiting factor on Mitkof Island at this time.

Threshold of Concern

The Sensitivity Model combines watershed sensitivity and user class to estimate the threshold of concern, which is the percent of disturbance the watershed can absorb. The threshold of concern does not predict actual impacts. It indicates each watershed's risk of potential sediment production from cumulative watershed impacts.

Watershed Recovery

Finally the model assumes that watershed recover from disturbance over time. For example in Table C-1, 15% of the Bear Creek watershed has been disturbed over time. When accounting for recovery however, only 6%

remains disturbed. Both figures are well below the 40% threshold of concern. Disturbed areas are assumed to recover 50% in 10 years, 75% in 20 years, and 100% in 30 years.

Table C-1. Sensitivity of Major Mitkof Watersheds to Disturbance

Watershed	Area (acres)	Sensitivity Class[4]	User Class[5] (value to people)	Threshold of Concern (% watershed disturbed)	Total Disturbance (% watershed disturbed)	Disturbance w/recovery[6] (% watershed still disturbed)
Bear Creek	14,880	moderate	moderate (fish)	40	15	6
Blind Slough	10,000	moderate	high (fish)	25	8	2
Cabin Creek	4,750	low	high (water supply)	35	8	7
Cosmos Creek	4,640	moderate	low (fish)	60	12	4
Falls Creek	11,240	moderate	high (fish)	25	18	7
Ohmer Creek	9,490	moderate	moderate (fish)	40	11	4
Reservoir	2,600	low	high (water supply)	35	3	2
Sumner Creek	7,950	high	low (fish)	50	6	3

[4] Sensitivity class is based on soil and stream characteristics including slope and soil erodibility.
[5] User Class is the value of the watershed for anadromous fish use and human water supply
[6] Disturbed areas are assumed to recover 50% in 10 years, 75% in 20 years, and 100% in 30 years.

Wildlife: Deer Management

Demand for Deer

1960's Harvest: From 1960-68, hunters harvested approximately 620 deer on Mitkof Island each year. Assuming ten deer are required for every deer harvested we would need to maintain a habitat capability of 6,200 deer to support this level of harvest.

1990's Harvest: From 1991-93, hunters took an average of 166 deer per year.

Approximately 750 permits have been issued each year following the reopening of a hunting season on Mitkof Island in 1991. When asked, most hunters say they would like to harvest more than one deer on the island. Assuming each hunter wants two deer, and ten deer are required to maintain the population level for every deer taken, a population of 15,000 deer would be required. That would be equivalent to 75 deer per square mile. This seems unrealistic for the habitat capability on Mitkof Island.

Theoretical Harvest: We currently estimate that *all* lands on Mitkof Island can support about 3580 deer. Theoretically we should be able to harvest about 300 deer per year. We estimate habitat capability of National Forest lands south of the City limits can currently support approximately 2400 deer (Figure C-1). This is expected to decline to 2300 deer by year 2020 as canopies in existing clearcuts close.

The Deer Model

We used the deer habitat capability model developed for the Forest Plan Revision (1991). Deer habitat capability is not the actual deer population, rather the estimated number of deer that the habitat could support through a moderately severe winter[7]. This model assigns winter habitat values to various old-growth stands, based on such variables as elevation, aspect[8], and volume class[9]. In some cases, we updated the predicted habitat values with data from the past four years. The model also predicts the effects of clearcutting on deer winter habitat.

[7] Moderately severe winters are those with snowfall between 51 and 115 inches.
[8] Aspect is the direction a hillside faces.
[9] Volume class is the volume of timber growing on an acre of land.

Since the deer model predicts only the effects of clearcutting, it does not adequately reflect the effect of partial removal of timber from the stand. Due to the lack of field information on partial harvest we assumed, for this document, that the effects of partial timber harvest on deer would be directly proportional to the amount of timber removed from the stand. In other words, removing 50% of the trees on 100 acres of forest was assumed to have the same effect as clearcutting 50 acres. As more information becomes available, we expect the model will be updated to reflect the effects of partial harvest.

Figure C-1. 1995 Mitkof Island Deer Habitat Capability Estimates

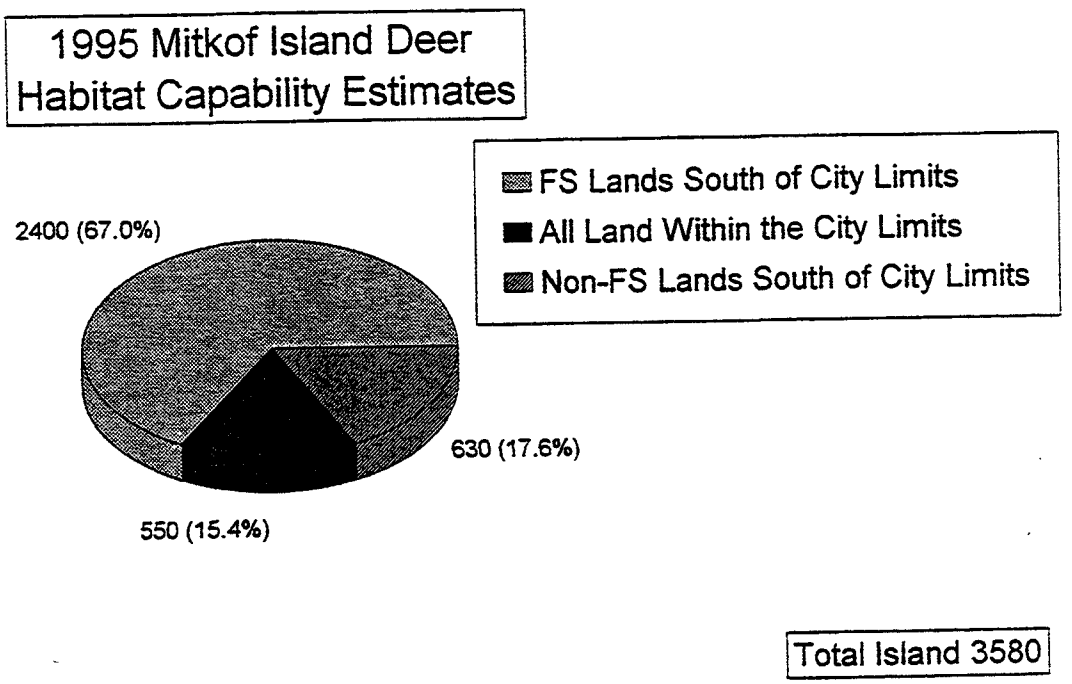


Table C-2. Possible Tradeoff Ranges Between Deer Numbers and Timber Volumes.

Management Strategies	Deer* Habitat Capability (Year 2060)	Annual Deer** Harvest Potential (Year 2060)	Annual Timber*** Harvest Potential (1995 - 2060)
	Number of Deer	Number of Deer	Million Board Feet
1) Alternative P	1,930	193	5.4
2) Alternative P - with HCAs	2,040	204	4.3
3) Proposed Changes to Alternative P with HCAs plus protection of highest-value and high-value deer winter range	2,160	216	3.4
4) No timber harvest	2,300	230	0.0
5) Final Design ****	2,070	207	4.2

* The numbers refer only to the habitat capability on National Forest lands south of the City Limits. Actual populations might be higher or lower than this theoretical number.

** Assumes 10% of the deer population can be harvested on a sustained basis.

*** Includes both sawlogs and pulp wood in million board feet. These figures have been adjusted 20% lower to account for the occurrences encountered during on-the-ground, project-level analysis, including discovery of streams, raptor nests, and soil concerns. This amount will not be the same every year; it is an average. Some years there will be no timber sold, other years there may be more than the average yearly volume sold.

**** We inadvertently used the 1991 version of Alternative P in the Preliminary Design to calculate deer habitat and timber harvest numbers. We used the 1992 version for the Final Design, which resulted in an increase in both numbers.

Wildlife: Viable Populations Strategy

Mitkof Design HCA Strategy

Placement

We tried to avoid roads, incorporate high-value marten[10] and flying squirrel habitat and include at least 50 percent volume class 4 or greater timber within all HCAs. Because people are interested in hunting deer, we selected good deer winter range when possible.

Roads

If practicable roads will be located outside HCAs and wildlife travel corridors. We recommend keeping primary roads open within HCAs including Snake Ridge Road, Three Lakes Loop Road, Woodpecker Cove Road, and Mitkof Highway. Breaks in the travel corridor should not exceed 65 feet to ensure flying squirrel movements.

Recreation and Lands

HCA designation will not affect existing recreation facilities or new trail construction. While existing developed recreation sites can be located within HCAs, the acreage of these sites will not count towards the HCA acres, and these sites would not be significantly expanded in the future. No new campground developments would be permitted. Within a HCA, a road leading to an active mining claim could be used by the permittee only.

Harvest of Wildlife

The HCA proposal does not limit hunting or trapping.

Harvest of Timber

Cutting of hazard trees along roads is permitted for public safety. Personal use and firewood harvest would not be allowed in HCAs or wildlife travel corridors since some species with viability concerns are dependent on snags.

[10] High-value marten habitat is capable of supporting between 1.8 and 2.71 marten per square mile.

We propose harvesting of existing second-growth forests if:

- permitted by the underlying Forest Plan Land Use Designation,
- if the HCA fully meets the habitat composition criteria, and
- if new roads are not constructed and existing roads are managed for access consistent with wildlife objectives.

We propose commercial salvage of down or dead trees in HCAs and wildlife travel corridors if:

- area is greater than 25 acres,
- salvage is accomplished in accordance with road guidelines,
- all standing living trees are left uncut, except as necessary for safety when removing down or dead trees, and
- salvage logging is permitted by the underlying Forest Plan Land Use Designation.

Number of HCAs

The Interagency Team recommended one small HCA for each 10,000 acre watershed which is usually represented by a VCU. Mitkof Island has four watersheds 10,000 acres or greater. Six VCUs greater than 10,000 acres are located on Mitkof Island. the Mitkof Team decided to use a combination of spacing, VCUs, and watershed size to develop a Design that includes six small HCAs and one medium HCA.

The Interagency Team report contains information on requirements of the maximum distances species will migrate; small HCAs should be about four miles from other HCAs. We tried to maintain the gene pool for species moving between Mitkof, the mainland, and surrounding islands. We based our locations for HCAs on habitat values, unique areas or habitats, gene flow between the mainland and surrounding islands, and spacing between the HCAs.

Interagency Team Strategy

In October 1990, an interagency team of wildlife biologists met to identify and evaluate habitat needs for old growth associated wildlife species. They proposed a Habitat Conservation Area (HCA) approach. HCAs would have specific size, vegetation composition, and spacing criteria. They recommended 500-foot wide beach fringe buffers and endorsed 100-foot old-

growth forest buffers along both sides of anadromous[11] fish streams, and corridors necessary to link HCAs.

We used the guidelines from their May 5, 1993 final review draft of *A Proposed Strategy for Maintaining Well-Distributed, Viable Populations of Wildlife Associated with Old-Growth Forests in Southeast Alaska* to develop our HCA proposal.

Large Habitat Conservation Area

Objectives and Guidelines

Large HCAs are intended to provide habitat to ensure that populations of marten, goshawks, and wolves are secure. They also provide source populations to recolonize adjacent HCAs. HCAs with largely circular shapes are preferable as they provide a greater amount of interior old-growth forest environment and less human-induced edge habitat than linear HCAs.

1. Maintain one contiguous tract capable of supporting at least 25 female marten during winters of poor prey and 8 pairs of goshawks.

2. Large HCAs: 40,000 acres total with:

   - 20,000 acres old-growth with a volume of over 8,000 board feet of timber per acre, including at least,
     - 10,000 acres old-growth with a volume of over 20,000 board feet per acre, and
   - one Class I stream if in brown bear habitat.

3. Large HCAs should be not more than 20 miles apart, edge to edge, to ensure that they are within the dispersal capabilities of all the species of concern.

4. Often an area with another Forest Plan Land Use Designation[12] (such as *Wilderness, Primitive Recreation,* or *Municipal Watershed*) will serve as a Large HCA. In such cases, the

[11] Anadromous fish are those that mature and spend much of their adult life in the ocean, returning to inland waters to spawn. Salmon and steelhead are examples.

[12] For a review of all of the Land Use Designations see At-A-Glance in Appendix A and B.

Designation should be co-designated on maps to clearly indicate the intent to manage for both purposes.

5. Monitoring should be implemented to determine whether the Large HCAs are meeting their population objectives.

Medium Habitat Conservation Area

Objectives and Guidelines

Medium HCAs are intended to provide habitat for small, local populations that may be prone to frequent, local extinctions. However, the Medium HCAs should be located close to the Large HCAs or to other Medium HCAs for recolonization to occur. HCAs that are somewhat circular are preferable to linear ones because of the smaller area of human-induced edge habitat.

1. Establish Medium HCAs capable of supporting at least five female marten during winters of poor prey, and two pairs of goshawks. Medium HCAs will be spaced at intervals of approximately eight miles, edge to edge, to ensure recolonization.

2. Medium HCAs: 10,000 acres total with:

- 5,000 acres old growth with a volume of over 8,000 board feet of timber per acre, including at least,
  - 2,500 acres old growth with a volume of over 20,000 board feet of timber per acre, and
- less than 8 miles from nearest large or medium HCA

3. Often an area with another Forest Plan Land Use Designation[13] (such as old-growth, Wilderness, *Primitive Recreation*, or *Municipal Watershed*) will serve as a Medium HCA. In such cases, the Designation should be co-designated on maps to clearly indicate the intent to manage for both purposes.

4. Monitoring should be implemented to determine whether the Medium HCAs are meeting their population objectives.

[13] For a review of all of the Land Use Designations see At-A-Glance in Appendix A and B.

Small Habitat Conservation Area

Objectives and Guidelines

Small HCAs are maintained to provide temporary functional habitat for animals dispersing between Large and Medium HCAs and to ensure that species of concern have a relatively high likelihood of occurring in each 10,000 acre or greater watershed. HCAs that are somewhat circular are preferable to linear ones because of the smaller area of human-induced edge habitat.

1. Maintain one small HCA capable of supporting at least one female marten during winters of poor prey and 20 to 40 flying squirrels within each major watershed. A major watershed is defined as one that is at least 10,000 acres in size.

2. Small HCAs 1,600 acres total with

    - 800 acres of old-growth with a volume of over 8,000 board feet of timber per acre.

3. Where practicable, include lands not suitable for timber harvest, existing buffers, and other lands removed from timber harvest for small HCAs.

Travel Corridor Objectives:

1. Provide corridors of old-growth forest habitats to increase the likelihood of successful dispersal of the species of concern throughout the landscape.

2. Maintain old-growth riparian buffers at least 100 feet on each side of the stream to aid in the dispersal of old-growth associated species. Limit breaks in old-growth travel corridors not to exceed 65 feet to ensure that flying squirrels can glide across the openings.

Interagency Proposal

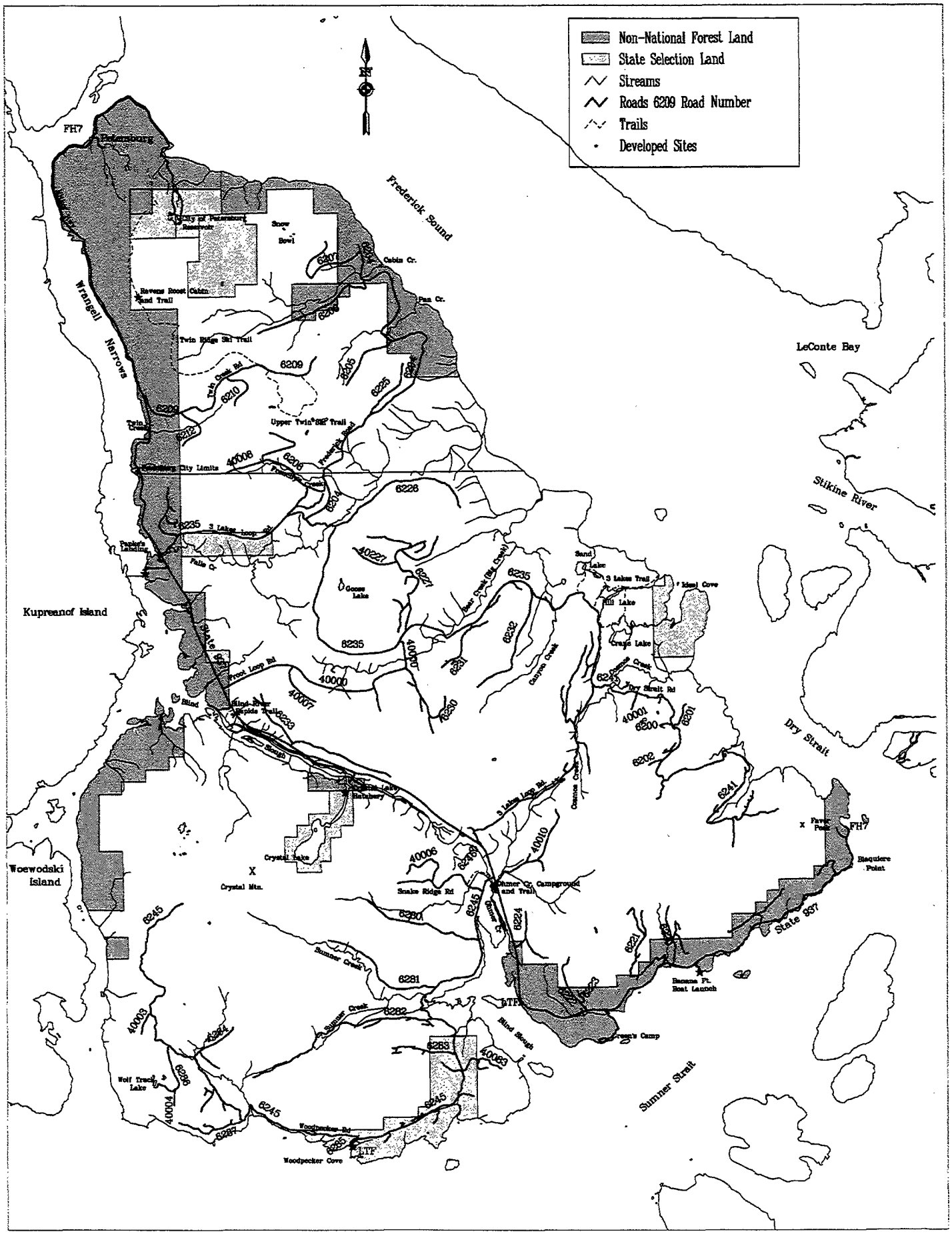
The Interagency Team proposed no large HCAs for Mitkof Island. They recommended the Three Lakes and Blind Slough medium HCAs. They also recommended one small HCA per VCU designed at the project level.

Region 10 Forest Service Strategy, Draft Environmental Assessment, (Internal Review Draft)

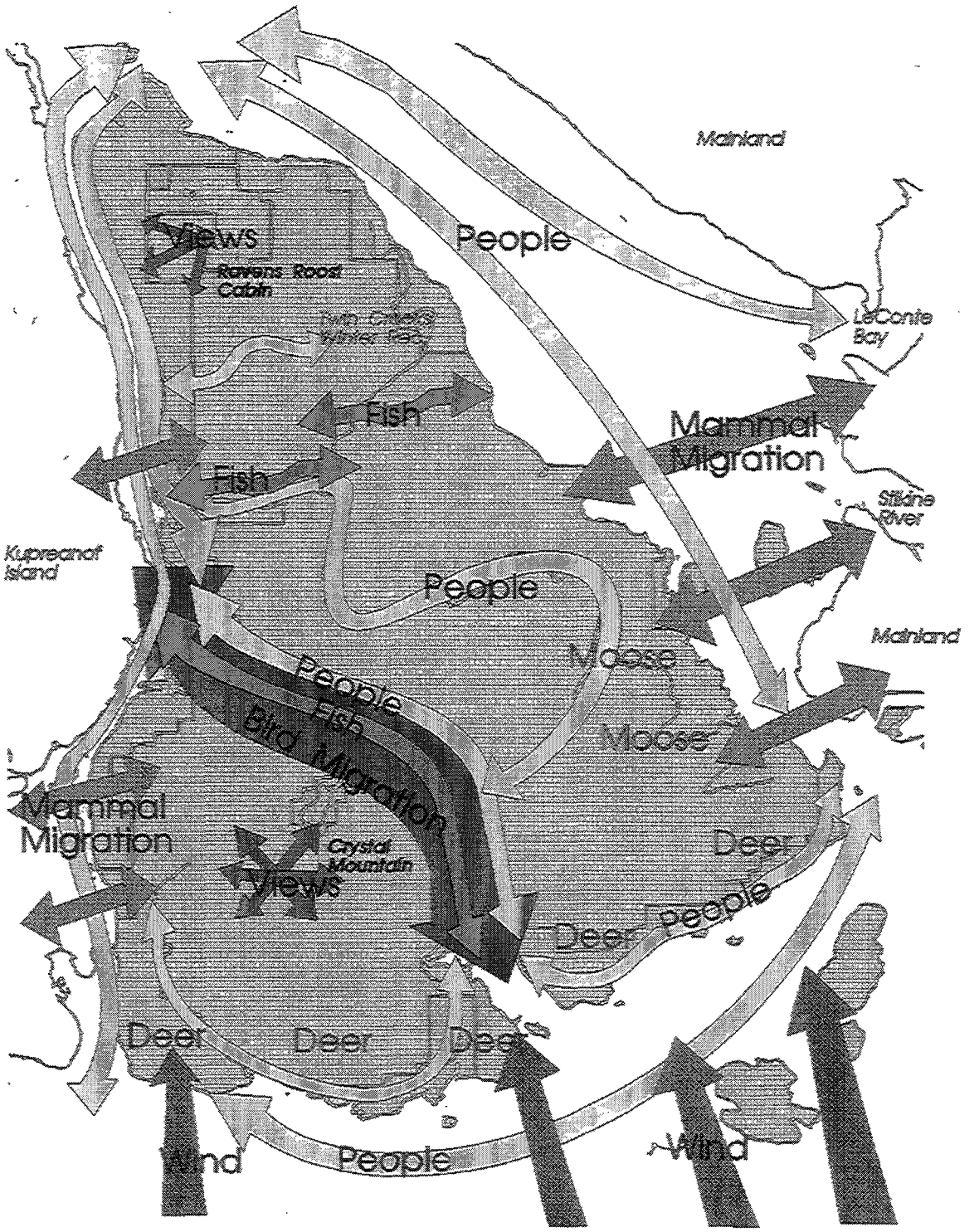
The February 24, 1993 Environment Assessment (EA), *Interim Habitat Management Guidelines for Maintaining Well-Distributed Viable Wildlife Populations Within the Tongass National Forest* proposed two medium HCAs (Blind Slough and Three Lakes) for Mitkof Island, but did not discuss small HCAs. No large HCAs were proposed on Mitkof Island.

The Regional EA also includes guidelines for goshawk protection (Map 13). There are several alternatives that the Regional Forester may select. Depending on his choice, timber harvest within goshawk home ranges may be deferred, until the Forest Plan Revision is completed.

Map 1. Mitkof Island Map

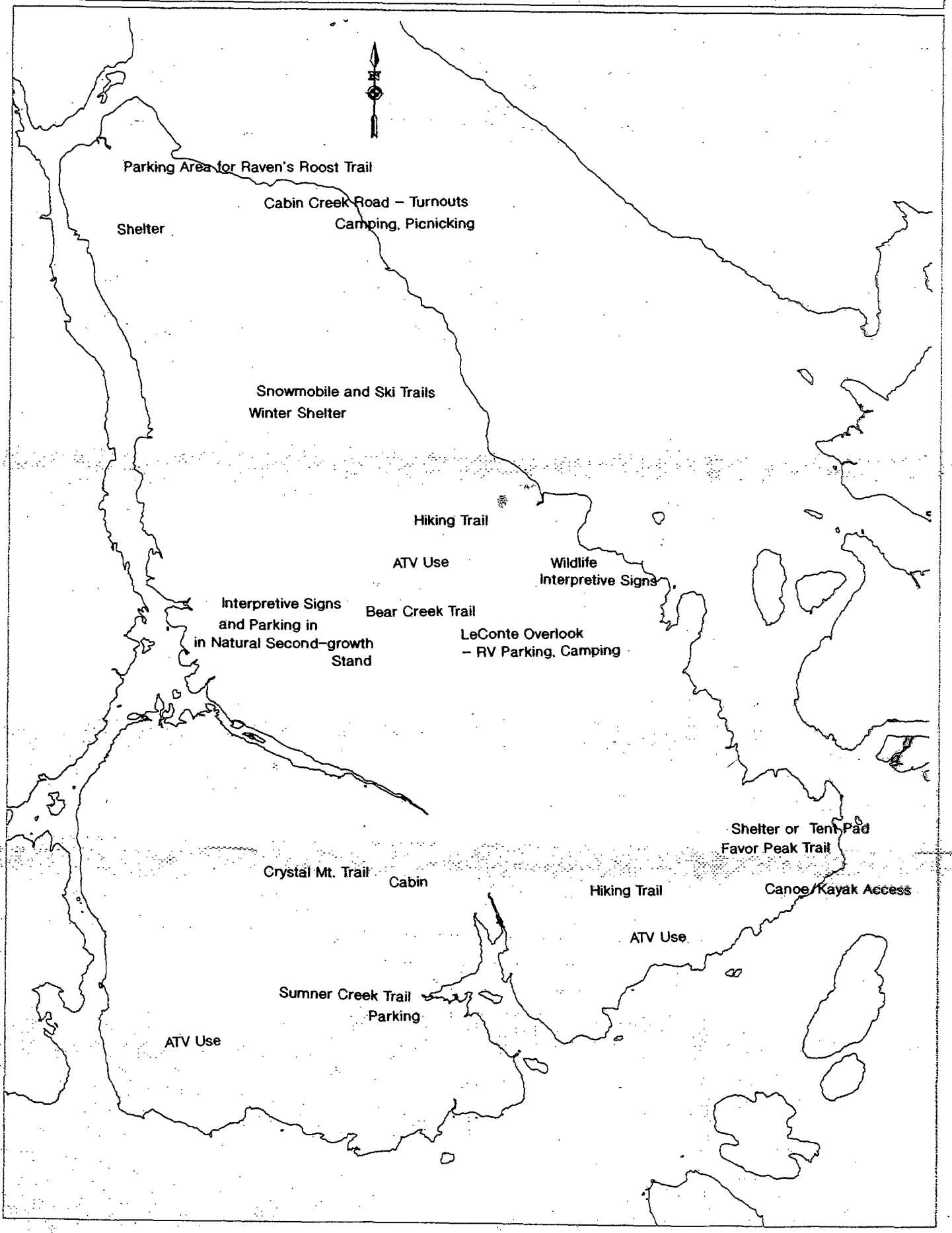


Map 2. Ecosystem Flows

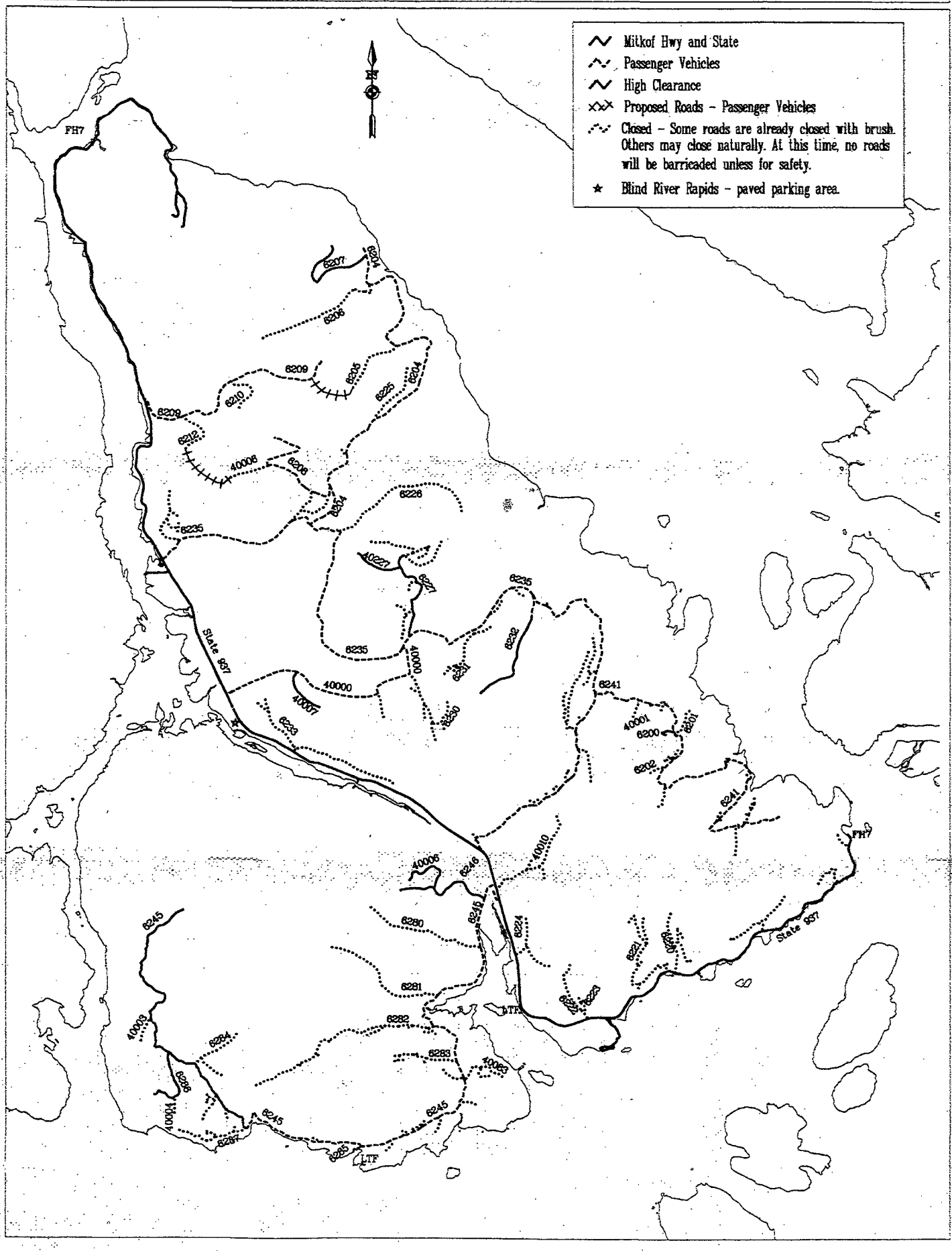


Map 3. Five Areas of Mitkof Island

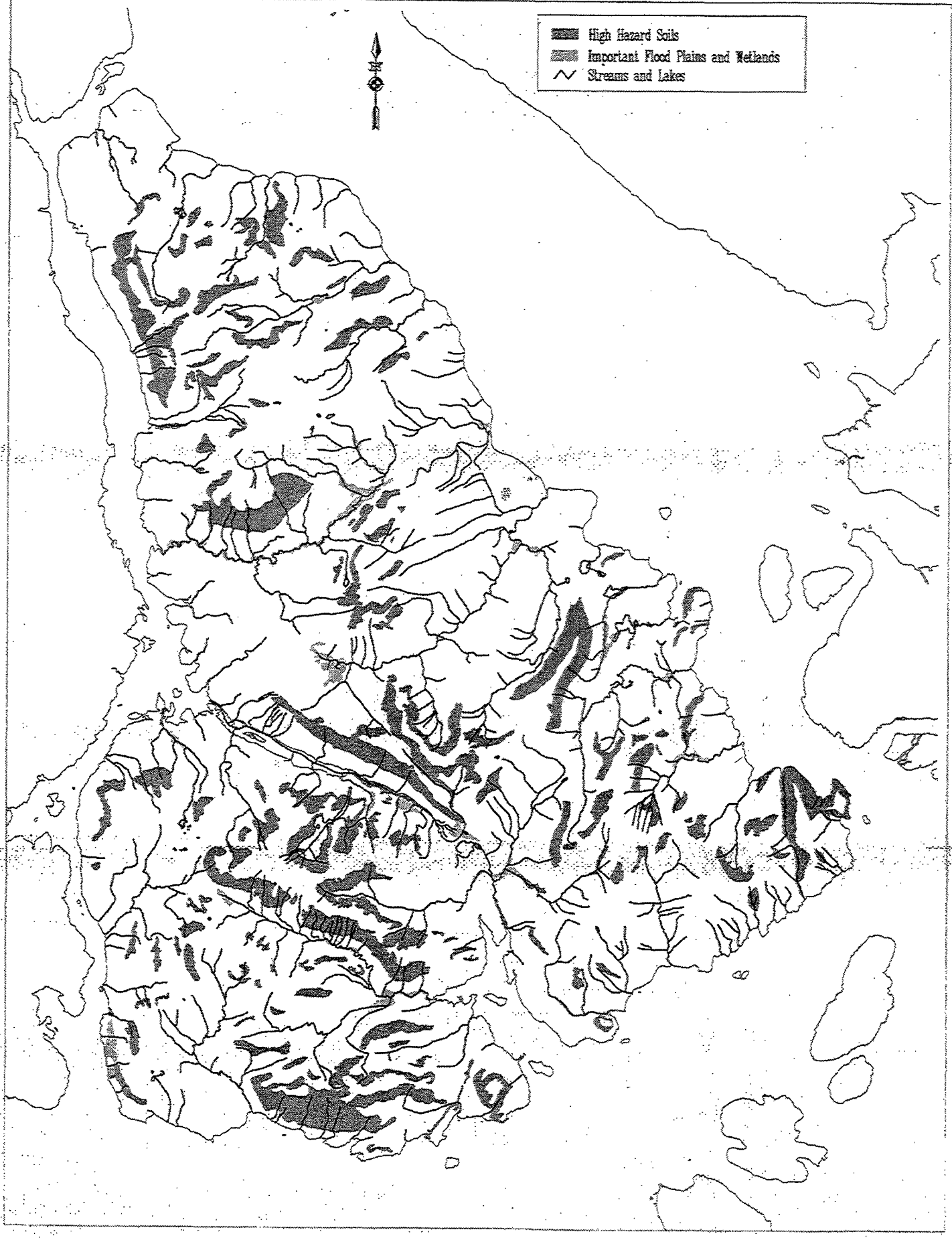
Map 4. Recreation Projects (Proposed)



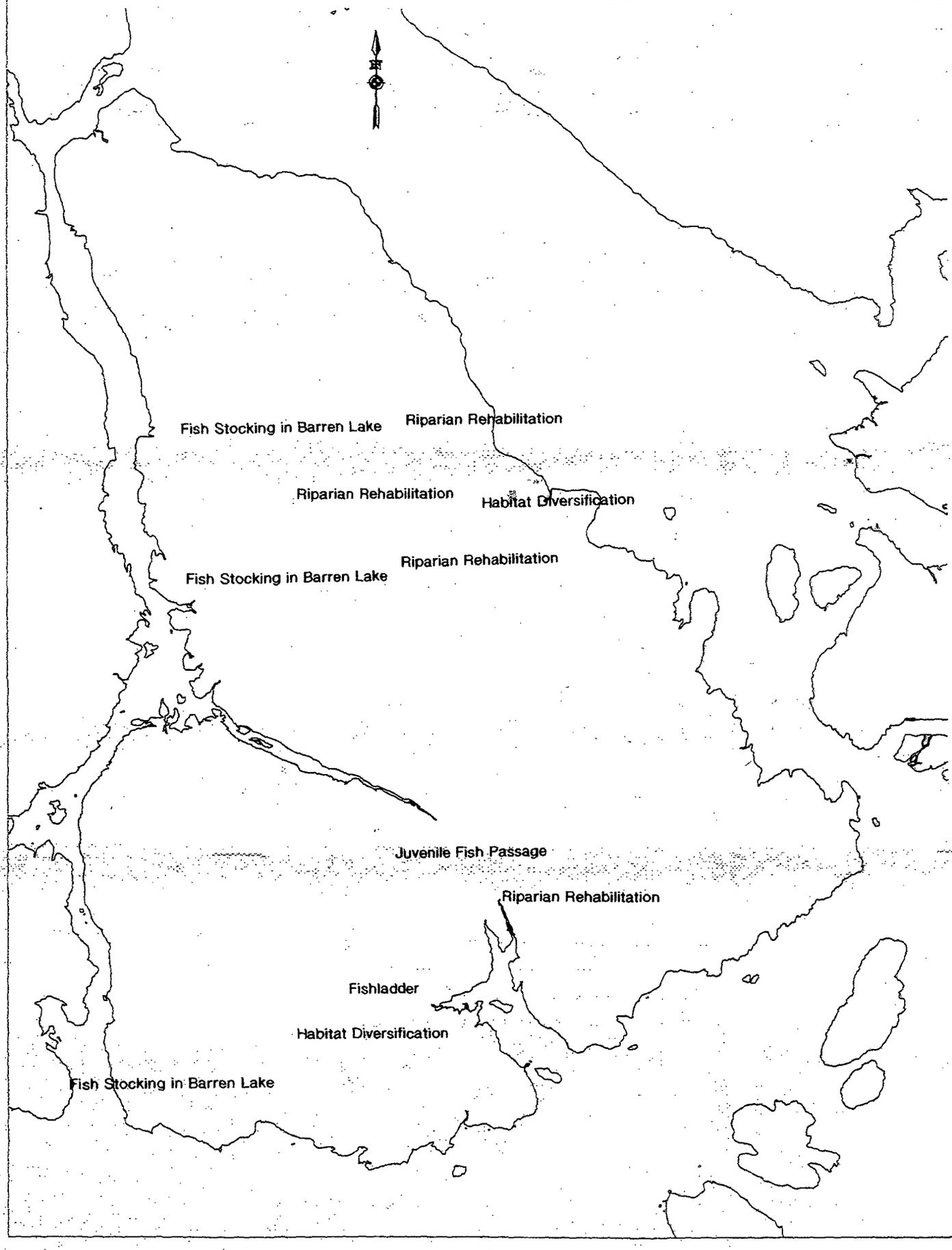
Map 5. Road Maintenance Levels (Proposed)



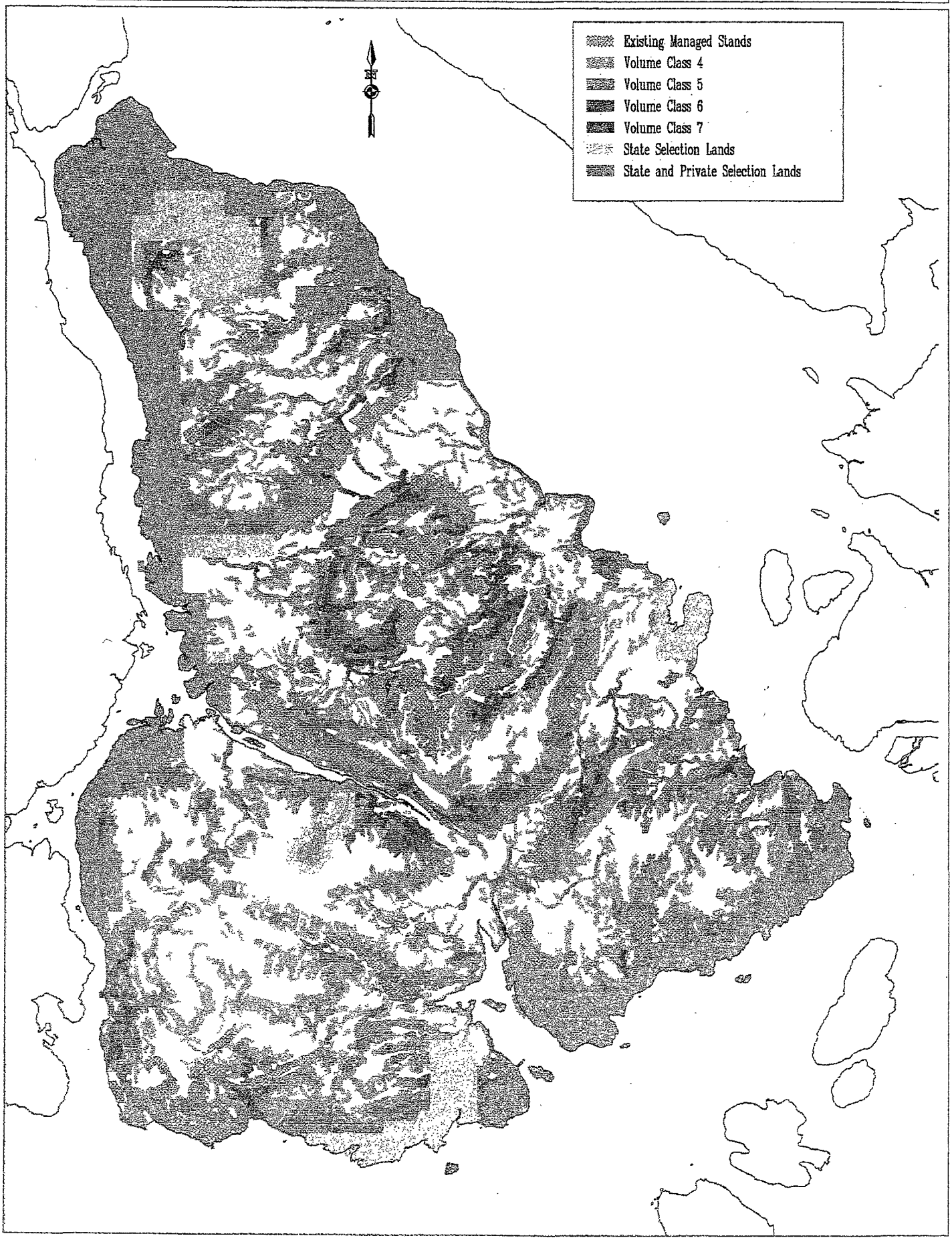
Map 6. Riparian Management Areas (Proposed)



Map 7. Fisheries Enhancement and Rehabilitation Projects (Proposed)

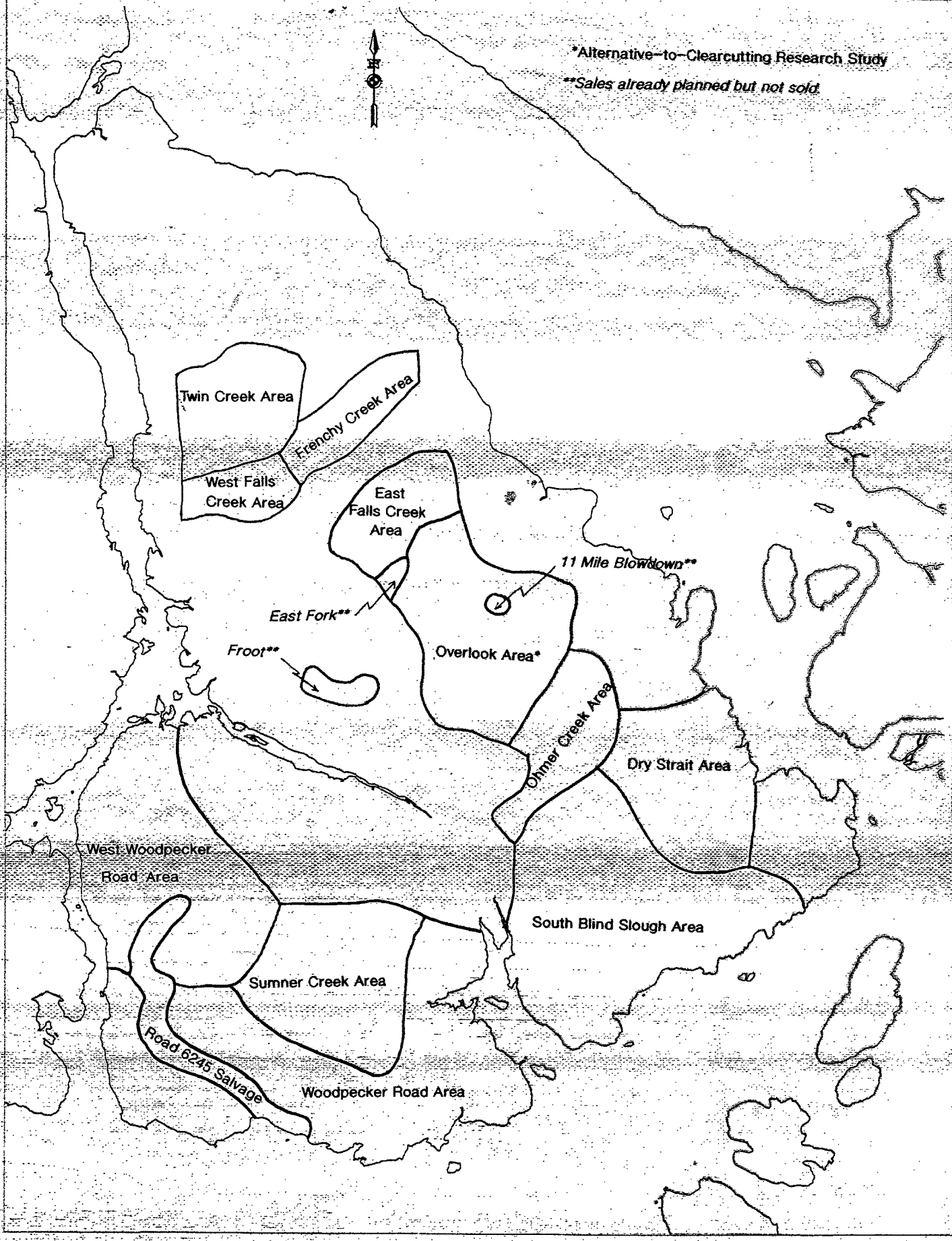


Map 8. Timber: Volume Classes

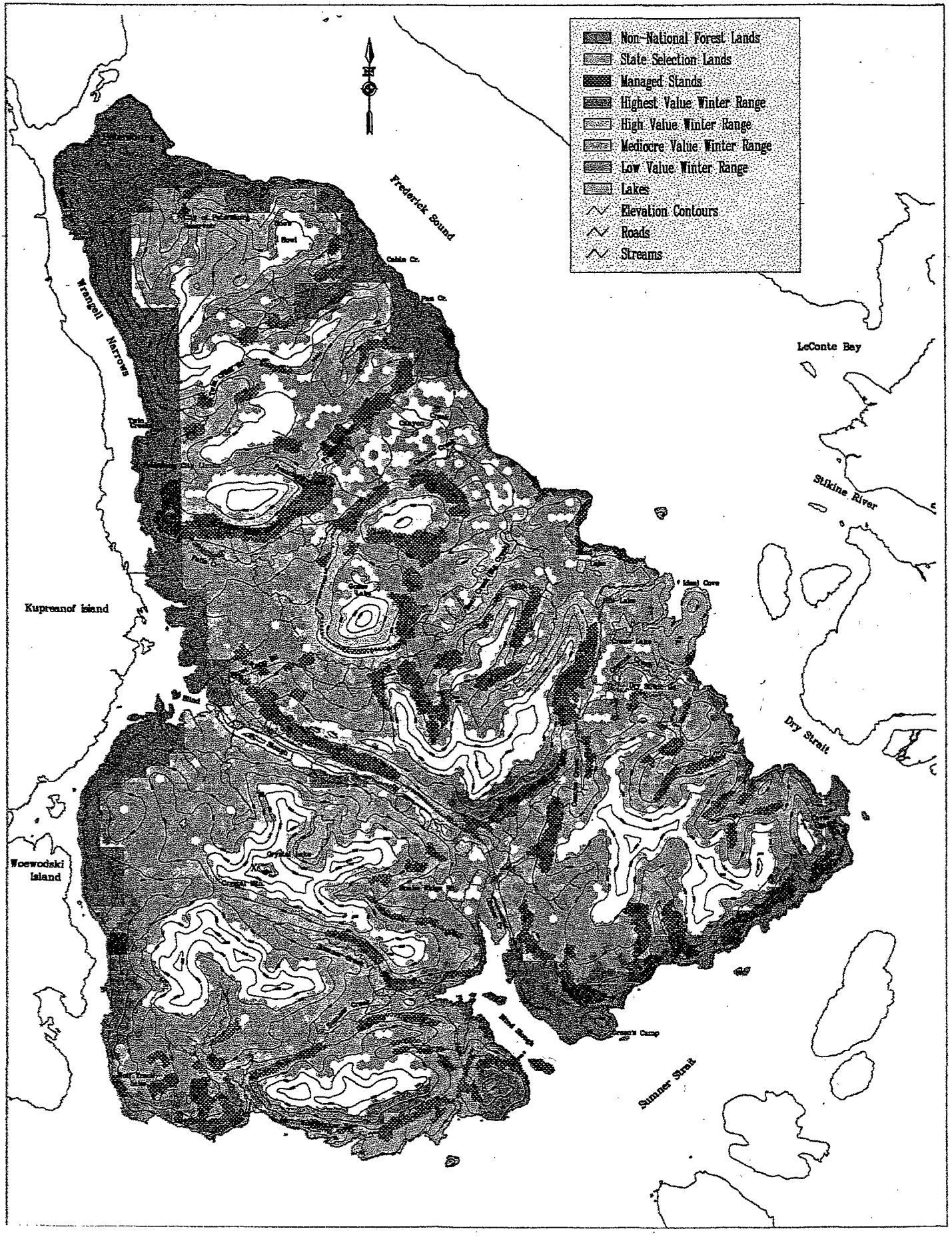


Map 9. Timber: Areas Available for harvest (Proposed)

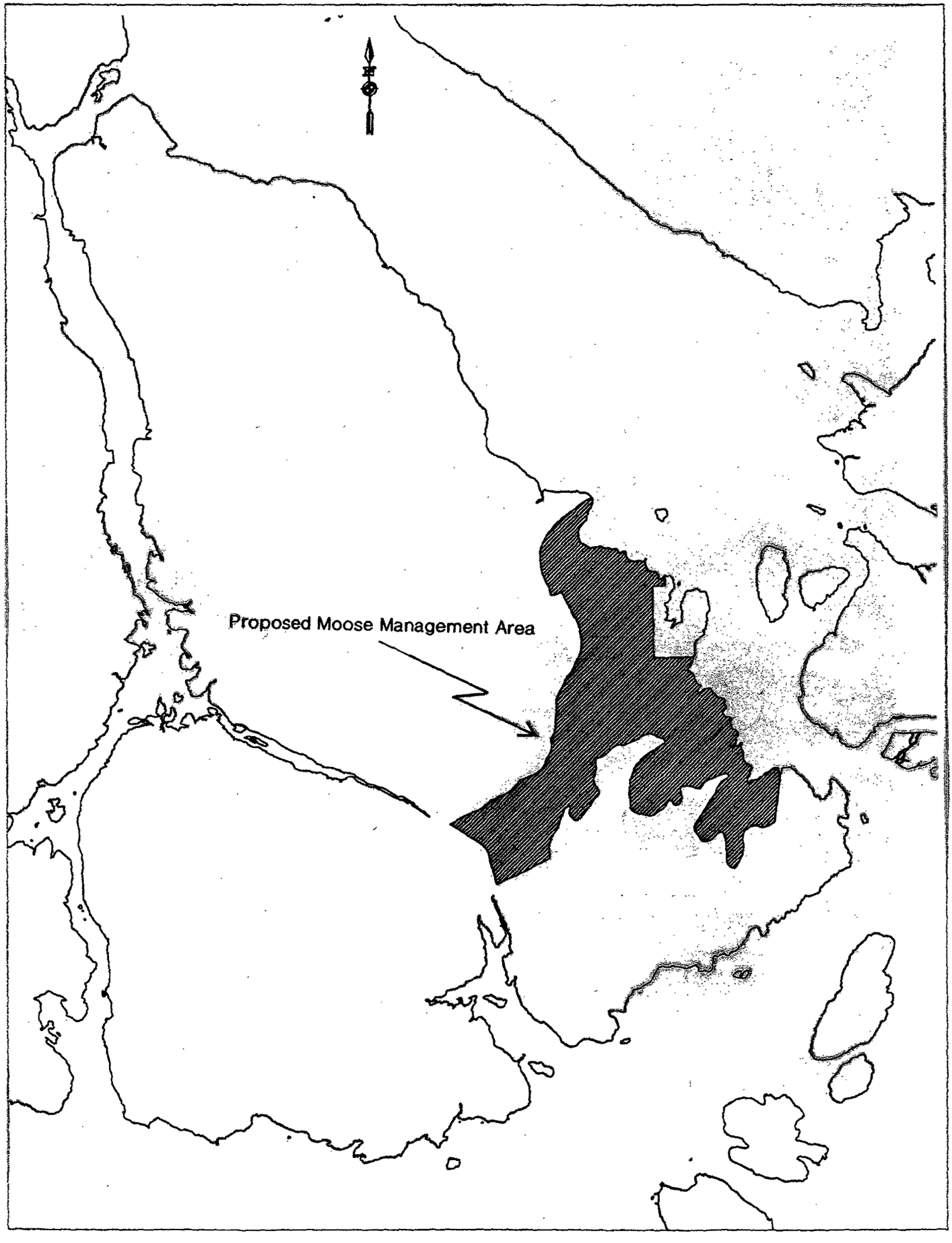
Map 10. Timber: Sale Locations, 1995–2004 (Proposed)



Map 11. Wildlife: Deer Winter Range

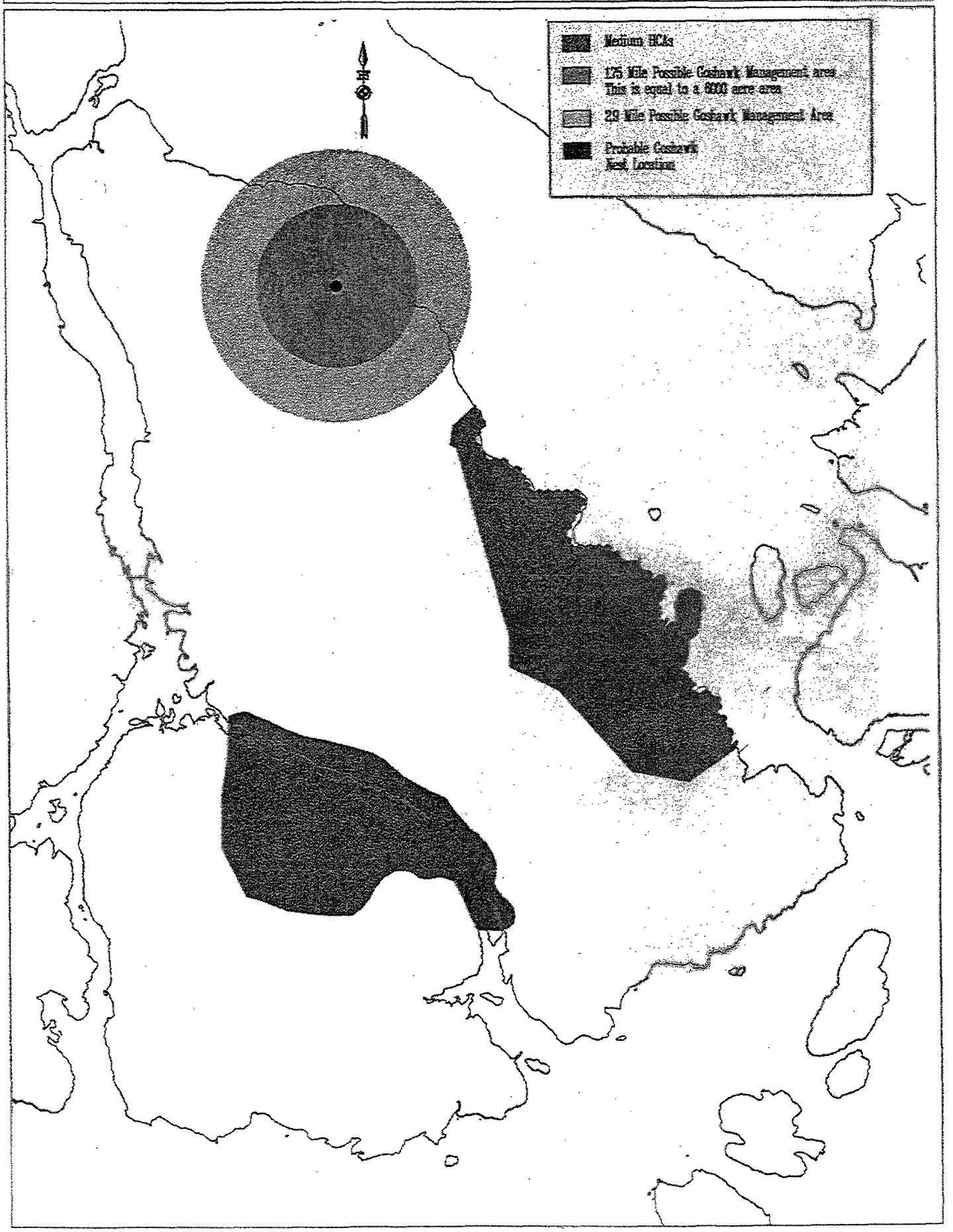


Map 12. Wildlife: Moose Management Strategy Area (Proposed)

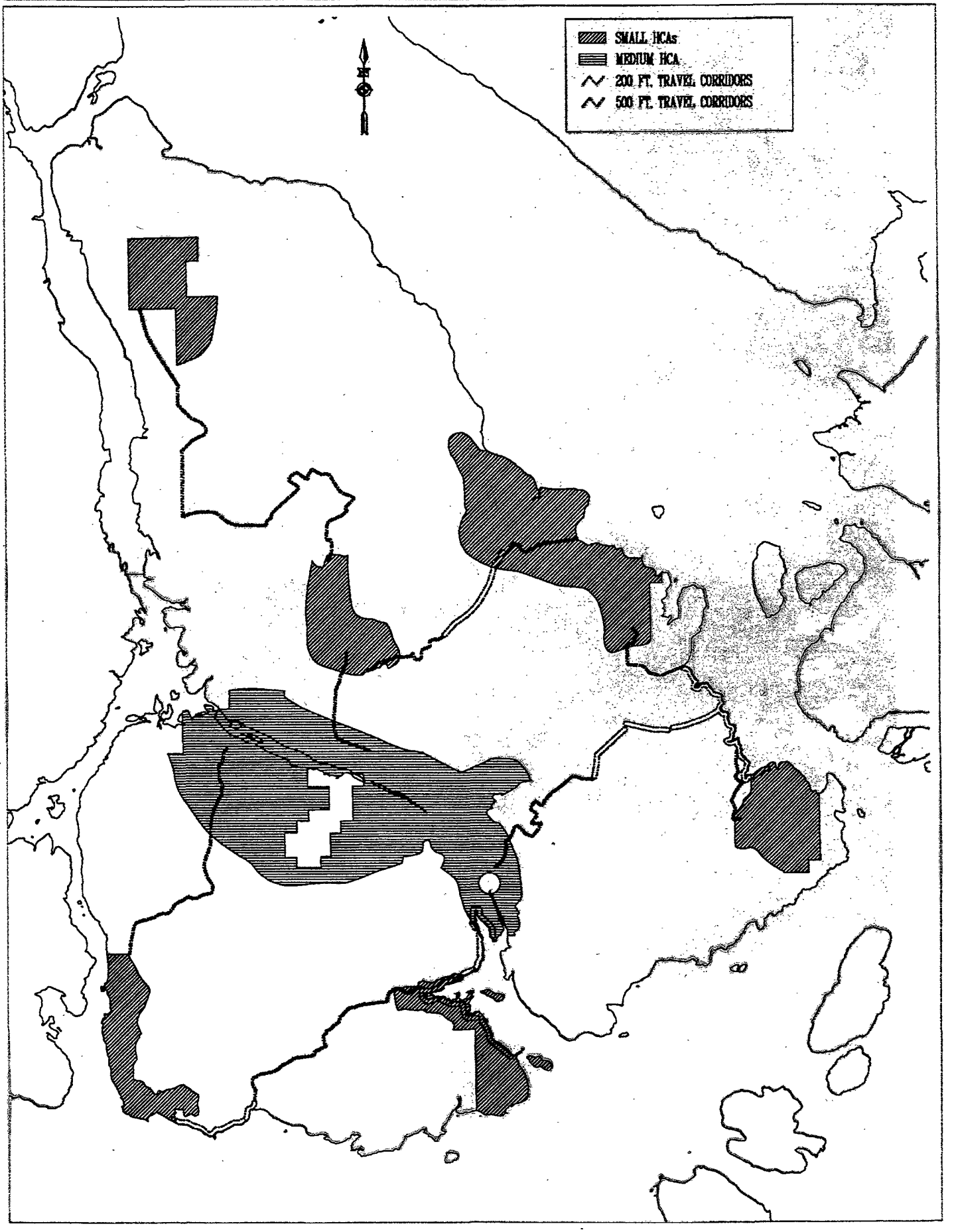


Map 13. Wildlife: Medium HCA's and Goshawk Management Areas

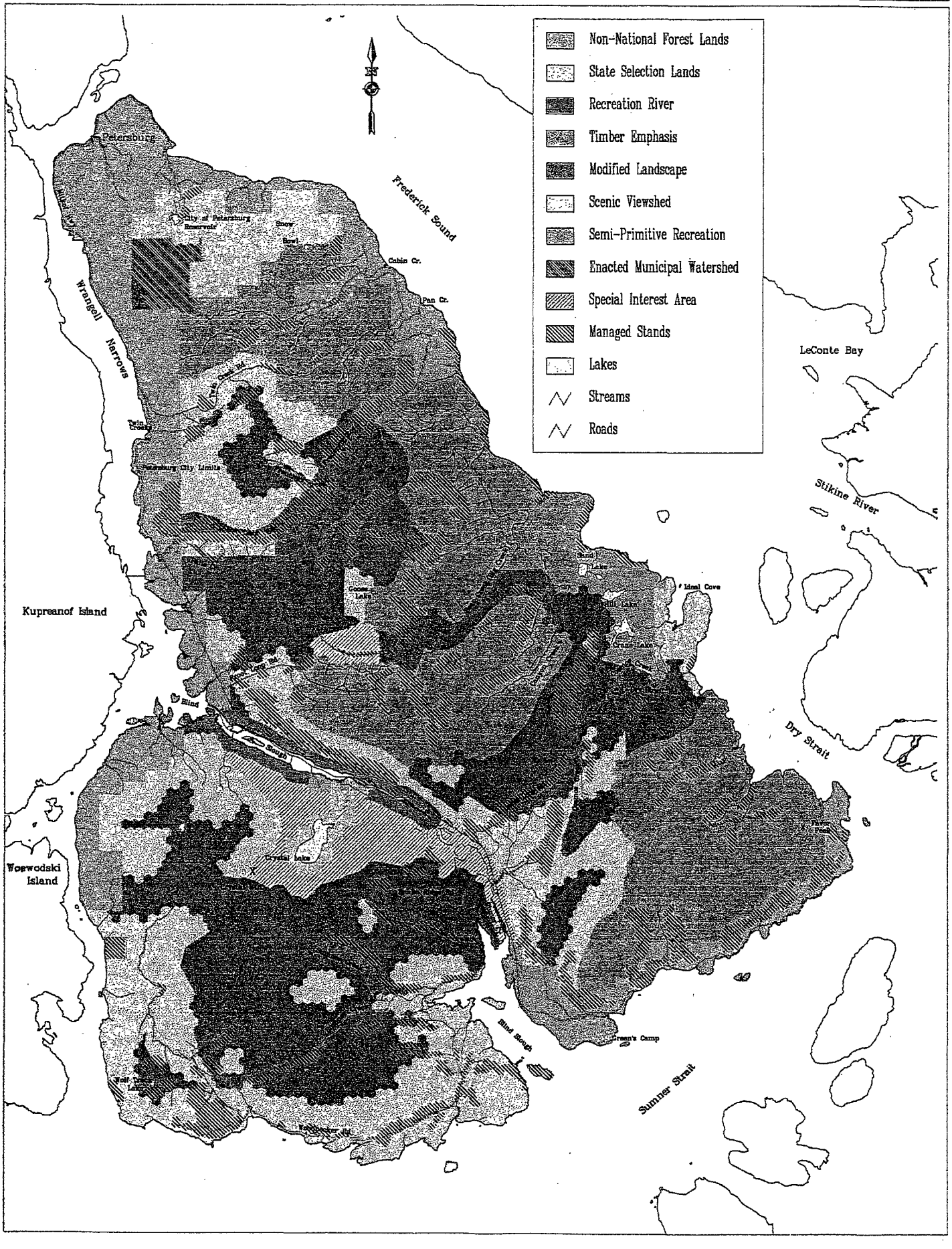
(Proposed by Alaska Region Internal Draft Environmental Assessment, February 1995)



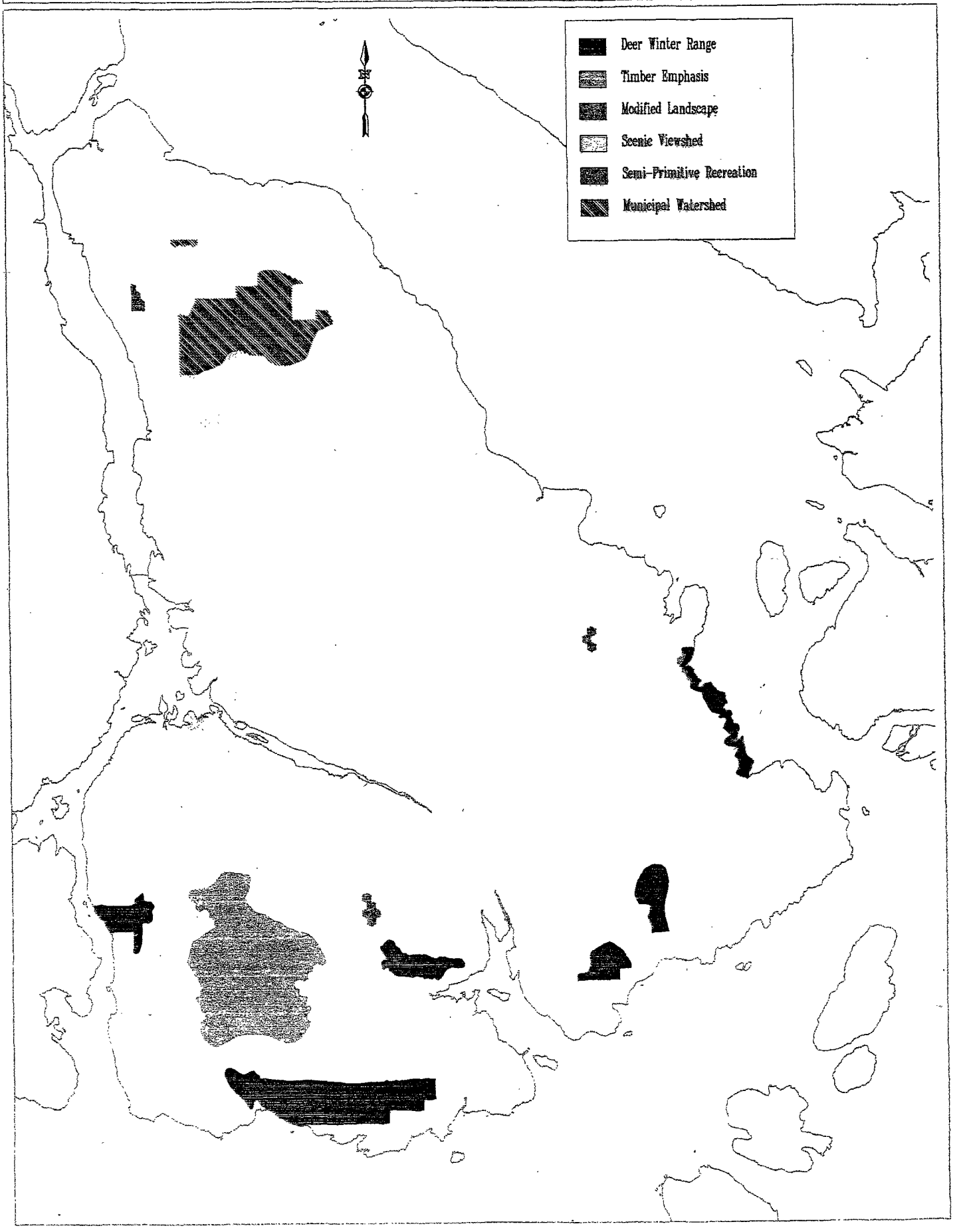
Map 14. Wildlife: Mitkof Design for Habitat Conservation Areas and Travel Corridors



Map 15. Forest Plan: Alternative P (1992)



Map 16. Forest Plan: Mitkof Design Changes to Alternative P (1992)



Map 17. Satellite Photo