



Forest
Service

Tongass National
Forest
R10-MB-743a

March 2012



Prince of Wales Outfitter and Guide Management Plan

Environmental Assessment

Tongass National Forest
Craig and Thorne Bay Ranger Districts
Craig and Thorne Bay, Alaska



Cover Photo: Reading an interpretive sign on Beaver Falls Trail

Prince of Wales Outfitter and Guide Management Plan EA - Key Acronyms and Other Terms

ACMP	Alaska Coastal Management Plan	LUD	Land Use Designation
ADF&G	Alaska Department of Fish and Game	NAGPRA	Native American Graves Protection and Repatriation Act
AIRFA	American Indian Religious Freedom Act	NEPA	National Environmental Policy Act
ANCSA	Alaska Native Claims Settlement Act	NFS	National Forest System
ANILCA	Alaska National Interest Lands Conservation Act	NHPA	National Historic Preservation Act
BMP	Best Management Practices	NMFS	National Marine Fisheries Service
CEQ	Council on Environmental Quality	NOAA	National Oceanic and Atmospheric Administration
CFR	Code of Federal Regulations	ROS	Recreation Opportunity Spectrum
DN	Decision Notice	SD	Service Day
EA	Environmental Assessment	SHPO	State Historic Preservation Officer
EIS	Environmental Impact Statement	SOPA	Schedule of Proposed Actions
ESA	Endangered Species Act	SUA	Special Use Authorization
FONSI	Finding of No Significant Impact	T&E	Threatened and Endangered
FSH	Forest Service Handbook	Forest Plan	Tongass Land and Resource Management Plan
FSM	Forest Service Manual	TTRA	Tongass Timber Reform Act
IDT	Interdisciplinary Team	USFWS	United States Fish and Wildlife Service
KMRD	Ketchikan-Misty Fiords Ranger District	VCU	Value Comparison Unit
LNT	Leave No Trace	WA	Wilderness Area



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Date: March 1, 2012

Dear National Forest User:

Attached is your copy of the Environmental Assessment (EA) for the Prince of Wales Outfitter and Guide Management Plan on the Craig and Thorne Bay Ranger Districts, Tongass National Forest. Four alternatives are considered in detail in the attached EA, the No-action, Proposed Action (Alternative 2), and two alternatives developed based on input during scoping. Additional copies of the EA are available on the internet at:

http://www.fs.fed.us/r10/tongass/projects/nepa_project.shtml?project=27974.

As the Deciding Officials, we are seeking your input on how to allocate recreational use to outfitters and guides. We will document our allocation decision in a Decision Notice (DN) and Finding of No Significant Impact (FONSI) in the summer of 2012.

You may provide comments on this project in four ways: 1) in person at the Craig Ranger District office, 504 9th St., Craig, Alaska; 2) by mail to the Craig Ranger District, P.O. Box 500, Craig, AK, 99829; 3) by FAX at (907) 826-2972; or 4) by email to comments-alaska-tongass-craig@fs.fed.us (please put "POW O/G" in the subject line).

It would be most helpful to us if your comments were site-specific, detailed, and specific to the Proposed Action and alternatives with supporting reasons for your suggestions.

For appeal eligibility, written comments must include your name, address and telephone number; project title, signature or other verification of your identity; and identification of the individual or organization who authored the comments. Comments must be received within 30 calendar days following publication of the notice of availability of this EA in the *Ketchikan Daily News*, the newspaper of record for this project. Please be aware that your name, address and comments will become part of the public record and may be available for public inspection.

Thank you for taking the time to participate in this process. Your comments and involvement are important to us. If you have questions about this project, please contact Sue Jennings, Team Leader, at (907)723-0477 or at sjennings@fs.fed.us.

Sincerely,

FRANCISCO B. SANCHEZ
District Ranger

KENT NICHOLSON
Acting District Ranger

Enclosure



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CHAPTER 1, PURPOSE AND NEED

Document Structure

The Forest Service has prepared this Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) and other relevant federal and state laws and regulations. This Environmental Assessment discloses the direct, indirect, and cumulative environmental effects that would result from implementing the Prince of Wales (POW) Outfitter and Guide Management Plan proposed action and alternatives. The document is organized into five parts: Purpose and Need, Alternatives, Affected Environment and Environmental Consequences, Lists (of document preparers, agencies consulted, and references), and Appendices.

Additional documentation, including resource specific detailed descriptions of the project area and analyses of the project effects, may be found in the project planning record located at the Thorne Bay Ranger District Office in Thorne Bay, Alaska.

Project Area Description

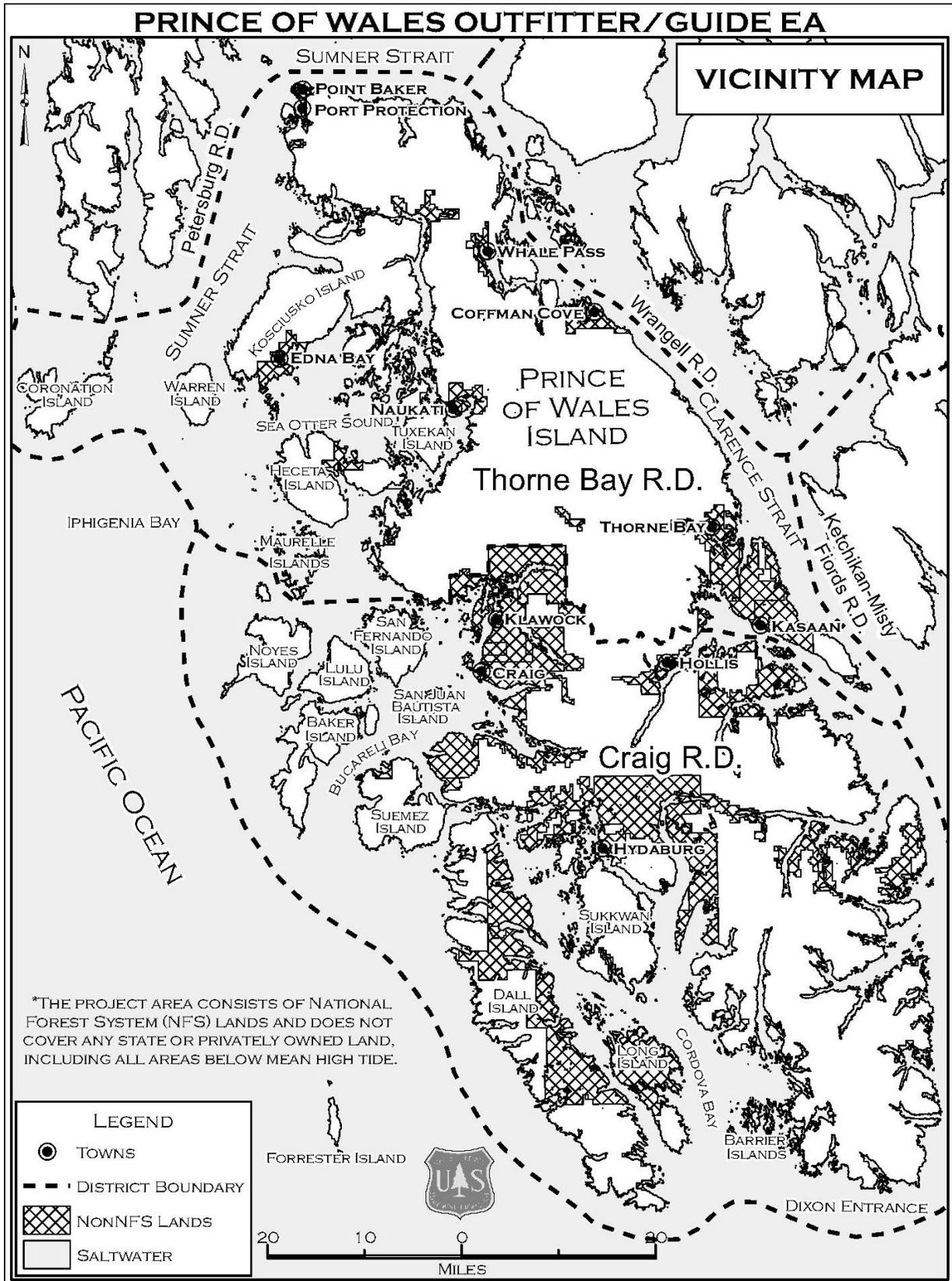
The POW Outfitter and Guide Management Plan project area includes all of the National Forest System lands encompassing the Craig and Thorne Bay Ranger Districts of the Tongass National Forest (TNF) (Figure 1-1). The Ranger Districts encompass over 2.3 million acres of temperate rainforest, mountain peaks, alpine tundra, muskegs, lakes, rivers, and streams. It encompasses the communities and cities of Coffman Cove, Craig, Edna Bay, Hollis, Hydaburg, Kasaan, Klawock, Lab Bay, Naukati, Point Baker, Port Alice, Port Protection, Thorne Bay, and Whale Pass (Figure 1-1) on POW Island. The project area consists of National Forest System (NFS) lands and does not cover any state or privately owned land, including all areas below mean high tide. The environmental analysis also includes 209 recreation use areas (see Figure 1-1 and Table 2-1); these are locations (usually encompassing sites within a 1-mile radius) currently used by outfitters or guides as well locations that have been used by outfitters and guides in the past. Additional recreation use areas may be added, if requested by outfitters and guides. Thus, effects are analyzed for the entire project area. Maps of current recreation use areas are in Appendix A, Recreation Use Area Cards and defined in Appendix B, the Capacity Analysis.



Photo 1 - Clam Lake Camping

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Figure 1-1: Project Area Map



Background

Before this analysis, the POW districts determined a recreation visitor capacity for all users, both guided and unguided. For this analysis, recreation visitor capacity is defined as the number of recreation visitors that can be accommodated at a recreation location, while balancing the need for a variety of visitor experiences, and following 2008 Tongass Land and Resource Management Plan (Forest Plan – USDA Forest Service 2008a) direction for resource protection. Based on this recreation visitor capacity, the interdisciplinary team (IDT) developed alternatives for analysis in this environmental assessment to determine the appropriate amount of outfitter and guide use for POW and surrounding islands.

This EA analyzes how to allocate recreation visitor capacity on the POW districts. The allocation will set use levels for outfitter and guide permits but will not set use levels for unguided visitors. Unguided visitors (those people visiting the Tongass National Forest without an outfitter or a guide) can continue to enjoy POW recreation and subsistence opportunities in the same way they do now; a decision on this project will not regulate unguided use. Guided visitors, in this EA, are those people visiting the Tongass who use the services of an outfitter or a guide. Unguided visitors accessing the Tongass through a transporter (essentially, point to point charter transportation by boat, plane, or other vehicle) would be unaffected by this plan. Transporters are permitted by the State of Alaska.

The POW Recreation Visitor Capacity analysis (Appendix B of this EA) used the following parameters to calculate recreation visitor capacity:

- Maximum group size;
- Number of encounters allowed between groups (as determined by Managed Recreation Opportunity Spectrum or MROS – a management parameter from the Forest Plan);
- Number of days in the typical season for each type of use;
- A factor called “displacement” (this factor considers and helps offset crowding and other conflicts and is based on access method; it recognizes the correlation between ease of access and crowding); and
- A conversion factor that allows us to compare use by service days (this conversion was needed to meet Forest Service Handbook direction that considers visits to multiple locations in the same day for the same purpose, a single service day per visitor)

In calculating the recreation visitor capacity, the dominant activity type determined the length of season and group size. The dominant activity is the guided activity that had the most service days in that recreation use area. For example the dominant activity for Thorne River is fishing and the dominate activity for Dog Salmon Fishpass is passive touring. Encounters were determined by the MROS. Displacement was determined by the method of access for a location using the premise that the more easily a location is accessed, the more displacement is needed.

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A recreation visitor capacity was calculated for every location that has reported use or has been requested for use by an outfitter-guide using the formula shown in Appendix B. It was estimated that the total recreation visitor capacity for known use locations on the POW districts is 320,979 service days annually (see Appendix B). If additional recreation use areas are requested by outfitters and guides, the capacity for that area will be determined using the same formula.

Wilderness Needs Assessments (WNAs) were prepared beginning in 2009 that analyzed the need for outfitter and guide uses within Wilderness Areas on POW and surrounding islands (WNAs are available on the internet at http://www.fs.fed.us/r10/tongass/projects/nepa_project.shtml?project=27974). These analyses set parameters for outfitter and guide use in all of the Wilderness Areas on POW. The analysis of Warren Island Wilderness found that no commercial use was needed, so no outfitter or guide use of this wilderness area is proposed in this EA. The WNAs for the other wilderness areas determined there was a need for outfitters and guides in the remaining POW wilderness areas with the following guided limitations:

- Coronation Island Wilderness – no hunting and no fishing
- Maurelle Island Wilderness – no hunting and no fishing
- Karta River Wilderness – no outfitter and guide use along the river corridor, no camping, no fresh water fishing, no guided passive and active touring
- South Prince of Wales Wilderness - no limitations; all commercial uses are permitted.

Outfitting and guiding services are a permitted activity¹ on National Forest System (NFS) lands under a variety of laws established by Congress. In September 2008, the Forest Service revised direction governing special use permits for outfitting and guiding (Forest Service Handbook 2709.11 Chapter 40, Section 41.53). Another revision occurred in 2011 (Forest Service Handbook 2709.14 Chapter 50, Section 53). National policy allows the Forest Service to issue either temporary or priority special use permits to qualified outfitters and guides.

In addition to temporary and priority use permits, temporary and priority use pools may be established. These allow priority use permit holders to apply for a short-term allocation of use to meet a seasonal need (FSH 2709.14, Chapter 50, Section 53k, l, m, and n). The authorized officer will determine the process of allocating a percentage of use to the temporary and priority use pools, which, in this case, is the Craig District Ranger for the Craig District or the Thorne Bay District Ranger for the Thorne Bay District.

¹ Activities used to calculate carrying capacity include hunting, fishing, camping, active touring (biking, hiking, kayaking), and passive touring (wildlife viewing, sightseeing, nature viewing). Only these guided uses would be permitted through a decision on this analysis. Other types of uses would have to be considered on a case-by-case basis with a separate NEPA analysis.

Purpose and Need for Action

There is a need for an island-wide outfitter and guide plan that meets current management direction, maintains a range of quality recreation opportunities, and balances guided and unguided use.

An island-wide outfitter and guide plan is needed because the current permitting process:

- Does not satisfy Forest Service direction to issue long-term (up to 10 years) priority use permits, Current Forest Service Handbook direction restricts issuance of temporary use permits to minor, non-recurring activities; not continuously reissuing for the same activities every year [Forest Service Handbook (FSH) 2709.14.53.1k and 53.1m].
- Does not provide managers with an island-wide strategy for reducing conflicts between guided and unguided visitors and ensuring a range of recreational opportunities are offered across the Districts, and
- Does not fully address cumulative impacts of outfitter/guide use on forest resources.

This action is needed to set levels of outfitted and guided use based on social and environmental conditions. It responds to the goals and objectives outlined in the 2008 Forest Plan (USDA Forest Service 2008a), and helps move the POW Ranger Districts towards the desired conditions described in the Forest Plan, (p. 2-1). The Forest Plan provides standards and guidelines to authorize services of qualified outfitters and guides to the public, where the need has been identified and is compatible with the objectives and management direction of the affected Land Use Designation (LUD) (p. 4-46), and to issue priority use permits for up to 10 years.

The purpose of this project is to:

- Allow the POW Rangers to respond to special use permit applications (USDA Forest Service 2008a, pp. 4-46 to 4-47; FSH 2709. 14, Chapter 50, Sec 53.1);
- Authorize commercial use in the Coronation Island, Maurelle Islands, South Prince of Wales, and the uplands of Karta River Wilderness Areas, while protecting wilderness character (USDA Forest Service 2008a 4-45, 4-46; FSH 2709.14 53.1f; Wilderness Act);
- Manage outfitter and guide recreation use on the POW Ranger Districts to minimize potential impacts to all resources (USDA Forest Service 2008a 4-46 to 4-47); and
- Provide the opportunity for use of the National Forest that benefits the public (USDA Forest Service 2008a, p. 2-6; 4-43 to 4-47; FSH 2709. 14, Sec. 53.1).

It will also:

- Establish outfitter/guide use allocations for all identified Commercial Use Locations on NFS lands of POW ranger districts;

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- Provide a method to add additional Commercial Use Locations and additional commercial use or reduce the number of Commercial Use Locations, as the need arises;
- Provide a balance of use for guided and unguided forest users while minimizing potential impacts to other resources;
- Satisfy Forest Service requirements for issuance of long-term, priority use permits;
- Improve the Forest Service’s ability to process permits in a timely manner; and
- Help to enhance the stability and growth of the outfitter and guide industry by allowing the issuance of priority use permits to qualified outfitters and guides, and provide opportunities for local and regional economies to benefit from this industry, per the revised FSH at 2709.14, Chapter 50, Sec 53.1.

The POW Outfitter and Guide Management Plan will **not** establish limits for or regulate unguided visitors. Unguided visitors can continue to enjoy the district recreation and subsistence opportunities in the same way they do now.

Summary of the Proposed Action

The action proposed by the Forest Service to meet the purpose and need is to authorize outfitter and guide operations through the issuance of special use permits, based on the Prince of Wales Recreation Visitor Capacity Analysis (see Appendix B). The POW District Rangers propose to allocate up to 50 percent of the recreation visitor capacity to outfitter and guide use. The proposal would authorize use by outfitters and guides up to approximately 160,490 service days² (SDs) on Prince of Wales Island and the surrounding islands. The use authorized may be temporary in nature (less than one year) or could be for multiple years. For those operators who have demonstrated satisfactory performance, the District Rangers may issue priority use permits, for a period of up to 10 years, in accordance with FSH 2709.14.

The Proposed Action (Alternative 2) includes restrictions on guided fishing on particular streams to protect sockeye, steelhead, and coho salmon. Permit administrators would not limit the “take” (catching and/or removal) of specific fish species nor reduce the recreation use area’s overall allocation. Instead, we would authorize a portion of the total service days in specific locations to guided fishing during a particular time frame. Thus, these restrictions reduce the service days allocated to guided fishing in specific areas, but leave the remaining allocation in that same recreation use area available for other types of guided uses.

² A service day is an allocation of use consisting of a day or any part of a day on National Forest System (NFS) lands for which an outfitter or guide provides services to a client. The total number of service days is calculated by multiplying each service day by the number of clients on the trip. For example, a group of four visitors at a single location for four days is equal to 16 service days.

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The following are two examples from Table 2-1 of allocations and fishing restrictions in Alternative 2:

- At Hunter Creek, of the 154 service days allocated annually to outfitters and guides under Alternative 2, up to 100 of those days could be allocated to guided fishing at any time of year; the remaining 54 days at Hunter Creek could be used at any time of year for guided activities other than fishing.
- At Barnes Lake, of the 231 service days allocated annually to outfitters and guides under Alternative 2, up to 25 of those days could be allocated to guided fishing, but only 12 of those days could be used between December 1 and July 31 (the “restricted period” for that area); the remaining 206 days at Barnes Lake could be used at any time of year for guided activities other than fishing.

The Proposed Action also includes an Adaptive Management component. Due to conditions varying from weather to wildlife sightings to the state of financial markets, the location, type, and amount of recreational use in any area changes irregularly. Adaptive management is a process of monitoring results and adjusting the chosen action to meet desired outcomes.

For this analysis, the feedback element includes Forest Plan monitoring, monitoring outlined in this analysis, public comment, outfitter and guide yearly reporting, and on-the-ground Forest Service personnel. The permit administrators annually review outfitter and guide comments, public comments, and reports from personnel that visit the recreation use areas. From this review, they determine if management action is needed to comply with Forest Plan standards and guidelines.

See Chapter 2 and Appendix A for a complete description of the Proposed Action, Adaptive Management, and Project Design and Mitigation Measures.

Outfitter and Guide Permit Conditions

There were 16 different activities recorded from 2004-2008 by outfitter-guides within the analysis area. The activities ranged from passive, short-term activities such as wildlife viewing to more active, multi-day activities like big game hunting. Permitted activities include: photography, sightseeing, hiking, kayaking, canoeing, wildlife viewing, flying tours, power boating, fishing, hunting, and interpretive services. Short-term overnight camping may also occur when no leveling or ditching of campsites is made, when *Leave No Trace*³ practices are used, and when the permit includes the R10-X117 Archaeological-Paleontological Discoveries Clause. Only hunting, fishing, camping, active touring (biking, hiking, kayaking), and passive touring (wildlife viewing, sightseeing, nature viewing) would be permitted through a decision on this analysis. Other types of uses would have to be considered on a case-by-case basis with a separate NEPA analysis. In addition, this analysis will not address or authorize development of new recreation structures, ground disturbing activities or activities that involve any type of collecting, such as beachcombing.

³ Go to: http://www.fs.usda.gov/detail/r10/recreation/safety-ethics/?cid=fsbdev2_038794 and LNT main website (<http://www.lnt.org/>) for more information about Leave No Trace practices.

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Outfitters and guides operate under National Forest System permits that include several cultural resource stipulations. Outfitters and guides, are also responsible for the actions of their clients, are prohibited from collecting artifacts or disturbing cultural resources. Outfitters and guides have an affirmative responsibility to report cultural resource discoveries made in the course of their business. Outfitters and guides must comply with all federal laws and regulations including the National Historic Preservation Act, the Archaeological Resources Protection Act, the Native American Graves Protection and Repatriation Act, and the Bald Eagle Protection Act. Non-compliance with permit stipulations could result in permit revocation and/or prosecution under the various federal statutes and regulations.

Management Direction

The Forest Plan guides the management of the Project Area. This proposal is consistent with the direction in the Tongass Forest Plan (USDA Forest Service 2008a).

Decision Framework

The Craig and Thorne Bay District Rangers will decide how to manage the guide special use program by allocating a portion of the total recreation use for outfitter and guide use while taking into account the needs of unguided users and forest resources. In order to maintain a quality recreation experience and a balance between guided and unguided use, the District Rangers will also decide what level of guided use will trigger additional review.

The type of recreation use allowed at any given outfitter and guide use area will not be established by a decision on this document. The type of guided use is dependent on requests by outfitters and guides and is based on the availability of capacity. However, the amount, location, and timing of some guided uses may be restricted in some areas by this decision to provide resource protection. For example, the number of permitted fishing days on a particular creek may be limited to 25 days to maintain steelhead, summer run coho, and sockeye runs. These restrictions would not lower the allocation for outfitters and guides in an area but would restrict the number of permitted fishing service days. Decisions by the Board of Game and Board of Fish may also limit the number of service days available for some uses in some areas.

Given the purpose and need, the District Rangers will review the proposed action and the other alternatives in order to make the following decisions:

- The locations, limitations, management, and terms of guide permits and opportunities on the Craig and Thorne Bay Ranger Districts for the next five to ten years;
- How best to manage guided use on Prince of Wales and surrounding islands to minimize potential impacts to all resources; and
- What, if any, mitigation measures and monitoring are needed.

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The District Rangers will not address proposals for development⁴ in this document. Development proposals, authorized under different Forest Service authorities and policies, are beyond the scope of this analysis.

The decision will be implemented through the Special Uses administrative process. Commercial use permits will be authorized under the direction of the Special Uses Management Manual (FSM 2700) and Handbook (FSH 2709.14). If the District Rangers decide to implement mitigation measures, the measures will be implemented through permit requirements and provisions, and administration and program monitoring. Monitoring will occur during the administration of Special Use permits and as part of the ongoing program of monitoring forest resources (sensitive and invasive plants, wilderness campsites, etc).

Outfitter and Guide activities involving the taking of fish or game will be implemented under Alaska Board of Game, Alaska Board of Fisheries, and Federal Subsistence Board regulations.

When commercial use in specific outfitter and guide use areas approaches the allocated levels, commercial requests for use may be redirected to other locations. If this measure is not sufficient to accommodate demand, resulting in a competitive interest, use will be allocated among qualified guides through a competitive process.

Public Involvement

Public involvement regarding outfitter and guide management began in April 2007 with a “scoping” letter about the “Outfitter-Guide Use Report, Recreation Visitor Capacity Analysis” sent to the tribes, tribal corporations, outfitters and guides and many other groups and individuals. At that time, posters and notices about the capacity analysis process were posted in Craig and Thorne Bay. This input helped the POW districts develop a recreation visitor capacity.

Using the comments from the public, other agencies, the Southeast Alaska Subsistence Regional Advisory Council and the City of Craig, the interdisciplinary team developed a list of issues to address.

To date, the public has been invited to participate in this analysis and decision process in the following ways:

Public Mailing and Other Outreach: This project began in April 2007 with an effort to determine parameters for the capacity analysis.

- The Craig and Thorne Bay Outfitter/Guide EA has been listed in the Tongass National Forest’s Schedule of Proposed Actions since April 1, 2009.
- The proposed action was provided to the public and other agencies for comment during scoping starting on February 14, 2011. This scoping letter was mailed to approximately 197 individuals and groups that had previously shown interest in Forest Service projects on POW. This included federal and state agencies, Alaska Native groups, municipal offices, businesses, interest groups, and individuals.

⁴ *Development* would include construction of resorts, cabins, tent platforms, or any other structure or facility.

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- The project received 18 responses to the February 2011 scoping letter. Respondents included individuals, commercial outfitters, Alaska Department of Fish and Game, Alaska Department of Natural Resources, Alaska Office of Project Management and Permitting, and the City of Craig.

In addition, as part of the public involvement process, the Forest Service held open houses in Craig and Thorne Bay to provide information about the Proposed Action on March 8 and March 10, 2011, respectively.

Government-to-Government Consultation: In March 2010 and 2011, information on the POW Outfitter/Guide Carrying Capacity Analysis and upcoming NEPA analysis was provided to Prince of Wales Tribes. A roster of Forest Service projects was provided to all participants at these tribal consultation meetings and the Forest Service received a few questions about this project. Concerns were raised about whether non-commercial and subsistence use would be restricted. District staff explained that this analysis only affects commercial use on Forest Service lands and the decision would not restrict subsistence. The POW District Rangers sent a formal government-to-government consultation offer (pre-scoping letter) to all Prince of Wales Island Tribal governments and to other interested tribal governments on January 11, 2011 (Craig Community Association, Klawock Cooperative Association, Hydaburg Cooperative Association, Organized Village of Kasaan, and the Ketchikan Indian Community). These Tribes were also sent scoping letters in February 2011.

Other Tribal Contacts: The POW District Rangers sent a letter in January 2011 to all Prince of Wales ANCSA corporations, as well as to other corporations and interested Tribal groups (Shaan Seet Inc., Klawock-Heenya Corporation, Haida Corp., Kavilco, Sealaska, Cape Fox Corporation, and the Central Council of Tlingit and Haida). These corporations also received scoping letters in February 2011.

No other comments have been raised to date by Tribes or ANCSA corporations.

Meetings with Agencies: Individual IDT members contacted resource agencies to gather information and to ask or respond to questions. No concerns related to this outfitter and guide project were brought forward in these discussions.

Alaska Department of Fish and Game's (ADF&G) Steve McCurdy provided sportfishing harvest data; he also said that he had no concerns related to fishing and outfitter and guide use (pers. com. April 2011). ADF&G's Boyd Porter provided discussion about bear hunting management (pers. com.). The Army Corps of Engineers provided contact information and information related to mitigating soil concerns (pers. com.).

News Release: A February 28, 2011 news release set the time and location for the two open houses.

Issues

For the purposes of this analysis, issues identified during the public involvement process were categorized as those that were used to develop alternatives or those that were not used to develop alternatives. Issues that were directly or indirectly caused by implementing the

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proposed action and represent disputes, disagreements or debate about the effects of the proposed action were used to design alternatives

The remaining issues that were not used in developing alternatives are those: 1) outside the scope (not related to the effects) of the proposed action; 2) already decided by law, regulation, Forest Plan, or other higher level decision; 3) irrelevant to the decision to be made; or 4) conjectural and not supported by scientific or factual evidence. The Council for Environmental Quality (CEQ) NEPA regulations require this delineation in Sec. 1501.7, “...*identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3)...*”

Issues Used in Developing Alternatives

Eighteen responses to the February 14, 2011 mailing were received. The District also had internal scoping discussions. The Forest Service identified issues from public or internal scoping for the POW Outfitter and Guide Management Plan that drove the development of alternatives:.

Issue 1:

Guided hunting may conflict with subsistence hunting near communities⁵ on Prince of Wales.

Measurement

Compare the projected number of service days for hunting near the communities under each alternative.

Issue 2:

Outfitter and guide activities may negatively affect unguided recreationists that have selected Prince of Wales specifically because it has few people. An increase in guided visitors may create social problems like crowding and cause unguided recreationists to disperse to less desirable areas.

Measurements

Number of service days allocated to outfitters and guides and discussion of social effects.

Issue 3:

Outfitters and guides need opportunities for business growth on Prince of Wales Island to maintain their businesses and increase the local economy.

Measurements

Number of service days in areas that have particular opportunities for businesses to grow; for example, in areas where there are facilities (Dog Salmon Fishpass) available or areas that are close to communities, where travel costs are lower.

⁵ For this analysis, the IDT used 15 miles to define “near”.

Issue 4:

Limiting the amount and location of outfitted and guided fishing when population data are not available, unnecessarily limits outfitter and guide activities.

Measurement

Number of service days allocated in areas where the three species of concern - sockeye, steelhead, and summer run coho salmon - are located.

Issues Not Used to Develop Alternatives

Several external and internal concerns and suggestions were considered as issues but were determined not to be alternative-driving issues. Where possible, suggestions about the project were incorporated into the design of all the action alternatives. Concerns related to this project, followed by the rationale for why these concerns were not used in developing individual alternatives, are found in Appendix C of this EA.

Some of the comments and concerns, such as those asking to open more roads or to disallow cabin use by outfitters and guides, relate to past decisions which will not be changed by this project or its decision. Other comments and requests, such as requests to limit transporters to protect bears from hunting, are outside the management authority of the Forest Service. Other comments and requests related to the design of the project or the alternatives. In many cases, these design requests were part of all the action alternatives. Please see Appendix C of this EA for more information on concerns and responses to the concerns through this EA process.

Permits, Licenses, and Certifications _____

The Forest Service is not required to obtain permits or licenses to implement this project. However, outfitter and guide permit holders are responsible for obtaining necessary permits and licenses from federal and state agencies prior to commencing outfitting and guiding. Prior to guiding on NFS lands, the Federal Government may require verification of current business or operating licenses such as Coast Guard License, State of Alaska Sport Fishing License, etc. Outfitter and guide activities involving the taking of fish or game will be implemented under Alaska Board of Game, Alaska Board of Fisheries, and Federal Subsistence Board regulations.

Project Record _____

Additional documentation, including more detailed analyses of project area resources, may be found in the project record located at the Thorne Bay Ranger District Office in Thorne Bay, Alaska. Other reference documents such as the Forest Plan and the Tongass Timber Reform Act are available at the Supervisor's Office in Ketchikan, Alaska. The Forest Plan is also available on the Internet (http://tongass-fpadjust.net/FPA_ROD.htm) and CD-ROM.

Other Related Efforts

The following past decisions relate to guided use on the POW Ranger Districts. A statement in bold at the end of each effort explains the relationship between the prior effort and the current analysis.

Existing guided uses have been considered, generally under categorical exclusion. **The POW Outfitter and Guide Management Plan decision would supersede these past decisions.**

POW Outfitter and Guide Cabin Use: In 2007, the Tongass National Forest established guidelines for authorizing commercial outfitter/guide use of public recreation cabins. The Craig and Thorne Bay Ranger Districts used these guidelines to develop a policy for authorizing outfitter/guide use of cabins on the district. The POW districts determined that guided use at some non-Wilderness cabins would be allowed (Table 1-1). **A decision on the POW Outfitter and Guide Management Plan would incorporate this allocation in all alternatives and continue to implement this assessment.**

Table 1-1: Cabins, recent use level, and maximum amount of use currently available for outfitters and guides

Cabin	Use Level*	Maximum Outfitter and Guide Use
Barnes Lake	L	20 days per month, except 10 days for July when the cabin receives its highest public use
Black Bear	L	20 days per month, no weekends or holidays in July and August
Honker Lake	M	14 days per month, 7 days per month September, October, November
Josephine Lake	L	20 days per month, 14 days per month in August
Kegan Creek	M	14 days per month, no days in August, no weekends or holidays in July and September
Point Amargura	M	10 days per month, no weekends or holidays
Red Bay Lake	H	7 days per month, no days in August, no weekends or holidays
Salmon Bay Lake	M	10 days per month, no days in August, 7 days in September
Sarkar Lake	H	7 days per month, no weekends or holidays, no days in July and August
Shipley Bay	M	14 days per month, 7 days in August
Troller's Cove	M	20 days per month

* L = Low use cabins = 20 nights or less/year; M = Medium use cabins = 21-50 nights/year; H = High use cabins = 51+ nights/year. Use data is based on a three-year average (2004-2006).

EA and decision on Issuing Special Use Permits for Big-game Guide and Outfitter Services (Big Game EA): In September 1993, a Decision Notice was signed by the Craig, Thorne Bay, and Ketchikan-Misty Fiords District Rangers that allowed for guided/outfitted big game hunting on POW with stipulations (discussed in Chapter 2

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of this EA under Actions Common to All Action Alternatives). The current management of the area follows those stipulations and the issues and concerns remain the same. The effects of continuing that decision have been included in this EA. **A decision on the POW Outfitter and Guide Management Plan would continue to implement this outfitter and guide management decision for POW.**

Revision to the EA for the Determination of Issuing Special Use Permits for Sportfishing Outfitter and Guide Services Throughout the Ketchikan Area, Tongass National Forest: In March 1998, a Decision Notice was signed by the Craig, Thorne Bay, and Ketchikan-Misty Fjords District Rangers to limit commercial guiding on streams with high and moderate concern for steelhead from December 1 – May 31. The current management of the area follows those stipulations (discussed in Chapter 2 of this EA under Alternative 1), but additional concerns about steelhead, summer run coho, sockeye, and subsistence have been raised. The effects of continuing that decision have been included in this EA under Alternative 1; a range of other management options are considered in the other alternatives. **A decision on the POW Outfitter and Guide Management Plan would supersede this 1998 decision for POW.**

Access and Travel Management Plan: A decision was made in 2009 about what roads would remain open and those that would be closed through the public process for the access and travel management plan for POW. The subsequent annual version of the POW Motor Vehicle Use Map is used to display and implement that decision. Outfitters and guides may use open roads and open trails (if it is on their permit), but we are not changing the status on any roads and therefore not changing access opportunities for subsistence, unguided, or guided visitors. **A decision on the POW Outfitter and Guide Management Plan would continue to implement this access and travel management decision.**

CHAPTER 2, ALTERNATIVES, INCLUDING THE PROPOSED ACTION

Introduction

This chapter describes and compares the alternatives considered for the POW Outfitter and Guide Management Plan project. It includes a description and map of each alternative considered. This section also presents the alternatives in comparative form, sharply defining the differences between each alternative and providing a clear basis for choice among options by the decision maker and the public. Some of the information used to compare the alternatives is based upon the design of the alternative and some of the information is based upon the environmental, social, and economic effects of implementing each alternative.

Alternatives Considered but Eliminated from Detailed Analysis

Alternative A: No outfitter or guide use (no permitted use/zero allocation to outfitters or guides) would be allowed because the current effect of guided use is already too high.

The IDT considered this alternative but eliminated it from further consideration. The Forest Plan and other FS regulations allow for and encourage outfitting and guiding as an economic opportunity. A zero allocation to outfitter and guide use would not meet the Purpose and Need for this project. The analysis included here shows that the current effect of guided use is not high in many areas and that there is room for growth in many recreation use areas.

Elements and Assumptions Common to All Alternatives

Many potential effects can be negated by explaining what will or will not be allowed or included in outfitter and guides' special use permits. The project elements and assumptions listed below would be a part of any decision and were used by all IDT members in their analysis.

Project Elements Common to All Alternatives

Implementation of the entire 1993 decision on the Big Game EA (USDA Forest Service 1993) would continue in all alternatives. Specifically:

- Guided/outfitted big game hunting would not be allowed in Wildlife Analysis Areas (WAAs) 1318, 1319, 1421, and 1422 under any alternative. This is referred to as the "Central WAAs Closure" and restricts guided hunting for bears, wolves, and deer.

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- No big game guiding or outfitting would be allowed within one mile of communities, one mile of existing or new recreation cabins, campgrounds, or picnic areas, or within one mile of the Karta River, Karta Lake, or Salmon Lake in the Karta Wilderness Area.
- Outfitters and guides will be required to identify campsites prior to receiving permit approval.

Outfitter and guide management in all alternatives will follow the parameters found in the POW Wilderness Needs Assessments (WNAs - they are available on the internet at http://www.fs.fed.us/r10/tongass/projects/nepa_project.shtml?project=27974). Specifically:

- No permitted outfitter or guide use of the Warren Island Wilderness.
- The WNAs would allow for outfitter and guide use in the remaining POW Wilderness areas with the following limitations on outfitter and guide uses:
 - Coronation Island Wilderness – no hunting and no fishing
 - Maurelle Island Wilderness – no hunting and no fishing
 - Karta River Wilderness – no outfitter and guide use along the river corridor, no camping, no fresh water fishing, no guided passive and active touring
 - South Prince of Wales Wilderness - no limitations; all commercial uses are permitted.

Project Assumptions Common to All Alternatives

The number of service days allocated to outfitter and guide use is analyzed. The number of special use permits issued by recreation type is not analyzed as part of this document except in specific cases to protect resources.

If adaptive management is used to allow numbers to go up, the risk to some resources may increase because more use would be allowed. However, the idea of adaptive management and mitigation measures is to anticipate and reduce the effects so that the resource problems are addressed early on.

Any change made through adaptive management is not going to cause significant resource damage.

There will be continued and increased demand for special use permits to conduct outfitter and guide activities.

The State of Alaska ADF&G manages fish and wildlife populations (with some Forest Service participation under federal subsistence regulations). The Forest Service manages habitat for fish and wildlife. Guided visitor activities will be similar to those that are occurring now.

Facilities and trails will be maintained to standards and BMPs (specifically BMPs 12.5, 16.1, and 16.4). This allows for concentrated use with minimal impact on resources.

A decision on this document will not allow ground-disturbing activities, such as cabin and trail building. The only ground disturbance associated with the activities identified in the analysis would be possible trampling from feet, the footprint of tents and fire rings, driving on open roads or designated OHV trails, and human waste disposal.

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The outfitters and guides are required to use Leave No Trace (LNT) principles and are subject to all applicable laws. They make money by offering a quality resource experience; so, they maintain the resources.

Use higher than the visitor recreation capacity would not be allowed in any alternative. If higher use (unguided plus guided use) is identified through monitoring in any recreation use location, administrative action may be taken to limit outfitter and guide use.

Unguided visitors would not be limited, unless resource damage is occurring. If resource damage is occurring (for example, trail erosion), visitors may be detoured away from the affected area until the concern can be resolved.

Alternative Descriptions

Alternative 1 (the No Action Alternative), the Proposed Action (Alternative 2), and two other action alternatives are considered in detail. The other action alternatives represent different options of satisfying the Purpose and Need by responding with different emphases to the issues discussed in Chapter 1. Elements Common to all the Action Alternatives are described in a section that comes after Alternative 1. Design Elements and Mitigation required by all the action alternatives are included and discussed in Appendix A. Maps of all alternatives considered in detail are provided at the end of Chapter 2. Table 2-2 shows how each alternative responds to the issues.

Alternative 1 (No Action)

For this analysis, the No Action alternative would allow the current (2011) permitted service days to be used by outfitters and guides on the POW Ranger Districts. The number of permitted service days is substantially higher than actual use in most areas (Table 2-1). Under this alternative, outfitter and guide special use permits could be issued up to current permitted service days, by recreation use area. See Figures 2-1 and 2-2 at the end of this chapter for recreation use area locations. POW-wide, the total permitted service days is 19,827 service days per year to outfitters and guides (Table 2-1).

Outfitter and guide permits would be issued as they are now, using the current process. Implementation of the entire 1993 decision on the Big Game EA (USDA Forest Service 1993) would continue as would the current restrictions in numbers/timing of guided fishing service days for steelhead. Current outfitter and guide service day sport fishing limits are based on the 1998 Environmental Assessment for the Determination of Issuing Special Use Permits for Sportfishing Outfitter and Guide Services. The 1998 Decision limits service days during the prime steelhead season (December 1-May 31) on streams where moderate and low concerns were identified. These systems are identified with a “+” on Table 2-1. Low concern (usually low use) streams are limited to 22 fishing service days from 12/1 to 5/31. The Thorne River, Stoney Creek, Luck Lake/Eagle Creek, Sweetwater (Hatchery/Logjam), and Salmon Bay systems are currently limited to 272, 323, 169, 37, and 125 service days, respectively, for guided fishing from 12/1 to 5/31. The single high concern streams on POW (the Karta River) is currently closed to all outfitter guided sport fishing during the entire year (USDA, 1998).

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A decision for Alternative 1 would only allow permitting up to the current permitted level shown in Table 2-1; new NEPA would be required for higher use levels in any recreation use area. In Alternative 1, use levels are for comparison and no use is allocated to outfitters and guides. Alternative 1 does not meet current Forest Service Handbook direction for outfitter and guide management (FSH 2709.14, Chapter 50, Section 53). Alternative 1 recognizes that changes in permit requests could increase or decrease the use. New permits or requests from existing permit holders to increase use above the highest actual use, may require new NEPA. New permits can take a few weeks or several years depending on the amount of analysis needed and the availability of specialists to do the analysis.

Alternative 2 (Proposed Action)

Using the estimated recreation visitor capacity of 320,979 service days per year (Appendix B), this alternative allocates half of the capacity to outfitters and guides in all recreation use areas with some restrictions in the number of days allocated to outfitted or guided fishing. This equates to an allocation of 160,490 service days annually for outfitter and guide use on the POW districts (Table 2-1 and Figures 2-3 and 2-4 at the end of this chapter).

Alternative 2 includes restrictions on guided fishing on particular streams to protect sockeye, steelhead, and coho salmon (Table 2-1). Permit administrators would not limit the “take” (catching and/or removal) of specific fish species nor reduce the recreation use area’s overall allocation. Instead, we would authorize only a portion of the total service days in specific locations to guided fishing during a particular timeframe. Thus, these restrictions reduce the service days allocated to guided fishing in specific areas, but leave the remaining allocation in that same recreation use area available for other types of guided uses.

Two examples of allocations and fishing restrictions in Alternative 2:

- At Hunter Creek, of the 154 service days allocated annually to outfitters and guides under Alternative 2, up to 100 of those days could be allocated to guided fishing at any time of year; the remaining 54 days at Hunter Creek could be used at any time of year for guided activities other than fishing.
- At Barnes Lake, of the 231 service days allocated annually to outfitters and guides under Alternative 2, up to 25 of those days could be allocated to guided fishing, but only 12 of those days could be used between December 1 and July 31 (the “restricted period” for that area); the remaining 206 days at Barnes Lake could be used at any time of year for guided activities other than fishing.

Alternative 2 was developed to respond to direction in the Forest Plan to

“Generally allocate no more than one-half the appropriate capacity of the LUD to outfitter/guide operations. For specific locations, consider different allocations based on historical use, changing demand, spatial zoning, or temporal zoning.” (USDA Forest Service 2008a, pg. 4-46)

Alternative 3

In Alternative 3, the allocation to outfitters and guides would be 25% of the recreation visitor capacity across all areas with two exceptions. Outfitter and guide use would be encouraged at Dog Salmon Fishpass and Beaver Falls Trail by providing an allocation of 75% to outfitters and guides in these areas because the sites are hardened, heavily managed, and designed for higher use numbers. This alternative does not include adjustments to fishing allocations; thus the full 25% allocation could be for fishing in any given area at any time of year. Alternative 3 limits the number of fall hunting days allocated to outfitters and guides to no more than 40 service days per area during the fall hunting season. This limit applies to all outfitter and guide hunting, but only applies to fall hunts.

Alternative 3 would allocate 85,771 service days annually for outfitter and guide use on the POW districts (see Table 2-1 and Figures 2-5 and 2-6 at the end of this chapter).

Alternative 4

Regulations allow for outfitter or guide permit holders to request 10% more use than their permit to meet market fluctuations. Alternative 4 was designed to meet this direction while also resolving conflicts with Forest Plan direction related to recreation visitor capacity and resource concerns for some fisheries. In most recreation use areas, Alternative 4 would allocate ten percent higher than the current (2011) permitted use to outfitters and guides. In those areas where such an allocation would put outfitter and guide use above 50% of the capacity, Alternative 4 would allocate 50% of the recreation visitor capacity to outfitter and guide use. In recreation use areas where there has been past outfitter and guide use but no outfitter or guide permit issued in 2011, Alternative 4 allocates the lower of 10% above the highest past permit level or 50% of recreation visitor capacity. This alternative allows for business flexibility by minimally increasing the level of outfitter and guide use to levels allowed by current regulations. This alternative includes fishing restrictions similar to Alternative 2. This alternative also includes the fall hunting restriction described in Alternative 3.

Alternative 4 would allocate 23,010 service days annually for outfitter and guide use on the POW districts (see Table 2-1 and Figures 2-7 and 2-8 at the end of this chapter).

Elements Common to All Action Alternatives _____

Additional Review - under the action alternatives (Alternatives 2, 3, and 4) some permit actions would require additional review by the IDT to assure that effects remain within expectations (see Appendix A, Table A-1). If the actions are within expectation, no further documentation would be required before permits are issued.

Adaptive Management - adaptive management would be implemented in all the action alternatives (described in a separate section below).

Project Design and Mitigation Measure

The action alternatives are designed to minimize environmental effects and meet Forest Plan standards and guidelines. Some measures are required in all areas. Some measures are specific to location. The design elements and mitigation measures required within outfitter and guide special use permits are located in Appendix A of this document, Recreation Use Area Cards. These design elements and mitigation measures will be implemented through outfitter and guide permit conditions and administration of the permits.

Adaptive Management

The Code of Federal Regulations (CFR) defines adaptive management as:

A system of management practices based on clearly identified intended outcomes and monitoring to determine if management actions are meeting those outcomes; and, if not, to facilitate management changes that will best ensure that those outcomes are met or re-evaluated. Adaptive management stems from the recognition that knowledge about natural resource systems is sometimes uncertain. (36 CFR 220.3)

There is some level of uncertainty in describing and analyzing recreational use. Due to conditions varying from weather to wildlife sightings to the state of financial markets, the location, type, and amount of recreational use in any area changes irregularly. Adaptive management is a process of monitoring results and adjusting the chosen action to meet desired outcomes.

The 2008 Tongass Land and Resource Management Plan (USDA Forest Service 2008a) states:

Adaptive management is the ecosystem management counterpart to “learning from experience.” These two concepts have two essential elements in common: 1) a feedback element that gathers and evaluates information about current performance (of an action or activity) and 2) an adjustment element that responds to feedback information by being able to alter future performance when needed (page 5-3)

The desired outcomes are the Forest Plan standards and guidelines for each resource.

For this analysis, the feedback element includes Forest Plan monitoring, monitoring outlined in this analysis, public comment, outfitter and guide yearly reporting, and information from on-the-ground Forest Service personnel. The permit administrators annually review outfitter and guide comments, public comments, and reports from personnel that visit the recreation locations. From this review, they determine if management action is needed to comply with Forest Plan standards and guidelines.

Criteria for Adjusting Guided Use

If unforeseen, unknown, or substantial resource impacts occur while implementing the alternative selected in the Decision Notice or if an outfitter or guide requests permitted use above the commercial use allocations, the Craig and Thorne Bay District Rangers would evaluate the situation and determine if they will use adaptive management to comply with the Forest Plan to adjust permits. In some cases, the District Rangers may determine no action is

needed. The timing related to when guided use may be adjusted is discussed under Implementation.

Decrease the Guided Use Allocation or Implement Other Adaptive Management Options:

Guided use allocation for a recreation use area may be **decreased** or other adaptive management options may be implemented if ANY of the following occur:

- Recorded actual use (guided plus unguided) exceeds 75% of recreation visitor capacity,
- Substantial resource issue(s) is/are identified, or
- Evaluation of the number/content of complaints indicates that a decrease in guided use allocation is needed to meet management objectives.

At the discretion of the District Ranger where the decreased use is considered, all permitted outfitter and guide activities can be halted to prevent or limit damage to forest resources. If there were no immediate threat to resources or facilities, the District Ranger may first try to implement steps with the least impact to recreational visitors. Some potential administrative steps to maintain standards and guidelines:

- Encourage outfitter and guide use at other recreation locations,
- Identify additional recreation locations,
- Voluntary/mandatory guided use scheduling,
- Require guided groups to use designated sites,
- Limit guided use on weekends and holidays,
- Reduce guided use allocation for the impacted areas, and
- Implement resource-specific measures to mitigate impacts to resources (see Appendix A).

Increase the Guided Use Allocation:

The guided use allocation for a recreation location may be increased to accommodate additional guided use on a temporary basis (authorized by a one-year amendment to a priority use permit) at the discretion of the District Ranger for the district where additional use is requested, if all of the following occur:

- An outfitter or guide proposes an activity that has been analyzed in this EA and that request requires a higher allocation in a specific recreation use area than selected in the Decision Notice,
- The use levels and timing of the increase meet the parameters shown below under Implementation,
- The proposed use of the recreation location does not exceed the highest number of service days analyzed for an action alternative in this EA (160,490 service days) or the highest number of service days analyzed for that recreation location,

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- No substantial⁶ resource issues are identified during the required resource specialist review (see Appendix A), which may include coordination with State and Federal counterparts,
- Evaluation of the number/content of complaints indicates that additional use can be accommodated while meeting Forest Plan objectives, and
- For additional use proposed in Wilderness, the proposed use cannot be accommodated on non-wilderness portions of the project area.

If two years pass without concerns, the location's guided use allocation may be increased to include the additional use and may be issued on priority use permits at the discretion of the District Ranger.

The District Ranger may also increase allocation when a new location is identified as a location desired for an existing guided use if all of the conditions above are met. The recreation visitor capacity for the new location would be based on the formula in Appendix B. That formula would be used to calculate the capacity, and the number of service days allocated would be based on the parameters of the alternative that is chosen. The total allocation, including any increase, would not be allowed to go above the highest number of service days analyzed for an action alternative in this EA (160,490 service days) and the request for a new location would trigger an internal review (see Appendix A).

Implementation

Timing of Adaptive Management Adjustments: The timing of adjustments is also important in this adaptive management strategy. Time is needed to monitor results and adjust the chosen actions. Monitoring results at guided use levels close to those chosen are needed to assure that environmental and social effects are as, or less than, expected. No increases to the guided use allocations selected in the Decision Notice will be made for a minimum of two years after implementation occurs. In addition, a recreation use area would need to be near the selected guided use allocation for a minimum of two years prior to considering an increase in that allocation. This will allow time to monitor the selected allocations before implementing adaptive management strategies. On the other hand, if negative effects of implementation are discovered they would be dealt with swiftly to minimize harmful environmental and social impacts.

Reductions: In some recreation use areas, the number of service days allocated may be less than the current number of permitted days (ex. Biscuit Lagoon, Hessa Inlet, and Klakas Inlet, Table 2-1). In those areas, the number of permitted days would be reduced to the number of days allocated. Permit administrators would follow direction in Forest Service Handbook 2709.11 Chapter 40, Section 41.53 and Forest Service Handbook 2709.14 Chapter 50, Section 53 to make the reductions. In cases where reductions were needed, the permit

⁶Substantial is defined differently for each resource, that is why a resource specialist review is included in the adaptive management criteria. More information is available on the resource analysis in the resource reports in the project record.

administrator would work with the outfitter or guide to determine if the permitted activities could be accommodated at a different area with similar attributes and available service days.

Project Monitoring

Monitoring and evaluation provide the public and the Forest Service with information on the progress and results of implementing National Forest management decisions. Monitoring and evaluation comprise an essential feedback mechanism to help be responsive to changing conditions. There are two distinct types of monitoring: implementation and effectiveness. Implementation monitoring determines if the permitted activities comply with adopted standards and guidelines: “Did we do what we said we would?” Effectiveness monitoring determines whether the standards and guidelines achieve desired results: “Were the results what we expected?”

Implementation and effectiveness monitoring will be accomplished through the administration of the special use permits issued to implement a decision on this EA. . These measures include:

Special use permits authorized will be monitored as described in Forest Service Handbook 2709.14. This monitoring will consist of routine inspections for permit compliance and compliance with State and Federal regulations.

- Field inspections of special use permit operations or approved use areas.
- Field inspections of a permit holder's operations or approved use will be necessary to ensure compliance with permit provisions. Inspections of approved use areas would provide information regarding site conditions and whether or not additional administrative actions are required.
- Permit holders are required to provide actual use reports⁷ to the Forest Service within 30 days of the end of their operating season.
- Information provided by the yearly use reports will be compiled and available to all resource disciplines or other areas as requested.

Implementation and monitoring of special use permits is a part of the ongoing management of resources at the district level. The programs and strategies used to manage resources include education and awareness, field visits, site inspections, and visitor feedback (see Adaptive Management above). Monitoring may vary depending upon resources that are impacted. The following monitoring is proposed to assist in the management of resources potentially affected by outfitting and guiding.

⁷ *Actual use reports* A form completed by outfitter and guide permit holders and submitted to the District Office at the end of the holder's operating season. The form includes the following information: date(s) of use, number of clients, location(s), and a description of the activity(s) at each location.

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Wildlife

Permit administrators will annually monitor number of use days by sites for guided deer hunting. Outfitters and guides will be required to report the number of deer or bear harvested by hunt each year. If conflicts arise at particular sites, biologists and permit administrators will re-evaluate the permit allocations for these sites.

Recreation and Wilderness

The Craig and Thorne Bay Ranger District recreation staff plans and implements a Wilderness monitoring trip annually. Wilderness monitoring takes place with an interdisciplinary crew that analyzes streams, wildlife, botany, archeological resources and social aspects of the Prince of Wales Wilderness Areas.

Aquatics

Fisheries personnel will annually visit a sample of high-use sites, such as Eagle Creek/Luck Lake, Thorne River and Staney Creek, to assess fish habitat and aquatic resource condition to measure best management practices implementation and effectiveness.

Botany

Yearly, a sample of rare and sensitive plant populations in or near recreation use areas will be monitored based on level of use and rarity of the species. Monitoring will determine if recreation use is affecting rare or sensitive plants. Monitoring will be completed by qualified district personnel.

Heritage

Yearly, a sample of approximately ten recreation use areas will be subjected to standard archaeological monitoring and inventory procedures by a Forest Service archaeologist. These areas will be examined based on: 1) if any known significant cultural sites are in the immediate vicinity, 2) the location's level of archaeological sensitivity, and 3) type of activity conducted. Camping is considered the activity with the most potential to impact significant cultural resources and camping sites will be given a high priority for monitoring. Active touring is the second-most activity of concern for Heritage.

During monitoring the recreation use area will be visually examined, with an option to use soil probes and test units to determine if buried sites are being impacted. Photographic overviews will be taken as a baseline to compare with later examinations of the location. The results of these examinations will be included in the required annual report to the Alaska State Historic Preservation Officer, added to the Forest Service Heritage files yearly report and reflected in the Forest Service archaeological database. Some permit sites might be examined more than once during the use season to confirm whether the activities are affecting extant significant cultural resources. This periodic monitoring is the key component in ensuring the permitted activities will not adversely affect extant significant cultural resources.

Invasive Species

Future surveys and monitoring for possible invasive plant infestations will be prioritized based on level of use and vulnerability of the habitat. Monitoring will determine if invasive species are increasing in size or spreading to new locations.

Soil

Monitoring of user developed sites should occur on a regular basis (suggest every 2 years) by Tongass Forest Service personnel. Soil erosion or puddling should be documented and reported to the district Soil Scientist to determine mitigation measures.

Comparison of Alternatives _____

This section provides a summary of the effects of implementing each alternative. Information in Table 2-1 is focused on different allocation levels that can be distinguished quantitatively among alternatives. Information in Table 2-2 is focused on the different outputs and effects that can be distinguished quantitatively among alternatives.

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Table 2-1: Comparison of Alternatives

Recreation Use Area ⁸	Access	Highest Actual Annual Use ⁹	Recreation Visitor Capacity Service Days (SD)	Alternative 1 - No Action - Current Permitted ¹⁰	Alternative 2 - Proposed Action - 50% of recreation visitor capacity (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹	Alternative 3 - 25% of recreation visitor capacity (SD)	Alternative 4 (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹
108 Creek/Cavern Lake	Road	62	692	116 ⁺	346	200/100*	173	128	128/100*
Aats Bay ^W	Shore	24	309	63	155		77	69	
Aiken Cove	Shore	9	847	12	424		212	13	
Alder Creek	Road	0	2,306	105 ⁺	1,153	25	577	116	25
Arena Cove	Shore	2	282		141		71	22	
Aston Island	Shore	1	847		424		212	11	
Baker Creek	Road	0	2,306	10	1,153	25	577	11	11
Barnes Lake	Remote	18	461		231	25/12*	115	20	20/12*
Barrier Islands	Shore	0	309	200	155		77	155	

⁸ Sites identified with a “W” are located in Wilderness.

⁹ Data is an aggregate of highest use between 2004 and 2008.

¹⁰ Alternative 1 – rows have blanks if there is no 2011 permitted use in these areas; however, these areas have been used by outfitters and guides in the past and will probably be requested for use in the future. There are current restrictions in numbers of guided fishing service days for steelhead in the areas marked with a “+”; these restrictions are briefly discussed above and outlined in the Revision to the Environmental Assessment for the Determination of Issuing Special Use Permits for Sportfishing Outfitter and Guide Services throughout Ketchikan Area Tongass National Forest (1998)

¹¹ Fishing restricted to maintain steelhead, summer run coho, and sockeye runs; restrictions do not lower the entire allocation for outfitters and guides in an area but restrict the number of annual permitted fishing service days to those shown in the left side of this column. If only one number is shown in these columns, these are the annual permitted fishing service days and there are no timing restrictions. The number and the asterisk in the right side of this column are related to timing restrictions: * = the restricted period for guided fishing days is 12/1 to 7/31, ** = the restricted period for guided fishing days is 12/1 to 5/31; the number to the right of the “/” displays the highest number of service days allowed during the restricted period. Where no numbers are shown in these columns, the fishing restriction is not applicable.

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Recreation Use Area⁸	Access	Highest Actual Annual Use⁹	Recreation Visitor Capacity Service Days (SD)	Alternative 1 - No Action - Current Permitted¹⁰	Alternative 2 - Proposed Action - 50% of recreation visitor capacity (SD)	Fishing Limit (SDs allowed/SDs with limited timing)¹¹	Alternative 3 - 25% of recreation visitor capacity (SD)	Alternative 4 (SD)	Fishing Limit (SDs allowed/SDs with limited timing)¹¹
Beaver Falls Trail	Road	60	2,318		1,159		1,738 ¹²	66	
Beaver Mountain	Remote	2	4,234		2,117		1,059	22	
Big Creek, W. Cholmondoley	Shore	0	1,079	500	540		270	540	
Big Lake	Road	5	2,306	95	1,153	25/12*	577	105	25/12*
Biscuit Lagoon ^w	Shore	69	360	538	180		90	180	
Black Bear Lake	Remote	0	4,612	20	2,306		1,153	22	
Bobs Place	Shore	3	847		424		212	33	
Boyd Lake	Road	2	2,306	32	1,153	25	577	35	25
Brownson Bay ^w	Shore	2	282	8	141		71	9	
Buster Bay	Shore	11	2,822	28	1,411		706	31	
Buster Creek	Road	0	2,306		1,153	25	577	66	25
Cable Creek	Road	12	692	9	346	25	173	10	10
Calder Bay	Road	19	2,117	418	1,059		529	460	
Calder Creek	Road	0	2,306	105	1,153		577	116	
California Bay	Road	7	2,117		1,059		529	44	
Cape Chacon	Shore	5	847		424		212	44	

¹² In Alternative 3, 75% of the capacity in this area would be allocated to guided use

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Recreation Use Area ⁸	Access	Highest Actual Annual Use ⁹	Recreation Visitor Capacity Service Days (SD)	Alternative 1 - No Action - Current Permitted ¹⁰	Alternative 2 - Proposed Action - 50% of recreation visitor capacity (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹	Alternative 3 - 25% of recreation visitor capacity (SD)	Alternative 4 (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹
Cavern Lake Trail	Road	4	696		348		174	63	
China Cove ^w	Shore	57	309	63	155		77	69	
Cholmondeley Sound, NE	Shore	36	1,079	425	540		270	468	
Cholmondeley Sound, South Arm	Shore	54	1,079	500	540		270	540	
Cholmondeley Sound, West Arm	Shore	84	1,079		540		270	29	
Clover Lake	Remote	26	1,270	128	635		318	141	
Cora Point ^w	Shore	4	309	42	155		77	46	
Datzkoo Harbor	Shore	55	847		424		212	44	
Devilfish Bay	Shore	4	282	28	141		71	31	
Dickman Bay	Shore	23	847		424		212	22	
Diver Bay	Shore	4	2,822		1,411		706	22	
Dog Salmon Creek	Road		2,696		1,348	25	674	35	25
Dog Salmon Fishpass	Road	1,396	8,733	1,722	4,367		6,550 ¹³	1,894	
Dog Salmon Lake	Road	2	635		318		159	22	

¹³ In Alternative 3, 75% of the capacity in this area would be allocated to guided use

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Recreation Use Area ⁸	Access	Highest Actual Annual Use ⁹	Recreation Visitor Capacity Service Days (SD)	Alternative 1 - No Action - Current Permitted ¹⁰	Alternative 2 - Proposed Action - 50% of recreation visitor capacity (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹	Alternative 3 - 25% of recreation visitor capacity (SD)	Alternative 4 (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹
Dry Pass	Shore	8	2,822	38	1,411		706	42	
Dunbar Inlet	Shore	30	847		424		212	88	
Eagle Creek	Road	61	692	224	346	250/125*	173	246	246/125*
Eagle Island	Shore	20	927		464		232	22	
Egg Harbor ^W	Shore	29	309	20	155		77	22	
El Capitan Cave	Road	112	7,560	1,167	3,780		1,890	1,284	
El Capitan Passage	Shore	34	927		464		232	37	
Essowah Lakes	Remote	2	423		212		106	22	
Exchange Cove, East	Shore	8	2,822		1,411		706	66	
Exchange Cove, West	Road	100	2,318	10	1,159		580	11	
FDR 2700	Road	7	2,318		1,159		580	8	
Fisherman Cove	Shore	3	847		424		212	22	
Flicker Creek	Road	19	2,306	+	1,153	25	577	21	21
Fredrick Cove	Shore	32	3,595	12	1,798		899	13	
Gandlaay Haanaa (Fubar Creek)	Road	2	2,117		1,059	50/25**	529	22	22**
Goat Island	Shore	3	847		424		212	23	
Gold Harbor	Shore	2	282		141		71	22	
Goose Bay	Shore	9	847		424		212	44	

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Recreation Use Area ⁸	Access	Highest Actual Annual Use ⁹	Recreation Visitor Capacity Service Days (SD)	Alternative 1 - No Action - Current Permitted ¹⁰	Alternative 2 - Proposed Action - 50% of recreation visitor capacity (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹	Alternative 3 - 25% of recreation visitor capacity (SD)	Alternative 4 (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹
Gosti Island	Shore	1	847		424		212	11	
Granite Mountain	Remote	12	423	9	212		106	10	
Gulch Creek	Road	2	2,117	9	1,059		529	10	
Halibut Harbor	Shore	13	847	828	424		212	424	
Harris Ridge	Road	4	635	10	318		159	11	
Harris River	Road	190	2,306	339 ⁺	1,153	150/75**	577	373	150/75**
Hassiah Inlet	Shore	2	2,822	26	1,411		706	29	
Hatchery Creek	Road	100	692	26 ⁺	346	250/125*	173	29	29*
Hessa Inlet ^W	Shore	6	282	522	141		71	141	
Holbrook Arm	Shore	8	2,822		1,411		706	77	
Hole In The Wall ^W	Shore	17	282	34	141		71	37	
Hook Arm	Shore	4	847		424		212	22	
Horseshoe Island	Shore	3	847		424		212	33	
Hunter Bay ^W	Shore	89	360	212	180		90	180	
Hunter Creek	Shore	0	307	2	154	100	77	2	2
Indian Creek	Road	1	635	19	318		159	21	
Ingraham Bay	Shore	11	847		424		212	55	
Island Bay	Shore	8	927		464		232	9	
Jinhi Bay	Shore	2	847	28	424		212	31	
Johnson Cove	Shore	6	2,822	12	1,411		706	13	
Karheen Cove	Shore	2	2,822		1,411		706	22	

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Recreation Use Area ⁸	Access	Highest Actual Annual Use ⁹	Recreation Visitor Capacity Service Days (SD)	Alternative 1 - No Action - Current Permitted ¹⁰	Alternative 2 - Proposed Action - 50% of recreation visitor capacity (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹	Alternative 3 - 25% of recreation visitor capacity (SD)	Alternative 4 (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹
Kasaan Bay	Shore	2	847	18	424		212	20	
Kasook Inlet	Shore	2	282		141		71	22	
Kassa Inlet	Shore	14	2,822	26	1,411		706	29	
Keete Inlet	Shore	14	2,822		1,411		706	88	
Kegan Creek	Shore	0	307	69	154		77	76	
Kendrick Bay	Shore	6	2,822	20	1,411		706	22	
Klakas Inlet ^W	Shore	208	360	854	180		90	180	
Klakas Lake	Remote	0	461	212	231	100	115	231	100
Kosciusko Island Road System	Road	12	2,117	8	1,059		529	9	
Kugel Lake	Remote	57	1,618	85	809		405	94	
Kugun Creek	Shore	1	2,822		1,411		706	11	
Labouchere Bay	Road	10	635	10	318		159	11	
Lake Galea	Remote	0	1,391	85	696		348	94	
Lancaster Cove	Shore	98	2,822		1,411		706	176	
Lava Creek	Road	7	635	14	318		159	15	
Logjam Creek	Road	19	2,306	99 ⁺	1,153	50/25*	577	109	50/25*
Luck Lake	Road	81	2,306	169	1,153	250/125*	577	186	186/125*
Luelia Lake	Remote	144	539	285	270		135	270	
Mabel Island	Shore	2	847		424		212	22	
Marble Creek	Road	0	2,306		1,153		577	44	
Marble Island	Shore	5	2,822		1,411		706	33	

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Recreation Use Area ⁸	Access	Highest Actual Annual Use ⁹	Recreation Visitor Capacity Service Days (SD)	Alternative 1 - No Action - Current Permitted ¹⁰	Alternative 2 - Proposed Action - 50% of recreation visitor capacity (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹	Alternative 3 - 25% of recreation visitor capacity (SD)	Alternative 4 (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹
Max Cove ^W	Shore	97	360	218	180		90	180	
Maybeso River	Road	11	635	9	318		159	10	
McKenzie Inlet, South	Road	48	2,117		1,059		529	92	
McKenzie Inlet, West	Shore	10	922	200	461		231	220	
Mclean Arm	Shore	4	847	38	424		212	42	
McLeod Bay	Shore	4	847		424		212	44	
Memorial Beach	Road	4	2,318		1,159		580	4	
Menefee Anchorage	Shore	2	847		424		212	22	
Miller Lake	Remote	44	1,618	500	809		405	550	
Moira Sound	Shore	121	2,822	8	1,411		706	9	
Moira Sound, North Arm	Shore	2	847		424		212	22	
Moira Sound, South Arm	Shore	135	1,079	500	540		270	540	
Monie Lake	Remote	0	4,612	65	2,306		1,153	72	
Naukati Bay	Road	3	2,117		1,059		529	33	
Neck Lake	Road	75	2,306	175	1,153	150	577	193	150
Niblack Lake	Remote	0	1,383	128	692		346	141	
Nichols Bay	Shore	4	847	20	424		212	22	
No Name Lake, S8 T68S R 79E	Road	0	2,306	90	1,153		577	99	

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Recreation Use Area ⁸	Access	Highest Actual Annual Use ⁹	Recreation Visitor Capacity Service Days (SD)	Alternative 1 - No Action - Current Permitted ¹⁰	Alternative 2 - Proposed Action - 50% of recreation visitor capacity (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹	Alternative 3 - 25% of recreation visitor capacity (SD)	Alternative 4 (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹
North Bay	Shore	2	847		424		212	22	
Nossuk Bay	Shore	15	2,822	828	1,411		706	911	
Nowiskay Cove	Shore	74	1,079		540		270	81	
Nutkawa Inlet	Shore	4	2,822		1,411		706	22	
Nutkawa Lagoon	Remote	24	423	65	212		106	72	
Old Franks Creek	Road	42	2,306	19	1,153	100	577	21	21
Old Log Camp	Road	1	2,117	110	1,059		529	121	
Old Toms Creek	Road	19	270	10	135		68	11	
One Duck Lake	Road	2	2,117		1,059		529	22	
One Duck Road System	Road	1	2,117		1,059		529	11	
Orr Island	Shore	4	2,822		1,411		706	33	
Paul Bight	Shore	3	282	10	141		71	11	
Paul Young Creek	Shore	3	847	10	424		212	11	
Pine Point	Shore	1	2,822		1,411		706	11	
Point Dolores	Shore	4	2,822		1,411		706	22	
Pole Anchorage	Shore	2	2,822		1,411		706	22	
Polk Inlet Overlook	Road	4	2,117		1,059		529	33	
Polk Inlet, East	Shore	2	2,822		1,411		706	22	

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Recreation Use Area ⁸	Access	Highest Actual Annual Use ⁹	Recreation Visitor Capacity Service Days (SD)	Alternative 1 - No Action - Current Permitted ¹⁰	Alternative 2 - Proposed Action - 50% of recreation visitor capacity (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹	Alternative 3 - 25% of recreation visitor capacity (SD)	Alternative 4 (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹
Polk Inlet, North	Road	88	2,117	180	1,059		529	198	
Polk Pass	Road	5	2,117		1,059		529	22	
Pond Bay	Shore	1	847		424		212	11	
Port Alice	Shore	3	847		424		212	33	
Port Refugio	Shore	8	2,822		1,411		706	55	
Port Santa Cruz	Shore	1	2,822		1,411		706	22	
Ratz Creek	Road	27	692	315 ⁺	346	100/50*	173	346	100/50*
Ratz Harbor	Shore	0	927		464		232	22	
Red Bay	Road	16	2,117	338	1,059		529	372	
Red Bay Creek/Lake	Road	31	692	259 ⁺	346	25	173	285	25
Red Bay Lake Trail	Road	13	696	233	348		174	256	
Rip Point	Shore	2	2,822		1,411		706	22	
Roller Bay, Noyes Island	Shore	0	309		155		77	22	
Ruins Point	Shore	2	282		141		71	22	
Sakie Bay	Shore	2	847	20	424		212	22	
Salmon Bay	Shore	42	282	210	141		71	141	
Salmon Bay Creek	Remote	18	461	72	231	50	115	79	50
Salmon Bay Lake	Remote	19	461	168	231	50	115	185	50

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Recreation Use Area ⁸	Access	Highest Actual Annual Use ⁹	Recreation Visitor Capacity Service Days (SD)	Alternative 1 - No Action - Current Permitted ¹⁰	Alternative 2 - Proposed Action - 50% of recreation visitor capacity (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹	Alternative 3 - 25% of recreation visitor capacity (SD)	Alternative 4 (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹
Salmon Bay Lake Trail	Shore	0	309	233	155		77	155	
Salt Chuck	Shore	56	3,595	500	1,798		899	550	
Salt Lake Bay	Shore	11	847	28	424		212	31	
Sarheen Cove	Shore	10	847	10	424		212	11	
Sarkar Lake	Road	29	692	159	346	100/50*	173	175	100/50*
Scott Lagoon	Shore	17	2,822		1,411		706	99	
Security Cove	Shore	2	847		424		212	22	
Shaheen Creek	Road	9	2,306	4	1,153	25	577	4	4
Shakan Bay	Shore	22	282	80	141		71	88	
Shiple Bay	Shore	32	282	138	141		71	141	
Shiple Bay Creek/Lake	Shore	0	307	195	154		77	154	
Shipwreck Point	Shore	4	282		141		71	22	
Skowl Arm	Shore	23	2,822	178	1,411		706	196	
Snag Island	Shore	2	847		424		212	22	
Snakey Lake	Road	0	692	85	346		173	94	
Soda Bay	Shore	1	847		424		212	11	
Spanish Islands	Shore	24	309		155		77	26	
Spiral Cove	Shore	4	847		424		212	44	
Staney Creek, Main Stem	Road	171	2,306	500 ⁺	1,153	350/175*	577	550	350*

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Recreation Use Area ⁸	Access	Highest Actual Annual Use ⁹	Recreation Visitor Capacity Service Days (SD)	Alternative 1 - No Action - Current Permitted ¹⁰	Alternative 2 - Proposed Action - 50% of recreation visitor capacity (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹	Alternative 3 - 25% of recreation visitor capacity (SD)	Alternative 4 (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹
Staney Creek, North Fork	Road		2,306		1,153	50/25*	577	55	50*
Staney Creek, South Fork	Road		2,306		1,153	50/25*	577	55	50*
Staney Creek, Upper	Road		2,306		1,153	50/25*	577	55	50*
Steamboat Bay	Shore	2	309		155		77	55	
Stone Rock Bay	Shore	4	847	12	424		212	13	
Suemez Island Road System	Shore	12	3,091		1,546		773	13	
Survey Cove	Shore	8	2,822	800	1,411		706	880	
Sutter Creek/lake	Shore	0	307	95	154		77	105	
Sweetwater Lake	Road	18	2,306	117	1,153	25/12*	577	129	25/12*
Tah Bay ^w	Shore	3	282	12	141		71	13	
Tenass Bay	Shore	12	847		424		212	121	
The Saitchuck	Remote	0	539	500	270		135	270	
Thorne River, Lower	Road	243	2,306	543 ⁺	1,153	350/175*	577	597	350/175*
Thorne River, North	Road		692		346	50/25*	173	60	50*
Thorne River, Tributaries	Remote		1,383		692	50*	346	60	50*

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Recreation Use Area ⁸	Access	Highest Actual Annual Use ⁹	Recreation Visitor Capacity Service Days (SD)	Alternative 1 - No Action - Current Permitted ¹⁰	Alternative 2 - Proposed Action - 50% of recreation visitor capacity (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹	Alternative 3 - 25% of recreation visitor capacity (SD)	Alternative 4 (SD)	Fishing Limit (SDs allowed/SDs with limited timing) ¹¹
Thorne River, Upper	Remote		1,383		692	50*	346	60	50*
Tlevak Narrows	Shore	12	2,822		1,411		706	143	
Token Bay	Shore	5	282		141		71	55	
Trocadero Creek	Road	7	635	9	318	25	159	10	10
Trout Creek	Shore	11	2,822	28	1,411		706	31	
Trumpeter Lake	Road	40	2,306	10 ⁺	1,153	50/25*	577	11	11
Turn Creek	Road	47	2,306	⁺	1,153	25/12**	577	52	25/12**
Tuxekan Island Road System	Shore	9	847		424		212	66	
Twelvemile Arm Creek	Road	7	2,117	33	1,059	25	529	36	25
Twelvemile Arm Road System	Road	11	2,117		1,059		529	66	
Upper Trocadero Mountain	Road	2	2,117		1,059		529	22	
Upper Trocadero Road System	Road	7	2,117	19	1,059		529	21	
Upper Twelvemile Arm Road System	Road	7	2,117	10	1,059		529	11	

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Recreation Use Area⁸	Access	Highest Actual Annual Use⁹	Recreation Visitor Capacity Service Days (SD)	Alternative 1 - No Action - Current Permitted¹⁰	Alternative 2 - Proposed Action - 50% of recreation visitor capacity (SD)	Fishing Limit (SDs allowed/SDs with limited timing)¹¹	Alternative 3 - 25% of recreation visitor capacity (SD)	Alternative 4 (SD)	Fishing Limit (SDs allowed/SDs with limited timing)¹¹
Van Sant Cove	Shore	3	282		141		71	33	
Waterfall Bay	Shore	3	847		424		212	88	
West Sentinel Island	Shore	8	927		464		232	9	
Whale Passage	Road	32	2,318		1,159		580	35	
Windy Bay ^W	Shore	24	309	63	155		77	69	
Winter Bay	Shore	2	282		141		71	22	
Winter Harbor	Road	0	2,318		1,159		580	330	
Wolf Lake	Remote	6	4,234		2,117		1,059	22	
Wolk Harbor	Shore	2	847		424		212	22	
	Total¹⁴		320,979	19,827	160,490		85,771	23,010	

¹⁴ The number of service days in this “total” row was calculated using decimals, whereas data shown in the columns above were rounded to whole numbers. Thus, the columns do not add up exactly to match the total due to rounding.

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Table 2-2: Comparison of Alternative Effects

Issue Responded to and measurement	Alternative 1 - No Action	Alternative 2 - Proposed Action	Alternative 3	Alternative 4
Issue 1 - Guided hunting may conflict with subsistence hunting within the home hunting ranges for communities on Prince of Wales. (Literature shows the home hunting range as 10 to 25 miles depending on conditions, the IDT suggested an average of 15 miles for analysis.)				
Projected number of service days for hunting near the communities under each alternative	9,980 SDs	94,287 SDs	4,600 SDs	3,300 SDs
Issue 2 - Outfitter and guide activities may negatively affect unguided recreationists that have selected Prince of Wales specifically because it has few people. An increase in guided visitors may create social problems, like crowding and causing unguided recreationists to disperse to less desirable areas.				
Number of service days allocated to outfitters and guides.	19,827 SDs	160,490 SDs	85,771 SDs	23,010 SDs
Issue 3 - Outfitter and guides need opportunities for business growth on Prince of Wales Island to maintain their businesses and increase the local economy.				
Number of service days in areas that have developed facilities (Dog Salmon Fishpass) available	4,379 SDs	14,959 SDs	13,005 SDs	5,175 SDs
Number of service days in areas that are close to communities, where travel costs are lower.	15,737 SDs	122,413 SDs	66,732 SDs	18,282 SDs

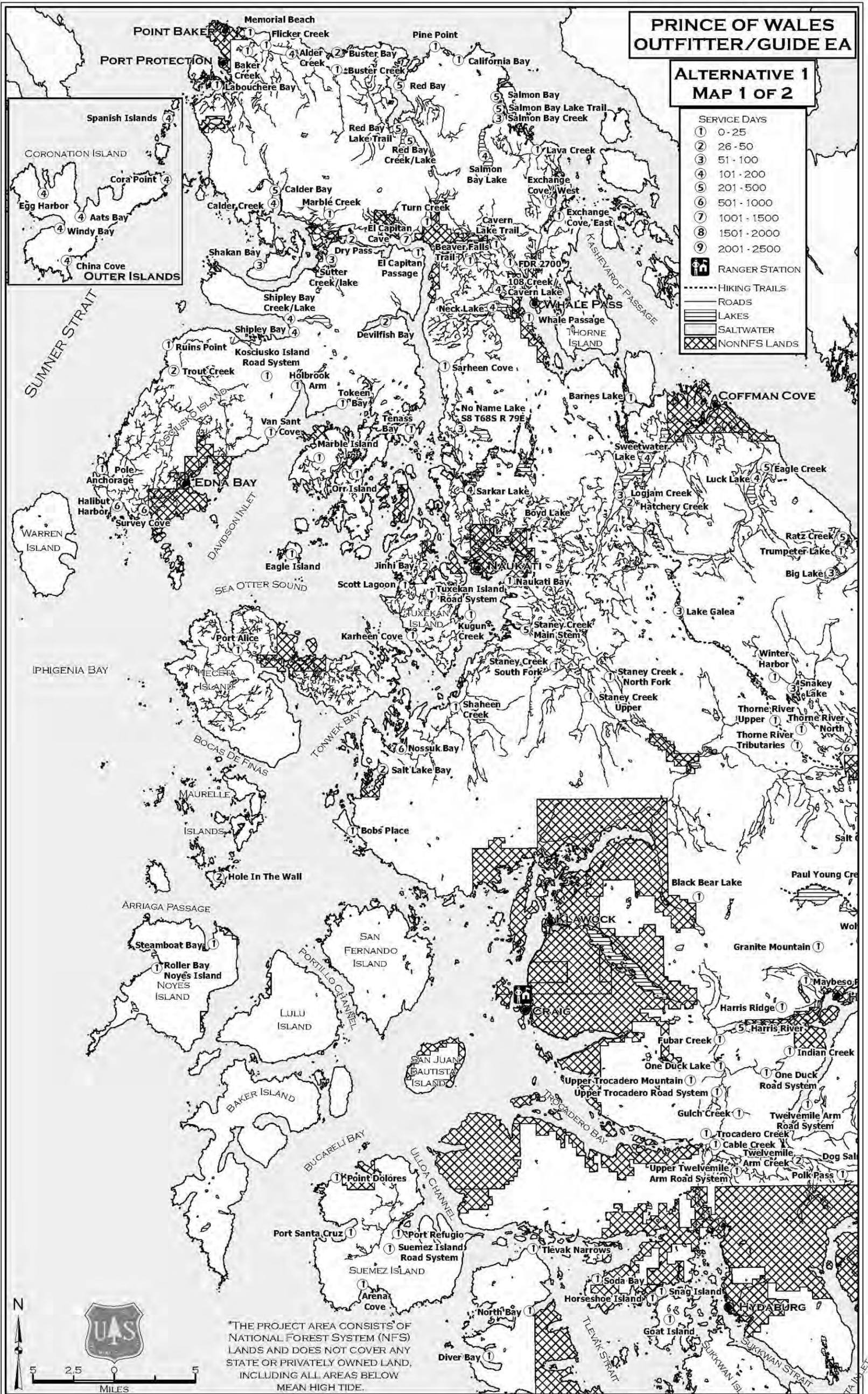
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Issue Responded to and measurement	Alternative 1 - No Action	Alternative 2 - Proposed Action	Alternative 3	Alternative 4
Issue 4 - Limiting the amount and location of outfitted and guided fishing when population data are not available, unnecessarily limits outfitter and guide activities.				
Number of service days allocated in areas where the three species of concern (sockeye, steelhead, and summer run coho salmon) are located.	4,673 SDs	32,574 SDs	15,767 SDs	4,933 SDs
Total number of service days allocated for fishing in areas where sockeye, steelhead, and summer run coho salmon are located	4,673 SDs	3,875 SDs	15,767 SDs	2,846 SDs

(Source: Chapter 3 and Resource Reports)

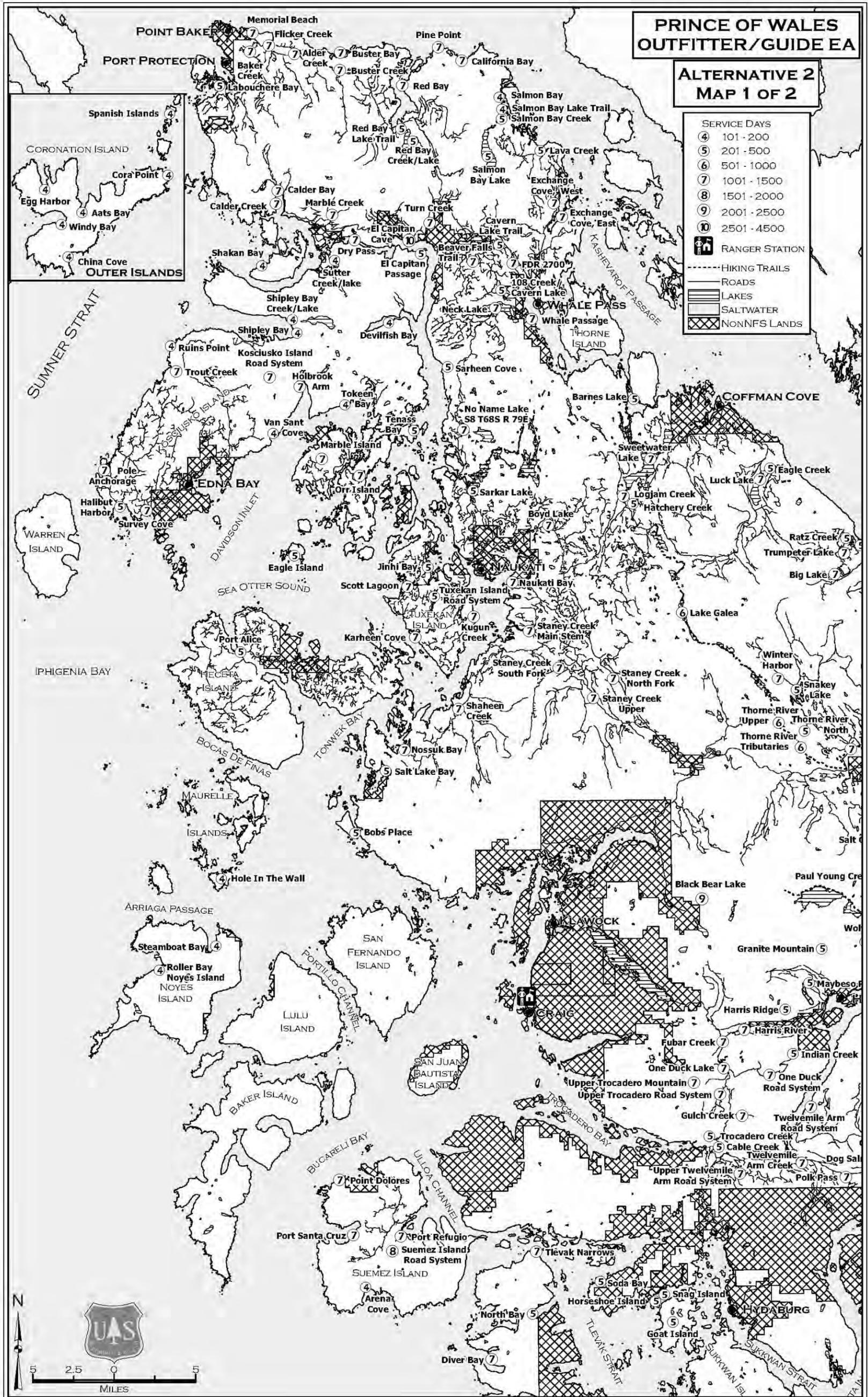
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Figure 2-1: Alternative 1 – No Action Alternative - Existing Levels of Outfitter and Guide Use – North Half POW



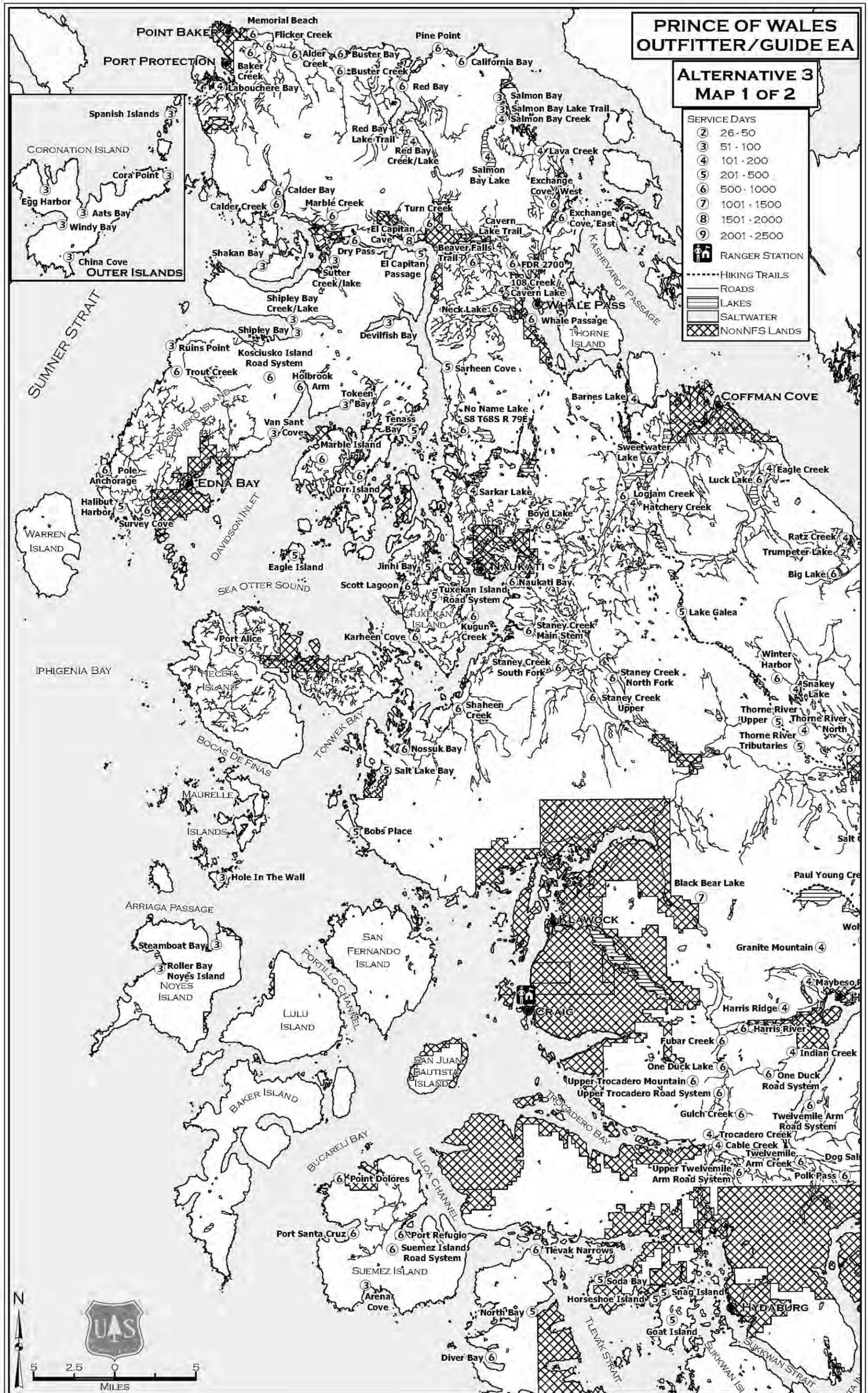
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Figure 2-3: Alternative 2 – Proposed Action Levels of Outfitter and Guide Allocation – North Half POW



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Figure 2-5: Alternative 3 Levels of Outfitter and Guide Allocation – North Half POW



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CHAPTER 3, AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Introduction

This chapter describes the affected environment of the project area and the potential changes to the environment due to implementation of the alternatives. It also presents the scientific and analytical basis for the comparison of alternatives presented in Table 2-2 in Chapter 2. Direct, indirect, and cumulative effects are disclosed. Effects are quantified where possible, but qualitative discussions are also included.

The following discussion of resources and potential effects associated with each of the alternatives takes advantage of existing information included in the Forest Plan Final Environmental Impact Statement (EIS – USDA Forest Service 2008b); other project Environmental Assessments (EAs); project-specific resource reports and related information; roads analyses; and other sources as indicated. Where applicable, such information is briefly summarized and referenced to minimize duplication.

This EA hereby incorporates, by reference, the project record and resource reports contained in the project record (40 CFR 1502.21). The project record for this project includes all project-specific information, including resource reports and other results of field investigations used to support the analysis and conclusions in this EA. These reports, including Water and Fisheries Resources, Management Indicator Species, Rare Plant Species, Heritage Resources, and Recreation, as well as a Biological Evaluation for Threatened, Endangered, and Sensitive Species were prepared for the POW Outfitter and Guide Management Plan project. Resource reports contain the detailed data, methodologies, analyses, conclusions, maps, references, and technical documentation that the resource specialists relied upon to reach the conclusions in this EA. The project record also contains information resulting from public involvement efforts. The project record is located at the Thorne Bay Ranger District Office in Thorne Bay, Alaska, and is available for review during regular business hours. Information from the record is available upon request.

Analyzing Effects

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

Direct, Indirect, and Cumulative Effects

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

Level of Effects

In many cases, the IDT used and defined a level of effects to display the amount and direction of effects upon resources. Impacts increase from negligible (which includes no effect) to minor to moderate to major. Definitions of level of effect are displayed by resource in this chapter. There were no major effects on any resource in any alternative, thus definitions of major effects are found only in the specialist reports in the Project Record.

Unavoidable Adverse Effects

Implementation of an action alternative may cause some adverse environmental effects that cannot be effectively mitigated or avoided. Unavoidable adverse effects often result from managing the land for one resource at the expense of the use or condition of one or several other resources. Many adverse effects can be reduced, mitigated, or avoided by limiting the extent or duration of effects. The interdisciplinary procedure used to identify specific management activities was designed to eliminate or minimize adverse consequences. The application of Forest Plan standards and guidelines, Best Management Practices (BMPs), project-specific project design and mitigation measures, and monitoring are all intended to further limit the extent, severity, and duration of potential effects. Such measures are discussed throughout this chapter. Regardless of the use of these measures, some adverse effects will occur. The purpose of this chapter is to fully disclose these effects.

Short-term Use and Long-term Productivity

Short-term uses, and their effects, are those activities that occur during or within the first few years of project implementation. Long-term productivity refers to the capability of the land and resources to continue producing goods and services long after the project has been implemented. Under the Multiple-Use Sustained-Yield Act and the National Forest Management Act, all renewable resources are to be managed so that they are available for future generations. Guided use is expected to have minimal effect on trees and tree growth, but could affect plants, the spread of invasive plants, and fish and wildlife. Long-term productivity of resources is expected to be maintained through the application of resource protection measures (project design elements and mitigation measures) and adaptive management as described in Chapter 2.

Irreversible and Irretrievable Commitments

Irreversible commitments of resources are those that cannot be regained, such as the extinction of a species or the removal of mined ore. **Irretrievable commitments** are

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those that are lost for a period of time such as the temporary loss of timber productivity in forested areas that are kept clear for use as a power line right-of-way or road.

Generally, the use of rock for construction or the loss of the only known population of a plant would be an irreversible commitment of that resource since the rock is no longer in the ground or the plant no longer exists. A lower allocation of service days to outfitters and guides is a loss of business productivity, which is an irretrievable commitment of resources.

No irreversible commitments are expected if design elements and mitigation in Appendix A and Adaptive Management (Chapter 2) are implemented. The action alternatives would reduce the amount of potential guided use in one or more recreation use areas but increase potential guided use in most other areas. There would be an irretrievable loss of business productivity in a few locations if guided use is reduced. This productivity could be easily offset by increases in other locations in Alternatives 2 or 3 or through adaptive management in Alternatives 2, 3, and 4.

Organization of Analysis

This chapter and the analysis of effects is organized by resource, with those resources related to issues identified in Chapter 1 at the beginning of this chapter.

Issues 1, 2, and 3 are addressed by individual resource sections, specifically Subsistence Uses, Recreation and Wilderness, and Economics. The Subsistence Uses section relies heavily on the analysis in the Wildlife section of this EA; thus, the Wildlife section follows the Subsistence Uses section in this document. Issue 4 is addressed by the Fisheries section, but is also related to and discussed at varying levels in the Subsistence Uses, Recreation and Wilderness, and Economics sections.

The remainder of the analysis in this chapter is organized by resource in alphabetical order.

Concerns, suggestions, and design recommendations are discussed as they relate to the project's affected environment and potential effects of the alternatives on resources.

Subsistence Uses

In compliance with the Alaska National Interest Lands Conservation Act of 1980 (ANILCA), this document analyzes the potential effects of proposed land use activities on subsistence uses and needs, and includes a distinct finding on whether the proposed action may significantly restrict subsistence uses.

The analysis considers fish and wildlife subsistence resources. Outfitters and guides are not authorized to collect or harvest other subsistence resources.

Affected Environment

Subsistence activities are a major and important activity for many residents of Prince of Wales Island (POW) and Southeast Alaska. Subsistence activities for Southeast Alaskan residents include fishing, hunting for deer and bear, hunting and trapping furbearers,

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mainly marten (*Martes americana*), wolf, beaver (*Castor canadensis*), river otter (*Lutra canadensis*) and mink. Other subsistence activities include harvest of harbor seals by Alaska Natives, collecting of plants for food and medicinal values (berries, roots, stems and leaves), and collecting of firewood and materials for crafts and medicine. Subsistence exists alongside other important uses of fish and game in Alaska, including commercial fishing, sport fishing, and general trapping and hunting.

Subsistence analysis in this environmental assessment will focus on three factors relating to fish and wildlife resources:

1. Abundance and distribution of the resource
2. Access to the resource
3. Competition for the resource.

Subsistence - Wildlife

This analysis includes discussion of recent wildlife harvest patterns and compares the number of service days allocated by alternative at use sites within 15 miles of any community on Prince of Wales.

A thorough and recent introduction to subsistence issues on POW was completed as part of the environmental analysis for the Access and Travel Management Plan (USDA 2009) and is incorporated here by reference. Effects to species other than those discussed below can be found in the Wildlife Resource Report in the planning record.

Black bear harvest on POW has increased significantly in recent years; non-resident hunters accounted for 41 percent of the black bear harvest in GMU 2 in 1990, but 80% in 2009, while local, rurally qualified residents only harvested about 10% of all bears between 1990 and 2009 (ADF&G unpublished data). Most non-resident bear hunters are unguided. Though there are no unimportant subsistence uses, there appears to be low demand for subsistence black bears, at this time. However, the small percentage of rural Alaskans hunting black bear on POW may be likely to encounter competition with non-Federally qualified bear hunters, given that they harvest the majority of black bears. Guided hunters contribute little to competition with rurally qualified users compared to other unguided hunters (ADFG, unpublished data. See Wildlife Resource Report in the planning record for further information.) because unguided hunters make up the majority of bear hunters on POW. Furthermore, the Forest Service will work cooperatively with the Alaska Department of Fish and Game (ADF&G) to set appropriate use levels for bear hunting guides, but this process will take place independently of this NEPA analysis. Because most non-resident bear hunters are unguided, recent regulatory changes aimed at restricting harvest of black bears on POW may alleviate the hunting pressure on this important wildlife population (see the wildlife resource report in the Project Record for more detail).

Deer are the most important terrestrial subsistence species for POW residents and are analyzed in detail for this project with respect to subsistence. Deer populations are currently thought to be at a 12-15 year peak (Porter, pers. comm., 5/23/2011).

Young growth habitats <10 years old are favored by many deer hunters because deer are attracted to abundant forage in these areas and large, open clearcuts provide excellent

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sighting potential and clear shots. Most clearcuts are readily accessed by road and often require less strenuous hiking than alpine sites. Harvest reports indicate as much as 75% of deer harvested on POW are taken in conjunction with the road system (Bethune 2009).

Current hunting patterns across POW are changing as open clearcuts that once provided a quality hunting experience regenerate into dense, young-growth stands that no longer provide quality deer hunting opportunities. Hunters can no longer visually locate deer and forage quality begins to drop. Thinning of young growth stands is thought to improve habitat values for deer, but it generally does not improve hunting opportunities in these habitats.

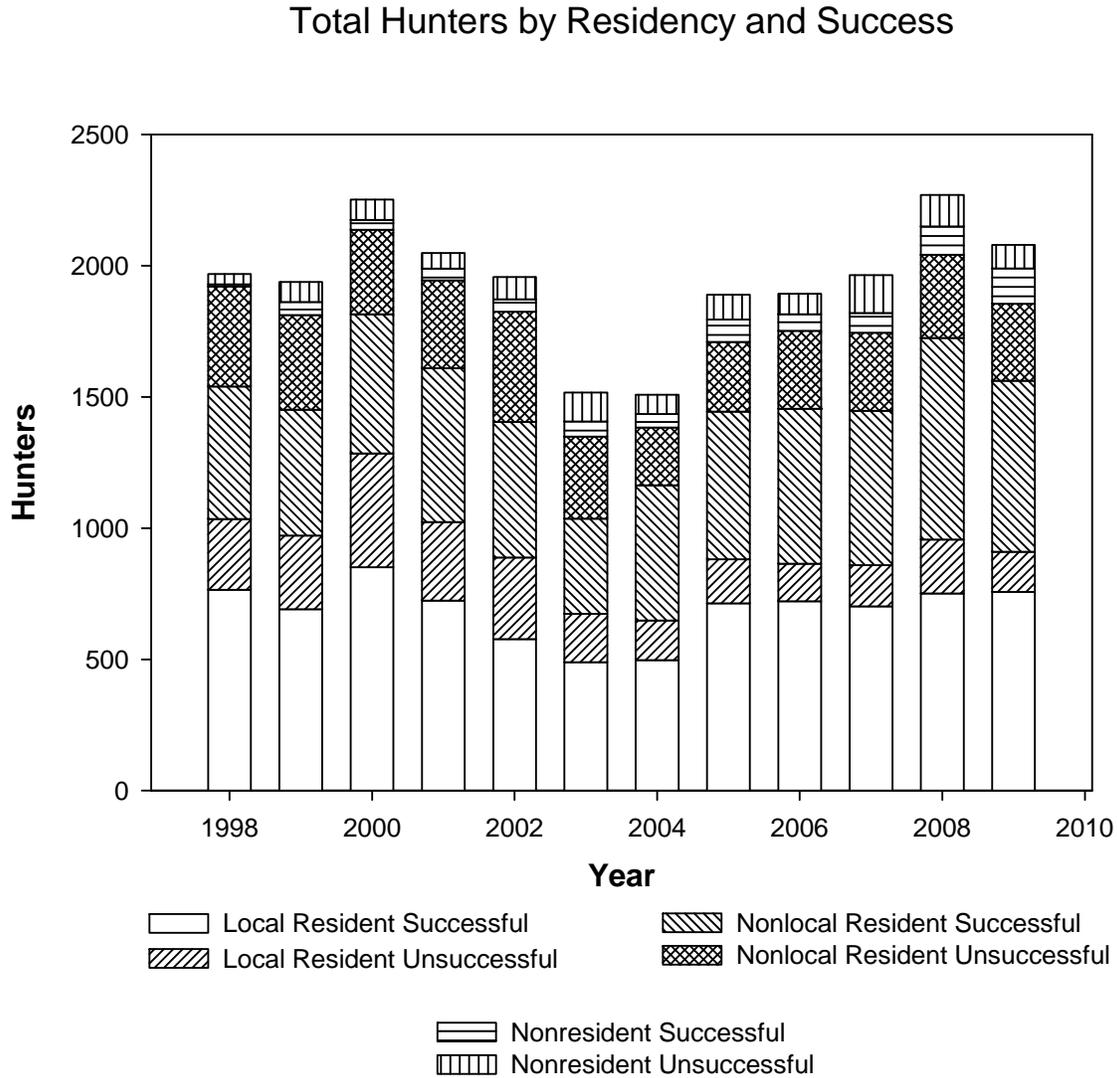
In addition to the change in habitat composition over time, recent changes in hunter demographics have raised concerns among some subsistence users. Some residents of POW contend Ketchikan and other nonlocal hunters (residents of Alaska that do not reside on the POW districts) are affecting their ability to get the deer they need to subsist (Bethune 2009). Figure 3-1 displays total estimated hunters by residency and success from 1998 to 2009. Nonlocal hunters make up about 45 percent of deer hunters on POW Island and are nearly as successful as local residents. Non-residents make up about 11 percent of total hunters and have lower success rates than Alaska residents, both local and nonlocal.

Both the number of non-resident hunters and their success rate have increased in recent years; the highest number reported was 224 non-resident hunters in 2009 (ADF&G unpublished data). It is difficult to estimate what percentage of non-resident hunters are guided, but given that guides reported 128 service days for both deer and fall bear hunting in 2009, it is likely that most non-resident hunters are not guided. Regardless, non-resident hunters and the number of deer they harvest, either guided or not, represent a small percentage of all hunters and deer harvested in GMU 2.

The combination of habitat changes over time and the rise in non-resident and nonlocal resident hunting for deer prompted concern among some that locals may experience restrictions in access or competition for subsistence deer. Scoping comments for this project included requests for a “local use area” near Craig (see Figure 3-2) where guided hunting for deer would be restricted in order to preserve opportunities for subsistence harvest.

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Figure 3-1: Number of hunters by residency and success from 1998 through 2009 (ADF&G, unpublished data).

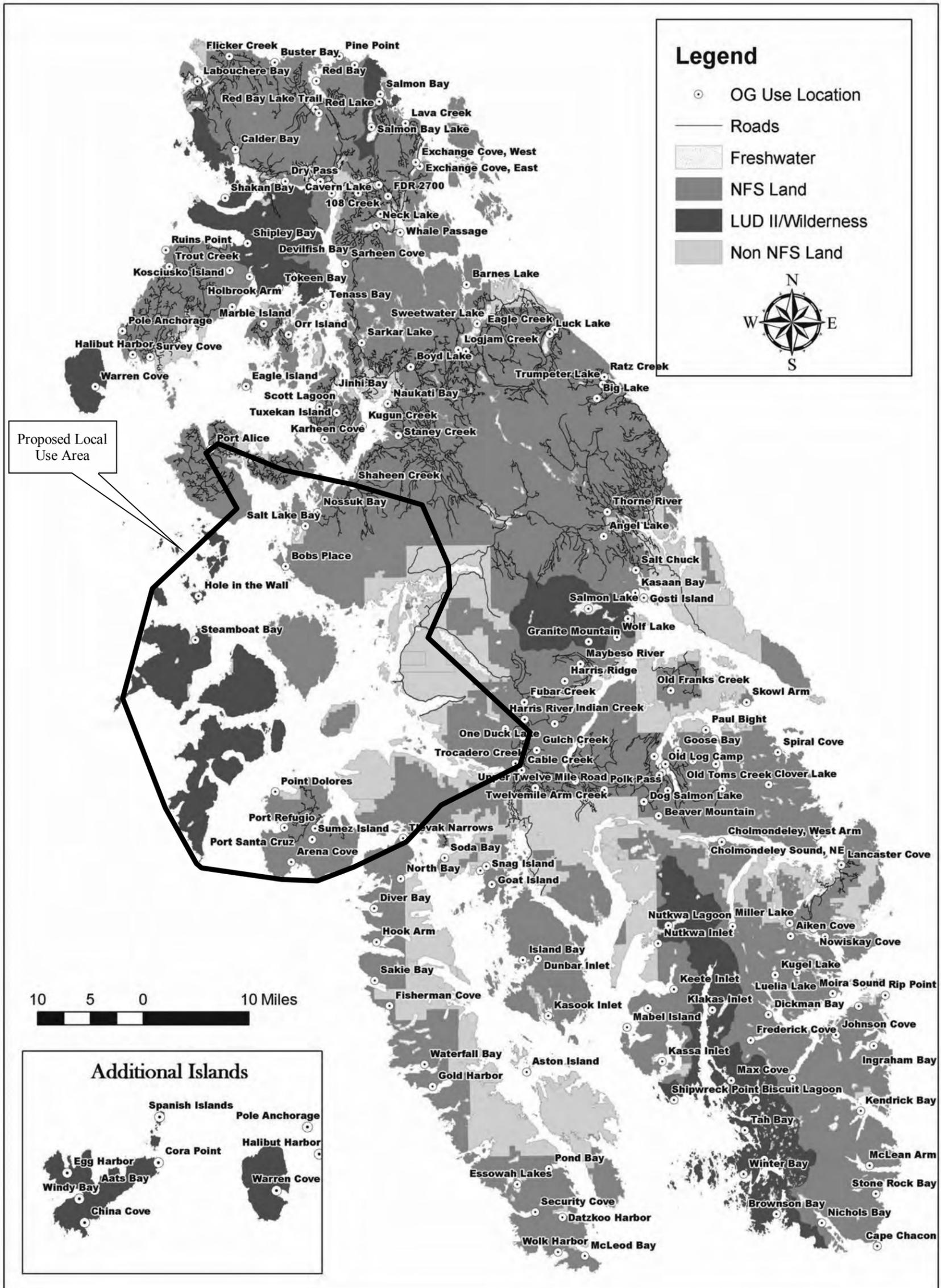


Guided deer hunting with deer as the primary focal species has increased in recent years, up from roughly 18 service days in 2004 to approximately 66 service days in 2009. The total amount of guided hunting that occurs for deer is difficult to estimate because deer may be harvested either as part of a guided deer or bear hunt. However, only guided bear hunts that occur in the fall season coincide with the deer hunting season. Furthermore, not all guided bear hunters target deer, but some take deer opportunistically, or focus on deer after they have already harvested a bear. Guided deer hunting likely accounts for <1% of the annual average harvest of deer from GMU 2 (See Wildlife Resource Report).

Guided deer or fall bear hunting occurred at 83 (approximately 40%) of the sites under consideration in this EA between 2004 and 2009. This includes eight of the 16 use sites that fall within the proposed local use area identified for Craig during scoping. No guided hunting for fall bear or deer was reported at Shaheen Creek, Port Alice, Bob's

Figure 3-2: City of Craig, Alaska's Proposed Local Use Area (from Scoping Comments, 3/16/2011)

Prince of Wales Island Outfitter-Guide Use Locations



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Place, Steamboat Bay, Point Dolores, Suemez Island Road System, or Port Santa Cruz between 2004 and 2009. Guided hunting reported for Hole in the Wall was actually from another location of the same name not under consideration in this analysis because it is not Forest Service land.

The highest recorded use in any one area for guided deer hunting between 2004 and 2009 (not including deer hunting incidental to fall bear hunting) was 38 service days in Salmon Bay (USDA Forest Service unpublished data). Twenty-two of those service days were in 2008 alone. This use was comprised of two groups of two hunters that hunted with a guide in the area for 5 or 6 days each. While Salmon Bay is used by subsistence hunters as well, WAA 1528 containing Salmon Bay ranked 19th of 34 WAAs in terms of overall deer harvest between 2005 and 2009 (ADF&G unpublished data). No particular user conflicts between guided hunters and subsistence hunters were identified for this site during scoping.

Several sites had higher permitted use than the calculated recreation visitor capacity for this project, including Halibut Harbor, Klakas Inlet, Hessa Inlet, and Biscuit Lagoon. However, actual use remained well below visitor capacity, most of these sites are not within 15 miles of any community, and fall deer or bear hunting was not the dominant activity at any of these sites, so impacts to subsistence would have been minimal.

Of the sites identified in the proposed Craig local use area, guides reported using 72 service days for fall bear or deer hunting between 2004 and 2009, or approximately 0.75 service days per site per year, on average. The site in this area with the highest reported use specifically for guided deer hunting was Tlevak Narrows with 7.6 service days reported in 2008; no fall bear hunting was recorded at Tlevak Narrows. Highest use overall for guided hunting between 2004 and 2009 among these sites was reported at Nossuk Bay and Salt Lake Bay, with average annual service days for fall bear hunting at 3.4 annually at both sites.

Subsistence - Fisheries

This analysis is a portion of the Aquatics and Fisheries Subsistence Resource Report found in the project record. Additional information on existing conditions of fish and fish habitat and expected effects to fish and fish habitat can be found in that report and in the Fisheries section below. Only conditions and effects specific to subsistence uses are summarized here.

The affected environment for subsistence fisheries resources includes all streams on the Thorne Bay and Craig Ranger Districts and surrounding waters. This includes portions of rivers that flow through private as well as Forest Service land and surrounding state managed coastal waters. Title 8 of ANILCA assures that a subsistence priority will be met for federally qualified subsistence users. Residents of all Prince of Wales communities have a positive Customary and Traditional Use determination for all waters above the mean high tide line.

In general, the Alaska Department of Fish and Game (ADF&G) manages fisheries populations and the Forest Service manages fish habitat. The Federal Subsistence Board

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oversees the Federal Subsistence Management Program, of which the Forest Service is a board member. Federal subsistence fisheries often occur in the same area as state managed fisheries.

ADF&G, with some Forest Service participation under federal subsistence regulations, is responsible for the sustainability of fish and wildlife on all lands in Alaska and utilizes emergency orders to protect that sustainability, when necessary. If a threat to sustainability of fish is identified, in-season actions (i.e., immediate changes to fishing regulations) can be taken by ADF&G and the federal (Forest Service) in-season manager for subsistence fisheries. Actions can be taken separately and/or in cooperation by ADF&G sportfish division for emergency closures on sportfishing, by ADF&G commercial fisheries for state managed personal use and subsistence fisheries, and/or by the federal in-season manager for the respective waterbody on the Craig or Thorne Bay Ranger Districts. In addition to allocating fish and wildlife among all user groups, the Boards of Fisheries and Game provide a subsistence preference on all lands and can address both direct and indirect effects on fish and wildlife. The Federal Subsistence Board assures a priority for subsistence use among consumptive uses of fish and wildlife by rural residents on federal lands. When conservation concerns arise for a species or a particular drainage, regulatory controls are made by the state and federal government. The federal in-season manager has the authority to take in-season action. In-season actions will most likely have effects on non-qualified uses (sport fishing), and typically result in the closure of the affected drainage or fishery to all uses. At times, the state and federal boards work together to address issues of mutual concern. Stream and river systems that have had recent closures or fishing restrictions due to conservation concerns in the project area include Hatchery Creek and the entire Sarkar drainage system.

Subsistence opportunities are very important to both Native and non-Native people on POW. Subsistence fishing has occurred within the project area. Thirty-three streams in the project area have reported subsistence harvest under the Federal Subsistence Salmon, Trout, and Char permit between 2002-2010.

Environmental Consequences

Subsistence - Direct/Indirect Effects

Subsistence - Wildlife

Alternatives 1, 2, 3, and 4

Based on comments, a comparison was made of the number of service days allocated by alternative within 15 miles of POW communities. Communities considered included Point Baker, Port Protection, Lab Bay, Whale Pass, Coffman Cove, Edna Bay, Naukati, Port Alice, Thorne Bay, Klawock, Kasaan, Hollis, Craig, and Hydaburg.

Approximately 67% of all identified use sites fall within 15 miles of any community on POW Island. Most of those sites >15 miles from communities were on southern POW or Dall Islands, or on the outer islands west of POW. Six of the proposed Craig local use area sites were >15 miles away from any community, including Steamboat Bay on Noyes

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Island, and Point Dolores, Port Refugio, Arena Cove, Suemez Island, and Port Santa Cruz on Suemez Island. Shaheen Creek is included in the Central WAAs closure where guided big game hunting is not permitted.

Alternative 2 would allocate the most service days to use sites within 15 miles of communities. Alternatives 3 and 4 would allocate the next highest number of days, respectively. Alternative 1 would permit the least number of days within 15 miles of communities. Total service days outside the Central WAAs closure area follow the same pattern by alternative (Table 3-1). Though not all service days will be used for hunting, guided recreationists engaging in other activities may limit access to other hunters by their mere presence.

Alternatives 3 and 4 will permit the fewest number of days for fall hunting (Table 3-1). Total number of fall hunting days will be restricted as described in Chapter 2 for these two alternatives. There is no way to predict how many fall hunting service days or which activity types would actually be used under Alternatives 1 or 2. The maximum number of service days that could be used for hunting during deer season at sites within 15 miles of a community equals the total service days outside the Central WAAs Closure for these alternatives (Table 3-1). Service days for deer hunting and number of deer harvested by guided clients will be monitored by permit administrators in the future.

Table 3-1: Number of service days and maximum fall hunting days by alternative within 15 miles of POW communities.

Alternative Number	Service Days			
	1	2	3	4
Total Service Days within 15 miles of POW Communities	15,737	122,413	66,732	18,282
Total Service Days within 15 miles of POW Communities but Outside of the Central WAAs Closure Area	9,980	94,287	52,669	12,278
Maximum Fall Deer Hunting Days	9,980	94,287	4,600	3,300

Abundance and Distribution

There is no good way to estimate how many deer might be harvested by guided hunters under these alternatives because 1) service days are not broken down by activity type in some alternatives, 2) not all allocated days will get used, 3) hunter success varies over time and with many other variables such as weather. However, given recent trends in deer harvest, the current high population of deer, and the small percentage of the overall harvest that guided hunting comprises, direct mortality due to guided harvest will not cause a measureable change in abundance or distribution of deer under any alternative. Alternatives 3 and 4 have lower risk of reducing abundance of deer through harvest because of the proposed cap on total service days for fall hunting.

As discussed in the Wildlife section, disturbance of deer by guided recreationists (including but not limited to hunters) may cause some loss of productivity due to stress,

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increased energetic responses for flight, reduction of forage efficiency and other factors, particularly in Alternatives 2 and 3. With respect to such disturbance, the alternatives can be ranked by the number of days they allocate, with higher numbers of days presenting higher risk of effects due to disturbance. Risk of effects from disturbance is greatest for Alternative 2 and least with Alternative 1. Effects of recreational disturbance on deer would not likely cause changes in abundance or distribution of deer that would be noticeable to hunters under any of the alternatives.

Given the estimated rate of harvest by guided hunters, the small effects to populations anticipated because of recreational disturbance, and current high population numbers for deer on the island, none of the proposed alternatives will result in a measurable reduction in abundance or distribution of deer on the POW districts.

Access

Access to deer may be disrupted by recreationists if they are recreating at the same place and time a subsistence hunter wants to hunt. As above with disturbance, risk of reducing access increases with the number of days allocated by alternative. The highest risk of reducing access to subsistence deer would be from Alternative 2, followed by Alternatives 3, 4, and 1 respectively. Potential reductions in access may be mitigated for Alternatives 3 and 4, given the cap to fall hunting proposed for these alternatives in Chapter 2, but this cap would not reduce other types of recreationists during hunting season. It is impossible to estimate the number of days that would actually be used under any of these alternatives.

Aside from guided deer hunters, most guided recreationists use the landscape in a dramatically different way from deer hunters. Black bear hunters focus on salmon streams and estuaries during the fall where bears gather. Freshwater fisherman, too, focus on riparian areas, which are not favored for deer hunting. Many sightseeing groups do not leave their boats or vehicles, so generally would not preclude hunting nearby. One exception might be Dog Salmon Fishpass, where black bear hunting and viewing opportunities overlap and sometimes conflict. Guided recreationists other than deer hunters do not tend to spend time in the clearcuts favored by hunters for harvesting deer. Few also make it up to high-country alpine sites, although they are popular for hiking or sightseeing in some cases. There are also differences in timing of use between recreationists and hunters both during the day and throughout the season.

Of all recreationists, guided deer hunters are the most likely to restrict access to deer by hunting in the same place and time as subsistence hunters. Although guided hunters likely only account for <1% of total deer harvest on POW, if these hunters are concentrating in particular places favored by subsistence hunters, such as easy access points or preferred anchorages, reductions in access could occur at these locations. Alternatives 3 and 4 limit the number of total hunting days for both guided bear and deer hunters in the fall to approximately 25% of the season days at all guide use sites.

Guided deer and bear hunters are restricted from hunting in WAAs 1318, 1319, 1421 and 1422 per the Central WAAs closure as described in Chapter 2 and the wildlife section of this EA. Of the 14 communities on POW, 11 are within 15 miles of at least one of these Central WAAs. This area is important for local subsistence hunters because it contains

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most of the current and future huntable young growth. Approximately 48% of all POW young growth currently <10 years old occurs within the Central WAAs. Roughly 82% of the stands likely to be harvested soon, (those that are already NEPA cleared or under contract) occur within the Central WAAs closure area as well. Much of currently huntable and most of the near future huntable young growth stands occur in the Central WAAs closure, where subsistence hunters will not experience reduced access, as a result of the presence of guided hunters. Furthermore, as discussed elsewhere, guided deer hunters make up a very small percent of all deer hunters in GMU 2.

None of the alternatives will cause a significant restriction in access to deer for subsistence deer hunters because:

- most subsistence hunters' preference to hunt in young clearcuts, muskegs or alpine,
- most guided recreationists will not spend time in new clearcuts,
- guided hunters make up a very small percentage of all hunters, and
- the Central WAAs closure prevents guided hunters from blocking access to preferred hunting habitats where they are most concentrated in the Zone.

Alternatives 3 and 4 would likely contribute the least to reductions in access because of the cap in fall hunting days described in Chapter 2.

Competition

As outlined in the wildlife specialist report in the project record and the wildlife section (after Subsistence Cumulative Effects), guided deer hunters are estimated to harvest <1% of deer taken on the POW districts. At this time, deer populations in GMU 2 are high, and deer are plentiful (Porter, pers. comm., 5/23/2011). The Central WAAs Closure provides a large area where subsistence deer hunters are free from competition with guided hunters, and contains some of the most valuable hunting habitat in the Zone. The 15-mile circle surrounding Craig includes most of WAA 1318, one of the four central WAAs where guided big game hunting is not permitted. Part of WAA 1318 is also included in the proposed Craig local use area identified in scoping (see Figure 3-2). As discussed earlier, current use of the proposed Craig local use area by guided hunters is relatively light but has shown some increase in 2008 and 2009, the most recent years for which data are available.

Though there is generally higher risk of restriction with higher allocation numbers, there is no way to predict how many days will actually be used under any allocation. Given the high deer numbers, the low estimated percentage of deer harvested by guided hunters, the quality hunting habitats off-limits to guided hunters as part of the Central WAAs closure, and the ability of permit managers to modify permits if conflicts arise, none of the alternatives will significantly restrict subsistence use of deer through competition. Alternatives 3 and 4 would likely contribute the least to competition because of the cap in fall hunting days described in Chapter 2.

Subsistence - Fisheries

The assumption that increased levels of allocated service days (in other words, increased guided use) cause a higher risk to fish and aquatic resources is used in the following analysis, especially if use and access is concentrated in certain locations in a stream. It is assumed that an increase in use will increase potential impact to habitat, likelihood of introducing invasives, competition with subsistence users (if use is in an area where subsistence fishing occurs), and trampling and potentially disrupting redds.

Effects on subsistence resources and uses important to rural communities are discussed in three categories: abundance and distribution, access, and competition. The following are effects expected related to subsistence uses. General effects to fish and fish habitat are discussed in this chapter under Fisheries.

Alternatives 1, 2, 3, and 4

Abundance and Distribution

Guided fishing is not expected to cause a measurable change in the abundance or distribution of fish populations under Alternatives 1, 2, and 4 because of fishing restrictions. However, Alternative 3 would have a risk of reducing abundance and distribution of fish if service day allocations approach maximum allocated days. This could have a minor to moderate effect on subsistence fisheries resources. Sport fish populations are managed by applying state regulations and the State may adjust management if abundance or distribution becomes a concern.

Access

There will be no increase or decrease to access for subsistence fishing in any alternative, therefore no effects on subsistence fisheries resources are expected from any alternative. Changes to access are described in cumulative effects as related to the Prince of Wales Access Travel Management Plan decision (USDA, 2009).

Competition

Competition for fisheries resources could increase among guided sport anglers and subsistence fishing under any alternative, if an increase of allocated service days are used. Because certain fish species are targeted in both subsistence and sport fisheries and because certain streams receive more use due to access, run timing, or perceived abundance, subsistence and sport fishing tend to be concentrated in the same streams or at the same sites. However, fishing restrictions recommended in Alternatives 2 and 4, which include limiting service days during certain time periods, are expected to decrease competition among user groups and protect fisheries resources for subsistence use.

In Alternative 1, there are no guided fishing permit limits after May 31, therefore there may be competition between guided sport fishing and subsistence use for fisheries resources particularly in heavily used areas or streams with sockeye and summer run coho where subsistence use occurs. Likewise, in Alternative 3, where there are no restrictions to guided fishing and where maximum allocated days for guided fishing are much higher, there may be minor to moderate negative effects on subsistence fishing through the increase in competition, especially if guided use increases and approaches maximum allocated days. Should competition for fisheries resources occur, subsistence

activities would have priority over other uses, as defined in ANILCA, and adaptive management would be used to resolve conflict with guided users.

Subsistence - Cumulative Effects

Alternatives 1, 2, 3, and 4

Cumulative effects relevant to subsistence include habitat changes related to succession of managed stands, road closures associated with the recent Access and Travel Management Plan (USDA 2009), guided and unguided recreational activities, recreational use on non-NFS ownerships within the POW analysis boundary, and consumptive use of wildlife. The analysis area includes the entire POW Zone which encompasses all identified guide use sites and all areas that could be proposed future guide sites. Ground disturbing activities occurring on the POW districts would impact subsistence wildlife species through habitat, but would be analyzed at that time based on the specific proposal. Ongoing habitat changes associated with long term influences such as climate change or succession of managed stands may also contribute to cumulative effects to subsistence through changes to subsistence species populations or changes in access to preferred hunting sites or habitats. The complete list of projects considered under cumulative effects can be found in the planning record.

As described above, changes in habitat associated with timber harvest and succession of young growth stands affects both deer populations and hunting patterns over time. Most of the timber harvested on POW is providing reduced habitat for deer as well as poor hunting opportunities. The POW districts have the most active timber sale program on the Tongass, but the current rate of harvest is not high enough to replace the more easily hunted young growth stands that are now entering stem exclusion.

The Access and Travel Management (ATM) Plan closed or decommissioned a number of roads reducing access for hunting on the POW districts. However, approximately 759 miles of road remain open for highway vehicles and a number of modifications for maintaining subsistence access including some motorized trails were adopted as part of the decision. Subsistence analyses concluded that there was no significant restrictions to access for subsistence based on incorporation of public comments and the results of the subsistence hearing. Despite the road closures associated with the ATM, POW still has some of the highest road densities across southeast Alaska.

Human populations can impact hunting pressure. Population across Southeast Alaska has been steady to decreasing in recent years. Population estimates for both the Ketchikan-Gateway Borough and the Prince of Wales-Outer Ketchikan Census Areas are projected to continue to decrease through 2030 (Keith et al. 2010), potentially reducing hunter demand for deer somewhat from these groups. Other factors that may influence hunting pressure, such as unemployment or the recent housing crisis and associated economic stresses, may have profound impacts but are difficult to predict.

Though the scale of guided use compared to unguided use are compared where possible, most unguided recreation uses are not currently measured under any monitoring plan, and data on much of the unguided use of the POW districts are lacking. Unguided bear hunting, deer hunting, and fishing likely constitute the majority of the use that occurs on

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POW. The amount of use by those who are not guided or not licensed cannot be quantified easily. Unguided use, particularly unguided hunting, is by far the largest contributor to cumulative effects for this analysis, and is thought to be a much bigger impact to wildlife and subsistence users than guided uses. Guided hunting has increased in recent years for both black bears and deer, but is still a very small percentage of overall harvest by non-Federally qualified users.

While non-rural resident hunting on POW has increased in recent years, only a small percentage of this increase has come from guided hunters. The majority of non-rural resident hunters that harvest deer on the POW districts are Ketchikan residents (ADF&G, unpublished data), who typically do not use guides. The average annual number of deer harvested by Ketchikan residents and the average annual number of hunters from Ketchikan are both greater than those numbers from all other communities outside of the POW districts combined. Unguided, nonlocal hunters are the most likely contributors to competition for deer.

No evidence is available to show that guided recreationists have had any meaningful effect on deer abundance or distribution. While competition for deer may occur between guided sport hunters and subsistence users, and recreationists using hunting areas during hunting season may occasionally limit access to subsistence users, guided recreationists are not expected to contribute significantly to restrictions in access or competition in the foreseeable future. If guided deer hunting continues to increase and/or conflicts are identified, these conflicts can be minimized through permit administration. This includes guided deer hunters as well as other recreationists. None of the alternatives in this project will result in a significant possibility of a significant restriction for subsistence resources through changes in abundance and distribution, access, or competition, based on:

- the low level of anticipated effects to deer populations,
- current record high deer populations,
- differences between habitat use among recreationists and subsistence users,
- the estimated low level of guided hunting for deer in recent years,
- the low likelihood that all allocated days will be used in the foreseeable future,
- the exclusion of quality subsistence hunting habitats from guided big game hunting in the Central WAAs, and
- the ability of permit administrators to mitigate conflicts.

Cumulative effects relevant to subsistence fishing include road closures associated with the recent Access and Travel Management Plan (ATM) for Prince of Wales Island (USDA 2009), recreational (guided and unguided), subsistence, and commercial fishing in marine waters, recreational (guided and unguided) and subsistence fishing in freshwater, fishing on private lands within the project area, and changes to fish habitat caused from future management activities or natural disturbances such as landslides or climate change.

Road closures and decommissioning, as decided in the ATM, will reduce access to some fish streams in the project area. However, the ATM subsistence analysis (USDA 2009) found that these closures would not significantly restrict access to subsistence fishing.

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Alternative 1 could have minor effects to subsistence fishing if guided fishing outside of the timing window substantially increased. Under Alternatives 2 and 4, effects to fisheries and subsistence are expected to be negligible because of fishing restrictions. Given the potential for effects, Alternative 3 could affect have a minor to moderate affect on subsistence fishing if service days used approached maximum service day allocations. However in all alternatives, if fish population impacts occur, the State may adjust management; based on the subsistence priority, adjustments would impact sport or commercial fishing first. With combined Forest Service adaptive management and ADF&G regulatory management, effects to fisheries and subsistence would still be minor in Alternatives 1 and 3 and negligible in Alternatives 2 and 4.

None of the alternatives in this project are expected to result in a significant possibility of a significant restriction for subsistence resources through changes in abundance and distribution, access, or competition, because fishing restrictions in Alternatives 1, 2 and 4, and regulatory controls under all alternatives, protect fisheries resources.

Overall, none of the alternatives in this project will result in a significant possibility of a significant restriction for any subsistence resources through changes in abundance and distribution, access, or competition.

Wildlife

This discussion summarizes effects to management indicator species (MIS); threatened, endangered, proposed and candidate species listed or proposed under the ESA; and Region 10 sensitive species. For more discussion of these species and other species of concern, refer to the resource report and Biological Assessment/Biological Evaluation found in the project record.

Affected Environment

Introduction

Analysis Information

The wildlife analysis area for the POW O/G Plan for direct and indirect effects includes NFS lands on the Craig Ranger and Thorne Bay Ranger District, including nearby associated small island groups and the immediately adjacent marine environment that would be used by permitted outfitters and guides to access sites. The cumulative effects area is the same boundary, but includes non-NFS lands. These areas are appropriate for wildlife analysis since POW permitted activities do not overlap onto other districts and the area is large enough to cover home ranges. POW comprises Alaska Department of Fish and Game (ADF&G) Game Management Unit (GMU) 2.

The analysis of effects is based on professional judgment using information provided by forest staff, relevant references and technical literature citations to describe the most susceptible aspects of species life cycle and related habitat components.

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Assumptions for the wildlife analysis are the same as those displayed in Chapter 2 under Elements and Assumptions Common to All Alternatives, except as described here:

- This project will generally not affect species habitat, but effects would include disturbance from guides, clients, and the vehicles they use for transportation, or mortality from legal harvest using a guide.
- Because this project does not propose any activities likely to substantially alter vegetation or habitats on POW Island, there will be no effect to productive old-growth habitats, coarse canopy habitats, or Old-growth Reserves as a result of this project.
- While outfitter-guide service days have remained relatively stable in recent years (ranging between 2,381 and 2,848 days between 2004-2009, mean 2,658), assuming they will stay the same into the future would provide no real means for comparison among the alternatives. Therefore, analyses focus on what could be permitted in the future under full implementation of each alternative.
- This analysis assumes that subsistence deer harvesters may use transporters to access favored hunting sites for subsistence harvest, but that they will not use permitted outfitters and guides in a guiding capacity to harvest subsistence deer. Therefore it was assumed that all deer harvested by clients using guides are harvested under sport hunting regulations.
- This analysis assumes that all hunters using guides to hunt for deer are non-residents (not residents of Alaska).

Level of Effects

General criteria were developed to assess the intensity or level of influence of the effects. The levels of influence are defined below. No major effects are expected from implementation of this project, though the definition for major effects can be found in the Wildlife Specialist Report in the project record.

Negligible: Individuals would not be affected, or the action would affect an individual but the change would be so small that it would not be of any measurable or perceptible consequence to the individuals or populations. Negligible effect would equate with a "no effect" determination for threatened and endangered species and the "no impact" determination for sensitive species.

Minor: Individuals would be affected but the change would be small. Impacts would not be expected to have any long-term effects on species or their habitats, or the natural processes sustaining them. Occasional responses to disturbance by some individuals could be expected, but without interference to reproduction, or other factors affecting population levels. Minor effect would equate with a "not likely to adversely affect" determination for threatened and endangered species and the "may impact individuals but not likely to cause a trend to federal listing or a loss of viability" determination for sensitive species.

Moderate: Individuals would be noticeably affected. The effect could have some long-term consequence to individuals or habitat. Breeding animals of concern are present; animals are present during particularly vulnerable life-stages, such as migration or

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juvenile states; or interference with activities necessary for survival can be expected on an occasional basis. Frequent response to disturbance by some individuals could be expected, with some negative impacts to feeding, reproduction, or other factors affecting short-term population levels. Moderate effect can equate with a “likely to adversely affect” determination for threatened and endangered species and the “may impact individuals but not likely to cause a trend to federal listing or a loss of viability” determination for sensitive species.

General Habitat Information

Outfitter and guide use on POW occurs in a variety of habitats: the beach/estuary fringe accessible by boat or floatplane, the subalpine/alpine habitat accessed by floatplanes, roads, or developed trails, forested or muskeg habitat adjacent to the beach fringe or roads or trails, and riparian habitat along streams that can be accessed by boat, floatplane, roads, or trails.

Beach and estuary fringe is the strip of land within a 1,000-foot horizontal distance inland from the saltwater shoreline, not including estuaries. Estuary fringe is the land within 1,000-foot horizontal distance around river mouths or estuaries. Both the beach and estuary fringe have great value to wildlife, particularly bears, bald eagles, swans, other waterfowl and shorebirds, river otters, mink, marten, and Sitka black-tailed deer because of its generally low elevation and aquatic and vegetative diversity. Some beach and estuary areas are favored as hunting sites for black bear.

Alpine habitat is located at and above tree line and characterized by short, windswept perennial shrubs, coniferous tree “islands” and heath-dominated peat bogs. Alpine ridges are favored thoroughfares for deer, bear, wolves and other species. Subalpine habitat is located just below alpine and contains forage, abundant meadows and tree cover. Some deer hunters favor alpine sites.

Forested habitats on POW include a matrix of old-growth forests interspersed with sparsely forested wetlands (muskegs) and young growth stands of a variety of seral stages following timber harvest. Old-growth forests are characterized by large trees with wide variation in tree size and spacing; large snags and fallen trees; a high incidence of trees with broken or deformed tops, and multiple canopy layers, canopy gaps and patchy understory. Old-growth forests are important habitat for many species of wildlife, including Sitka black-tailed deer and bald eagles.

Riparian habitat occurs along rivers, streams, and shorelines of lakes and contains elements of both aquatic and terrestrial ecosystems. These areas are important for species such as bears, waterfowl, and shorebirds.

Guided big game hunting has not been allowed in Wildlife Analysis Areas (WAAs) 1318, 1319, 1421, and 1422 since 1993 (USDA Forest Service 1993). This is referred to as the “Central WAAs Closure” and restricts guided hunting for both deer and black bears. Though the rationale for this closure was primarily based on recreation values, it has the added benefit of reducing hunting pressure for big game species in this area and providing a central location between most POW communities where subsistence hunters don’t face competition with guided hunters. In addition to the Central WAAs Closure,

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the Big Game EA (USDA Forest Service 1993) also restricted guided big game hunting around public recreation facilities, cabins, and campgrounds.

Management Indicator Species

FSM 2621.3 requires the effects of a proposed action to Management Indicator Species (MIS) be assessed and that the Forest Plan requirements, goals and objectives for these species are met at the project level (FSM 2621.4). MIS are vertebrates or invertebrate species whose response to land management activities can be used to predict the likely response of other species with similar habitat requirements (FSM 2631.3).

Thirteen wildlife MIS were selected for the Tongass (USDA Forest Service 2008b, pp. 3-230 to 3-241). All are associated with productive old-growth forest (POG). Six of the MIS also specifically use riparian habitats and five of the species use estuarine habitats.

Ten of the MIS were only briefly analyzed due to their lack of presence or the low likelihood of effects from outfitter and guide use. Those species that are expected to be more than negligibly affected by outfitter guide use were analyzed in detail (Table 3-2).

Table 3-2: MIS Selected for further analysis and Rationale for selection

Species	Habitat Description and Rationale for Selection
Sitka Black-Tailed Deer	Sitka black-tailed deer (<i>Odocoileus hemionus sitkensis</i>) are important subsistence and game species as well as prey species for bears and wolves. Authorized activities would not alter deer habitat. Guided hunting for deer is an authorized activity on POW. The IDT identified guided hunting for deer as potentially conflicting with subsistence hunting near local communities based on scoping comments received from the public.
Black Bear	Black bears (<i>Ursus americanus</i>) are a species of local interest related to outfitter-guide activities including wildlife viewing and guided hunting. Bears can be affected by human disturbance during critical life phases. Heavy hunting pressure from both guided and unguided hunters has contributed to a growing concern for black bear populations on POW. Almost half of all service days reported by guides between 2004 and 2009 were for either guided bear hunters or viewers.
Bald Eagle	Bald eagles (<i>Haliaeetus leucocephalus</i>) are species of national interest and were only recently delisted under the Endangered Species Act. Primary nesting habitat occurs in a narrow fringe along the beach. Nesting eagles can be sensitive to disturbance caused by nearby recreational activities.

Sitka Black-tail Deer

Although deer utilize a wide range of habitat from shoreline to alpine, they are associated with old-growth forests. The quantity, quality, distribution and arrangement of winter habitat are considered the most important limiting factors for Sitka black-tailed deer in Southeast Alaska (USDA Forest Service 2008b, p. 3-230). Clearcutting has reduced the

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quantity and quality of old-growth forest habitat available to Sitka black-tailed deer, particularly impacting deer winter range (USDA Forest Service 2007).

With the exception of El Capitan Cave, all of the identified guide use sites provide habitat for deer and therefore opportunities for deer harvest or disturbance to deer associated with all guided activities. Deer population and harvest information is discussed in depth in the Subsistence section above.

The Alaska Board of Game and the Federal Subsistence Board develop regulations pertaining to hunting and bag limits. Bag limits for deer in GMU 2 are currently liberal. At present, sport hunting regulations for deer allow harvest of up to four bucks between August 1 and December 31. Subsistence harvest season is July 24 to December 31, and harvest limit is 5 deer, with one being antlerless between October 15-December 31. These regulatory boards, along with ADF&G and Federal Subsistence officials have the ability to change regulations, limit or close seasons, or issue emergency closure orders if deer populations appear to drop below desired levels to support subsistence or sport harvest sustainably. On federal lands, subsistence uses of game are given a priority over commercial and recreational hunting under state and federal law.

Demand for guided deer hunts in GMU 2 has increased in recent years. Total service days for guided deer hunts remained low between 2004 and 2007 (mean 18.7 days), but increased considerably in 2008 and 2009 (74.8 and 66.4 service days, respectively). Using the most successful annual rate of deer harvest (6.7 days/deer in 2007) for non-resident hunters and the average number of service days for all guided fall hunting days during deer season for deer and bears (98.6 total service days on average from 2004-2009), we arrived at an estimate of 14.7 deer harvested by guided non-residents annually in GMU 2. This number is roughly 0.59% of the average annual harvest reported by ADF&G during the 11 years prior to 2009, a very small percentage of the overall harvest. Service days for fall bear hunts have remained steady except for a drop in 2006 and 2007, at the same time as the economic downturn. Based on the wildlife biologist's assumptions, the peak year of harvest by all guided hunters during deer season should have occurred in 2008, when an estimated 23.9 deer were harvested by all guided hunters, including both guided deer and bear hunters during deer season. Guided deer hunters alone would have accounted for almost half of those deer. This is still <1% of the annual average harvest of deer from GMU 2.

Black Bear

Black bears occur throughout POW, which has some of the best habitat for this species in Southeast Alaska (Porter 2008). Black bears are important both for hunting (including both guided and unguided hunting) and for wildlife viewing (Schoen and Peacock 2007). Bears use areas from sea level to the alpine and are habitat generalists. Habitat selection by black bears is greatly influenced by food abundance and seasonal shifts in habitat use are related to food resources (Costello and Sage 1994). Like deer, bear populations are expected to decrease as a result of large-scale timber harvest (Porter 2008).

Black bears have long been hunted in GMU 2 for trophies and food. Hunters historically harvested an average of 225 black bears annually from the POW districts up until the mid

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1990s (Larson 2010). Harvest numbers increased dramatically from the mid 1990s to a peak harvest of 486 bears in 2005 (Porter 2008). Recent declines in harvest, reductions in skull size, and changes in sex ratios of harvested bears have raised concerns about black bear population sustainability on the POW districts (Larson 2010).

The Board of Game established a controlled use area (CUA) at their 2008 meeting. It restricted the use of motorized land vehicles for bear hunting during September in GMUs 2 and 3. The new regulation made it illegal to use motorized land vehicles to hunt bears, transport bear hunters, hunting equipment or bear parts during the month of September. They also established a requirement for all black bear hunters to obtain a harvest ticket/report prior to hunting, in an effort to gather more information about hunter effort, success, and the state of the bear population (Larson 2010).

Additional regulatory changes were made at the November 2010 Alaska Board of Game meeting. The board revisited the CUA established at the 2008 meeting and opted to extend the CUA in GMU 2 until October 31, 2012 (Alaska Board of Game 2010). Citing concerns about black bear numbers in GMU 1-3 in Southeast Alaska, the Board of Game adopted a drawing permit hunt for non-resident black bear hunters who do not hunt with guides. Resident hunters and non-resident hunters who employ a guide were not affected by the new regulation, but, in exchange, guides agreed to a reduced hunt allocation based upon their average actual harvest 2007-2009 (ADF&G January 6, 2011 letter to Forrest Cole.). The Forest Service will work cooperatively with ADF&G to set appropriate use levels for bear hunting guides, but this process will take place independently of this NEPA analysis.

There is no guide requirement for non-resident black bear hunters and most non-residents hunting bear on POW do not use permitted guides. Since 1990, visitors from off of POW Island have accounted for 90% of all bear harvested on POW (ADF&G unpublished data). Growth in harvest by non-resident hunters fueled dramatic increases in overall harvest; annual harvest rates doubled between 1990 and 2005. From 1990-2009 non-resident hunters account for 76% of bears harvested; however, guided non-residents have never accounted for more than 20% of non-resident harvest, and not more than 17% of total harvest (ADF&G unpublished data).

More than 2/3 of guided bear hunters harvest bears during the spring season (ADF&G, unpublished data). Most of these hunters access bear hunting sites via motorized boat at marine shoreline sites where bears congregate to forage in the spring. The site with the highest average black bear guided service days between 2004 and 2009 was Lancaster Cove with an average of 13.7 service days used annually. Six other sites had >10 mean service days used annually for black bear, including Calder Bay, Klakas Inlet, South McKenzie Inlet, Moira Sound, Shipley Bay and North Polk Inlet. North Polk Inlet is of particular interest because bears harvested in this area are likely to be among the same population that draws wildlife viewers to Dog Salmon Fishpass for bear viewing as described below.

It is impossible to estimate how much use any of these areas received from unguided hunters or other recreationists. However, given that no guided hunting for black bears is allowed in the Central WAAs Closure area (USDA Forest Service 1993), and yet WAA 1422 has the highest average harvest reported from 1991-2006 (Porter 2008), it is clear

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that unguided hunters, most of whom are non-residents, contribute substantially to hunting pressure on POW Island.

Most tourists who visit the area hope to see bears during their visit, and many make the extra effort to see them by visiting sites where they are known to congregate. Approximately 48% of all service days recorded in GMU 2 between 2004 and 2009 were either for bear hunting or bear viewing alone (for comparison, guided fishing accounted for approximately 22%). Adding other wildlife viewers to this number, the percentage may be as high as 67% or 10,727 service days. Maintaining a healthy population of bears to support public viewing and high hunter demand is important to the local and regional economy.

In some places, bear viewing opportunities coexist at locations used for hunting during the same season. In addition to human safety concerns, potential for conflict between users is high. Sites with high potential for conflict include estuaries and salmon runs sometimes utilized simultaneously for fishing, bear and salmon viewing, and bear hunting, as well as upland sites along salmon streams that are easily accessible by road vehicle. At least 25 rivers, creeks, and bays have potential for conflict (see Wildlife Report).

Dog Salmon Creek Fishpass in Polk Inlet currently has the highest recorded commercial use (5,935 service days, 2004-2009) in GMU 2. The only guided activity recorded at this site during this timeframe is wildlife viewing. Though most bear hunting in North Polk Inlet occurs during the spring, any hunters harvesting bears in this area may be harvesting bears that use the Dog Salmon Fishpass in late summer and fall to fatten up on salmon. Confrontations between unguided hunters and bear viewing guides/clients at Dog Salmon Fishpass have occurred in recent years and are expected to continue to occur. The Forest Service has received complaints from a variety of user groups that have clearly identified a conflict between uses in this area. The primary tour operator at Dog Salmon Fishpass submitted a proposal to the Alaska Board of Game requesting they designate the site as a bear viewing area and close the area to bear hunting; however, the proposal failed to pass at the Board of Game meeting in November 2010. The Forest Service has provided a seasonal interpreter in the area to help educate the public, enhance safety and reduce conflict, and the recreation group is considering improvements to accommodate viewing such as improved parking through additional NEPA analysis. Outside of this NEPA process, the Forest Service is currently evaluating a ¼ mile closure to hunting around the fishpass to provide for safety and to promote the salmon and bear viewing opportunities at that site.

Bald Eagles

Bald eagles nest in mature or old-growth trees, snags, cliffs, and rock promontories, along saltwater shorelines and mainland rivers with a dominant view of the surrounding landscape (USFWS 2009). Where disturbance is minimal, habitat tends to be composed of a narrow strip of land along the coast that provides large trees suitable for nesting, fishing, and loafing. Over 2000 bald eagle nests have been identified on the POW districts. Nest location are lacking for much of southern POW, many outer islands and wilderness areas. Bald eagle populations in southeast Alaska increased steadily through the 1970s and have been stable since the late 1980s (Hodges 2011).

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Eagles breeding in Coastal Alaska remain near their nest sites throughout the year (USFWS 2009). The nesting period in Alaska begins with courtship and nest building in February and ends when the young fledge by late August into early September (USFWS 2009). Eagle sensitivity to humans varies during that time, with eagles being most sensitive to human disturbance during the courtship through egg laying phases, April and May (USFWS 2009). Sensitivity to human activities also varies among individuals within each phase. This variability may be related to a number of factors, including visibility of the activity, its duration and noise level, extent of the area affected by the activity, the eagle pair's prior experiences with humans, and tolerance of the individual nesting pair (USFWS 2009).

All but 70 of the outfitter-guide use sites are within ½ mile of saltwater habitats. All outfitter-guide use sites that are accessed by motorized boat, kayak, or fixed-wing aircraft can be assumed to be near bald eagle nests. It is unknown if outfitter or guide use has had negative effects on bald eagle nests.

Threatened, Endangered, Proposed and Candidate Species

A review of all federally listed Endangered, Threatened, and Candidate species within Alaska was completed using existing survey data, GIS layers and databases, communication with research personnel, literature reviews, and information in the 2008 Forest Plan FEIS (USDA Forest Service 2008b). All threatened, endangered, and candidate species were reviewed in detail in the Biological Assessment/Biological Evaluation available in the planning record for this project. Alexander Archipelago Wolf and Prince of Wales Flying Squirrel were recently petitioned for listing under the Endangered Species Act and are discussed in the Wildlife Resource Report in the planning record. The only listed species known to occur near POW are limited to the marine environment. Species known or suspected to occur within the action area were analyzed further. These species are displayed in Table 3-3.

Table 3-3: Threatened, Endangered, and Candidate Species Occurring in the POW districts

Common Name	Scientific Name	Status
Humpback whale	<i>Megaptera novaeangliae</i>	Endangered
Steller sea lion (Eastern DPS)	<i>Eumetopias jubatus</i>	Threatened
Fin Whale	<i>Balaenoptera physalus</i>	Endangered
Yellow-billed loon	<i>Gavia adamsii</i>	Candidate Species

No sea lion rookeries have been identified in the action area. Three major haulouts designated as critical habitat have been identified for sea lions in the project area:

- Coronation Island,
- Timbered Island, and
- Cape Addington on Baker Island.

These critical habitat sites include a terrestrial zone, an aquatic zone, and an air zone that extend 3,000 feet landward, seaward, and above each site. None of the outfitter-guide

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use sites under consideration as part of this project are within one mile of these designated critical habitat sites. No shore landing is authorized in Alikula Bay within 3000 feet of this haulout site. Small sea lion haulouts that are not designated critical habitat occur on Cape Bartolome on Baker Island Sakie Point on Dall Island, and Grindall Island, off the south tip of Kasaan Peninsula, POW.

Since federally listed species known to occur in the action area are primarily restricted to the marine environment, activities in marine environment surrounding POW form the basis of environmental baseline conditions. Vessel use of the marine environment is extensive and watercraft range from small personal skiffs to large commercial ships. The Forest Service does not have jurisdiction over marine waters, but access to permitted outfitter-guide use sites requires interdependent actions such as use of motorized boats or fixed-wing aircraft to reach sites.

Permit allocations for several sites accessed by saltwater have exceeded calculated recreation visitor capacity in recent years at Biscuit Lagoon and Klakas Inlet, with mean annual use between 2004 and 2009 of 31 and 103 service days, respectively. However, actual use has never reached the visitor capacity let alone the permit allocation. Whales, sea lions, and loons may occur at all of these sites, but it is unknown if outfitter or guide use has had negative effects on these species.

Since all federally listed species known to occur in the action area are restricted to the marine environment, activities in marine environment surrounding POW are the most likely to negatively affect these species through potential vessel strikes and acoustic disturbance. Vessel strikes with marine mammals are uncommon and outfitters and guides are required to abide by Marine Mammal Protection Act Regulations and Marine Mammal Viewing Guidelines.

Most of the use sites under consideration in the OG EA are accessible from shore via marine waters and therefore present the potential for effects to marine mammals and birds. Between 2004 and 2009, 139 sites were accessed via shore from fixed wing aircraft (mean 240.2 groups/year), from kayaks (mean 3.8 groups/year), or from motorized boats (mean 189.8 groups/year). Effects from kayakers are thought to be negligible. Groups accessing use sites from marine waters using motorized boats or fixed wing aircraft are much more likely to disturb marine mammals because of the noise of the engines. They have a higher potential to strike marine mammals due to their faster speed.

Fixed-wing use is both the most common and the most concentrated form of access to sites from marine waters. Hazards from fixed-wing aircraft include collisions and noise disturbance. Collisions are extremely unlikely as pilots generally look for obstructions on the water before they land, only use about 1500' of taxi space for takeoff and landing, and generally land parallel and near to shore in protected coves and inlets. No recorded or anecdotal accounts of collisions between fixed-wing aircraft and marine mammals were found. Noise disturbance is a potential concern, but take-offs and landings are very short duration.

Outfitters and guides reported accessing only 17 of the sites identified in this analysis via fixed-wing aircraft between 2004-2009. Almost half (111.5 groups/year) of the groups accessing POW guide use sites via fixed-wing aircraft are landing in Polk Inlet to access

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the Dog Salmon Fishpass. This is roughly 223 take-offs and landings annually in Polk Inlet, concentrated during July through early September. Seals, killer whales, and humpback whales have been reported in this area, but are not particularly common in this area. Klakas Inlet and Max Cove average 29.0 and 18.5 groups annually by fixed-wing aircraft, spread much more evenly throughout the year from March to September.

Motorized boat use was much more widely distributed across sites, with use reported at 128 sites between 2004 and 2009. Only two sites averaged 10 or more groups per year accessed by motorized boat, including North Polk Inlet and Shipley Bay, which together account for roughly 12% of all groups accessing sites by motorized boats on marine waters. Still, with an average of 190 groups/year guided on the marine waters surrounding POW Island, potential exists for guided groups to disturb marine mammals under the existing conditions.

Sensitive Species

Region 10 Sensitive Species were reviewed in the Biological Assessment/Biological Evaluation available in the planning record for this project. Only the two species likely to occur in this project area are discussed here.

Northern Goshawk

Goshawks generally occur in dense mature or old growth aspen, conifer, or mixed forests. In Southeast Alaska, goshawks preferentially use high and medium volume old growth forest and avoid non-forested, clear-cut, and regenerating areas (Federal Register 2007). Over 60% of all adult goshawk telemetry locations reported in Iverson et al. (1996) occurred in productive old-growth forests. Most use was on gentle slopes (< 35 percent) below 800 feet elevation (Iverson et al. 1996). Important food items in southeast Alaska include Steller's jay, grouse, varied thrush, and woodpeckers.

The major threat to goshawks is the loss of old growth habitat due to logging. Goshawks are also susceptible to human disturbance during nesting period. Low reproductive rate makes recovery slow if populations are depressed.

There are over a dozen known goshawk nests on the POW districts. No existing outfitter-guide use sites are within close proximity to these known nests. It is unknown if outfitter or guide use has had negative effects on goshawks.

Black Oystercatcher

Black oystercatcher breeding habitat is the high tide margin of the inter-tidal zone and includes mixed sand and gravel beaches, cobble and gravel beaches, exposed rocky headlands, rocky islets, and tidewater glacial moraines (Tessler et al. 2007). Pairs nest just above the high-tide line and use the inter-tidal zone to feed themselves and their chicks. Black oystercatcher populations appear to be regulated by the availability of quality foraging and nesting habitat. The black oystercatcher's small population size and complete dependence upon a narrow coastal band throughout their life cycle places this species at risk to human and other disturbances.

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Primary threats to black oystercatchers include predation, petroleum contamination of shorelines, flooding, and recreational disturbance at nest sites (Tessler et al. 2007). Wakes from both commercial and recreational boats may flood nests at extreme high tides.

Oystercatchers' vulnerability to human disturbance has caused changes in breeding distribution and abundance from Alaska to California (Andres and Falxa 1995). In addition to stress caused by human intruders, nests are vulnerable to trampling by humans and predation by their pets. Oystercatchers appear to be resilient to very low levels of recreational disturbance in Alaska (Morse et al. 2006).

Outfitter and guide use of marine beach and estuary sites accessed via motorized boat has been relatively low in the POW zone. Between 2004 and 2009, only 52 of marine access sites averaged >1 group visit per year. Only one site, North Polk Inlet, averaged >10 group visits per year (12.6). Most guided use sites accessed by motorized boat on POW are accessed for black bear hunting. Black bear hunters focus on grassy shorelines or salmon bearing streams in search of foraging bears. Neither of these types of shorelines are important habitat for black oystercatchers.

Black oystercatchers generally occur on outer exposed coastlines, but are known to nest on shores near the Diver Bay use area, and probably others. The majority of the outfitter-guide activities within these areas utilize the shoreline in some capacity during nesting and young rearing periods and therefore have the potential to impact black oystercatchers. It is unknown if outfitter or guide use has had negative effects on oystercatchers.

Environmental Consequences

Direct/Indirect Effects

Direct and indirect effects occur from outfitter-guide activities and connected actions that adversely affect individuals, their young, or their habitat. General disturbance effects on wildlife from recreational activities have been well documented, but not quantified. The indirect impacts of recreation on wildlife are even less understood than the direct impacts (Cole and Landres 1995). Boyle and Sampson (1985) recognized that impacts were occurring, but acknowledged that management was hampered by the complexity of cause-and-effect relationships and the incompleteness of existing information. Cole (1993) states that recreational impacts on wildlife are not usually obvious, are difficult to study, and are poorly understood. Taylor and Knight (2003) document similar lack of information on the area of influence from various recreational activities. Tempel et al. (2008) compiled current research and summarized effects:

- if an activity elicits a significant behavioral response from individuals, occurs frequently, and/or is widespread, long-term impacts to the reproduction and survival of individuals is possible,
- if a large enough number of individuals is negatively affected by recreation, impacts at the population level can occur, and

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- if impacted wildlife populations have important interactions with other species, community impacts are also possible.

Direct effects from recreation include intentional or unintentional wildlife harassment, alteration of wildlife behavior, and displacement from food, water, and shelter (Leung and Marion 2000). According to Blanc et al. (2006), the main effect of disturbance is a change in behavior, whether it is associated with movement and escape or not; effects can be physiological or behavioral. Physiological effects include increased heart rate and respiration, increased oxygen consumption, increased body temperature, and increased metabolism (Cline et al. 2007). Gill et al. (2001) state the decision to move away from disturbance or not is complex and dependent upon the quality of the habitat individuals are currently occupying, the distance to and quality of other suitable sites, the relative risk of predation, the density of competitors in alternative sites, and the investment required to establish a new territory. Indirect effects include reduced health and fitness, reduced reproductive rates, increased mortality, and composition change (Leung and Marion 2000, Taylor and Knight 2003, Cole and Landres 1995). Many immediate disturbance responses appear to be short-term; however, little is known about the long-term effects of recreational disturbance on energy balance or survival rates (Cole 1993). Indirect impacts occur wherever and whenever recreational use occurs (Cline et al. 2007). Cline et al. (2007) went on to state that indirect effects typically occur over a long period of time and affect a broader ecological scale than wildlife disturbance. They occur through normal recreation activities such as hiking, biking, hunting, and fishing where recreationists have the potential to negatively impact the physical environment (e.g., trampling vegetation, soil compaction, erosion, disturbances due to noise and motion, pollution, nutrition loading, and introduction of non-native invasive plant species). While indirect impacts such as erosion and trampling have been studied extensively from an ecological condition, their impacts on wildlife still are not fully understood (Cline et al. 2007).

Boyle and Sampson (1985) reviewed 166 research articles of which 163 documented negative effects of recreational activity on wildlife. Leung and Marion (2000) state that the mere presence of visitors may harm wildlife by displacing them from essential habitats or disrupting their raising of young and that trails and campsites may cause a landscape fragmentation effect possibly interfering with movement of some animal species. Visitors hiking on trails may disturb wildlife, displacing them from trail corridors temporarily or permanently. Likewise, camping can disrupt normal wildlife activities, attract animals, or alter wildlife habitat through vegetation and soil impacts causing wildlife to avoid areas with campsites (Leung and Marion 2000, Boyle and Sampson 1985). Most vegetation damage occurs quickly at low and moderate levels of visitor use (Leung and Marion 2000). Monz (1998) found that campsites on beaches and on forest understory in Prince William Sound, Alaska, were very susceptible to vegetation loss. Cole and Landres (1995) discuss damage to vegetation and soils caused by human trampling during hiking, camping, fishing, nature tours, and off road vehicles. Czech et al. (2006) identified outdoor tourism and recreation development as the fourth leading cause of population declines in threatened and endangered species.

Direct and indirect effects vary by activity. Direct impacts from fishing include disturbance, entanglement with fishing lines and ingestion of lead sinkers; indirect

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impacts associated with fishing include vegetation trampling, boating disturbance, introduction of non-native species (Cline et al. 2007). Wildlife viewing and photography enthusiasts intentionally approach wildlife which can be more disturbing than accidental encounters since encounters are generally more frequent and of longer duration (Boyle and Sampson 1985, Cline et al. 2007). Motorized recreation can have direct effects from collisions with wildlife and indirect effects including noise, pollution, habitat degradation, disturbance, and harassment (Cline et al. 2007).

Given the above information, all authorized outfitter-guide activities considered under this management plan could cause disturbance to wildlife.

Relative Impact on Wildlife

Because quantitative evaluation of recreation effects was not possible due to data limitations for most species, the wildlife biologist developed a relative impact ranking based upon the number of service days allocated by alternative and the assumptions at the beginning of this document. Specifically, that disturbance to wildlife would increase as the number of service days allocated to outfitter-guides increased. This is similar to the assumption in Gaines et al. (2003) that as recreational demand increases, effects on wildlife also increase over space and time and that increasing recreational use results in decreasing species persistence and maintenance of ecosystem processes and function. The ranking is only a relative comparison of alternatives, and does not supersede the level of effects described for each species as defined above. For example, multiple alternatives may have moderate effects, but the ranking score discussed here will identify which alternatives among those with moderate effects are thought to have the greatest and least impact.

At most (177) of the recreation use sites, the impact ranking from highest to lowest is Alternative 2, Alternative 3, Alternative 4, and Alternative 1, respectively.

At 12 recreation use sites the current permitted levels either exceed the visitor capacity or exceed 50% of the capacity. In these locations, Alternative 1 has the highest impact with Alternative 3 being the lowest impact, and Alternatives 2 and 4 having a mid-level of impact:

- Barrier Islands
- Biscuit Lagoon
- Halibut Harbor
- Hessa Inlet
- Hunter Bay
- Klakas Inlet
- Luelia Lake
- Max Cove
- Salmon Bay
- Salmon Bay Lake Trail
- Shipley Bay Creek/Lake
- The Saitchuck

With a 75% allocation at Dog Salmon Fish Pass and Beaver Falls Trail in Alternative 3, this Alternative has the highest impact ranking for these two areas followed by Alternatives 2, 4, and 1.

The relative impact ranking for the remaining locations is shown in Table 3-4. The number of the highest impact alternative is shown in the furthest left “Impact Ranking” column and the number of the lowest impact alternative is in the furthest right “Impact Ranking” column. The center

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columns show how the other two alternatives rank. In some instances, two alternatives may have the same impact; so, two numbers are shown in a column.

Table 3-4: Ranking by location of relative impact to wildlife by alternative (remaining areas).

Recreation Use Area	Alternative Relative Overall Impact Ranking			
	Highest Impact			Lowest Impact
Hunter Creek	2	3	1,4	1,4
Cholmondeley Sound, NE	2	4	1	3
Eagle Creek	2	4	1	3
Miller Lake	2	4	1	3
Nossuk Bay	2	4	1	3
Red Bay Creek/Lake	2	4	1	3
Red Bay Lake Trail	2	4	1	3
Salmon Bay Lake	2	4	1	3
Shakan Bay	2	4	1	3
Survey Cove	2	4	1	3
Sutter Creek/Lake	2	4	1	3
Thorne River, Lower	2	4	3	1
Ratz Creek	4	2	1	3
Big Creek, W. Cholmondeley	2,4	2,4	1	3
Cholmondeley Sound, South Arm	2,4	2,4	1	3
Klakas Lake	2,4	2,4	1	3
Moira Sound, South Arm	2,4	2,4	1	3
Shiple Bay	2,4	2,4	1	3

All of the alternatives would allocate more service days to most sites than have been used in the past. Between 2004 and 2009, the highest number of service days reported for any year was in 2006 at 2,848 service days for all sites combined. This amounts to approximately 14% of the days allocated in Alternative 1, 2% of the days allocated in Alternative 2, 3% of the days allocated in Alternative 3, and 11% of the days allocated in Alternative 4. Exceptions to this pattern are sites where past use has been high. This would include sites such as Dog Salmon Fishpass and Klakas Inlet.

Should outfitter-guide use rise to the levels allowed under any of these alternatives, it would result in a dramatic increase in all of the potential impacts described for wildlife as outlined above. For example, if outfitter-guide use increased enough to fully utilize the allocation in Alternative 1, it would amount to a seven-fold increase in service days used across the Zone, whereas the increase associated with Alternative 2 would amount to a fifty-fold increase. Some species, particularly those sensitive to disturbance from human activities, may experience

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negative consequences such as disruption of feeding, reproduction, or other factors affecting short-term population levels. Though this analysis has assumed full implementation of allocations under each alternative, impacts to human recreation and social factors would likely cause a re-evaluation of these allocations long before major effects would occur to wildlife. This assumption is based on the nature of scoping comments received and POW residents' low tolerance for sharing recreation and subsistence sites compared to people from other parts of the country.

Adaptive management may be implemented to change allocations or other outfitter and guide management based on monitoring, observations, or feedback we receive during implementation of this project. In most cases, if adaptive management is implemented, it will result in a reduction of permit allocations or other management technique designed to reduce effects on affected resource/s; these management adjustments would likely either have no effect on or reduce effects on wildlife. In cases where adaptive management results in an increase in permit allocations, the allocations and their effects will not exceed the greatest allocations and effects described in this analysis.

Generally speaking, the estimated disturbance to wildlife is greatest for Alternative 2, followed by Alternatives 3, 4 and 1, respectively. This is based solely on the number of days allocated under each alternative. This pattern holds true for all but 32 of the 209 Outfitter-Guide Use sites. Most sites that do not hold to this pattern are sites where current permitted service days already exceed 25% or even 50% of estimated recreation visitor capacity. Effects to individual species are described below.

Management Indicator Species

Alternatives 1, 2, 3, and 4

The likelihood of impacts of each alternative to management indicator species follows the discussion under Relative Impact on Wildlife with exceptions discussed below.

Sitka Black-tailed Deer

Direct and indirect effects to deer include mortality as a result of guided harvest, vehicle strikes, and disturbance that may cause stress to the animals, increase metabolic costs due to stress and energy costs of flight, temporary displacement, reduce foraging efficiency, etc. However, it is difficult to quantify the degree to which the presence of people recreating within deer habitats will disturb individual deer or cause long-term population consequences.

As described above, overall, Alternative 2 has the greatest likelihood of disturbance to deer of any alternative, followed by Alternatives 3, 4, and 1, respectively. The notable exception to this pattern is Salmon Bay, which is the outfitter-guide use site most frequently used for guided deer hunting. For this site, alternatives by decreasing order of impact were Alternatives 1, 2 and 4, and 3. Effects from all four alternatives have the potential to be moderate, with individuals noticeably affected and some long-term consequences to populations from repeated disturbance, because all four alternatives allocate far more days than have been used in the past. However, higher allocations do not automatically mean that more permits will be issued or demand for guided activities will rise.

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All four alternatives will result in some mortality due to harvest of deer. Fall hunting service day caps in Alternatives 3 and 4 may reduce the number of deer harvested in those alternatives, but may also only have the effect of spreading out guided hunters rather than reducing the total harvest. All four alternatives allocate far more annual service days than those used between 2004 and 2009. It is anticipated that guided deer harvest will continue to increase in the near future but it is unknown to what degree or how fast this will happen. The guided deer harvest caps in Alternatives 3 and 4 will ensure that no one location will be inundated with guided hunters.

While the estimated impact to deer populations is higher for alternatives that allocate higher service days (Alternative 2 in particular), the actual use is more important. We have no good means to anticipate future changes in use.

Black Bear

Almost all of the identified guide use sites provide habitat for black bears and therefore opportunities for disturbance to bears by guided activities. All 209 sites were within ½ mile of anadromous fish streams or beach/estuary habitat, both important habitats for black bears. Because most guided activities do not occur during winter, it is not anticipated this project will have any effect on bears during denning season or to their denning habitat.

Harvest of black bears from both guided and unguided hunters has likely contributed to recent apparent population declines for this species. Regulatory restrictions, including the Central WAAs Closure, a recently defined controlled use area, and adoption of a drawing permit hunt for non-resident unguided hunters are hoped to alleviate some of harvest pressure on black bears. ADF&G and the Forest Service will work together to set appropriate hunt allocations for guides based on their average actual harvest from 2007 to 2009. The hunt allocation process will take place independently of this NEPA analysis. Therefore, harvest pressure from guided hunters is assumed the same across all alternatives and will not be used for comparison among alternatives. Mortality due to guided harvest is anticipated under all four alternatives. While non-resident harvest has made up the majority of black bear harvest on the POW districts in recent years, guided non-residents have never accounted for more than 20% of the non-resident harvest of black bears, and never more than 17% of total harvest.

Aside from mortality associated with harvest, primary direct and indirect effects for black bears are related to disturbance of bears by the presence of people in their habitats. Outfitter-guide use under all alternatives has the potential to disturb or displace bears which can alter social patterns and affect energy balance and overall bear fitness or survival. Bear viewing and hunting may cause disturbance to bears at high quality feeding sites such as beaches and estuaries in springtime and at salmon streams in the fall. Guided sports fishermen looking for trout or salmon in late summer or fall may compete with bears for fish or trample redds, potentially reducing prey availability for bears over the long term. Fisherman are likely to encounter bears feeding on streams, potentially disturbing the bears, causing stress and reducing their foraging efficiency. These encounters can also lead to potential defense of life and property mortalities in bears. However, it is difficult to quantify the degree to which the presence of people recreating within bear habitats will disturb individual bears or affect long-term population viability.

Alternatives 1, 2, 3, and 4

Overall, Alternative 2 has the greatest likelihood of disturbing bears of any alternative, followed by Alternatives 3, 4, and 1, respectively. Notable exceptions to the impact pattern include

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Halibut Harbor, Hessa Inlet, Hunter Bay, Klakas Inlet, Max Cove, and Salmon Bay. Impact at these sites was highest for Alternative 1 since the current permitted number of service days for outfitters and guides is higher than the remaining alternatives, followed by Alternatives 2 and 4, then 3, respectively. Shipley Bay also defied the common pattern (Alternatives 2 and 4, 1, 3-highest impact to lowest), as well as Shakan Bay and Survey Cove (Alternatives 2, 4, 1, 3-highest impact to lowest). All of these sites provide quality habitat for black bears, and are known to be bear hunting sites.

Effects from all four alternatives are anticipated to be moderate, with individuals noticeably affected and some long-term consequences to populations from mortality due to harvest and repeated disturbance at high quality habitat sites. Fall hunting service day caps in Alternatives 3 and 4 may reduce the number of bears harvested in those alternatives, but may also only have the effect of spreading out guided hunters rather than reducing the total harvest. All four alternatives will likely result in mortality due to harvest of bears. All four alternatives allocate more service days than those used strictly for bear hunting between 2004 and 2009.

Bald Eagle

Primary direct and indirect effects to bald eagles associated with this project relate to disturbance of eagles. Bald eagles are most sensitive around nest sites during breeding season and may respond in a variety of ways when disturbed by human activities near nest sites (Steidl and Anthony 1996, 2000). During the nest building period, disturbance can lead to failed nesting attempts. Disturbance from incubation to fledging may lead to injury, death, or reduced survival of the young (USFWS 2009).

Steidl and Anthony (2000) studied the effects of recreational camping on bald eagles in interior Alaska. Where humans were camped for 24 hours 100 meters [~330 feet or minimum required by regulation] from active eagle nests, eagles spent less time taking care of themselves, their nests, and their young and more time away from the nest than those with campers 500 meters away. Steidl and Anthony (2000) concluded that presence of humans near active bald eagle nests caused changes in behavior that could ultimately result in population-level impacts through reductions in offspring survival. Human activities that cause any of these responses and lead to injury, a decrease in productivity, or nest abandonment are considered disturbance and are thus a violation of the Bald Eagle Protection Act (USFWS 2009).

Over 90 percent of nests on the Tongass occur within the beach buffer. Nest maps for bald eagles in Southeast Alaska are maintained by USFWS and are infrequently updated, so good sources of active nest locations are not available. While legal regulations (16 USC 668-668d and 50 CFR 22.26) prohibit recreational activities within a minimum of 330 feet from active nests from March 1 through August 31, research has documented recreational disturbance effects over 1,500 feet away. Approximately 64% of the outfitter-guide use sites identified are within 1500 feet of saltwater and are therefore likely to be near one or more bald eagle nests. Therefore, alterations in eagle behavior from outfitter-guide activities in or near the beach/estuary fringe could still occur, even if minimum activity buffers are observed.

Alternatives 1, 2, 3, and 4

Given all applicable buffers and seasonal restrictions required by law are followed, effects from all alternatives are expected to be minor, with occasional responses to disturbance from some individuals, but with no real interference with reproduction or foraging other than short term

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disturbance and/or displacement from foraging areas. Recommendations for minimizing impacts to eagles are outlined in the Project Design and Mitigation Measures section.

Threatened, Endangered, Proposed and Candidate Species

Alternatives 1, 2, 3, and 4

The table below lists determinations on the effects of the alternatives on endangered, threatened, and proposed species:

Table 3-5: Determination of Effect for Federally listed wildlife species known or suspected to occur in the vicinity of the Prince of Wales Zone.

Federally Listed Species	Alternative	Determination
Humpback whale	All	Not likely to adversely affect
Fin whale	All	Not likely to adversely affect
Steller sea lion	All	Not likely to adversely affect
Steller sea lion critical habitat	All	Not likely to adversely affect
Yellow-billed loon	All	Not likely to jeopardize candidate species, or adversely modify proposed critical habitat

Alternative 2 poses the greatest impact to Threatened, Endangered, and Candidate species because it allocates the most days and therefore offers the greatest opportunity for outfitter and guide access to shoreline sites via marine habitats important to these species. Following Alternative 2, Alternatives 3 and 4 pose the next greatest impact, respectively, and Alternative 1 poses the least impact because it allocates the fewest service days for marine access sites.

Effects to all of these species are expected to be minor. Fin whales and yellow-billed loons occur very infrequently in the waters surrounding POW and are therefore not likely to be encountered often by outfitters and guides. Yellow-billed loons most often occur in winter when outfitter-guide activity is minimal.

Humpback whales may be subject to occasional acoustic disturbance, but Forest-wide standards and guidelines direct the Forest Service to ensure that Forest Service permitted or approved activities are conducted in a manner consistent with the Marine Mammal Protection Act, Endangered Species Act, and NMFS regulations for approaching whales, dolphins, and porpoise. "Taking" of whales is prohibited; "taking" includes harassing or pursuing, or attempting any such activity (USDA Forest Service 2008a, pg. 4-99), so effects to humpback whales are expected to be minor as well.

Outfitters and guides are required to follow all marine mammal viewing guidelines and refrain from any activities that disturb sea lions when passing near these sites. Given the restrictions to activities around marine mammals, effects to sea lions are expected to be minor, consisting mostly of infrequent disturbances that may cause animals stress or interrupt foraging or resting animals.

Sensitive Species

Alternatives 1, 2, 3, and 4

The risk of effects of each alternative to sensitive species follows the discussion under Relative Impact on Wildlife. Determinations for R10 Sensitive species are listed in Table 3-6.

Table 3-6: Determination of Impact for R10 Sensitive Wildlife Species Known or Suspected to Occur in the Vicinity of POW.

R10 Sensitive Species	Alternative	Determination
Queen Charlotte goshawk	All	May impact individuals, but not likely to cause a trend to federal listing or a loss of viability
Black oystercatcher	All	May impact individuals, but not likely to cause a trend to federal listing or a loss of viability

Northern Goshawk

None of the authorized outfitter-guide activities would alter productive old-growth habitat. Instead, effects would come from human disturbance in close proximity to nesting goshawks. Goshawk nests are usually in heavily forested habitats, and since most recreation sites are along the shorelines, lakes, rivers, and along the road system, recreation disturbance to known or unknown goshawk nests is expected to be uncommon. Effects to goshawks are expected to be minor under all alternatives, and at worst could include disturbance to birds near nests that may temporarily disrupt breeding or brood rearing activities.

Forest Plan standards and guidelines to minimize disturbance during the nesting season will be included as permit stipulations.

Black Oystercatcher

Outfitter-guide use sites where these birds are nesting would be expected to have more negative impacts under Alternatives 2 and 3, in general. However, there is not much visitation to guide-use sites on the exposed western shores of POW and surrounding islands, and there are relatively few guide-use sites compared to the number of potential nesting sites that likely occur on POW's outer coast, so impacts to populations should be small under any alternative.

Effects are expected to be minor under all alternatives. These effects will consist of disturbance of breeding birds and possible trampling of nests, but overall effects to population should be small.

Cumulative Effects

All Wildlife Species

Alternatives 1, 2, 3, and 4

The list of past, present, or foreseeable future projects that may contribute cumulative effects for wildlife is long, and contains a wide variety of influences such as timber sales, salvage harvest, restoration projects, road closures and maintenance, recreation site maintenance and improvements, potential land exchanges and many others. Ground disturbing activities occurring on the POW districts would impact wildlife through habitat, but would be analyzed at

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that time based on the specific proposal. Ongoing habitat changes associated with long term influences such as climate change or succession of managed stands may also contribute to cumulative effects to wildlife. The complete list can be found in the planning record.

Cumulative effects relevant to this project include guided and unguided recreational activities, recreational use on non-NFS ownerships within the POW analysis boundary, flight-seeing tours and marine based tours not within Forest Service jurisdiction, consumptive use of wildlife. Though the scale of guided use compared to unguided use were described here where possible, unguided recreation, sport hunting and fishing, and other recreation uses are not currently measured under any monitoring plan. Data on much of the unguided use of the POW districts are lacking. Unguided bear hunting, deer hunting, and fishing are all likely a substantial percentage of the use that occurs on POW. Cumulative effects from unguided recreation would be similar to those described in the direct and indirect effects section.

Unguided persons engaging in floatplane landing tours, freshwater fishing, hiking, beach activities, sightseeing, wildlife viewing at developed sites, camping, and road-based activities would have disturbance effects similar to those analyzed for outfitter and guides, but cumulative effects would add to the amount of disturbance. A greater number of animals would be impacted since specific locations would receive more use and additional areas would receive use not identified through this analysis. In addition to disturbance, unguided use may cause additional trampling and other site disturbance further reducing the quality and/or quantity of available habitat. Additional impacts to wildlife populations would occur from similar activities on non-NFS lands.

Consumptive use of wildlife (i.e., hunting and trapping) would reduce wildlife populations. In particular, the State of Alaska has recognized concerns about black bear populations and harvest by both guided and unguided hunters on POW, and has taken measures to limit overall harvest. Harvest objectives for all wildlife species are regulated by ADF&G Board of Game and the Federal Subsistence Board to maintain sustainable population levels.

In general, the past, present, and foreseeable future actions that relate to this project will all be the same under every alternative, so the relative comparison of alternatives will remain the same as that described in the Direct and Indirect Effects section. The alternative allocating the highest number of service days (Alternative 2) will pose the highest impact to wildlife, followed by the other alternatives in descending order of service day allocations (Alternatives 3, 4, and 1, respectively). Cumulative effects including disturbance, mortality due to harvest, and minor effects to habitat such as vegetation trampling in heavily used areas are not expected to result in loss of population viability for any wildlife species. Effects are not expected to be significant under any alternative.

Minor to moderate effects may occur to wildlife species because of this project. There will be effects in most places, primarily as disturbance to wildlife. With the protections and management in place, effects to wildlife species and habitat will be limited. In addition, it is unlikely that the full capacity will be used under any of the alternative. None of the alternatives in this project in combination with past, ongoing, or reasonably foreseeable activities would lead to a loss of population viability for any wildlife species analyzed.

Recreation and Wilderness

This analysis considers the existing conditions of and effects of the alternatives on recreation and wilderness as well as on outfitters and guides and unguided visitors.

This section does not focus on economics, but instead focuses on the effects of and complexity of management related to the alternatives. The Socioeconomics section of this EA discusses the effects to economics and businesses.

Introduction

Recreation Use Areas

POW and its surrounding islands, make up the affected environment for this Recreation and Wilderness analysis. In the recreation portion of this analysis, emphasis is placed on developed recreation sites, recreation points, areas of concentrated dispersed recreation use and specific high use areas. Throughout this analysis, these areas have generally been designated as “Recreation Use Areas” and each Use Area has its own name for identification on maps and tables. Recreation related to the roads system and access is also considered in this analysis.

Recreation Visitor Capacity Development

Before formal recreation visitor capacity development, POW permit administrators allocated use on a site-by-site basis as these sites were requested by outfitters and guides. Resource implications were considered specifically for each site, but not necessarily in a holistic or systematic manner. The recreation visitor capacity model was developed to help outfitter and guide administrators and resource managers consider implications of outfitter and guide use over an island-wide scale and scope. For the recreation resource, the visitor capacity helps managers to provide quality recreation opportunities that reflect the ROS setting and development scale for each location. For more information about the visitor capacity process see Appendix B.

Legal Framework

According to Forest Service Handbook (FSH) 2709.14, outfitters and guide use is secondary to protecting environmental and social conditions in an area:

53.1r - Administration of Outfitting and Guiding Permits

4. An immediate suspension of all or part of a permit may be imposed when deemed necessary to protect public health or safety or the environment in accordance with 36 CFR (Code of Federal Regulations) 251.60(f). Notice and an opportunity to correct deficiencies are not required before imposing an immediate suspension (36 CFR 251.60(e)).

Forest Service regulations support the suspension of outfitter and guide services in order to protect environmental conditions. The Forest Service Handbook does not guarantee the number of service days an outfitter or guide receives each year. At any time during the life of the permit, the permit administrator may stop activities to protect the environment.

Affected Environment Recreation and Tourism

In order to understand the potential effects to recreation uses and outfitters and guides, this analysis considers three criteria for effects:

1. Impact to ROS settings,
2. Effect to recreation opportunities for the guided user
3. Effect to recreation opportunities for unguided users

POW tourism is limited by the lack of regularly scheduled public transportation. A small cruise line has begun regularly scheduled tours to POW in 2010. This boat, which carries up to 70 people, stops at El Capitan Cave, Klawock and Sea Otter Sound. The island road system is not paved between many of the island communities.

Tourists in Craig, the largest population center on POW, participate in three basic activities; fishing, hunting or pleasure boating (Cervený 2005). Some non-consumptive opportunities, like kayak and hiking tours, are beginning to develop. An estimated 4,000 to 6,000 visitors came to Craig and Klawock during 2001 (Cervený 2005). The majority of these visitors come to Craig with a travel package, which includes charter fishing or guided hunting and accommodations. Much of the direct revenue from these tourists goes to the lodges and charter operators, but some indirect effects occur through the purchase of gas, supplies, and groceries. The privately owned Inter-island ferry system transports people to Prince of Wales on a daily basis. This service and continued road development are predicted to increase tourism to the island. A northern ferry route from Coffman Cove to Wrangell and Petersburg ran for two years, but closed in 2009 due to budgetary constraints. A smaller private vessel may reopen this route in 2012.

Some tourism businesses have seen a large increase in business from the ferry service (Hull, pers. com. 2007), and others have stayed about the same or decreased due to the Coffman Cove Road construction project (Hedges, pers. com. 2007). POW visitors come to the area primarily to fish and hunt, although many lodges and outfitter and guide services have begun to branch out into other tourism opportunities such as wildlife viewing and hiking.

Dispersed Recreation

Dispersed recreation is any area where visitors concentrate use outside a developed recreation site. Examples include popular fishing areas, well-known hunting areas, and anchorages and beaches. Little information is recorded about recreation use levels in these areas. Qualitative information in the form of observed use by recreation managers and dialogue with Prince of Wales recreation and traditional users has been gathered.

Developed Recreation

More is known about developed recreation sites. Developed recreation sites are sites that the Forest Service has designed for a specific type and level of use. Examples of developed recreation sites include recreation cabins, trails, wildlife viewing sites, interpretive areas, campgrounds, picnic areas and public boat launches. The maps in Appendix A show all of the developed recreation sites on the Craig and Thorne Bay Ranger Districts.

Both unguided users and outfitters and guides and their clients may use most developed sites. Guided use of some public recreation cabins is now allowed on POW as shown in Table 1-1 of this EA. The potential outfitter-guide use is anticipated to help boost use in under-utilized cabins during parts of the year when public use of the cabin is low. Of the 4,380 nights available for all

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users at the 12 designated cabins, 2,021 nights are available annually to outfitters and guides. Permitted outfitters and guides must reserve the cabins using the National Recreation Reservation Service (NRRS); thus, cabins remain available on a first-come, first-served basis.

Overall cabin use on POW is 1,095 reserved nights across 19 cabins between 2007-2010. The cabins are utilized at approximately 32% of their capacity for the 6 month, high use season.

Trail use data was collected in 2006 using infrared trail counters on Beaver Falls, Gravelly Creek, One Duck, Memorial Beach and Twentymile Trails. The total amount of trail use recorded for the 5 trails was 3,193 users from June to September, 2006. Over the course of the summer, the average number of people using these trails was 5 people per day. Many of these users are repeat users that come to the trails several times per season, while others are one-time visitors from off the island.

The two POW campgrounds receive an average of about 125 reserved nights per year, respectively.

Picnic sites like Sandy Beach and Gravelly Creek receive consistent use during the summer season. Balls Lake, Harris River Day Use, Luck Lake and Neck Lake receive less consistent use, but observations of these areas have shown periodic use each summer.

The POW districts have over a thousand miles of open roads. The Forest Service Access Travel Management (ATM) determines the future use of these roads for highway and off highway vehicles. Outfitters and guides use some of these open roads.

Affected Environment Wilderness

There are five federally designated Wilderness Areas within the Craig and Thorne Bay Ranger Districts: Coronation Island Wilderness (19,232 acres), Karta River Wilderness (39,889 acres), Maurelle Islands Wilderness (4,937 acres), South Prince of Wales Wilderness (91,018) and Warren Island Wilderness (11,181 acres). Management of these areas is directed by the Wilderness Act 1964, ANILCA 1980, and Forest Plan. Activities that are generally prohibited in these wilderness areas are:

- the use of mechanized and motorized equipment on land,
- helicopter landings, and
- activities with group sizes greater than 12 individuals.

Outfitter and guided activities are allowed in these Wilderness areas where the need for such commercial use was determined through a Needs Assessment process.

Wilderness Needs Assessment

A Determination of Need for Commercial Use in Wilderness (Wilderness Needs Assessment) was completed for each of the five Prince of Wales Wilderness Areas (in the project record and available online at http://www.fs.fed.us/r10/tongass/projects/nepa_project.shtml?project=27974 or at the Craig District office). The Wilderness Needs Assessment is a method for determining through a variety of criteria if there is a 'need' for private enterprise to assist the agency in providing access, services and/or other assistance for the recreating public to safely and properly enjoy National Forest Wilderness Areas. Table 3-7 below summarizes the types of commercial uses determined "needed" for each wilderness.

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Table 3-7: Summary of Commercial Uses in wilderness

Wilderness Name	Type of Commercial Activity				
	Camping	Big Game Hunting	Freshwater Fishing	Passive Touring ¹	Active Touring ²
Coronation Island	Y	N N		Y	Y
Karta River	N	Y N		N	N
Maurelle Islands	Y	N N		Y	Y
South Prince of Wales	Y	Y Y		Y	Y
Warren Island	N	N N		N	N

*Y = yes, N = No

¹ Sightseeing, wildlife viewing, etc.

² Hiking, biking, kayaking, etc.

Wilderness Recreation Use

Measures

In order to understand the potential effects to the Wilderness Resource, this analysis considers the same three criteria as the Recreation section for effects:

Level of Effect

In Wilderness, the Forest Plan (USDA Forest Service 2008a) guides managers to look at levels of effects to opportunities for solitude and changes in Wilderness character. In order to analyze opportunities for solitude, this document assumes that increased encounters with other groups in Wilderness lowers opportunities to find solitude. In addition, this document assumes that evidence of human use on the ground, such as finding campsites, footprints, or trash affects the Wilderness character. Wilderness measures are considered by the following levels of effect:

- Negligible—no or low levels of human evidence on the ground and no or low encounters.
- Minor—Low to medium human evidence on the ground and low to medium encounters
- Moderate—Medium to high evidence of human use and medium to high encounters.

Wilderness Areas of Concern

Prince of Wales Wilderness managers perform Wilderness monitoring at all five Wilderness areas on a biannual schedule. During this monitoring they record evidence of human use in terms of camp sites, fire rings, litter, vegetation trampling and soil compaction in campsites, cut trees, etc. They also record encounters with other groups on the ground. The Forest Plan Wilderness Section states that Wilderness “encounters should be less than three groups per day to maintain the more primitive experience” (USDA Forest service 2008a, p. 3-19). The table below describes the amount of human evidence and encounters discovered at the Wilderness outfitter and guide recreation use sites. Based on the monitoring information, several areas of concern were identified. The areas in gray in Table 3-8 below are areas of concern based on the criteria included in the table. The areas of concern are discussed further below the table. The evidence of human use and encounters recorded may or may not be associated with outfitter and guide use.

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Table 3-8: Wilderness Recreation Use Area Sites

Location	Evidence of Human Use	Encounters <2 = Low 3-5 = Medium >6 = High
Aats Bay	Low (1 old fire ring)	None
Biscuit Lagoon	Low (derelict trap line)	None
Brownson Bay	No	None
China Cove	No	Low (off shore boat)
Cora Point	No ground visit, but flights have not shown evidence of use.	No ground visit, but aerial showed no boats in fishing grounds around Cora Point
Egg Harbor	Medium (trash in caves, fire pits in caves, invasive plants, fire pits on shore, name written in sand)	Low (2 encounters)
Hessa Inlet	Low (derelict trap line)	None
Hole in the Wall	High (camp set-up with tarp and semi-permanent structure, dock, fire pits and tree damage)	Low--Medium (two observed, but communications with fishermen suggest that encounters are greater at other times)
Hunter Bay	Low (fire ring, campsites)	Low (0-4 2007-2010))
Karta River	Trail impacts, invasive species, litter	High
Karta River Trail	Trail impacts, invasive species, litter	High
Klakas Inlet	Low—medium (derelict but larger campsite with large fire ring, cut logs, tree impacts, trash)	Low
Spanish Islands	No ground visit—no aerial evidence	No ground visit—no aerial evidence
Tah Bay	Low (old fire ring, old timber theft)	None
Warren Cove	None	Low
Windy Bay	Low (archaeology campsite small evidence left. Old fire ring)	Low

*Areas of concern are in grey

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Of the areas of concern, the two **Karta River sites** are addressed by the Karta River Wilderness Needs Assessment. Only big game hunting in the uplands of the Karta River Wilderness is needed. Hence, outfitted and guided uses would be prohibited in the Karta River Valley where the trail and recreation cabins are located.

The other areas of concern are looked at individually in this analysis. **Egg Harbor** shows medium evidence of humans and low encounters. The encounters observed were a mix of fishermen anchored in Egg Harbor and tour boats, which could have been an outfitter and guide or a private recreation boat. The concern is a perceived impact to Wilderness character in terms of a change to the important cave resources in Egg Harbor, evidenced by litter and fire pits in the caves. Although outfitters and guides may not have caused these impacts, they are present in Egg Harbor and may attribute to the impacts. Hence, it is recommended that outfitter and guide use be permitted in Egg Harbor, but monitored to determine if wilderness character impacts are caused by outfitter and guide use. In addition, if the impacts are found to result from outfitter and guide use, then commercial outfitter and guide use will be limited or prohibited at Egg Harbor.

Hole-in-the-wall, Maurelle Islands Wilderness Area, is a site that has strong traditional use from individuals from Klawock and Craig. It is also the site of intense commercial and sports fishing during the months of July and August. Commercial outfitter and guide use has taken place in this area over the past five years, but likely does not greatly affect the wilderness character (measured by human evidence on the ground) but does increase the encounters in a place that already has low-medium encounters, with the potential for high encounters at certain times during the year. It is recommended that Hole-in-the-wall be closed to outfitter and guide use during the high use season (July-August) due to the fact that there is already high evidence of human use on the ground and potential for high encounters in the area.

Hunter Bay, South Prince of Wales Wilderness Area, shows a low level of human evidence on the ground and low--medium level of encounters. And the encounters were with outfitter and guides hunting, camping and nature viewing in the area (SPOW Report 2007). Based on the observations reported during Wilderness monitoring, it is likely that encounter impacts evident in Hunter Bay are attributed to outfitters and guides. It is recommended that outfitter and guide use be permitted in Hunter Bay with continued monitoring. If encounters increase to more than the recommended two per day, then outfitter and guide use will be reduced or prohibited in this location.

Klakas Inlet, South Prince of Wales Wilderness, is a site that once had heavy use but has since decreased in popularity, perhaps due to its distance from Hydaburg for subsistence uses. The evidence of human use in Klakas Inlet measured a low-medium based on the fact that there is a derelict campsite, small fish camp site there that is fairly large, with a big fire pit, several cut trees, and rounds for seats. The evidence of human use is undeniable, even though this camp does not appear to have been used in several years. Also this camp is not thought to be used by outfitters and guides. Observed encounters in Klakas Inlet measured low, however, use reports from the outfitter and guides database suggest that at certain times encounters may be higher, because Klakas Inlet is one of the locations that the current permit level for outfitters and guides exceeds the recreation visitor capacity. Hence, it is recommended that outfitter and guide use be dispersed and reduced, and that this location be monitored for encounters. If encounters increase to the point that they exceed the Forest Plan threshold of two per day, then outfitter guide use in Klakas Inlet should be reduced or prohibited.

Environmental Consequences

Direct and Indirect Effects to Recreation and Wilderness

Summary

Alternative 1 would not change current conditions, but also would not allow for growth in the tourism industry. Alternative 1 also does not adopt the recreation visitor capacity strategy, which helps recreation managers provide a variety of recreation experiences, and is a required component outfitter-guide management. In Alternatives 2, 3, and 4 there are recreation use areas where the current use levels may exceed the allocations in each alternative and the fishing restrictions in Alternatives 2 and 4. Thus, a redistribution of guided use would be required to maintain fishing resources and social thresholds in primitive locations. Alternatives 2 and 3 would allow for the most opportunity for industry growth. Alternative 4 creates an administrative burden and allows for minimal amounts of growth in some areas and no growth in other areas.

Adaptive management could be used in Alternatives 2, 3, or 4 to adjust outfitter and guide management. It may allow increases in outfitter and guide use if resources and social conditions can be sustained. It may also reduce outfitter and guide use if conditions warrant. Using adaptive management would maintain ROS settings included in the Forest Plan. It would also help to maintain recreation and wilderness resources while allowing some flexibility in outfitter and guide management.

Alternative 1 - No Action

Measure 1: Impact to ROS Settings - Recreation

Continuing outfitter and guide use at the current levels would have negligible effects to ROS settings, remote recreation sites, developed recreation sites, and roaded recreation.

Measure 1: Impact to ROS Settings - Wilderness

Klakas Inlet currently receives more guided use than 50% of the established recreation visitor capacity for this Wilderness site. Hence, Klakas Inlet is currently out of compliance with the Forest Plan, minor effects to ROS may occur from this alternative due to the continued high use of Klakas Inlet, where the ROS is managed as primitive. Current use levels are likely to push this area's ROS setting out of the primitive setting into the semi-primitive non-motorized ROS setting due to increased encounters. Minor effects would be reduced to negligible effects by dispersing outfitter and guide use at Klakas Inlet to other similar sites nearby.

Measure 2: Effect to recreation opportunities for the guided user, and Measure 3: Effect to recreation opportunities for the unguided user - Recreation

Minor effects to guided and unguided recreation opportunities may occur with Alternative 1. Recreation use levels at this time by guided and unguided users are relatively low, compared to the visitor capacity for most sites. With recreation use continuing at current levels, current low levels of conflict and competition are likely to continue. Yet, some remote sites and freshwater fishing sites may have minor effects with Alternative 1, because these areas have been identified as areas where current levels of use affects the social conditions and the environmental

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resources. Also new opportunities would not be considered, for example a new wildlife-viewing site on the north end of the island.

Measure 2: Effect to recreation opportunities for the guided user, and Measure 3: Effect to recreation opportunities for the unguided user - Wilderness

Alternative 1 would continue to allow use at Klakas Inlet to remain at levels above 50% of the visitor capacity, exceeding the allowable levels set forth in the Forest Plan. These higher levels of guided recreation use would have minor effects to guided and unguided recreation users by reducing opportunities for solitude and Wilderness character.

Alternative 2

Measure 1: Impact to ROS Settings - Recreation and Wilderness

Alternative 2 would allow 50% of the calculated visitor capacity for each site, with restrictions on fishing streams. Since the visitor capacity takes into account the ROS class for the Forest Plan Land Use Designation (LUD) for each site, the managed ROS for this alternative would not be affected. Yet, ROS is a measure of what currently exists in a location, while LUD is what is prescribed for an area. The difference is that an area may be designated in the Forest Plan as Modified Landscape LUD, but no timber harvest has taken place there. So the ROS of the area may be primitive to semi-primitive non-motorized, rather than roaded modified, the ROS generally associated with modified landscape LUD. In many of the outfitter and guide locations (e.g. Kassa Inlet, Keete Bay and Kendrick Bay), the existing ROS would change if use rose to meet 50% of the site visitor capacity. This change, however, is anticipated by the designed management strategy of the LUD system in the Forest Plan. Effects to ROS would be negligible and within Forest Plan guidelines for use levels and development for each site.

Recreation sites and places would not be affected to a degree greater than what the Forest Plan allows for these areas. In other words, although the visitor capacity calculation for allowed outfitter and guide use is several times greater than the allocated or actual use in these sites, at this time, the amount of use permitted in Alternative 2 would not exceed what the Forest Plan shows to be allowed and designed based on LUD definitions and their associated ROS classes.

Measure 2: Effect to recreation opportunities for the guided user - Recreation

In order to determine if there is a net increase or decrease in recreation opportunities for guided users, the highest annual use recorded for each location was compared to the allocations proposed in Alternative 2. Highest annual use is based on actual use reports submitted annually by each guide, and can be found in Table 2-1. Highest annual use was chosen for this analysis rather than average use or median use because it represents the greatest use and potentially the greatest impact for the period of recorded use. Note that some of the locations do not have a use recorded in the table. These sites do not have current use information because although guides have asked for use at these sites and subsequently use was allocated in their permits, no use has been recorded by guides at these sites.

Next, the highest annual use figures were compared to the proposed Alternative 2 figures in Table 3-9, with the fishing restrictions included. For most sites the highest annual use is a fraction (less than 25%) of the proposed Alternative 2 allocation. The table below shows the sites where current guided use exceeds the proposed Alternative 2 fishing allocations, assuming that the highest annual use was all guided freshwater fishing.

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Table 3-9: Comparison of highest annual outfitter and guide use to Alternative 2 allocations

Recreation Location Name	Alternative 2 - Proposed Action - 50% of recreation visitor capacity Service Days (SDs)	Alternative 2 - Number of SDs Available for Fishing Permits	Highest Annual Use SDs
Dog Salmon Creek	1,348	25	32 _P
Harris River	1,153	150	190 _F
Klakas Inlet	180	180	208 _P
Turn Creek	1,153	25	47 _F

¹Highest Annual use column does not differentiate between the type of high use. A subscript _F represents a site with freshwater fishing as the highest type of use, while a subscript _P, demonstrates a site with passive touring as the highest use type.

Turn Creek and Harris River are locations where guided freshwater fishing would be restricted in Alternative 2 (at least when compared to highest use), since the historic trend has been to use these sites primarily for guided freshwater fishing. At Turn Creek and Harris River, Alternative 2 would have minor effects on the outfitters and guides that provide guided freshwater fishing of these sites and the recreation users that they serve. Minor effects may be reduced by redistributing guided use to similar, nearby locations.

The freshwater fishing experience can be reproduced in a nearby location where current guided freshwater fishing use levels do not exceed the proposed fishing allocation in Alternative 2. For example, at Turn Creek, outfitter and guide fishing use could be redistributed to 108 Creek, Forest Road 2700, or Exchange Cove. Similarly, Harris River users may need to redistribute to Indian Creek.

Another option to voluntary redistribution is to enter into a prospectus. A prospectus is a competitive bidding process, much like the process used in contracting, to select the highest and/or most qualified outfitter-guide. This competitive process would allow guides an equal opportunity to bid for use of these specific fishing systems.

Measure 2: Effect to recreation opportunities for the guided user - Wilderness

Of the four sites identified in Table 3-9, two locations are used by guides for passive touring, not fishing: Dog Salmon Creek and Klakas Inlet. For these locations, highest annual use is compared to the full allocation of Alternative 2. Of these two locations, only Klakas Inlet exceeds the Alternative 2 allocation for all types of uses.

Klakas Inlet is within South Prince of Wales Wilderness area and the current amount of passive touring exceeds the proposed allocation for guided use in the area, thus minor effects to outfitter and guide users would occur as a result of this alternative. The primitive ROS associated with Wilderness areas is the limiting factor. Klakas Inlet is one of the sites identified in the Wilderness Affected Environment section as a site of concern for Wilderness managers to continue to monitor.

To meet allocation and reduce effects on wilderness Klakas Inlet requires redistribution of passive touring days to another nearby location, such as Max Cove, Hessa Inlet, Hunter Bay, Winter Bay or Tah Bay. Each of these areas is in South Prince of Wales Wilderness and is likely

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to provide similar opportunities for passive touring, with ample opportunities to view wildlife and remote, pristine scenery.

Measure 3: Effect to recreation opportunities for the unguided user - Recreation

Effects to unguided recreation use are challenging to analyze as little is known or recorded about how visitors use many undeveloped recreation sites. Bearing in mind that this decision does not restrict unguided recreation use, effects to unguided recreation may show up as dispersal to other sites, conflict with other users, and complaints about crowding or changes in use levels at a site. At the majority of locations, Alternative 2, which proposes 50% allocation of visitor capacity, allows for use at much higher levels than current use. This would meet Forest Plan direction. However, if use levels reach this level at most sites, it would be a large increase in use (see Table 2-1), and some unguided visitors may perceive this as crowding which may be a minor to moderate effect on unguided users. Adaptive management and other restrictions would help to limit effects to unguided users

Of the areas shown in Table 3-9 the fishing restrictions will limit fishing O/G use at Turn Creek and Harris River; at Klakas Inlet the overall Alternative 2 allocation will limit O/G use Klakas Inlet current permitted use exceeds 50% of visitor capacity. Limiting fishing guided use at the Turn Creek and Harris River and overall guided use at Klakas Inlet would reduce the potential for conflict and competition. This reduces effects in these areas to a minor effect to unguided recreation users for Alternative 2.

Measure 3: Effect to recreation opportunities for the unguided user - Wilderness

Because Wilderness is managed to provide opportunities to find solitude and protect Wilderness Character, unguided Wilderness users expect to have less than 3 encounters per day and see low levels of evidence of human use on the ground (USDA Forest Service 2008a, p. 3-19). For Alternative 2, use levels in Klakas Inlet exceed 50% of the visitor capacity for that site. It has been established that if more than 50% of the visitor capacity is used by outfitters and guides at this time, less use is available for unguided uses and higher potential for encounters exists. Thus minor effects to unguided users are anticipated at the Klakas site for Alternative 2. Dispersing guided recreation use to nearby spots with common attributes would reduce effects on wilderness users and solitude. Monitoring to ensure that outfitter and guides follow permit stipulations and use Leave No Trace Principles in Wilderness, follow all Wilderness regulations, and limit group sizes to 12 would also reduce impacts. These measures would reduce this effect on Klakas to negligible. On the ground observations of the Klakas area have not shown higher levels of encounters, yet evidence of human use is low-moderate. This evidence of use cannot necessarily be tied directly to outfitter and guide use.

Alternative 3

Measure 1: Impact to ROS Settings -Recreation and Wilderness

ROS setting would be negligibly affected by Alternative 3, because the use levels allowed in this alternative would not change any of the settings to a more developed ROS setting.

Negligible effects to recreation places would result from Alternative 3, because the allowed use levels with this alternative would be well within Forest Plan management levels for recreation places.

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Measure 2: Effect to recreation opportunities for the guided user - Recreation

Guided use effects are negligible for Alternative 3 for recreation use sites except for Wilderness sites discussed below. Guided use for freshwater fishing would not be restricted by this alternative.

Alternative 3 also includes a provision to address subsistence deer hunting opportunities, which limits guided fall hunting to no more than 40 service days allocated to hunting annually per location. This hunting cap is greater than the highest recorded hunting use at all locations for the recorded time period 2004-2008. Table 3-10 shows the spring and fall guided hunting figures for 2004-2008 for the five highest use hunting locations.

Table 3-10: Spring/Fall Guided Hunting Service Days at the Five Highest Use Hunting Sites, 2004-2008.

	Spring	Fall								
	2004	2004	2005	2005	2006	2006	2007	2007	2008	2008
Lancaster Cove	98	0	0	0	0	0	0	0	0	0
McKenzie Inlet, South	0	0	20	4	22	0	14	0	15	0
Moira Sound	18	9	0	0	0	0	10	0	54	2
Polk Inlet, North	0	6	8	2	16	0	32	0	1	15
Salmon Bay	9	9	0	10	6	11	0	0	1	26

Based on Table 3-10, negligible effects to the current guided hunting use would occur due to the hunting restrictions proposed in Alternative 3 since all fall hunting levels are well below the 40-service day limitation. Outfitter and guide hunting use would not be reduced as a result of this alternative and provision. Opportunity for growth in terms of guided hunts is available in all locations. The results described here for the hunting cap of 40 service days for fall hunts annually is the same for Alternative 4.

Measure 2: Effect to recreation opportunities for the guided user - Wilderness

Three sites (Klakas Inlet, Luelia Lake, and Max Cove) have current actual use that exceeds the allocations proposed for Alternative 3.

With 25% of the visitor capacity allocated to outfitters and guides, Wilderness and remote, primitive sites for passive touring are the areas most affected by this alternative (Klakas Inlet, and Max Cove). Guided passive touring in wilderness areas would have minor effects through this alternative. Current allocations to guides visiting Klakas and Max Cove would need to be decreased to meet this alternative. In order to minimize minor effects, permit administrators would need to determine if this activity has to occur in Wilderness. If the activity is not Wilderness dependent, then guided use could be redistributed to nearby non-Wilderness locations such as Keete, Hassiah, or Kassa Inlets. This would greatly decrease Wilderness use pressure. If the activity is Wilderness dependent, then use could be redistributed to other less utilized Wilderness locations that are likely to provide a similar recreation experience, such as Tah Bay, Hessa Inlet or Brownson Bay. A benefit of guide dispersal is to minimize social impacts to sites by lowering the chance for encounters with individuals or other groups. In order to protect the opportunities for solitude, challenge and risk described in the Wilderness Act,

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maintaining use levels at current amounts with some shifting of sites may benefit the overall experience for guides and visitors.

Another option to voluntary redistribution is to initiate a prospectus between competing outfitter and guide operations for limited use of a preferred location. This would give operators a chance to bid on particular preferred locations, so that operators would not be arriving at the site at the same time, increasing encounters, and diminishing the Wilderness experience of the guided users. This competitive process would allow guides an equal opportunity to bid for use of these specific areas.

Measure 3: Effect to recreation opportunities for the unguided user - Recreation

Unguided use is not restricted in any way by this alternative. Without specific restrictions at freshwater fishing sites for this alternative, conflicts may arise between guided and unguided users due to competition for limited resources. Some complaints have been received about fishing guides on sites along the Thorne River. This alternative, without fishing restrictions, is likely to result in minor effects on unguided users at fishing streams due to competition and conflict between users at specific preferred locations.

To reduce effects to unguided users, permit administrators may disperse outfitter and guide users to less heavily used stream systems.

Measure 3: Effect to recreation opportunities for the unguided user - Wilderness

Effects to unguided users for Alternative 3 are likely to be negligible, because guided use would be held to 25% of the visitor capacity for Wilderness sites, so the likelihood of unguided users encountering guided users or evidence of human use by guided users would be minimized.

Alternative 4

Measure 1: Impact to ROS Settings - Recreation and Wilderness

Alternative 4 does not use the visitor capacity formula as the primary method to calculate allocations, but instead started with a 10% increase over permitted use. In those areas where such an allocation would put outfitter and guide use above 50% of the visitor capacity, Alternative 4 would allocate 50% of the visitor capacity to outfitter and guide use.

The allocation for Alternative 4 is based on permitted use for a single year, not on the highest actual use for a single year. Outfitters and guides ask for a certain number of use days per year at a location, but they do not always use all of the days that they propose for each location. Often the requested and permitted numbers represent a much greater number than the actual use figures.

Without using the visitor capacity formula as the primary method to calculate allocations, the Alternative 4 allocations are not based on Forest Plan direction for ROS and LUD until they exceed 50% of recreation visitor capacity. Once a location exceeds 50% of recreation visitor capacity, it will be managed the same as Alternative 2. Since Alternative 4 manages areas that reach 50% of the visitor capacity like Alternative 2, effects to ROS and recreation places are negligible for this alternative.

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Measure 2 Effect to recreation opportunities for the guided user Recreation and Wilderness

Based on actual use, the areas which could affect guides and guided users are the same as those shown in Table 3-9, including fishing restrictions, because the actual use on the ground is the same as Alternative 2. Allocations are not actual use and do not represent a physical or social impact. Hence effects to guided users would be negligible except minor effects at Harris River and Turn Creek and Klakas Inlet (described in the Wilderness measures for Alternative 2), where actual guided use would have to be reduced to meet the fishing restrictions and protect primitive conditions at these sites.

With fewer service days available for redistribution in Alternative 4, many current guides will have their allocations reduced in terms of days allowed for fishing or days allowed in particular use areas (for example in wilderness areas). Harris River can be used to illustrate effects. In both Alternative 2 and Alternative 4, the Harris River will lose 40 service days for fishing (when compared to actual use). In Alternative 2, those days can be redistributed to Fubar (Gandlaay Haanaa) Creek or Indian Creek because there is available use at those locations. However, in Alternative 4, there are only 19 days available at Fubar (Gandlaay Haanaa) Creek and 20 days available at Indian Creek. Thus, days would be lost or additional locations would need to be sought. If no other stream systems are available, outfitters and guides would need to enter a prospectus.

Measure 3: Effect to recreation opportunities for the unguided user - Recreation and Wilderness

Effects to unguided users would be the same as for Alternative 2. Fishing restrictions are likely to benefit unguided recreation users on freshwater streams because they would reduce the potential for competition and conflict for limited resources.

Direct and Indirect Effects Related to Recreation Permit Administration

For most sites, the Alternative 4 allocation is far below 50% of the recreation visitor capacity (threshold). Table 3-11 shows all recreation use areas where currently permitted numbers exceed 50% of the visitor capacity. At these sites, the allocations would be reduced to 50% of the visitor capacity, to meet Forest Plan standards.

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Table 3-11: Comparison between Alternative 2 (50% Recreation Visitor Capacity) and Alternative 4.

Recreation Use Area Name	Access	Recreation Visitor Capacity	Current Permitted Use (Alternative 1)	Alternative 2 Allocation (SD)	Alternative 4 Allocation (SD)	Highest Annual Use Recorded
Barrier Islands	Shore	309	200	155	155	N/A
Biscuit Lagoon	Shore	360	538	180	180	69
Halibut Harbor	Shore	847	828	424	424	13
Hessa Inlet	Shore	282	522	141	141	6
Hunter Bay	Shore	360	212	180	180	89
Klakas Inlet	Shore	360	854	180	180	208
Luelia Lake	Remote	539	285	270	270	144
Max Cove	Shore	360	218	180	180	97
Salmon Bay	Shore	282	210	141	141	32
Salmon Bay Lake Trail	Shore	309	233	155	155	19
Shipley Bay Creek/Lake	Shore	307	195	154	154	N/A
The Saitchuck	Remote	539	500	270	270	56

*Bold indicates actual use is higher than 50% of visitor capacity

There are 12 sites where the proposed allocations in Alternatives 2 and 4 will need to be reduced to meet 50% of the recreation visitor capacity. Nevertheless, as the table shows, actual use at nearly all of these sites is far less than the permitted use, which implies that resource and social impacts related to actual use on the ground are less than Alternatives 2 and 4 propose. Fishing restrictions add another complexity to this alternative's administration. Alternative 4 calculated its use figures based on allocations, yet these allocations are greater than the days allocated to fishing on many POW stream systems. Table 3-12 shows all the sites where there are limited days allocated to fishing when compared to the overall Alternative 4 allocations (these are the sites where fishing restrictions limit the number of guided fishing days). Recall that only in two sites did actual use exceed the fishing restrictions (Harris River and Turn Creek). In the past, guides asked for many more days (permitted use) than they actually use (highest annual use).

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Table 3-12: Alternative 4 Total Allocation Compared to Days Allocated to Fishing

Recreation Location Name	Alternative 4 allocation based on current and past use	Alt. 4 days allocated for fishing Restriction
Alder Creek	116	25
Big Lake	105	25
Buster Creek	66	25
Dog Salmon Creek	35	25
Harris River	373	150
Klakas Lake	231	100
Logjam Creek	109	50
Neck Lake	193	150
Ratz Creek	346	100
Red Bay Creek/Lake	285	25
Salmon Bay Creek	79	50
Salmon Bay Lake	185	50
Salmon Bay Creek	79	50
Salmon Bay Lake	185	50
Sarkar Lake	175	100
Staney Creek, Main Stem	385	350
Staney Creek, North Fork	55	50
Staney Creek, South Fork	55	50
Staney Creek, Upper	55	50
Sweetwater Lake	129	25
Thorne River, Lower	417	350
Thorne River, North	60	50
Thorne River, Tributaries	60	50
Thorne River, Upper	60	50
Turn Creek	52	25
Twelvemile Arm Creek	36	25

Table 3-12 shows that 26 streams would have reduced fishing allocations due to fishing restrictions in Alternative 4. No changes to actual use would occur except at the two locations described in the recreation section (Harris River and Turn Creek). In order to address all of the changes to allocations represented by reductions in allocations for all of the sites listed in Table 3-11 and Table 3-12 above, implementing adaptive management is required.

Alternative 4 initially only provides for 10% growth for outfitter and guides for most sites except some freshwater fishing streams, where special fisheries and subsistence restrictions would be applied for guided freshwater fishing. This does not allow for much flexibility to redistribute use. The adjustments needed in Alternative 4 create some administrative burden. Compared to the other action alternatives, the growth limitations of Alternative 4 are related to availability of time, money and personnel to analyze and document allocation adjustments. For example, Harris River and Turn Creek have higher current use levels than the suggested guided freshwater

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fishing restrictions and guided use would have to be reduced at these sites. Like in Alternative 2, guides could disperse to nearby creeks, but with only 10% of an increase above current allocations in most areas, there is little room to redistribute the existing allocations. If Alternative 4 is selected, the permit administrator would need to immediately begin the process of redistributing the guide use for Fubar (Gandlaay Haanaa) Creek and Indian Creek in order to accommodate existing allocations. The process to redistribute use may take several months, which may affect outfitters, guides, and guided users. A prospectus may be used to allocate the limited number of fishing days.

Cumulative Effects

The analysis area is the entire POW Outfitter and Guide Management Plan project area - all of the National Forest System lands encompassing the Craig and Thorne Bay Ranger Districts of the Tongass National Forest. This area is based on the management framework for outfitter-guide administration, which corresponds to Ranger District boundaries.

Alternatives 1, 2, 3, and 4

Past, present, or foreseeable future projects that may contribute cumulative effects for recreation and wilderness resources include timber sales, salvage harvest, restoration projects, road closures and maintenance, recreation site maintenance and improvements, potential land exchanges and many others.

Recreation uses, both guided and unguided, may be redistributed as a result of timber harvest, salvage harvest, and restoration projects. These changes are likely to be short term and limited to the period of operation.

Road closures on POW may reduce the amount of accessible recreation use sites and cause some outfitter and guide uses to accumulate in other areas. For the action alternatives, allocations would help to keep guided and unguided visitor use dispersed. This potential accumulation of use would be managed through incorporation of thresholds developed in the visitor capacity. In other words, over 50% of the visitor capacity would not be permitted to outfitters and guides for any locations with the action alternatives.

Recreation site maintenance and enhancements are likely to benefit outfitter and guide users and unguided users alike, providing increased developed recreation opportunities to all users.

Potential land exchanges, like road closures, are likely to cause reductions in the numbers of recreation sites available, which means that outfitters and guides would likely seek opportunities in other sites. Since there is substantial room for outfitters and guides to distribute to other sites (except for a few specific locations), this reduction is considered negligible because use can be redistributed and no single kind of use would be disproportionately affected.

Other potential cumulative effects include potential effects to recreation users, both guided and unguided, from recreation users who are not on National Forest System lands, such as commercial fishermen, sports fishermen, and developments on private land inholdings. Activities taking place on oceans and beaches below mean high tide are not managed by the Forest Service. Since the commercial and sports fishing industries are part of the Alaskan experience, it is likely that such uses would have negligible effects on recreation activities on National Forest System lands.

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Alternatives 1 through 4 would have negligible effects on other projects, developments or enhancements because they are not ground disturbing development actions, rather they are allocations of relatively low impact recreation uses that are not likely to change a great deal from the current condition.

Economics

This economic analysis includes outfitter and guide activities on the Craig and Thorne Bay Ranger Districts, which includes all national forest system (NFS) lands on POW and the surrounding islands on both districts. This socioeconomic review is for the next five to ten years, at which time, the district rangers should review the NEPA to determine if there have been significant changes in conditions. With adaptive management, this review should show that further documentation is not required

Affected Environment

Level of Effects

In 2008, the Forest Service reviewed outfitter and guide permitting in the Threshold Regulatory Flexibility Act Analysis (TRFAA). This analysis looked at using a flat fee rate to charge outfitters and guides to issue special use permits, based on the agency's 2006 Special Uses Database (SUDS). The data include records of 4,563 outfitting and guiding permits containing land use fee information. According to the TRFAA, "Approximately 60 percent of the permits generate annual gross revenue of less than \$20,000, and nearly 40 percent of the permits generate annual gross revenue of less than \$5,000." (USDA 2008b)

Because the value of outfitter and guide services is different for each permit holder, it was not possible to use a dollar amount for the comparison. For example, in 2002 per-client per-hunt fees for brown bear hunts ranged from \$850 to \$17,900 (Alexander 2008) and the 2002 mean client-day charge for freshwater fishing and small game and waterfowl hunting was about \$294 (Ibid), and sightseeing tours can average about \$337 per person per day (Dugan, Fay, and Colt, 2007). Additionally, we cannot accurately predict the number or type of permits that will be authorized in the future. Thus, service days and not dollar amounts were used for the comparison.

This analysis determined if there was room for growth in the outfitter and guide industry. This analysis uses service days as a measurement because each of the alternatives allocates a specific number of service days by recreation use area. Two measures are used to describe the current condition and compare the alternatives:

- Number of service days at recreation areas within 15 miles of communities
- Number of service days in areas that have developed facilities (Dog Salmon Fishpass) available

Recreation areas within 15 miles of communities was used to be consistent with the subsistence section, which found that subsistence resource gathering took place, on average, within 15 miles of communities. Fifteen miles is also a good measure when looking at transportation costs, availability of clients, and availability of other amenities (supplies, gas, and lodging) for

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outfitters and guides. For some activities, like passive and active touring, there is a cost savings of keeping near communities.

Approximately 67% of the recreation use areas, 139 sites out of 209 recreation use areas, fell within 15 miles of a community on POW Island. Most of those sites more than 15 miles from communities were on southern POW or Dall Islands, or on the outer islands west of POW. Table 3-13 shows the current permitted use at areas within 15 miles of a community is 11,095 service days out of the total of 19,827 permitted service days.

There are eleven developed recreation areas and trails with permitted outfitter or guide use with a total of 4,379 service days currently permitted to outfitters or guides (Table 3-13):

- Beaver Falls Trail
- Cavern Lake Trail
- Dog Salmon Fishpass
- El Capitan Cave
- Harris River
- Hatchery Creek
- Red Bay Lake Trail
- Salmon Bay Lake Trail
- Salt Chuck
- Sarkar Lake
- Winter Harbor

The highest actual annual use at these sites totals 1,960 service days. The only developed recreation use area where the allocation is less than the highest annual use is Hatchery Creek. At Hatchery Creek, the highest annual use is recorded as 100 service days. The permitted use at this time is 26 service days and does not meet the highest use level demand for developed recreation areas and trails. Some areas have permitted use, though not actual use, over 50% of the visitor capacity (see also Table 2-1):

- Barrier Islands
- Biscuit Lagoon
- Halibut Harbor
- Hessa Inlet
- Hunter Bay
- Klakas Inlet
- Luelia Lake
- Max Cove
- Salmon Bay
- Salmon Bay Lake Trail
- Shipley Bay Creek/Lake
- The Saitchuck

Environmental Consequences

Direct/Indirect Effects

Table 3-13: Total Service Days Allocated by Alternative, and Allocated Service Days Within 15 miles of a Community and at Developed Recreation Sites and Trails

Alt. 1 - (SD)	Alt. 1 - within 15 miles (SD)	Alt. 1 – dev. sites and trails ¹	Alt. 2 - (SD)	Alt. 2 - within 15 miles (SD)	Alt. 2 – dev. sites and trails	Alt.3 - (SD)	Alt. 3 - within 15 miles (SD)	Alt. 3 – dev. sites and trails	Alt. 4 (SD)	Alt. 4 within (SD)	Alt. 4 – dev. sites and trails
19,827	15,737	4,379	160,490	122,413	14,959	85,771	66,732	13,005	23,010	18,282	5,175

¹ Some of these service days are included in the service days allocated near communities; the numbers are not additive.

Alternative 1 - No Action

Direct and indirect effects on the economics for outfitters and guides will remain the same. When an outfitter or guide applies for a special use permit, the permit administrators will complete an individual environmental analysis, which can take a short time or several years dependent on the type of application and the availability of resource specialists. Under this alternative, the 10-year priority use permits, which would allow businesses the opportunity for long term planning and investment, would not happen.

The level of use that would be authorized, if Alternative 1 were selected, is 19,827 service days per year, which is based on the number of permitted days in 2011. Use would be limited to this level unless further analysis is completed. There is no room for outfitters and guides to expand their businesses. In addition, some areas have permitted use over 50% of the visitor capacity (Table 2-1). In these areas, there may be social conflicts (crowding, avoidance) and resource impacts if all of the permitted service days were used.

Alternative 1 includes the fishing restrictions in the Revision to the Environmental Assessment for the Determination of Issuing Special Use Permits for Sportfishing Outfitter and Guide Services throughout Ketchikan Area Tongass National Forest (1998) and the Central WAA hunting closure in the Big Game EA (1993). These limits are not a change in direction and should not limit current outfitters and guides but may limit future permitting.

Alternative 1 would have the lowest impact on unguided users because it has the lowest number of service days within 15 miles of communities (15,737). It would also have the lowest value to outfitters and guides because of the low number of project-wide service days, the low number of service days at developed recreation areas and trails, and the lowest number of service days near communities, where operators would have access to clients, supplies, and other amenities (Tables 3-13 and 2-1).

Effects Common to Alternative 2, 3, and 4

For all of the action alternatives, the outfitter and guide industry has room to expand in most of the recreation use areas since there are more allocated service days than the highest use (Table 3-13). With the action alternatives, if an outfitter or guide requests a new special use permit and there are service days still available, an individual environmental analysis would not be required unless the activity type or location are new (i.e. the activity does not currently occur on the district or the site has not been used for outfitter or guide activities).

The action alternatives also include an adaptive management component. Due to conditions varying from weather to wildlife sightings to the state of financial markets, the location, type, and amount of recreational use in any area changes irregularly. Adaptive management is a process of monitoring results and adjusting the chosen action to meet desired outcomes.

If unforeseen, unknown, or substantial resource impacts occur while implementing the Decision Notice Selected Alternative or if an outfitter or guide requests permitted use above the commercial use allocations, the Craig and Thorne Bay District Rangers will evaluate the situation and determine if they need to use adaptive management to comply with the Forest Plan or adjust permits. In some cases, the District Rangers may determine no action is needed.

The District Rangers can increase or decrease the number of service days allocated by following the adaptive management process. Among other steps, as shown in Chapter 2,

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increases cannot occur unless the proposed use of the recreation location does not exceed the highest number of service days allocated for an action alternative in this EA (160,490 service days) or the highest number of service days analyzed for that recreation use area. For example, in Alternative 4, Big Lake has an allocation of 105 service days. If Alternative 4 were selected for implementation and a guide came to the district and requested use of 120 service days at Big Lake, the district ranger could use the adaptive management process to determine whether to allocate more service days. The maximum number of service days analyzed in this EA for Big Lake is 1,153 in Alternative 2. Since we have already looked at the effects to Big Lake based on that allocation, the district ranger may decide to increase the number of service days, if all of the other criteria are met.

The adaptive management plan is based on monitoring and feedback to determine if guided visitors are having the effect we expected.

Alternative 2

Alternative 2 is the most financially beneficial alternative for outfitters and guides of all the alternatives. It increases allowable permitted use to 160,490 service days annually compared to 19,827 service days in Alternative 1. This alternative increases allocated permitted use by 140,663 service days, about 700% over the permitted use in Alternative 1 (Table 3-13) with some restrictions in the number of days allocated to outfitted or guided fishing. Fishing restrictions are for steelhead, summer run coho, and sockeye; the allocation for outfitters and guides in an area remains the same but the number of permitted fishing service days is limited, which could limit growth of outfitters and guides that concentrate on fishing.

Although there is an increase in the total service days allocated, there are some areas where the number of service days allocated is less than the number of service days permitted in Alternative 1 (Table 2-1). In all of the recreation use areas, the highest annual use is less than the proposed allocation in Alternative 2, except Klakas Inlet. In Klakas Inlet, the districts may have to go to a prospectus to determine who gets permits, if some outfitters and guides are not willing to move to other similar areas.

Alternative 2 proposes an allocation of 122,413 service days within 15 miles of communities (Table 3-13). If all of these service days are permitted and used, there would be some social conflicts like crowding and avoidance of areas due to crowds. The number of service days near communities is the most proposed in all of the alternatives, which could benefit operators since communities are sources for clients, offer amenities (hotels and restaurants), and easy access to supplies.

Alternative 2 also offers the most service days at the developed recreation use areas and trails, 14,959 service days (Table 3-13).

This alternative has the highest number of proposed service days, which would offer operators the greatest opportunity for growth and stability².

² If an action alternative is selected for implementation, outfitters and guides may get 10-year priority use permits, which would allow businesses the opportunity for long term planning and investment. This could lead to stability in the outfitter and guide industry.

Alternative 3

Alternative 3 is the second most financially beneficial alternative for outfitters and guides of all the alternatives. Alternative 3 increases allowable permitted service days for outfitter and guide use to 85,771 compared to 19,827 service days per year in Alternative 1. This alternative increases the number of permitted days available for outfitter and guide use by 65,944 service days, about 330% over the permitted use in Alternative 1 (Table 3-13). There are no fishing restrictions in Alternative 3, which would allow all of the allocated days to be used for fishing. This may benefit outfitters and guides that specialize in fishing tours. However, it may harm the species that are being fished for, steelhead trout and summer run coho and sockeye salmon (see the Fisheries section of this EA).

Although there is an increase in the total service days allocated, there are some areas where the number of service days allocated is less than the number of service days permitted in Alternative 1 (Table 2-1). In all of the recreation use areas, the highest annual use is less than the proposed allocation in Alternative 3, except Hunter Bay, Klakas Inlet, Luelia Lake, and Max Cove. In these areas, the districts may have to go to a prospectus to determine who gets permits, if some outfitters and guides are not willing to move to other similar areas.

Alternative 3 would limit the allocation for fall hunting days to 40 days for each site. This limit would not affect current outfitter and guide permits because the number of permitted hunting days is less than 40 at all sites. However, it may affect outfitters and guides who concentrate on hunting in the future.

Alternative 3 proposes an allocation of 66,732 service days within 15 miles of communities (Table 3-13). If all of these service days are permitted and used, there would be some social conflicts like crowding and avoidance of areas due to crowds. The number of service days near communities is the second highest proposed in all of the alternatives, which could benefit operators since communities are sources for clients, offer amenities, and easy access to supplies. Alternative 3 also offers the most service days at the developed recreation use areas and trails, 13,005 service days (Table 3-13).

This alternative has the second highest number of proposed service days, which would offer operators the opportunity for growth and stability.

Alternative 4

Alternative 4 is the least financially beneficial alternative for outfitters and guides of all the action alternatives. This alternative increases allowable permit use to 23,010 service days annually for outfitter and guide use compared to 19,827 in Alternative 1. The service days available for outfitter and guide use increases by 3,183 service days, about a 16³ percent increase, over the permitted use in Alternative 1 (Table 3-13).

Although there is an increase in the total service days allocated, there are some areas where the number of service days allocated is less than the number of service days permitted in

³ Alternative 4 is based on adding 10% to the number of service days currently permitted. The reason for the 16% increase is because Alternative 4 allocates use in areas that do not currently have permitted use; 10% was added to previous permitted use. If there was no previous permitted use, 50% of the carrying capacity was allocated.

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Alternative 1 (Table 2-1). In all of the recreation use areas, the highest annual use is less than the proposed allocation in Alternative 4, except:

- Cholmondeley Sound, West Arm
- Datzkoo Harbor
- Dickman Bay
- Egg Harbor
- Exchange Cove, West
- Fredrick Cove
- Granite Mountain
- Hatchery Creek
- Klakas Inlet
- Kosciusko Island Road System
- Maybeso River
- Moira Sound
- Old Franks Creek

Outfitters and guides permitted to use these listed areas or who request use that exceeds allocated use may have to relocate use to other areas, or the districts would have to do a prospectus to determine which operators would be issued permits [FSH 2709.14.53.1h(3)]. Since there is limited room for growth in some areas, accommodating the outfitters and guides in another area may be possible; however, those areas may not be similar or offer the same opportunities. Limiting use in the most popular areas may financially affect the outfitter and guide industry, if the outfitters and guides could not be accommodated in other locations. While this alternative could affect outfitter and guide economic opportunities, the Forest Service Handbook does not guarantee the number of service days an outfitter or guide receives each year. This carrying capacity analysis falls with direction to determine where impacts associated with use may exceed desired conditions [FSH 2709.14.53.1f(2)and(3)]. It also falls within FSH 2709.14. 53.1p - Reduction of Use Based on New or Changed Decisions.

This alternative includes fishing restrictions similar to Alternative 2. Fishing restrictions are for steelhead, summer run coho, and sockeye; the allocation for outfitters and guides in an area remains the same but the number of permitted fishing service days is limited, which could limit growth of outfitters and guides that concentrate on fishing.

Alternative 4 would limit the allocation for fall hunting days to 40 days for each site. This limit would not affect current outfitter and guide permits because the number of permitted hunting days is less than 40 at all sites. However, it may affect outfitters and guides who concentrate on hunting in the future.

Alternative 4 proposes an allocation of 18,282 service days within 15 miles of communities, which is 2,545 service days more than the current level. If all of these service days are permitted and used, most people would probably not notice the increase since the days are spread across all recreation use areas throughout the project area. The number of service days near communities, may slightly benefit operators since communities are sources for clients, offer amenities, and easy access to supplies, although the amount of available growth island-wide is low. This alternative would not offer operators the opportunity for growth that the other action alternatives offer.

Cumulative Effects

This economic analysis includes outfitter and guide activities on the Craig and Thorne Bay Ranger Districts, which includes all national forest system (NFS) lands on POW and the surrounding islands on both districts. The cumulative effects do not include areas outside of POW because there are no economic benefits to the communities on POW from guiding in other areas. Guides and outfitters that live on POW may have permits on other districts and spend some of their money on POW, however, these funds are not considered in this report

Alternatives 1, 2, 3, and 4

This analysis considers those activities that are reasonably foreseeable and may economically affect outfitters and guides on the district. Improvements to recreation facilities, like the parking lot at Dog Salmon Fishpass, may improve opportunities for outfitters and guides. Improving opportunities will not increase the number of service days available for permitting in the alternative selected for implementation by the district rangers, but may increase requests by outfitters and guides in some areas. Increased requests may result in the need for a prospectus to determine who gets the available service days; however, the number of service days would remain constant.

None of the other activities currently occurring or likely to occur in the future will affect any of the alternatives.

Since service days remain constant in all alternatives despite other District activities, effects are based on service days without the addition of effects of the other activities. Thus, Alternative 2 would be the most financially beneficial for outfitters and guides, followed by Alternatives 3, 4, and 1, respectively. Alternative 2 would also be the most beneficial with considering allocation within 15 miles of communities (122,413 service days) and service days at the developed recreation use areas and trails, 14,959 service days, followed by Alternatives 3, 4, and 1, respectively. The number of service days near communities is an advantage for outfitters and guides, since communities are sources for clients, offer amenities (hotels and restaurants), and easy access to supplies.

Alternative 2 has the potential for the most social conflicts like crowding and avoidance of areas due to crowds. When considering social conflicts, Alternative 1 would have the least possibility of social conflicts, followed by Alternatives 4 and 3, respectively.

Fisheries and Hydrology

This section analyzes the direct and indirect effects each alternative would have on fish and aquatic resources including habitat, population, harvest, and cumulative effects. . Four concerns regarding outfitter and guide use and fish and aquatic resources were determined, by professional opinion, by the Craig and Thorne Bay Ranger District fisheries biologist and fisheries subsistence biologist . These concerns relate to effects to biological and physical attributes for fish and aquatics resources, and effects to subsistence. An additional concern

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over limiting outfitter and guide fishing was raised by the public during project scoping. The five concerns are:

1. Reduced resource availability to subsistence users because of competition with sport fishers, including outfitted and guided sport fishers;
2. Outfitted and guided sport fishing may lead to aquatic or riparian habitat degradation because popular fishing areas will receive use beyond what would normally occur (i.e., use by private individuals only);
3. Some species or stocks may be negatively affected by outfitted and guided sport fishing by direct take (i.e., harvest that results in population reduction), delayed mortality from hooking injuries or handling stress, and egg destruction from redd (i.e., spawning nest) trampling; species of concern include steelhead, especially small runs, summer coho runs and sockeye salmon runs;
4. Sport fishing activities may lead to invasive species introduction that may cause resource damage through predation, competition, change in habitat, and/or disease introduction
5. Limiting the amount and location of outfitted and guided fishing when population data are not available, unnecessarily limits outfitter and guide activities.

The area of analysis for fisheries and hydrology, hereafter referred to as the project area, is all National Forest System land administered by the Thorne Bay and Craig Ranger Districts. Fish habitat, including streams, lakes, and riparian areas adjacent to fish habitat, and subsistence use, as well as existing data on fish populations in various streams in the project area, are analyzed in this section. Analysis is based on reported subsistence and outfitter guide and unguided sport fishing, existing fish population and run timing data, professional opinion and publications that discuss the effects of sport fishing on resources in general.

Certain identified recreation “sites” were combined to determine total outfitter guide service day allocations for fisheries, such as Eagle Creek and Luck Creek and Luck Lake and the mainstem of Cable Creek includes Snipe and Beaver Creek.

Recreational activities that may affect fisheries resources in the project area include fishing and access to fishing areas. Other activities such as hiking or bear hunting may affect fish habitat where access includes walking in the stream channel or along the stream bank. However, there is no existing information to analyze these effects. Therefore they are only discussed in general ways, such as effects of trampling redds by walking through stream channels. Effects analysis is based on sites with lakes and streams that support fish species.

Because outfitted and guided fishing often specifically targets certain fish species, it is important to consider the effects of these activities on fish populations. However, service day allocations are not based on specific species. Because the amount and complexity of aquatic resources is vast for this area, some of the discussion in this section will be generic, but additional information will be mentioned for known high-use areas or vulnerable sensitive species or stocks.

Affected Environment

Introduction

Fish and other aquatic resources on the national forest support subsistence, commercial and sport fisheries, and traditional and cultural values. Abundant rainfall, streams with glacial origins, and watersheds with high stream densities provide a large number and diversity of freshwater fish habitats in southeast Alaska. There are approximately 4,960 miles of Class I (anadromous fish bearing streams) and Class II (resident fish bearing streams) stream habitat and 35,330 acres of fish bearing lake habitat within the project area.

Riparian (stream and lakeside) habitats are typically densely forested with forest canopies completely shading stream channels. Stream banks are often covered by a dense layer of ground cover and shrubs resulting in little to no exposure of mineral soil. This small strip of vegetation within a riparian zone provides a wide range of functions including a buffering capability for overland sediment delivery, water temperature and pollution. Riparian vegetation reduces water velocity on the floodplain, and the roots inhibit stream bank erosion. Riparian vegetation also provides leaf and needle litter, which contributes to aquatic food chains. Large woody debris (from fallen trees) provides cover for fish, creates pools, and provides stream bank protection. As directed in the Forest Plan, the desired condition for riparian areas is to conserve or improve their ability to absorb water, filter sediment, and sustain stream channel integrity (USDA Forest Service 2008a, p 4-50). This is achieved when native and desired non-native plant species are well established and robust throughout the riparian zone. Footpaths and stream bank erosion are some of the more noticeable signs of recreation use impacts on streams. Areas of concern related to recreation use are noted in Appendix A.

The rivers, streams, and lakes in the project area support a variety of anadromous and resident fish species. The anadromous species include: chum salmon (*Oncorhynchus keta*), coho salmon (*O. kisutch*), pink salmon (*O. gorbuscha*), sockeye salmon (*O. nerka*), cutthroat trout (*O. clarkii*), rainbow trout (steelhead) (*O. mykiss*), and Dolly Varden char (*Salvelinus malma*). The project area also supports populations of resident cutthroat trout, rainbow trout, Dolly Varden char, and non-game fish species such as sculpin (*Cottus spp.*) and three-spined stickleback (*Gasterosteus aculeatus*). Chinook salmon (*O. tshawytscha*) are present in the marine waters off POW Island, and can stray into streams on POW Island (e.g. Thorne River, Stoney Creek). Chinook however, typically do not spawn in POW Island streams.

The affected aquatic resources considered in this section are the submerged and riparian lake and stream habitat and the fish populations within the land management jurisdiction of the Thorne Bay Ranger District and Craig Ranger District.

Level of Effects

The following definitions are used to describe relative levels of effect.

Negligible – No measureable effects resulting from outfitted and guided activities to other resource areas which affect fisheries and aquatic resources are occurring, and no measurable change in fisheries habitats is detectable.

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Minor – Effects resulting from outfitted and guided activities to other resource areas which indirectly affect fisheries resources may be occurring, but no measurable change is detectable.

Moderate – Effects resulting from outfitted and guided activities directly or indirectly affect fisheries and aquatic resources. Measurable change is detectable. The effect could have some long-term consequences to individuals or habitat. Frequent response to disturbance by some individuals could be expected, with some negative impacts to feeding, reproduction, or other factors affecting short-term population levels, but no long-term population effects are expected.

Available Data

Data that was available and used in this analysis includes, reported subsistence effort and harvest, which is a stipulation on the Federal Subsistence Trout, Salmon and Char permit, and outfitter guide fishing use determined from angler service day counts reported to the USDA Forest Service by outfitter guides. This reporting is a condition for guides to receive a permit the following season. ADF&G Statewide Harvest Survey data was also used in this analysis to determine fishing effort and high use areas. It should be noted that an unknown percent of the Alaska Statewide Sport Fish Harvest Survey may include anglers that fished with outfitters or guides. Other data that was considered in this analysis was run timing, such as systems with early sockeye returns that have been vulnerable to overharvest due to partial barrier falls that keep fish stacked up in an area and known steelhead streams with small runs.

Many concerns or potential concerns regarding outfitter guide use on fish habitat and aquatic resources are immeasurable or undocumented. No monitoring has take place and therefore there is no existing data on environmental effects of guided or unguided recreational use in the project area, however, there are published documents that discuss sport fishing effects to resources in general. In addition, there are no existing data on effects of guided fishing on subsistence use, or introduction of non-native or invasive species by guided sport fishing.

Salmon escapement numbers are collected by aerial estimates, stream/lakeside walking counts, snorkel counts and weirs where fish are counted as they pass. Weir counts are the most accurate means of estimating escapement, but it is a costly process and only used occasionally on key fish streams in the project area. For this reason, aerial, snorkel, and walking counts are more commonly used. Though not as accurate as weir data, these methods do provide escapement data that can be used to compare the year-to-year variability in salmon escapement numbers.

Population data for drainages in the Thorne Bay and Craig Ranger Districts is limited, however, existing population data was used in this section. Sixteen drainages have had some population study work in the past 30 years including weir counts or mark recapture estimates.

Species of Concern

Species of concern in this analysis include steelhead, especially small, road accessed runs, sockeye, and summer run coho. They are considered species of concern due to one or more

of the following: importance to subsistence users, small run size, and run timing. Certain systems have early returns of sockeye or coho often due to a partial, flow dependent barrier that the fish have to navigate. This means that these fish are in the system for longer periods of time before spawning, often expending energy to surmount the barrier. This can cause physical stress, increasing mortality and can increase vulnerability to overharvest when fish are staged at a barrier.

Steelhead

Steelhead (*Oncorhynchus mykiss*) are comprised of two runs; a fall run which enters approximately 13 POW drainages starting in November, and the predominant spring run which enters approximately 87 POW drainages in mid to late March. Regardless of when they return to freshwater, all steelhead spawn during the spring months when daily water temperatures reach 6-9° C usually about mid-April through May to early June (ADF&G, 2011). Steelhead can spawn more than once before they die. The percentage of steelhead that return a second time to spawn typically ranges from 20 to 30%, but may be as low as 10% or as high as 50%. Generally the larger, older females survive at a higher rate than the smaller and younger ones, and males do not survive spawning as readily as females (ADF&G, 2011).

Steelhead are the anadromous form of rainbow trout, and are a prized sport fish. Steelhead are a popular sport fish because they are relatively ‘catchable’ with a variety of fishing gear, attain large sizes, and are extremely hard-fighting. Steelhead tend to prefer medium-sized and larger stream systems with abundant areas of turbulent, well-oxygenated flows (i.e., riffles) (Bisson et al. 1998). The small size of most steelhead stocks in Southeast Alaska and their relative vulnerability to sport fishing methods makes them susceptible to extirpation through habitat degradation or over fishing (Lohr & Bryant 1999).

Recent data suggest steelhead populations throughout Southeast Alaska were more abundant historically than they are now (Lohr and Bryant 1999; Harding and Love 2008). Population declines in the late 1980’s and early 1990’s prompted ADF&G to restrict steelhead harvest starting in 1994 and continuing to the present day. In 1994, the Alaska Board of Fish adopted conservative steelhead management regulations of a one fish bag limit, two fish annual limit, and 36-inch minimum size limit for all Southeast Alaska. These regulations protect the majority (approximately 95%) of the population from harvest and excessive incidental mortality. Current ADF&G regulations also prohibit the use of bait. Fall run steelhead drainages prohibit the use of bait year-round and prohibit steelhead harvest (ADF&G 2009). Steelhead densities appear to have had a mixed response to these regulation changes with some populations showing increased returns in some years while others remain stable at very low levels (Harding and Love 2008).

Management of steelhead in southeast Alaska is complicated by small run sizes and their complex and diverse life history. Population data for steelhead is lacking for the majority of the drainages in the project area. Managers depend on estimates made by the Alaska Department of Fish and Game.

In certain drainages on POW, steelhead currently receive special protection as determined by the local Federal fisheries manager in consultation with ADF&G [36 CFR Part 242 § __.27(i)(13)(xix)(B)]. These systems are:

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- 108 Creek
- 12 Mile Creek
- Alder Creek
- Big Creek
- Black Bear Creek
- Buster Creek
- Cable Creek drainages (includes Snipe & Beaver Creeks)
- Crab Creek
- Dog Salmon Creek
- El Cap Creek
- Exchange Creek
- Flicker Creek
- Harris River
- Little Ratz Creek
- Maybeso Creek
- Naukati Creek
- Port Saint Nicholas Creek
- Red Bay Lake/ Creek
- Rock Creek
- Sal Creek
- Shaheen Creek
- Trocadero Creek
- Turn Creek
- Yatuk Creek

Current Federal subsistence regulations in these drainages allow for the harvest of one fish daily, two annually under the terms of a Federal permit. These drainages are spot checked numerous times during the course of the fishery, and subsistence permit holders are contacted monthly to determine harvest levels. Depending on the drainage, if 5 to 10 steelhead are known to be harvested, in-season action is taken to close fishing for all species by both sport and subsistence users. For Federal subsistence use, you must obtain a separate permit for the winter and spring seasons. The winter season may be closed when the harvest level cap of 100 steelhead for Prince of Wales/Kosciusko Islands has been reached. The spring season may be closed prior to May 31 if the harvest quota of 600 fish minus the number of steelhead harvested in the winter subsistence steelhead fishery is reached [36 CFR Part 242 §__.27(i)(13)(xix)(B)].

Drainages on POW receiving heavy sport use for steelhead are the Thorne River, Eagle Creek, Ratz Creek, and Staney Creek.

Steelhead can be vulnerable to catch and release mortality. Most studies have looked at the mortality associated with bait use which can be very high. Studies looking at the use of artificial lures show mortality, but at a lower rate. Mortality rates have varied between 3 and 10 percent for steelhead (Hooten, 2001). Rates can vary depending on how recent the steelhead has moved into the drainage, hooking location, how the fish was played, landed and released.

Sockeye Salmon

Sockeye salmon (*Oncorhynchus nerka*) stocks on POW are considered very important as they are the most targeted salmon species for subsistence/personal use fisheries. Most subsistence sockeye fishing occurs in marine waters under state jurisdiction. However, there are sockeye systems on POW important to subsistence and personal use fisheries. These systems include Hatchery Creek, Salmon Bay, Red Bay, Sarkar, Klawock River, Hetta, Eek Creek, Hunter Bay, Klakas, Karta River and the Thorne River.

Most sockeye runs start entering streams in July, however, POW does have systems with earlier runs which begin in June. These early runs include the Thorne River, Hatchery Creek

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and Sarkar Creek. Due to concern of overfishing in an inlet stream to Sarkar Lake, an action by the Federal Subsistence Board now prohibits the use of any net by both Federally-qualified and non-Federally qualified users above the highway bridge.

There have been emergency closures for both sport fishing and subsistence on Hatchery Creek in recent years due to low returns. Extreme low and high flow levels can highly affect this run of sockeye, which can make them extremely vulnerable. Since completion of a boardwalk trail to the falls, sport fishing heavily increased. Because of the increase in fishing intensity accompanied by low flows during most of the summers since 2001, the state has taken numerous emergency actions on this drainage. The State Board of Fisheries developed a proposal to reduce the daily bag limit of Hatchery Creek sockeye and institute a seasonal fishery closure from the upper falls to the lower falls effective since 2006. A three year weir count/ mark-recapture study began in 2007 to obtain data on this unique stock which is thought to be small and one of the earliest returning runs in southern southeast Alaska. The weir count/mark recapture study was funded again in 2010 for four years. In 2010, the Forest Service built a fishpass at the upper Hatchery Creek falls to aid sockeye salmon passage at less than optimal flows where high mortality was thought to be associated with physical stress induced from the flow dependent barrier.

Coho Salmon

Coho salmon (*Oncorhynchus kisutch*) runs on POW are highly utilized in both subsistence and sport fisheries. Although most systems on POW have fall runs, returning to streams in mid-August through September, several drainages on POW contain a summer run of coho which start showing up in early July. The Thorne River, Logjam Creek, Hatchery Creek, 108 Creek, Karta River, Old Franks Creek, Harris River, and Staney Creek are a few of the summer run coho drainages. Summer run fish are typically smaller, and it is thought that typically the navigation of a falls on a drainage has caused fish to return earlier to increase chances of surmounting a partial or flow dependent barrier. It is also thought that these runs may be unique and typically lower in number than the fall run of coho.

Current Use

There are fish bearing streams or lakes in 64 of the 209 recreation use areas identified in the project area. Of these 64 recreation use areas with fish, fishing is the dominant activity in 46 sites meaning that the majority of service days requested for that site are guided fishing (see Appendix A). In the 19 additional sites, hunting and passive and active touring are the dominant activity type. These activities, however, could have some effects on fisheries resources, for example, walking in the river channel or on streambanks when black bear hunting.

Current outfitter and guide service day sport fishing limits are based on the 1998 Environmental Assessment for the Determination of Issuing Special Use Permits for Sportfishing Outfitter and Guide Services. The 1998 Decision limits outfitted and guided service days during prime steelhead season (December 1-May 31) on streams where moderate concerns were identified (Thorne River, Staney Creek, Luck Lake/Eagle Creek, Sweetwater (Hatchery/Logjam), Sarkar, and Salmon Bay-see description of Alternative 1 in Chapter 2 of this EA). Outside of the timing restrictions outlined in the 1998 EA, there are no limits on service days for any streams or lakes within the project area. This was revised

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from the 1993 Environmental Assessment for the Determination of Issuing Special Use Permits for Sportfishing Outfitter and Guide Services where service days were limited for the entire year. Karta River is the only stream within the project area considered “high concern” in the 1998 EA. High concern streams are currently closed to all outfitter guided sport fishing during the entire year, and no permits or service days are issued in systems in this category (USDA, 1998).

The ADF&G compile annual state-wide harvest survey data (Table 3-14). Table 3-14 includes harvest survey data for both guided and unguided sport fishing. This data is considered an estimate for sport fishing effort based on responses from surveys sent to randomly selected fishing license holders. The statistic reliability of this data is highly dependent on number of responses (McCurdy, 2010). If a waterbody did not receive at least 12 responses, it was lumped into a category called “other systems” (not displayed in Table 3-14).

Table 3-14: State-wide Harvest Survey Data

Drainage	Days Fished ¹									
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Sarkar System (stream/lake)	626	378	705		460			413		
Eagle Creek (Bear Creek)	539	735	730	724	375				1,311	659
Klawock River ²	2,201	1,869	2,822	2,693	1,994	2,302	3,947	4,112	3,105	2,584
Karta River ³	1,591	462	468	1,527	543	1,031			854	
Staney Creek	1,191	1,004	1,996	1,874	1,454	1,300	1,727	1,675	1,709	1,464
Thorne System	5,468	3,366	5,037	6,550	4,303	4,234	3,884	4,674	4,661	3,376
Black Bear Creek		394	660				563		600	
Harris River	1,699	1,311	1,399	2,275	2,467	1,326		1,480	1,180	1,304
Sweetwater system	991	853	1,316	896			1,756			

¹blanks are locations with inadequate number of responses (less than 12)

²On private land (not in project area)

³Outfitter and guided use not permitted on the Karta River
(Data provided by Steve McCurdy ADF&G data query, 2011)

The highest use areas for guided and unguided sport fishing and subsistence are Thorne River, Staney Creek, Hatchery Creek (Sweetwater system), and Eagle Creek/Luck Creek. The Karta River is heavily used for subsistence and unguided sport fishing.

For outfitter guide use, requested use at most systems was well below the 1998 decision’s limit during the restricted season. During the restricted timeframe, only 5 to 34 percent (50 to 397 service days of the allotted 1,102 service days) of the potential outfitter or guide use was permitted annually between 2004 and 2010. Only two systems, Harris River and Ratz Creek, had more permits requested than the maximum service days allowed during prime steelhead

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timing where restrictions apply. Between 2004 and 2009, permitted days ranged from 211 to 744 service days annually to outfitters and guides outside the restricted timeframe in 32 recreation use areas. Trends seem to be somewhat steady on high use systems such as Staney Creek and Thorne River. However, reported service days for fishing were down for most systems in 2009.

Threatened, Endangered, and Sensitive Fish Species

There are no federally listed threatened, endangered, or sensitive (TES) fish species known to occur in rivers, streams, or lakes on POW Island. However, some fish from stocks of federally listed salmon from Washington, Idaho, and Oregon may migrate through the marine waters off of POW Island. It is assumed that fishing use of POW Island rivers, streams, and lakes would not affect these fish.

Management Indicator Species

The Forest Plan (USDA Forest Service 2008a) lists four species of fish as Management Indicator Species (MIS). Pink salmon were selected to represent anadromous fish that are limited in their freshwater life period by spawning gravel quality and quantity. Coho salmon were selected to represent anadromous fish that are generally limited in their freshwater life period by stream and lake rearing area. Dolly Varden were chosen because of their ubiquitous distribution in freshwater habitats and cutthroat trout because of their dependency on small freshwater streams.

These species are well distributed throughout the project area in appropriate habitats.

Invasive Aquatic Species

There are no known invasive species such as New Zealand mud snail, Quagga mussel or whirling disease present, at this time, in fresh waters within the analysis area. However, guided sport fishing poses a risk of introducing an invasive species.

The State of Alaska has begun to address the issue of introduction of aquatic invasive species by passing a law making the use of felt soled wading boots illegal. This law becomes effective in 2012.

Atlantic salmon (*Salmon salar*) have been captured in salt waters adjacent to the analysis area as well as a few locations in fresh water. This Atlantic Ocean species is reared in net pen farms in British Columbia, Canada, and the individuals captured in southeast Alaska are thought to be escapees. No spawning Atlantic salmon have been documented within the analysis area. If Atlantic salmon were to become established in waters in the analysis area they represent a serious competitive factor for the native salmonids. Escaped cultured Atlantic salmon may interbreed and compete with native species, introduce or spread pathogens, and may, to some extent, increase mortality and decrease fitness of wild fish (Naylor et al. 2005; Jonsson and Jonsson 2006).

Environmental Consequences

Direct/Indirect Effects

Effects Common to All Alternatives

The alternatives, with varying levels of maximum allocated service days, could cause effects to fisheries resources. Regardless of percent of capacity or actual number allocated, the same Forest Plan direction and BMPs would be applied with the intent of minimizing or negating effects. However, risk of affecting fisheries resources could differ due to differing amounts of allocation.

The following summarizes effects of the alternatives on components of the aquatic resource area and fish.

In stream Habitat and Water Quality

For this analysis in stream habitat is habitat in a fish-bearing stream below high water. This includes the stream channel and banks. Bank erosion caused from accessing a stream channel and wading in the stream channel can have effects on fish habitat.

Wading (walking in a stream) may kill salmon eggs or fry by direct crushing or disturbing the surrounding gravel. Salmon eggs incubate in stream gravels for days or months until the fry emerge. Developing eggs require an adequate supply of dissolved oxygen for development. Excess sediment fills spaces between the gravel and obstructs the circulation of water and oxygen. Inadequate water circulation and dissolved oxygen extend the incubation period and reduce the size of the fry (Shumway 1964). Roberts (1992) found that a single incidence of wading directly prior to hatch killed between 5 and 43 percent of the affected salmon eggs. Wading disrupts and compacts gravel, and slows water flow around eggs.

Roberts (1992) recommended wading restrictions be considered where fish populations are limited by insufficient or degraded spawning habitat and where intensive angler wading in spawning areas occurs during egg and pre-emergent fry development. None of the high value fishing streams identified or other streams used by outfitter guides are currently known to have negative effects on spawning habitat caused from anglers wading.

Bank erosion and bank building are continual processes in the function of streams; sediment is temporarily stored in pools and point bars until transported downstream during high flows. Wading releases small amounts of sediment, which temporarily clouds the water. Sediment is also released from the erosion of trails and roads. While salmon fry can tolerate short-term turbidity, it is not feasible to predict impacts of specific erosion events on individual fish or fish populations. It is recommended that recreation activities that may increase stream sedimentation be evaluated, monitored, and mitigated in recreation locations used by outfitters and guides.

Riparian Habitat

Footpaths and stream bank erosion are some of the more noticeable signs of recreation use impacts on streams. Properly built and maintained trails within the riparian zone provide access while protecting the stream. However, unmaintained footpaths can promote bank

erosion and damage to fish habitat and water quality. Foot traffic can remove the organic layer exposing the mineral soil and increase erosion potential. Riparian soils are typically mineral in nature and relatively resilient to erosion from foot traffic. The Alaska Region Trails Construction and Maintenance Guide (USDA 1991) has estimated mineral soils can withstand approximately 600 one-way trips without affecting the soil's ability to repair itself from one year to the next. The riparian zone will likely contain pockets of organic soils or low wet spots that will become 'muck' holes at lower use levels. The small isolated areas are not expected to adversely affect fish habitat or water quality. In some cases, the wet spots will be avoided or hardened to prevent resource damage. High value and accessible streams in the project area that receive high use by guided and unguided anglers and subsistence users include Thorne River, Staney Creek, Luck/Eagle Creek, Sweetwater (including Hatchery Creek and Logjam Creek, Harris River, and Salmon Bay. The Karta River is also highly utilized by unguided sport fishers and subsistence fishers.

Guided use could affect vegetation within the riparian zone. Physical damage to vegetation by trampling could occur. Removal of vegetation would occur in small localized areas such as campsites, user generated trails and stream access points. Damage and loss of vegetation can lead to a wide range of responses in the riparian area as well as the stream (Kauffman and Krueger 1984, Abouguendia 2001). Responses include but are not limited to; decreased water quality, increased water temperature and alteration of stream flow patterns. The effects of these responses may include reduced dissolved oxygen levels, increased risk of disease bearing pathogens being present in the water, increased evaporation, alteration of food webs and a reduction or loss of habitat for aquatic species.

Current riparian conditions show minor effects in some areas. Visual effects to riparian vegetation are present in some areas of high use, such as the North Thorne falls, however; no measurable changes in channel morphology, or water quality resulting from guided use are known to occur thus no impacts to fish or fish habitat resulting from riparian condition altered by guided use is currently known.

Fish

The risk and level of impact to fisheries resources from outfitted and guided activities would vary across the analysis area, and would be most severe in areas that are heavily used, in high demand, provide easy access, have existing infrastructure and are sensitive to impacts associated with recreational activities (Clark and Gibbons 1991). Despite the acknowledged effects, the alternatives are designed to meet or exceed Forest Plan standards and guidelines, thus minimizing risk.

Direct recreational effects on fish occur primarily through sport fishing. Trout, steelhead, and salmon are a primary target for anglers in the project area. Sport fishing may have minor or major adverse effects on fish and much of the level of effect is dependent upon the fish population/species, environmental conditions, angling methods, and fishing pressure intensity. Adverse effects to fish species or populations as a result of recreational fishing can result from harvest, hooking and/or handling mortality, introduction of diseases or non-native organisms, and litter/pollution (Clark and Gibbons 1991; Muoneke and Childress 1994; Bartholomew and Bohnsack 2005; Lewin et. al. 2006). Outfitter/guide recreational fishing activities may affect area fish populations in all alternatives.

The following discussion applies to fish populations in all alternatives.

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Several studies and reviews show that catch-and-release mortality for trout and char vary widely and can be quite high depending on conditions, methods, and species. They are particularly vulnerable to bait, and associated catch-and-release mortality can be very high. However, catch and release sport fishing with artificial lures and flies can be comparatively low (Gresswell and Harding 1997; Muoneke and Childress 1994; Hooton 2001; Bartholomew and Bohnsack 2005). Many sport anglers practice catch-and-release fishing techniques for steelhead, either by personal choice or regulatory requirements, to preserve this valuable resource. This is a visible trend in Southeast Alaska (Harding et. al. 2005). Despite these practices, available information suggests that incidental mortality of steelhead from catch-and-release sport fishing is variable and can be quite high (Muoneke and Childress 1994; Hooton 2001; Marshall 2001; Bartholomew and Bohnsack 2005). Permitted outfitted/guided sport fishing could pose a risk to trout and char populations at high-use locations in all alternatives.

Guided sport fishing would affect fish within the analysis area. Fish would be harvested as well as be subjected to mortality from catch-and-release fishing. The harvest of individuals and low levels of angler-induced mortality resulting from catch-and-release fishing do not appear to significantly affect populations. Salmon and trout populations appear stable (allowing for annual population fluctuations) across the analysis area and the majority of salmon harvest occurs in salt waters outside the jurisdiction of the Forest Service.

The assumption that increased levels of guided use (allocated service days) cause a higher risk to fish and aquatic resources is used in the following analysis, especially if use and access is concentrated in certain locations in a stream. It is assumed that an increase in use will increase potential impact to habitat, likelihood of introducing invasives, competition with subsistence users (if use is in an area where subsistence fishing occurs), and trampling and potentially disrupting redds. This assumption allows comparison of the alternatives, which provides information useful to the reader and the decision maker. Other assumptions include unregulated unguided recreation will occur and the visitor capacity would not be exceeded in any recreation use area.

In addition, guided fishing, because it is considered a “lessor” activity may be under reported, for example if a guide is taking clients bear hunting in the fall, they can fish in that area without reporting service day and location. This makes it difficult to assess overall guided fishing use on a given system.

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Table 3-15: Outfitted and Guided Service Days in Areas with Fish Concerns

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Total number of service days allocated in areas where vulnerable sockeye, steelhead, and summer run coho salmon are located	4,673SDs	32,574 SDs	15,767 SDs	4,933SDs
Total number of service days allocated for fishing in areas where sockeye, steelhead, and summer run coho salmon are located	4,673 SDs	3,875 SDs	15,767 SDs	2,846 SDs
Number of service days allocated during the restricted period in areas with species of concern	1,388 SDs	2,232 SDs	15,767 SDs	1,095SDs

Alternative 1 - No Action

Under Alternative 1, the current 2011 service day limits for guided fishing would continue as decided in the Revision to the Environmental Assessment for the Determination of Issuing Special Use Permits for Sportfishing Outfitter and Guide Services throughout Ketchikan Area Tongass National Forest (1998). These service day limits are from December 1 through May 31 on moderate concern streams. During the remainder of the year, permitted service days for outfitted and guided fishing can be used until the maximum annual service day allocation limit is reached (Table 3-15).

The only high concern stream within the project area, the Karta River, will remain closed to all outfitter/guided sport fishing during the entire year.

In all other rivers, streams, and lakes in the project area there are no service day allocation limits for guided fishing after May 31. If a guide requests a new recreation site (areas that have not had guided use before), effects to fisheries resources at a new recreation site would be analyzed.

Because there are no limits to service days after May 31, there may be competition between guided sport fishing and subsistence use for fisheries resources, particularly in heavily used areas or streams with sockeye and summer run coho, where subsistence use occurs.

There are no known direct or indirect negative effects to aquatic habitat degradation other than what is discussed under Effects Common to all Resources that can be directly tied to outfitter guide use in any of the recreation sites in the project area in Alternative 1. Between 2004 and 2010, permits requested and issued were far less than maximum service days permitted with the exception of the Harris River and Ratz Creek during the December 1 to May 31 timing window in 2010. Alternative 1 could have minor effects to habitat and fish populations if guided fishing outside of the timing restriction substantially increased. If fish population impacts occur, the State may adjust management to preserve fish populations.

Alternative 2 – Proposed Action

Alternative 2 includes restrictions for days allocated for fishing on certain systems and during certain times of year where there are species of concern (Table 3-15 and 2-1). This means that capacity would remain the same, based on recreation visitor capacity formulas, and 50% of that capacity would be allocated to outfitter guide operations, but a restricted number of those days would be permitted for guided fishing at 39 sites and some fishing has restricted time periods. Therefore, total allocation is not reduced, just allocation specifically for fishing on select streams. Fishing restrictions include limiting service days and certain time periods for guided fishing on drainages where species of concern have returned to the systems to spawn.

Alternative 2 would reduce outfitter guide allocation for sport fishing service days from Alternative 1 particularly after May 31, where currently, there is not a service day allocation maximum limit for guided fishing (Table 3-15).

There is little to no risk that aquatic resources would be negatively affected by implementing this alternative because maximum allocated service days would be limited on streams and lakes where there are species of concern. Effects to fisheries and fish habitat are expected to be negligible because of these restrictions. Guided service day restrictions for fishing are expected to decrease competition among user groups and decrease negative effects to species of concern.

Alternative 3

In Alternative 3, the allocation to outfitters and guides would be 25% of the visitor capacity across all areas with two exceptions. Outfitter and guide use would be encouraged at Dog Salmon Fishpass and Beaver Falls Trail by providing an allocation of 75% to outfitters and guides in these areas because the sites are hardened, heavily managed, and designed for higher use numbers. Additionally, this alternative does not include adjustments to fishing allocations. Thus, the full 25% allocation could be for fishing in any given area (Table 3-15).

Allocated service days for sites where fishing is the dominant activity would be much higher in Alternative 3 than Alternatives 1, 2, and 4 (Tables 3-15 and 2-1). Maximum allocated service days at recreation sites where fishing is the dominant activity would increase considerably from existing conditions and Alternatives 2 and 4 (Table 3-15). This could increase catch and release mortality and increase habitat degradation, which could have minor to moderate effects on summer run coho stocks, steelhead runs and early returning sockeye runs. Compared to the existing service day limits (22 service day maximum limit for small road accessible steelhead systems from December 1 to May 31 on all steelhead streams in the project area in 2010), Alternative 3 would have between 173 and 577 service days allocated at any time of year in recreation sites where fishing is the dominant activity (see Table 2-1). If there is an appreciable increase in outfitter and guide sportfishing activity, there could be minor to moderate effects on steelhead runs, especially small steelhead runs during the prime steelhead return and spawning season. In addition, if guided fishing increases with an increase in maximum service day allocation, there could be more impact to habitat from accessing fishing sites and walking/wading in stream channels. This could cause minor to moderate effects to fish habitat from stream bank erosion and redd disturbance. Alternative 3 would have a risk of reducing abundance and distribution of fish if service day use approaches maximum allocated days. Implementation of Best

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Management Practices (BMPs) and Outfitter and Guide permit stipulations would help to minimize effects to habitat. If habitat degradation is identified from guided use, adaptive management would be used to maintain habitat. Sport fish populations are managed by applying state regulations and the State may adjust management if abundance or distribution becomes a concern.

Alternative 4

This alternative is the most conservative for service days allocated for guided fishing (Tables 3-8 and 2-2). In this alternative, fishing is restricted for steelhead, summer run coho, and sockeye; however restrictions do not lower the entire allocation for outfitters and guides at a recreation site but restrict the number of annual permitted fishing service days at certain locations. Where no number is shown, the fishing restriction is not applicable because total allocation is lower than fish restriction recommendations.

Similar to Alternative 2, effects to fisheries and fish habitat are expected to be negligible because of the fishing restrictions.

Cumulative Effects

The cumulative effects analysis area is the river and lake systems on the Craig and Thorne Bay Ranger Districts and adjacent freshwater water and coastal waters. These areas were selected for the cumulative effects analysis because actions and management in these areas affect fish and aquatic resources analyzed in this report.

Alternatives 1, 2, 3, and 4

As discussed under Effects Common to all Alternatives, many factors can contribute to the condition and sustainability of a fishery. Some of the more prominent variable categories that can negatively affect aquatic resources include natural environmental conditions (climate and habitat), size and species of the fish stock, land management activities, fishing pressure (all types), and invasive species.

With respect to aquatic systems on the Thorne Bay and Craig Ranger Districts, overall environmental conditions, commercial fishing, and sport fishing likely have the most impact on these systems. Of these three factors, sport fishing likely has the least effect on aquatic resources. However, sport fisheries can have localized, and even severe, negative effects to aquatic resources in high-use areas like the Thorne River and Staney Creek. Improving access to these high use areas could decrease environmental damage. In general, most negative effects to area aquatic resources should be minimized because administrative controls (i.e., fishing regulations, controlled/directed access points, etc.) are already in place to protect these resources. Based on the rationale above, the added cumulative effect of outfitted and guided sport fishing on the Thorne Bay and Craig Ranger Districts freshwater aquatic resources should pose little to no risk of adversely affecting these resources in Alternatives 1, 2, and 4. Without any outfitted and guided fishing restrictions in locations with species of concern in Alternative 3, there could be minor effects to fish and fish habitat if the number of days used increases approaches the maximum number of service days allocated for these locations. Best Management Practices (BMPs) and Outfitter and Guide permit stipulations would help to minimize effects to habitat. However, if fish habitat degradation is identified from guided use, adaptive management would be used to maintain

habitat. If abundance or distribution becomes a concern, the State may adjust management to maintain fish populations.

Essential Fish Habitat

Essential Fish Habitat (EFH) is the water and substrate necessary for fish spawning, breeding, feeding, or growth to maturity. The marine EFH in Alaska includes estuarine and marine areas from tidally submerged habitat to the 200-mile exclusive economic zone. The freshwater EFH includes streams, rivers, lakes, ponds, wetlands and other bodies of water currently and historically accessible to salmon. EFH for Pacific salmon recognizes six critical life history stages: (1) spawning and incubation of eggs, (2) juvenile rearing, (3) winter and summer rearing during freshwater residency, (4) juvenile migration between freshwater and estuarine rearing habitats, (5) marine residency of immature and maturing adults, and (6) adult spawning migration. Habitat requirements within these periods can differ significantly and any modification of the habitat within these periods can adversely affect EFH.

Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act states that all federal agencies must consult the National Marine Fisheries Service (NMFS) for actions or proposed actions that may adversely affect EFH. The Act promotes the protection of EFH through review, assessment, and mitigation of activities that may adversely affect these habitats. On August 25, 2000 the Forest Service, Alaska Region, and NMFS came to an agreement on how consultation will be accomplished in Alaska.

This EA satisfies the consultation requirements by providing a description and assessment of EFH in the project areas, a description of each alternative and its potential impacts on these habitats, and a description of the mitigation measures that would be implemented to protect these habitats. The formal consultation will start when NMFS receives a copy of the EA with the EFH Assessment. NMFS may then respond in writing as to whether it concurs with the findings of the assessment or make conservation recommendations. The USDA Forest Service must respond to any recommendations made by NMFS within 30 days. For specific information about the affected resources and the alternatives under consideration, please refer to the EA.

The project area includes the entire land area of the Thorne Bay and Craig Ranger Districts of the Tongass National Forest. The streams and lakes within the project area support a variety of anadromous and resident fish species. Anadromous species that spawn in freshwater streams or lakes in the project area include: pink salmon (*Oncorhynchus gorbuscha*), chum salmon (*O. keta*), sockeye salmon, (*O. nerka*), coho salmon (*O. kisutch*), Chinook salmon (*O. tshawytscha*), coastal cutthroat trout (*O. clarkii*), steelhead (rainbow) trout (*O. mykiss*), and Dolly Varden char (*Salvelinus malma*). The project area also supports resident populations of coastal cutthroat trout, rainbow trout, Dolly Varden char, and non-game fish species including sculpin (*Cottus spp.*) and three-spined stickleback (*Gasterosteus aculeatus*).

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The analysis area provides a large amount of EFH and includes all of the freshwaters within the lands administered by Thorne Bay and Craig Ranger Districts. Outfitters and guides may use Marine Access Facilities, however the permit holder is required to meet all Forest Plan standards and guidelines and Leave No Trace practices. We are not analyzing use of marine habitats, because they are under the jurisdiction of the State of Alaska and there should be no affect from outfitters and guides to these habitats.

The decision on this EA would authorize a variety of outfitted and guided activities in the project area. The Fisheries sections of the EA specifically examines the effects of outfitted and guided sport fishing, which is the primary activity that would affect EFH in the project area.

Conclusions

The Forest Service believes that the Thorne Bay and Craig Ranger District Outfitter/Guide Management Plan will not adversely affect EFH in Alternatives 1, 2 and 4. Alternative 3 could have minor adverse effects on Essential Fish Habitat because the maximum service day allocations that can be used for fishing on streams are appreciably higher with a total 15,767 days. Minor adverse effects to EFH could occur in Alternative 3 from increased foot traffic and bank trampling to access fishing locations, and increased redd disturbance. As the potential for increased foot traffic in riparian areas, at stream access sites, and on stream banks rise with available outfitter guide use, especially in Alternative 3, the likelihood of soil erosion and sediment introduction into streams increases. This could affect incubating eggs and larvae by reducing water quality and reducing intergravel flow for developing eggs and larvae. Best Management Practices (BMPs) and Outfitter and Guide permit stipulations would help to minimize effects to habitat. Additionally, if habitat degradation is identified from guided use, adaptive management would be used to maintain habitat.

The effects to aquatic resources, as described in the EA and the aquatic specialist report in the planning record, will be negligible in Alternative 1, 2, and 4, and minor in Alternative 3. Application of Forest Plan standards and guidelines, Best Management Practices (BMPs), and Outfitter and Guide permit stipulations are expected to eliminate or minimize most effects to EFH; adaptive management could also be used to maintain habitat. Additional impacts to EFH may occur only from unforeseen events.

Botany

Affected Environment

This analysis addresses the entire land base for the Craig and Thorne Bay Ranger Districts, including POW and surrounding outer islands. No ground surveys were done for this project, however certain locations have been surveyed in the past as a part of other proposed projects or incidentally by the district botanist or zoned ecologist.

The only threatened, endangered, or proposed threatened or endangered plant in Alaska is *Polystichum aleuticum*, which is listed as endangered. It is only known from Adak Island and is not expected to occur in the project area. Sensitive and rare plants are addressed in this section.

The effects from outfitter and guides can be compared based on the maximum number of service days potentially allocated. An increase in the number of potential service days allocated correlates to the potential increase in habitat disturbance. The purpose of this project is to establish a management plan for allocating outfitter and guide services, while not increasing the potential risk of impacts to rare and sensitive plants. The Adaptive Management Plan, is designed to minimize the potential effects on resources, including for rare and sensitive plants.

Sensitive Plants

On February 2, 2009, the Regional Forester approved an updated sensitive species list for the Alaska Region. Eleven vascular and non-vascular plants are known or suspected to occur within the project area. Our known existing condition for rare and sensitive plants is maintained spatially within the national database Natural Resource Information System (available from the Thorne Bay Ranger District). The following table includes a list of the sensitive plants as well as their suspected habitats.

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Table 3-16: Alaska Region Sensitive Plant Species Known and Suspected to Occur on POW Districts

Common Name	Scientific Name	Occurrence	Habitat
Moosewort fern	<i>Botrychium tunux</i>	Known	Upper beach meadows, well drained open areas, alpine and subalpine, and disturbed sites (such as roadsides)
Moonwort fern, no common name	<i>Botrychium yaaxudakeit</i>	Suspected	Upper beach meadows, well drained open areas, alpine and subalpine, and disturbed sites (such as roadsides)
Calder's loveage	<i>Ligusticum calderi</i>	Known	Rocky cliffs, open boggy or rocky slopes, and edges of coniferous forests
Unalaska mist-maid	<i>Romanzoffia unalascensis</i>	Known	Open forest, streamside, bog, heath
Spatulate moonwort	<i>Botrychium spathulatum</i>	Suspected	Upper beach meadows, well drained open areas, alpine and subalpine, and disturbed sites (such as roadsides)
Large yellow lady's slipper	<i>Cypripedium parviflorum</i> var. <i>pubescens</i>	Known	Bog, dry meadow, wet meadow, calcareous
Lichen, no common name	<i>Lobaria amplissima</i>	Known	Beach forest edge
Alaska rein orchid	<i>Piperia unalascensis</i>	Known	Open forest, streamside
Lesser round-leaved orchid	<i>Platanthera orbiculata</i>	Known	Open forest, forest edge, forest, heath
Henderson's checkermallow	<i>Sidalcea hendersonii</i>	Suspected	Upper beach meadow, forest edge
Dune tansy	<i>Tanacetum bipinnatum</i> subsp. <i>huronense</i>	Suspected	Upper beach meadow

Rare Plants

Rare Plants on the Tongass National Forest are designated due to several factors. Mainly, they are uncommon plants with population viability, rarity or conservation concerns. They are known or suspect to occur on the Tongass and ranked by Alaska National Heritage Program (ANHP) Rare Vascular Plant Tracking List as S1 or S2 within the State. S1 or S2 mean the plant is imperiled or critically imperiled in the State because of rarity or other factors making it vulnerable to extirpation from the State, but they are not listed on the Alaska Region Sensitive Species List. The Rare Plants List is developed through consultation and agreement by District, Forest and Regional ecologists and botanists. It is a dynamic list that has the flexibility to change as taxons are reassessed; increasing numbers of species are found, or as concerns arise. The following table includes the known rare plants and their habitats within the project area.

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Table 3-17: Rare Plants Known and Suspected to Occur on POW Districts

Common Name	Scientific Name	Habitat	Population Location in Project
Western meadow rue	<i>Thalictrum occidentale</i>	Streams and lakeshores	<ul style="list-style-type: none"> • Along the Thorne River • Along Luck Lake shoreline • Along Rio Roberts • Along several streams on Kosciusko Island
Maidenhair spleenwort	<i>Asplenium trichomanes</i>	Low elevation, calcareous cliffs and rocky outcroppings	<ul style="list-style-type: none"> • Coronation Island • Kosciusko Island, Halibut Harbor • White Cliff Island
Pacific silver fir	<i>Abies amabilis</i>	High elevation, limestone peaks, possible glacial refugia	<ul style="list-style-type: none"> • Known on Kosciusko island on Mount Francis • Known on Mount Calder
Silverweed	<i>Abrosia chaminssonis</i>	Beach edge, sandy or gravelly beaches	<ul style="list-style-type: none"> • Long Island • South of Sandy Beach, near Slide Creek outlet
Northern moonwort	<i>Botrychium pinnatum</i>	Forest	<ul style="list-style-type: none"> • Known along old Rio Roberts trail, and old portion of road east of Rio Roberts River
Lanceleaf grapefern	<i>Botrychium lanceolatum</i>	Forest, wetland fen	<ul style="list-style-type: none"> • Known north of Luck Lake • Known south of Sarkar Lake
Common moonwort	<i>Botrychium lunaria</i>	Disturbed sites	<ul style="list-style-type: none"> • Known along the side of the road, west of Exchange Cove
Angle leaved bittercress	<i>Cardamine angulata</i>	Streambanks, disturbed sites, beach edge	<ul style="list-style-type: none"> • Known on Goat Island • Known along Fubar, Klawock, Twelvemile and Harris Rivers • Known at Graveyard Island
Pacific Yew	<i>Taxus brevifolia</i>	South Prince of Wales, scrub timbered	<ul style="list-style-type: none"> • Known near Bokan Mountain • Known near Moira Sound
Alaska oniongrass	<i>Melica subulata</i>	Forest edge, near beach or muskeg	<ul style="list-style-type: none"> • Known on Suemez Island • Known at lower elevations along the northwestern edges of Prince of Wales
Cutleaf foamflower	<i>Tiarella trifoliata</i> spp. <i>lacinata</i>	Forest	<ul style="list-style-type: none"> • Ginsu (North of El Capitan mountain)
Northern golden carpet	<i>Chyrsosplenium tetandrum</i>	Down logs, near streams	<ul style="list-style-type: none"> • Known along Charlie Creek on Kosciusko Island • Known northeast of Bald Mountain on Heceta
Twinberry honeysuckle	<i>Lonicera involucrata</i>	Beach edge	<ul style="list-style-type: none"> • Warren Cove and False Cove on Warren Island • Several scattered individuals known on south POW, and Long Island
Scouler's harebell	<i>Campanula scouleri</i>	Forest	<ul style="list-style-type: none"> • El Capitan mountain

Environmental Consequences

Direct/Indirect Effects

The most likely direct effects are associated with trampling or crushed plants. This could be the result of hiking or camping. An increase in the amount of allocated use will increase the amount of traffic to an area, and increase the risk of direct effects to rare and sensitive plants.

Indirect effects include effects that occur at a later point in time as a repercussion of the project, such as changes in hydrology, evapotranspiration, and light availability. For example, if an area is receiving an increased amount of use, trampling and compaction can occur. Trampling and compaction (direct effects) can change the side lighting, hydrological flow, and soil moisture of an area (indirect effects), and potentially change the suitable habitat available for certain plant species.

Sensitive and Rare Plants

Alternative 1 - No Action

The overall number of service days for current permitted use is relatively low for most areas, however, given the estimated potential visitor capacity, there are areas that are moderate and high.

With the “No Action” alternative, there is no established method in place for Adaptive Management and set trigger points for getting resource specialists involved in the permitting process. For areas that are currently receiving resource damage, they will be handled as a part of the bigger picture processes that are going on, and not directly tied to resource concerns as a part of Outfitter and Guide allocated use.

No significant effects are expected with this alternative, and while there may be impacts to individuals or habitats, this alternative is not likely to cause a trend toward Federal listing or loss of viability.

Alternatives 2, 3, and 4

For all of the action alternatives (2, 3 and 4) the design criteria, adaptive management plan, and the mitigation measures have been developed to limit the potential risk of effects to the resources with the proposed allocation.

Outfitters and Guides practice Leave No Trace principles. This helps to limit vegetation damage and ground disturbance to walking areas and tent sites. No removal or cutting of live vegetation is allowed, and no water diversions or dams are allowed.

Through the Adaptive Management Plan, future surveys are recommended and monitoring is included. It is also set up with triggers to contact the specialists for additional review if any new locations or uses are requested. Also, district rangers and resource specialists will be notified to evaluate the situation if any resource damage is reported or if use exceeds 75% of commercial allocation. Damage reports could come from other specialists, permit

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administrator, from the guided visitors, or the general public. This will help to ensure that the allocated uses are not exceeding the biological capacity, and that we are maintaining a low risk of effects to rare and sensitive plant populations and their habitat.

The 50% allocation for Alternative 2 translates to a possible 160,490 service days across all areas of the POW districts, with the potential to increase as new areas are added. This amount is a drastic increase over the current service days being used, or the “No Action” alternative. This increase could lead toward an increase in the habitat directly and indirectly impacted by guided visitors. Alternative 3 has a lower allocation than Alternative 2, with an associated reduced risk of effects. While Alternative 4 allows slightly more guided use than the “No Action” alternative, the number of service days in Alternative 4 is a fraction of the potential allocation for Alternatives 2 and 3. This correlates to greatly reduced risk.

However, as a result of the design criteria, adaptive management plan, mitigation measures, and monitoring, no significant effects are anticipated as a result of any alternative throughout the project area. While there may be impacts to individuals or habitats, the action alternatives are not likely to cause a trend toward Federal listing or loss of viability.

Cumulative Effects

Cumulative effects analysis includes the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or individual undertakes such actions. Cumulative effects for rare and sensitive plants are typically analyzed on the island-wide scale. This analysis area tends to be used because it is a natural geographic boundary, which can limit pollination and dispersal. This project addresses the entire land base for the Craig and Thorne Bay Ranger Districts, including Prince of Wales and surrounding outer islands. The cumulative effects for this project will be analyzed for the entire Prince of Wales and surrounding outer islands. Due to the nature of this project, it is most logical to establish the entire zoned Craig and Thorne Bay Ranger Districts as the analysis area, rather than breaking out each individual island, due to similar habitat conditions and potential range.

Even with use throughout Prince of Wales, including recreation, subsistence, and management activities, the overall risk to rare and sensitive plants is generally low.

Any project with ground disturbing activity requires a biological evaluation (BE). Through the BE and project analysis design criteria, mitigation measures, and monitoring are developed as necessary to limit the potential impacts to rare and sensitive plants.

On a site by site basis, there are certain plant species, habitats and populations that could be minimally impacted with increased use in conjunction with ongoing unguided use. However, with the adaptive management plan, mitigation measures and monitoring included in the action alternatives, while there may be impacts to individual plants or habitats, it is not likely to cause a trend toward Federal listing or loss of overall viability.

Alternative 1 - No Action

In combination with the other ongoing activities on Prince of Wales, this alternative could slightly increase the potential risk of impact to rare and sensitive species through time, especially for areas with highly vulnerable habitats. Over time, with no mitigation measures

or monitoring plan in place, there is potential to increase the risk, without the structure in place for addressing potential issues. However, no significant effects are expected as a result of this alternative, and while there may be impacts to individuals or habitats, it is not likely to cause a trend to Federal listing or loss of viability.

Alternatives 2, 3, and 4

Since the areas used by outfitters and guides overlap with many of the same areas that get used for unguided recreation, subsistence, and personal use, the monitoring will be able to target multiple resources and user patterns. This will allow for a quick response to any resource damage that is occurring, which will be a benefit over the no action alternative.

Overall, when combining the other projects on the two districts with this project's adaptive management, mitigation measures and monitoring, there is not expected to be a significant increase in risk of effects on rare and sensitive plant species. While there may be impacts to individuals or habitats, this is not likely to cause a trend toward Federal listing or loss of viability.

Heritage

Affected Environment

The area known as the Tongass National Forest has been utilized and inhabited from prehistoric and historic periods dating back to at least 10,000 years ago. The Affected Environment for Heritage Resources on POW includes a wide variety of native occupation sites such as villages, seasonal campsites, fish traps and weirs, rock art sacred and religious areas, subsistence locations and others. Materials found in a cave on POW were radiocarbon dated to 9,200 years before present, the equivalent of 10,300 calendar years ago, the oldest human bones known from Canada or Alaska. The historical period in Southeast Alaska began in 1741 when Aleksei Chirikov, a member of Russia's Kamchatka Expedition, sighted land somewhere between Yakobi and Chichagof islands. After European contact on the island fish canneries, timber harvest and mining became important industries. Historic sites found on Prince of Wales include cabins, mines, boat works, canneries and others.

The Area of Potential Effect (APE) as defined in Section 106 of the National Historic Preservation Act is the geographic area or areas within which an undertaking that may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist, occurs. For this project, the APE includes all of the National Forest System lands encompassing the Craig and Thorne Bay Ranger Districts including the 209 previously used/or proposed special use permit sites.

Numerous archaeological surveys have been conducted on the districts, beginning in the 1970s and continuing today. These surveys have resulted in the location and documentation of over 500 Alaska Heritage Research Sites within the APE. Of those sites, the majority

either are determined eligible or are considered potentially eligible for the National Register of Historic Places⁴.

This analysis covers the yearly permitted use of the outfitters and guides in the designated special use permit areas at the various proposed levels and the potential of impact to existing significant cultural resources⁵ on Forest Service managed lands on POW. To date there has been a relatively limited amount of analysis of outfitter and guide use and potential impacts to National Register of Historic Places eligible sites on the island. This analysis is based on potential impacts of ground disturbing activities such as camping or activities that would result in the outfitters and guides spending an extended amount of time in areas with known sites or areas with a higher potential of containing archaeological sites. An example of the latter would be if a group of outfitters and guides and their clients frequently occupies the same location and create trails or other disturbance, leading to compaction or erosion and exposure or degradation of significant cultural resources within the 1-mile permit locations.

Environmental Consequences

Direct/Indirect Effects

Effects Common to All Alternatives

Direct potential effects to significant cultural resources due to human activities come primarily from vandalism or theft and potential inadvertent damage such as a campfire or camping within an archaeological site. Sites can be trampled, dug up, looted, or destroyed. Visitors to the site can displace artifacts. Prior to obtaining a permit outfitters and guides are given documentation explaining the laws and regulations protecting significant cultural resources, along with ways to avoid impact to those sites, and what they should do if they discover a site. Overall, camping seems to have the highest potential for direct effect to significant cultural resources through campfires and the disturbance and displacement of artifacts. Based on the permitted activities allowed at each location, along with strict adherence to the principles of *Leave No Trace* there should be little, if any, direct effect.

Indirect effects are those that occur later in time or are spatially removed from the action-this could include things like erosion of a significant cultural resource after it was disturbed by outfitter and guide-related activities. For example, hunters and campers occupying or frequenting a location where a significant cultural resource is located can disturb the existing ground cover exposing the resource, leaving it open to the effects of erosion, weathering, and later looting or displacement of components. Monitoring of outfitters and guides can determine if significant cultural resources are being impacted and if mitigation measures and further education of the users is necessary. As per the Tongass Forest Plan the preferred

⁴ Section 106 of the [National Historic Preservation Act of 1966 \(NHPA\)](#) requires Federal agencies to take into account the effects of their undertakings on historic properties. Historic properties are properties that are included in the [National Register of Historic Places](#) or that meet the [criteria for the National Register](#).

⁵ Generally, when referring to archaeological sites these areas are called historic properties. In this EA, the term significant cultural resource is used instead of historic properties and can additionally indicate native sacred or religious sites.

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management of sites listed in, nominated to, or eligible for the National Register of Historic Places is avoidance and protection.

For all of the alternatives, the potential effects to existing significant cultural resources are difficult to determine because an analysis of the effects of outfitters and guides on lands containing potentially National Register of Historic Places eligible significant cultural resources has only been conducted on a limited basis in the past. The actual effects to date and potential effects of future permitted outfitters and guides must be determined with selective annual inventory and monitoring of previous outfitter and guide permit locations.

Effects on significant cultural resources will be limited through permit stipulations, oversight, monitoring, and enforcement of applicable cultural resource laws and regulations, education, and use restrictions where necessary. Monitoring can help assure that proposed activities do not affect significant cultural resources through activities resulting in soil disturbance or erosion. Monitoring can also help address future issues of commercial use that may increase the potential for direct or indirect impacts to significant cultural resources.

Mitigation measures from any impacts to any of the permitted sites will be done on a case-by-case basis and by severity of impact. Mitigation of damage (inadvertent or deliberate) to archaeological sites can be successful, when aggressively applied.

Federal agencies are required to consider the effects of their actions on significant historic properties (eligible to, or included in the National Register of Historic Places). The Alaska Region of the USDA Forest Service, the Alaska State Historic Preservation Officer, and the Advisory Council on Historic Preservation have established a process to meet the Forest Service's obligations, which is established in the Third Programmatic Agreement⁶. The outfitter and guide activities permitted in this analysis are addressed in the Programmatic Agreement. Under that agreement, activities such as fishing or passive touring fall under undertakings considered to have no potential to cause affects to significant cultural resources. For these activities, if no ground disturbance occurs and *Leave No Trace* principles are used, then no historic properties should be adversely affected by the proposed activities. Because there is limited data available whether the O/Gs have impacted significant cultural resources in the past, there is the potential for activities, such as camping, to impact existing significant cultural resources. Selected areas of high archaeological sensitivity and areas where known sites are in the immediate vicinity will be subject to archaeological inventory and monitoring.

Under all alternatives, outfitter and guide use will be monitored to determine level of effects. If any existing outfitter or guide locations are in close proximity to known Register of Historic Places eligible cultural sites the permit location needs to be reviewed by the Forest Service heritage staff in conjunction with the planning staff and a determination made if the outfitter and guide activities are to be continued. The type of the activity will have a direct impact on whether the location needs to be withdrawn.

⁶ Third Programmatic Agreement (as amended) Among The USDA Forest Service, Alaska Region, the Advisory Council on Historic Preservation and the Alaska State Historic Preservation Office Regarding Heritage Program Management on National Forests on the State of Alaska.

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Any increase in the guided use allocation through Adaptive Management could result in direct or indirect effects to significant cultural resources, as with any of the alternatives, except for Alternative 1. A decrease could mean potentially less impact to cultural resources.

Alternative 1 - No Action

Outfitter and guide permits would be issued as we are doing now, using the process that we have been doing. Some areas are currently permitted above visitor capacity, although actual use has remained well below capacity. As stated above, outfitter and guide use will be monitored to verify that there are no effects.

Alternative 2

This alternative could result in significantly more outfitter and guide use of the designated areas than has occurred in the past, and may result in an increased chance of impact to existing significant cultural resources. Alternative 2 has the greatest potential for impacts to existing significant cultural resources of all of the alternatives.

Alternative 3

While this alternative contains less allocation than Alternative 2, it could still result in significantly more outfitter and guide use of the designated areas than has occurred in the past and could result in an increased chance of impact to existing significant cultural resources.

Alternative 4

This alternative has the smallest overall increase over the no action alternative. Under this alternative, there is the potential for an increase in usage of the location by outfitters and guides over the current usage and could result in impacts to existing significant cultural resources.

Cumulative Effects

All Alternatives

The analysis area to determine the cumulative effects of this undertaking is the entire POW Outfitter and Guide Management Plan project area- all of the National Forest System lands encompassing the Craig and Thorne Bay Ranger Districts of the Tongass National Forest.

Significant cultural resources have the potential to be impacted cumulatively from forces beyond those of outfitters and guides, through natural processes such as weathering, erosion and natural decay, through recreation by unguided visitors and by past, present, or foreseeable future Forest Service projects and actions. Increased visitation by outfitters and guides over time could add to the cumulative adverse effects on existing significant cultural resources. This increased visitation could lead to degradation of the site by erosion, theft or vandalism. Archaeological inventory and monitoring of outfitter and guide activities near known significant cultural resources and in areas with high sensitivity for such sites would help catch any potential damage to those sites, which could lead to mitigation measures depending on the level of damage.

There has been a limited amount of archaeological investigation of permit areas prior to this EA. No known cumulative effects on significant cultural resources from outfitter and guide

activities have been documented. Based on the Third Programmatic Agreement, the outfitter and guide activities covered under the EA (like fishing) are considered to have low to no potential to impact significant cultural resources when the permit stipulations are strictly adhered to.

With the adherence to Leave No Trace and the lack of ground-disturbing activities, combined with periodic inventory and monitoring of outfitter and guide activities, and adding potential mitigation measures, administrative oversight, and enforcement of regulations, it is expected that proposed activities should result in minimal effects on existing significant cultural resources. If all these provisions are adhered to, the cumulative effects for any of the alternatives are not likely to result in adverse impacts to the cultural resources. Inventory and monitoring will continue to inform the decision.

Invasive Plant Species

Affected Environment

Non-native plants, often called weeds, have been introduced to POW and surrounding outer islands both intentionally and non-intentionally. Some plants were originally brought to Prince of Wales to be used to prevent soil erosion. Reed canarygrass was seeded along roadsides and landslides because it established quickly, and was effective at stabilizing banks and hillsides. Other plants, such as Japanese knotweed, ox-eye daisies, and foxtail were introduced by gardeners and homesteaders. Other plants have attached themselves or their seeds into the dirt on equipment or onto people's clothes, being transported unknowingly.

We are constantly learning about the potential threats of non-native species on native ecosystems, and through education, prevention, and management working to limit the potential for spread and new introductions.

Non-native Plant Inventory

In 2005 weed surveys were conducted, by contract, on the Prince of Wales road system. This survey included plots every ¼ mile along the road system as well as plots located at each intersection and rock pit encountered. Overall 2,635 non-native plant plots were conducted in high priority areas such as rock quarries, road intersections, and road pullouts. The survey covered approximately 584 miles of road. Surveys were done at the appropriate time of year to identify the broadest range possible of non-native plant species.

Since 2005, additional surveys were done in association with other proposed projects on POW and surrounding outer islands, including timber sales, restoration, and mining. A list of all known non-native plants found within the project area is available in the Invasive Plant Species Specialist Report in the project record for this analysis. For further explanations of the high priority Invasive plant locations and extent, see the Invasive Plant Risk Assessment in the Project Record.

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Habitat Vulnerability

Habitat vulnerability is a review of site-specific factors (such as plant community structure, species composition, soils and hydrology) that are present in the project area that would make the project area vulnerable or resistant to invasive plant infestation. For most invasive plants, two elements usually exist which promote their spread: open sunlight and exposed mineral soil (disturbance).

As previously stated, soil disturbance and sunlight are key factors to the spread of invasive plants. Soil disturbance is related to the soil cover, soil type, and degree of disturbance. Sunlight is a function of overall canopy cover and vegetative density.

Table 3-18: Habitat Types on Craig and Thorne Bay Ranger District their Associated Vulnerability to Disturbance

Habitat	Habitat vulnerability due to light	Habitat vulnerability due to disturbance
Forested (undisturbed)	Low	Low
Young-growth:		
Sapling to pole size classes	High	Moderate
Stem exclusion stage	Low	Low
Stem re-initiation stage	Low	Low
Wetlands (marshes, muskegs, meadows, beach fringe)	High	Moderate
Riparian areas (floodplains, alluvial fans and other stream crossings)	Moderate	Moderate to High
Alpine	High	Low

Vectors

A vector is a pathway that makes possible the movement of invasive plants. Several non-project vectors exist in the project area. These include existing roads and trails, traffic use, wildlife migration, wind patterns and drainage flow direction. . In addition, there is daily vehicle ferry service between Ketchikan and Prince of Wales Island and barge services available between Southeast Alaska islands and areas outside Southeast Alaska.

Current use of the existing roads include hunting, trapping, berry picking, boating, camping, OHV use, guided tourist destinations, free use logging, commercial logging, firewood harvest, and other subsistence and recreation pursuits. All these uses can spread invasive plants.

Other vectors include wildlife and birds, which for the most part, are assumed to be negligible. Road maintenance, especially brushing the roadsides, occurs independent of project implementation. This activity can have a high potential for invasive plant spread if prevention measures are not instituted.

Environmental Consequences

Direct/Indirect Effects

Effects of All Alternatives

Habitat may be altered as a result of this project. Habitat alterations possible as a result of this project would be the result of increased use in an area. This could include vegetation trampling or some level of soil disturbance leading to the exposure of mineral and organic soils.

Most of the habitat alteration is expected to be short term, and assumed to be relatively temporary. However, for sites that are restricted to small areas with repeated use, longer term habitat alteration may occur.

Vectors may increase as a result of implementing this project. The primary potential vectors for the spread of invasive plants in this project will be from the outfitter and guides, their clients, and their modes of transportation. The type of transportation used can play a factor in the level of risk of transport. For example, vehicles using roads or trails may be more likely to transport invasive plants and seed than people that are accessing areas by boat.

Alternative 1 - No Action

Under this “No Action” alternative, there are no mitigation measures or established method for Adaptive Management or set trigger points for getting resources involved in the permitting process. For areas that are currently receiving resource damage, they will be handled as a part of the bigger picture processes that are going on, and not directly tied to resource concerns as a part of Outfitter and Guide allocated use.

The outfitters and guides will be obligated to follow all applicable laws, and do practice Leave No Trace principles.

Under this alternative, 19,827 service days are possible and guided use is not likely to significantly increase the risk of invasive plant introduction and spread over the current condition.

Alternatives 2, 3, and 4

Alternative 2 has the highest risk for possible invasive plant introduction and spread. Alternative 3 would have less risk than Alternative 2 and would have more risk than Alternative 1 for the possible direct and indirect effects to the potential habitat change and vectors. While slightly more than the “No Action” alternative, the number of service days in Alternative 4 is a fraction of the potential allocation for Alternatives 2 and 3. This correlates to greatly reduced risk.

In all the action alternatives, the design criteria, adaptive management plan, the trigger points, and the mitigation measures have been developed to limit the potential risk of the proposed allocation. Practicing Leave No Trace principles helps to limit vegetation damage and ground disturbance to walking areas and tent sites. Other design criteria protect plants and reduce the opportunity for spreading invasive plants. Through the Adaptive Management

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Plan, monitoring is included to ensure early detection and allow for rapid response in the event that a new invasive introduction is identified. It is also set up with trigger points to contact the District Rangers and specialists for additional review if any new locations or uses are requested. The District Rangers and Specialists will also be contacted if use exceeds 75% of the commercial allocation or if any resource damage is reported. Damage reports could come from other specialists, permit administrator, or from the permit holders. This will help to ensure that the allocated uses are not exceeding the biological capacity, and that a low risk of invasive plant introduction and spread is maintained.

No significant effects are expected to occur because of these alternatives with the design criteria, mitigation measures, and monitoring in place.

Cumulative Effects

Cumulative effects analysis includes the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or individual undertakes such actions. Cumulative effects for invasive plants are typically analyzed on the island-wide scale. This analysis area tends to be used because it is a natural geographic boundary, which can limit vectors and spread. This project addresses the entire land base for the Craig and Thorne Bay Ranger Districts, including Prince of Wales and surrounding outer islands. The cumulative effects for this project will be analyzed for the entire Prince of Wales and surrounding outer islands. Due to the nature of this project, it is most logical to establish the entire zoned Craig and Thorne Bay Ranger Districts as the analysis area, rather than breaking out each individual island, due to the close proximity and typical travel patterns.

Due to the traffic throughout Prince of Wales and surrounding outer islands, (including recreation, subsistence, community access and management activities), the overall risk of invasive plant spread and introductions is moderate. A few recent decisions that impact the potential introduction and spread of invasive plants include the Access Travel Management Plan, and the Logjam Timber Sale. The ATM proposes to store or decommission 698 miles (over 65%) of the roads, and an additional ten miles will be converted to hiking trails. This will reduce the roads that are frequently traveled by vehicles and decrease the chance of new introductions.

Any project with ground disturbing activity requires a weed risk assessment. Through the weed risk assessment design criteria, mitigation measures, and monitoring are developed as necessary to limit the potential increase in the level of risk to invasive plant introduction and spread.

Alternative 1 - No Action

While, in theory, the no action alternative would not pose an additional risk to the current condition, over time, with no mitigation measures or monitoring plan in place, there is a risk of invasive plant introduction and spread, without the structure in place for addressing potential issues. In combination with the other ongoing activities on POW, this alternative could slightly increase the potential risk of invasive plant management and spread through time, however that risk would not be significant.

Alternatives 2, 3, and 4

The number of service days allocated by alternative vary from high (Alternative 2) to a slight increase over current permitted levels (Alternative 4). All the action alternatives could potentially create an increased risk to invasive plant introduction and spread. However, given the adaptive management, the mitigation measures, and monitoring, the overall increased risk will remain low.

Also, since the areas used by outfitters and guides overlap with many of the same areas that get used for unguided recreation, subsistence, and personal use, monitoring will be able to target multiple resources and user patterns. This will allow for early detection and rapid response for any potential introductions, and is a benefit over the no action alternative.

Overall, when combining the other projects on the two districts with this project's adaptive management, mitigation measures and monitoring, there is not expected to be a significant increase in risk or effect with this alternative.

Soils and Wetlands

Affected Environment

Soils and Wetlands

Soils across the project area vary greatly in their ability to support foot traffic without becoming muddy (soil puddling). Erosion is a concern where foot traffic occurs on streambanks or on slopes adjacent to live streams. Most well drained soils on gentle slopes have a thick duff layer and the duff layer can support foot traffic without rupturing or becoming muddy. On steeper slopes the duff layer is naturally thinner and more susceptible to disturbance from foot traffic or vehicle traffic. Wetland soils often have very low bearing strength due to high soil moisture and lack of woody roots to support traffic.

Past outfitter guide use has not resulted in any reported significant impacts on soils or wetlands within the Craig and Thorne Bay Ranger Districts. Where soil erosion and puddling is associated with developed recreation activities it has been identified and mitigated within two years. Mitigation involves rerouting trails or hardening trails or campsites.

There are two areas of recreation use that currently have a severe level of effects on the soil resource. One area is a user-developed trail that accesses the North Thorne Falls. The trail traverses a palustrine forested wetland/emergent sedge fen and has mucky spots up to 30 feet wide. The other severely affected site is located in a complex of wetland types at the first portage on the Honker Divide Canoe Route. Both trails are subject to be hardened hardening or rerouting in the next few years (based on priority ranking and current budget constraints).

Environmental Consequences

Outfitter guide use will not be allowed in the severely affected areas until they are either hardened or the trails relocated to avoid adverse soil impacts. Outfitter guide use may also be

restricted to certain cabins if areas surrounding the cabin are severely affected. Mitigation in the North Thorne Falls area via new NEPA analysis is planned in the next two years by adding slash on top of the trail to reduce erosion and prevent further widening and impacts, hardening, and/or rerouting. The area will be monitored afterwards to determine if the mitigation was successful. The site will be re-evaluated to determine if outfitter guide use can be allowed in the area. The Honker Divide Canoe Route trail will likely be hardened in the next few years (based on priority ranking and current budget constraints).

All alternatives and proposed activities conform to standards and guidelines and BMPs and comply with the Clean Water Act and Executive Orders 11988 and 11990. No extraordinary circumstances exist related to soils, wetlands and the proposed activities. No land-disturbing activities are proposed with this EA.

Direct/Indirect Effects

Soils

Alternatives 1, 2, 3, and 4

Adverse effects on the soil resource are not anticipated from proposed activities. No ground-disturbing activities are proposed. Minor losses of vegetation may occur in some places from heavy foot traffic. If soil erosion is noted in future monitoring, a Tongass Soil Scientist should be notified and mitigation developed. Proposed activities should avoid areas of steep slopes with mass wasting potential as identified during initial internal review of the area prior to permitting (Appendix A). It is recognized that Alternative 1 permitted use exceeds the current visitor capacity despite actual use remaining well below visitor capacity. However, other than those areas previously discussed, there are no existing effects or effects from activities to soils from any alternative. Implementation of project design elements and mitigation measures is expected to be highly successful in preventing resource damage.

Wetlands

Adverse effects on wetlands are not anticipated from proposed activities. Filling or draining of wetlands are not proposed in any alternatives. Minor loss of vegetation may occur in some places due to heavy foot traffic, however wetland function would not be significantly impacted by proposed activities. Foot traffic within wetland areas is permitted but should be minimized. It is recognized that Alternative 1 permitted use exceeds the current visitor capacity. However, other than those previously discussed, there are no existing effects or effects from activities to soils from any alternative.

Cumulative Effects

The cumulative effects analysis area is the entire project area. This area encompasses all effects of individual actions and potential activities.

Alternatives 1, 2, 3, and 4

There are no existing effects or effects from any alternatives; therefore there are no cumulative effects.

Applicable Laws and Executive Orders _____

2008 Tongass Land and Resource Management Plan Amendment

The action alternatives analyzed in this environmental document are consistent with the 2008 Forest Plan goals and objectives. The project was designed in conformance with land and resource management plan standards and incorporates appropriate land and resource management plan guidelines.

ANILCA Section 810, Subsistence Evaluation and Finding

The effects of this project have been evaluated to determine potential effects on subsistence opportunities and resources. ANILCA 810 subsistence hearings will be conducted prior to signing of the decision notice.

The evaluation in the EA indicated that there is no documented or reported subsistence use that will be restricted as a result of a decision. For this reason, the alternatives will not result in a significant possibility of a significant restriction of subsistence use of wildlife, fish, or other foods.

Bald and Golden Eagle Protection Act

This law provides for the protection of the bald eagle and the golden eagle by prohibiting, except under certain specified conditions, the taking, possession and commerce of such birds. Bald eagle habitat will be managed in accordance with 50 CFR 22.26 to maintain habitat to support the long-term nesting, perching, and winter roosting habitat capability.

Regulations (16 USC 668-668d and 50 CFR 22.26) prohibit recreational activities within a minimum of 330 feet from bald eagle nests. Outfitters and guides are required to comply with all federal, state and local laws, regulations and orders.

Clean Air Act

Minimal emissions are anticipated from the implementation of any project alternative; therefore, the State of Alaska ambient air quality standards (18 AAC 50) will not be exceeded.

Clean Water Act

The alternatives do authorize activities which have the potential to effect water quality, however the implementation of Best Management Practices and standards and guidelines will maintain water quality. Additionally the alternatives do not authorize any ground disturbance such as road building or timber harvest, or use of or discharge of potential

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pollutants. Implementation of any of the alternatives will not result in non-point or point sources of pollution; therefore, the project is fully compliant with the Clean Water Act.

Effects on Prime Farm Land, Range Land, and Forest Land

No prime farm land or range land exists in the project area. Forest land will maintain its productivity.

Endangered Species Act of 1973 (as amended)

A biological assessment was prepared and will be sent to the National Marine Fisheries Service (NMFS) and the US Fish and Wildlife Service (USFWS) as part of the Section 7 consultation under the Endangered Species Act.

Federal Cave Resource Protection Act

No known significant caves in the project area will be directly or indirectly affected by project activities. Forest Plan Karst and Caves Standards and Guidelines are applied to areas known or suspected to contain karst resources.

Magnuson-Stevens Fishery Conservation Act of 1996

Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act states that all federal agencies must consult the National Marine Fisheries Service (NMFS) for actions or proposed actions that may adversely affect Essential Fish Habitat (EFH). The Act promotes the protection of EFH through review, assessment, and mitigation of activities that may adversely affect these habitats.

The potential effects of the project on EFH have been evaluated (Hydrology and Fish resources, Chapter 3, EA). The descriptions and the analysis lead to a determination that the Prince of Wales Outfitter and Guide Management Plan project will not adversely affect EFH in Alternatives 1, 2 and 4 and could have minor adverse effects EFH in Alternative 3; however, this risk is minimized through the implementation of 2008 Forest Plan Standards and Guidelines, Best Management Practices, and outfitter and guide permit stipulations, as well as implementation of adaptive management.

Several factors were considered in evaluating the potential effects on EFH:

- The only ground-disturbance associated with the activities identified in the analysis would be possible trampling from feet, the footprint of tents, driving on open roads or designated OHV trails, and human waste disposal.
- Any road use associated with access to a permit holder's authorized locations will be in accordance with the most recent Motor Vehicle Use Map in effect at the time.
- Consumptive uses of water (i.e., diversions, dams, etc.) are not allowed. Limited collection of drinking water for individual or group use is acceptable.
- BMPs will be implemented to protect water quality and aquatic habitat for all freshwater streams.

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In accordance with the agreement of June 28, 2007 between the Forest Service and the NMFS for consultation on EFH, the Forest Service will send a copy of this Prince of Wales Outfitter and Guide Management Plan EA to NMFS, which formally started the consultation process.

If NMFS has comments on the findings of the assessment, the Forest Service will respond. The EFH Assessment is included in Chapter 3 of the EA.

Marine Mammal Protection Act of 1972

Actions authorized in the alternatives will not have an adverse effect on marine mammals. Outfitters and guide are required to operate within the parameters established in regulations governing the approach to humpback whales in Alaska (FR May 31, 2001, Vol. 66, No. 105, pp. 29505-29509 and 50 CFR 224.103) and the viewing code of conduct for marine mammals (<http://www.fakr.noaa.gov/protectedresources/mmv/guide.htm>). NMFS administers the Marine Mammal Protection Act (MMPA), which prohibits the “take” of all marine mammal species in U.S. waters. “Take” is defined as “to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.” Harassment is defined in the MMPA as “any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild; or has the potential to disturb a marine mammal stock in the wild by causing disruption of behavior patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.” Approaching within 100 yards, or otherwise disturbing or displacing any marine mammal is prohibited.

National Forest Management Act

The action alternatives fully comply with the Forest Plan. These action alternatives incorporate all applicable Forest Plan standards and guidelines and management area prescriptions as they apply to the project area, and comply with Forest Plan goals and objectives. The Forest Plan complies with all resource integration and management requirements of 36 CFR 219 (219.14 through 219.27). Application of Forest Plan direction for the POW Outfitter and Guide Management Plan ensures compliance at the project level.

National Historic Preservation Act of 1966

The Forest Service program for compliance with the National Historic Preservation Act (NHPA) includes locating, inventorying and evaluating the National Register of Historic Places eligibility of historic and archeological sites that may be directly or indirectly affected by scheduled activities. Regulations (36 CFR 800) implementing Section 106 of the NHPA require Federal agencies to consider the effects of their actions on sites that are determined eligible for inclusion in or are listed in the National Register of Historic Places (termed "historic properties"). The Alaska Region of the USDA Forest Service, the Alaska State Historic Preservation Officer, and the Advisory Council on Historic Preservation have established streamlined Section 106 review guidelines and stipulations in a Programmatic Agreement.

Outfitter and guide use is not expected to result in the discovery or disturbance of human remains. However, if human remains are discovered, they will fall under the inadvertent

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discovery provisions of the Native American Graves Protection and Repatriation Act (NAGPRA).

Outfitter and guide use is also not expected to restrict Alaska Native access to traditional religious or spiritual sites that are protected under the American Indian Religious Freedom Act (AIRFA) and Forest Service standards and guidelines for the treatment of sacred sites (USDA 2008, p. 4-19).

A Forest Service archeologist has reviewed this project and made a determination of No Historic Properties Affected in the area of potential effect for the proposed project. Obligations using modified procedures of the 36 CFR 800 review process, as defined in the Programmatic Agreement, have been met. As stipulated in this document sites used by Outfitter/Guides will be monitored to ensure the correct determination has been made.

Wild and Scenic Rivers Act

Three river systems within the project area were recommended by the Forest Plan for inclusion in the National Wild and Scenic River System. Congressional action to designate these rivers has not occurred. Forest Plan goals for these LUDs include maintaining the free-flowing character and outstandingly remarkable values of the river segments. The action alternatives do not propose to change the free-flowing character or outstandingly remarkable values associated with any of the rivers and therefore will not affect the eligibility of any river segments for inclusion in the Wild and Scenic River System. Recreational use of such river segments is allowed, and meets the Forest Plan direction for management of these areas with respect to recreation and tourism levels.

Protection and Enhancement of the Cultural Environment (Executive Order 11593)

Executive Order 11593 directs federal agencies to provide leadership in preserving, restoring and maintaining the historic and cultural environment of the Nation. The work accomplished in accordance with Section 106 of the National Historic Preservation Act for the POW Outfitter and Guide Management Plan meets the intent of this Executive Order.

Floodplain Management (Executive Order 11988)

No outfitter and guide permits will be issued that allow permanent development in floodplains within the Craig and Thorne Bay Ranger Districts. It is expected that none of the outfitter and guide activities will affect velocity or location of flows or width and depth of water. Therefore, no measurable short or long-term effects for floodplains are anticipated under any alternative.

Protection of Wetlands (Executive Order 11990)

No outfitter or guide activities that result in long-term impacts (filling, dredging, etc.) to wetlands will be permitted under this document (USDA Forest Service Manual 2527.01-04).

Environmental Justice/Civil Rights (Executive Order 12898)

This project does not have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

Recreational Fisheries (Executive Order 12962)

Federal agencies are required, to the extent permitted by law and where practicable, and in cooperation with States and Tribes, to improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities. As required by this Order, the Forest Service believes that the Prince of Wales Outfitter Guide EA has the potential to increase recreational fishing opportunities. This activity is consistent with Executive Order 12962. It is also expected to maintain the quantity, function, sustainable productivity, and distribution of United States aquatic resources.

Indian Sacred Sites (Executive Order 13007)

Executive Order 13007 directs Federal agencies to accommodate access to and ceremonial use of American Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites. In a government-to-government relationship, the tribal government is responsible for notifying the agency of the existence of a sacred site. A sacred site is defined as a site that has sacred significance due to established religious beliefs or ceremonial uses, and which has specific, discrete, and delineated location, which has been identified by the tribe. The analyzed alternatives protect traditional cultural properties and sacred sites.

Invasive Species (Executive Order 13112)

Federal agencies (in part) are required:

- to evaluate whether the proposed activities will affect the status of invasive species,
- to not carry out activities that promote the introduction or spread of invasive species unless it has determined that the benefits of such action outweigh the potential harm caused by invasive species, to the extent permitted by law and where practicable, and
- to take all feasible and prudent measures to minimize risk of harm in conjunction with the actions.

The action alternative includes both prevention and management measures, to reduce the risk of introducing and spreading invasive species.

Consultation and Coordination with Indian Tribal Governments (Executive Order 13175)

Executive Order 13175 directs Federal agencies to respect tribal self-government, sovereignty, and tribal rights, and to engage in regular and meaningful government-to-government consultation with tribes on proposed actions with tribal implications. The Forest Service met with or contacted local tribes during the planning stages of the project as noted in Chapter 1 of the EA.

Facilitation of Hunting Heritage and Wildlife Conservation (Executive Order 13443)

Executive Order 13443 directs Federal agencies to facilitate the expansion and enhancement of hunting opportunities and the management of game species and their habitat. The analysis considered and disclosed the effects both of hunting activities and on hunting activities. All the alternatives will provide hunting opportunities for the guided and unguided public.

CHAPTER 4, LISTS

The Forest Service consulted the following individuals, Federal, state and local agencies, tribes and non-Forest Service persons during the development of this environmental assessment. The references shown here were used in developing this EA; additional references were used in developing resource reports and other documents in the Project Record.

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APPENDIX A –

RECREATION USE AREA CARDS

Appendix A, Recreation Use Area Cards, is used to explain information about district-wide or site-specific resource concerns, design elements, and mitigations. The following sections provide background information for the recreation use area cards as well as district-wide design elements and mitigations. The Introduction to Recreation Use Area Cards section of this appendix explains maps, the organization of site-specific information in this appendix, and the information displayed in the individual recreation use area cards. The Project Area-wide Information, Design, and Mitigation Measures section summarizes project design elements, mitigation measures, and permit stipulations that apply to all or most recreation use areas, either where a particular resource or resource condition is found, or where these conditions are found during permit administration. These elements and measures can be either from the Forest Plan or project specific.

Introduction to Recreation Use Area Cards _____

Narrative cards and maps for recreation use areas of concern in this Environmental Assessment are listed in mapped groups. Due to the size of the project area, both Craig and Thorne Bay Ranger Districts, it was not possible to print all of the recreation use areas on one map. With over 200 recreation use areas on POW, the IDT combined the recreation use areas into 16 groups based on their location. For each map displayed on the Map Sheet Index, one recreation use card was developed. The information specific to each recreation use area is listed in tables in the card.

Starting with Map 1, recreation use areas are discussed in the first location/card where they are shown on a map. Thus, areas which fall in Map 1 are discussed in the tables for Map 1. Areas on Map 2 that fall outside Map 1 are discussed in the tables for Map 2; areas that fall in Map 2 and Map 1 are displayed in the tables for Map 1 only. The tables for Map 3 and subsequent maps only contain data for those areas that are new to that map. The data for areas covered on earlier maps (and in earlier cards) is not repeated.

Capacity estimates and allocations are displayed in Service Days. A service day is: “An allocation of use constituting a day or any part of a day on National Forest System (NFS) lands for which an outfitter or guide provides services to a client. The total number of service days is calculated by multiplying each service day by the number of clients on the trip” (FSH 2709.11 §41.53d).

Recreation visitor capacity includes both guided and unguided visitor service days and was calculated as an annual number (see Appendix B of this EA). Additional definitions and parameters used in calculating recreation visitor capacity are located in Appendix B.

The “season of use” was used as a limiting factor in calculating the recreation visitor capacity because it is the time of year when you would expect the most use to occur and provides a way to maintain the appropriate number of encounters between recreation visitors. The

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season of use was only used to calculate capacity, it does not restrict outfitters and guides to a particular length of season or time of year.

Recreation use area cards provide site-specific information when/where that information was available to IDT members.

Project Assumptions, Exclusions, and Items that will Trigger Additional IDT review

Many potential effects can be negated by explaining what will or will not be allowed or included in outfitter/guides' special use permits. Project assumptions used by all Interdisciplinary Team (IDT) members are displayed in Chapter 2 of this EA under Elements and Assumptions Common to All Alternatives. Permitted activities will be consistent with federal, state and local laws, regulations and orders and with the Forest Plan.

While analysis of effects was completed for both Craig and Thorne Bay Ranger Districts, some permit actions would require additional review by IDT members to assure that effects remain within expectations. The following items would require additional review by the identified resource specialist prior to issuing an outfitter/guide permit.

Table A- 1) POW Outfitter and Guide Proposals which would Trigger Additional IDT Review

Trigger for Additional Review	Aquatics	Botany	Heritage	Lands	Recreation	Wildlife
Any request in a new outfitter and guide recreation use area (any areas not used before by O/G and not on the current map of sites)	X	X X		X	X	X
Any permit if there are additions to the Regional Forester's Sensitive Species List, under the Endangered Species Act, or the Alaska Natural Heritage Program Rare Plant List who's viability is determined to be at risk by recreation use.	X	X				X
Any request to visit historic or prehistoric locations			X			
Any request to increase allocation (using adaptive management)	X	X X			X	X
Any significant increase in use or concentrated use	X	X X			X	X
If any resource concern is brought forward (such as a weed is discovered, etc).	X	X X		X	X	X
If/when O/G use is at 75% of allocation		X			X	
Any change in dominant use	X	X	X		X	X

Process

Permit Screening and Preparation

Outfitter and guide permit proposals go through a two-stage screening process prior to being accepted as formal applications (36 CFR 251.54(e)). Proposals are first checked for the following:

- Consistency with federal, state and local laws, regulations and orders;
- Consistency with the Forest Plan;
- Whether the proposal falls within the bounds of the decision for the POW Outfitter and Guide Management Plan EA, or other applicable environmental analyses, or whether it requires additional NEPA analysis;
- Whether there would be a serious or substantial risk to public health and safety;
- Whether the use would create an exclusive or perpetual right of use or occupancy;
- Whether the use would unreasonably conflict or interfere with administrative use, other scheduled or existing authorized uses, or adjacent land owners;

If there is outstanding debt to the Forest Service;

- To ensure that use does not involve gambling or provision of sexually oriented commercial services;
- To ensure use does not involve military or paramilitary training/exercises by private organizations or individuals; and,
- To ensure use does not involve disposal of solid waste, radioactive waste, or other hazardous substances.
- If the proposal passes this initial screening, it is then checked for the following:
- Is the use inconsistent or incompatible with the purposes for which lands are managed or with other uses?
- Is the use in the public interest?
- Is the proponent qualified?
- Does the proponent have the technical and financial capability to comply with the terms and conditions of the permit?
- Is the proponent willing to accept the terms and conditions of the permit?

A proposal must pass all criteria in order to become an accepted application. Once the proposed use is determined acceptable, the authorizing officer may choose to issue a special use permit with stipulated terms and conditions.

Project Design and General Mitigation Measures

The Forest Service uses many measures to prevent or mitigate negative social and environmental impacts in the planning and implementation of land management activities. These measures were developed from applicable laws and regulations, manual direction, the Forest Plan standards and guidelines, and recommendations from other sources (e.g. Leave No Trace methods).

The following is a list of project design and mitigation measures that will be applied in all of the action alternatives to commercial recreation activities in all recreation use areas where those conditions exist. The use area cards provide site-specific information and guidance for commercial permit preparation and administration, and include a narrative identifying resource concerns and site-specific mitigation measures.

The design elements and mitigation measures listed here and on the cards will be used to prepare and administer outfitter/guide permits. They will be incorporated into the permits as stipulations where applicable. Mitigation measures may be further refined during the monitoring and administration of commercial use authorizations as additional information becomes available.

General Permit Stipulations

The following measures are included as stipulations, permit clauses or additional conditions in applicable outfitter/guide special use authorizations:

- Outfitter/guide activities are required to comply with all applicable federal, state, and local laws, regulations, and standards.
- Outfitter/guides will carry a copy of the permit and annual operating plan in the field at all times and guides will be knowledgeable about the locations and activities authorized and requirements contained within these documents.
- Outfitter/guide use of a permitted area is not exclusive and will not preclude public use or access. Outfitter/guide activities shall not interfere with subsistence resource users or disrupt subsistence resource gathering activities.
- Land ownership is mixed; it is the responsibility of the permit holder to determine ownership and obtain proper authorization for use of private, native, State of Alaska, State selected, or local government-held lands.
- Outfitters and guides will incorporate “Leave No Trace” methods for all activities on National Forest System lands, including trash disposal, personal waste disposal, and campfire use (see www.lnt.org for additional information). All food, belongings, and gear brought on-site by guides and their clients, will be stored in such a manner as to not be an attraction to bears and other wildlife. Outfitter/guides will not harass or chase bears, or other wildlife, with motorized land vehicles, boats, or aircraft.
- Outfitter/guides will provide high-quality services to their clients and facilitate the use and enjoyment of National Forest System lands. Outfitter/guides’ actions should

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increase public understanding and appreciation of the Forest Service's mission and goals.

- All outfitter/guides will submit an Actual Use Report to the Forest Service annually. Information on the Report will include the following: date, number of groups and number of clients using NFS lands, specific location of use (including latitude and longitude), activity, and time spent on NFS lands.
- Within designated Wilderness, group size is limited to 12 people (including guides) at one time. Group size limit on the non-Wilderness portion of the District is 16 people, unless specifically authorized in the permit.

Additional Permit Stipulations

The following measures are included as stipulations, permit clauses or additional conditions in applicable outfitter/guide special use authorizations:

- Proposed activities should avoid areas of steep slopes with mass wasting potential.
- Foot traffic within wetland areas is permitted but should be minimized.
- Locate campsites on upland areas.
- If resource damage is noted, report it to permit administrator within 7 days of the end of the trip.
- Any cultural resources encountered during guided activities should be left as found and reported to the permit administrator within 7 days of the end of the trip.
- Provide the Forest Service with the locations of the campsites at the end of each month of use so that they can be periodically monitored, as necessary.
- Avoid concentrations of noisy vessels such as tour boats within 330 feet of eagle nests during the breeding season, except where eagles have demonstrated tolerance for such activity. Other motorized boat traffic passing within 330 feet of the nest should attempt to minimize trips and avoid stopping in the area where feasible, particularly where eagles are unaccustomed to boat traffic. If non-motorized recreation activities will be visible or highly audible from the nest, maintain a 330-foot buffer during the breeding season, particularly where eagles are unaccustomed to such activity (USFWS 2009).
- Because no reliable maps are available for active bald eagle nests, outfitters and guides should use their best judgment in respecting bald eagle nests. If guides notice that their guided activities are disturbing eagles near nests, as evidenced by frequent agitated calling or aerial displays, they should move their clients away from nest sites to such distance that the eagles calm down and resume their normal activities.
- Abide by marine mammal viewing guidelines. These regulations prohibit the harassment, hunting, capturing, or killing of any marine mammal and prohibit approaching within 100 yards of marine mammals. Compliance with these regulations will minimize potential impacts to marine mammals.

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- No shore landing is authorized in Alikula Bay within 3000 feet of the Coronation Island sea lion haulout site. Small sea lion haulouts that are not designated critical habitat occur on Cape Bartolome on Baker Island; Sakie Point on Dall Island; and Grindall Island, off the south tip of Kasaan Peninsula, Prince of Wales Island. Outfitters and guides are required to follow all marine mammal-viewing guidelines and refrain from any activities that disturb sea lions when passing near these sites.
- Outfitters and guides should report any goshawk nests or instances of being attacked by hawks to permit administrators within 48 hours for follow-up. Permit no continuous disturbance likely to result in nest abandonment within the surrounding 600 feet from March 15 to August 15 (USDA Forest Service, pg. 4-99).
- Report any black oystercatcher sightings and particularly any birds that appear to be nesting to permit administrators to document likely nesting habitat. Refrain from disturbing nesting oystercatchers by leaving the area if birds flush or react to clients with alarm calls.
- Follow required Tongass equipment cleaning for vehicles transported to remote road systems (road systems without communities).

Project Area-wide Information, Design, and Mitigation Measures

The use area cards provide site-specific information and guidance for commercial permit preparation and administration where information and concerns are related to a specific location. The area wide and resource-specific information, design, and mitigations listed here are for the entire project area. These concerns and/or mitigation measures are related to most or all recreation use areas and will be considered and incorporated into the permits as stipulations where applicable. Mitigation measures may be further refined during the monitoring and administration of commercial use authorizations as additional information becomes available.

Area-wide Design Elements

- Any road use associated with access to a permit holder's authorized locations will be in accordance with the most recent Motor Vehicle Use Map in effect at the time the activity occurs.
- Any dock use associated with boat-based access to a permit holder's authorized locations will be restricted to the side/back of a dock to minimize interference with other users of the area.
- Removal/collection of objects or plants would not be authorized, except for hunting and fishing as described in this document and the associated resource reports.
- Any use of firewood would be limited to dead material on the ground and would follow Leave No Trace principles. No removal or cutting of live vegetation would occur.

- Consumptive uses of water (i.e., diversions, dams, etc.) are not allowed. Limited collection of drinking water for individual or group use is acceptable.

Area-wide Information and Mitigation Measures

All Resources

Mitigation:

- When resource damage is noted and reported to the permit administrator; the permit administrator will contact the related resource specialist and actions will be taken to mitigate or eliminate the resource damage. As an example, in the case of soils or wetland damage, outfitter or guide traffic through the affected area would be eliminated (or rerouted) until the site could be hardened through future NEPA. In other cases of damage to resources, other management options may be used including those described under Adaptive Management.

Botany

Rare Plant Species: R10 Sensitive plant and fungi species and Alaska Natural Heritage Program Rare Plant species (collectively referred to as "rare plants") and suitable habitats exist throughout the POW Districts. Most outfitter and guide locations have no documented botany surveys, therefore presence of species with status is unknown. POW has several Rare plants documented that occur no where else on the Forest, and sometimes no where else in Alaska.

Concern: Impacts to suitable habitat and/or undocumented rare plants.

Mitigation:

- Field surveys of sites with suitable habitat will determine presence/absence. Field surveys should occur at all high and medium use-level sites. Potential impacts from outfitter and guide recreation use include trampling, soil compaction, trenching resulting from social trails leading to water flow modification, loss of woody debris near campsites thus reducing fungi viability (orchids require fungi for viability), etc. Surveys may occur through this or other projects.

Invasive Species: Invasive plant species are documented the POW Districts. The abundance and diversity of species is extensive. Open road corridors, for example, act as pathways/vectors for seed and vegetative propagule distribution. As long as infestations persist, and use continues, invasive species will be a concern. Some infestations identified as needing treatments may already be receiving treatments.

Concern: Introduction and/or spread of new or existing Tongass National Forest High Priority Invasive Plant Species or POW invasive plants of concern.

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Mitigations:

- Implement prevention measures.
- Treat infestations likely to be aggravated by outfitter and guide use, generally through other projects.

Fisheries and Hydrology

Concern: Fish populations can be limited by insufficient or degraded spawning habitat. Intensive angler wading in spawning areas can negatively affect spawning habitat, especially if it occurs during egg and pre-emergent fry development.

Mitigations:

- If effects from wading become a concern, permits could require outfitter/guides and their clients to travel between the high and low water marks (the area periodically de-watered) when practical.

Heritage

Concern: Relevant Outfitter/Guide activities, particularly camping and active touring, may be conducted in areas of Heritage concern. After a site by site review of each of the outfitter and guide use locations, 99% of the locations are in areas that could be considered high sensitivity for archaeological sites. Many use locations have areas of archaeological concerns in the general vicinity.

Mitigations:

- Sites will need to be monitored for impact to extant Heritage resources.
- If archaeological resources are being impacted, the outfitter and guide use will be eliminated.
- Mitigation measures for Heritage resources might include future avoidance of the area of disturbance, detailed archaeological examination of the site and could range up to legal actions (archaeological sites are protected under the Archaeological Resources Protection Act and by other protective measures).

Soil and Wetlands

Concern: Excessive foot traffic associated with recreational activities on soils and wetlands may lead to soil erosion, vegetation loss, puddling, and sediment transport.

Mitigation:

- Where soil erosion and puddling is associated with recreation activities it is mitigated within two years. Mitigation involves rerouting trails or hardening trails or campsites. Apply BMPs 12.5, 16.1, and 16.4. Mitigating these areas would conform to standards and guidelines and BMP's and comply with the Clean Water Act and Executive Orders 11988 and 11990.

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Subsistence

Concern: Potential for loss of subsistence hunting and trapping opportunities due to recreational development (access of the resource) and consumptive resource use by non-subsistence qualified users (competition for the resource).

Mitigation:

- Refer to General Permit Stipulations above.

Wildlife

Mitigation for wildlife often depends on specific habitat available at a site or access method to get to a site. Refer to the following concerns based on the tables in the recreation use area cards.

All location concerns: Black bears, deer, and wolves may be assumed to be present at all sites. Only sites where particular concerns have been identified are listed in the tables attached here. Black bear hunting days will be restricted to 40 service days during the fall hunt, and hunt allocations for black bears will be determined in conjunction with ADFG. Maintain Central WAAs big game hunting closure in applicable sites.

Mitigations:

- Outfitters and guides should report any goshawk nests or instances of being attacked by hawks to POW biologists within 48 hours for follow-up. Permit no continuous disturbance likely to result in nest abandonment within the surrounding 600 feet from March 15 to August 15 (USDA Forest Service, pg. 4-99).
- Avoid disturbance of trumpeter swans, particularly during nesting, brood-rearing, and wintering periods, to prevent abandonment of important habitats.

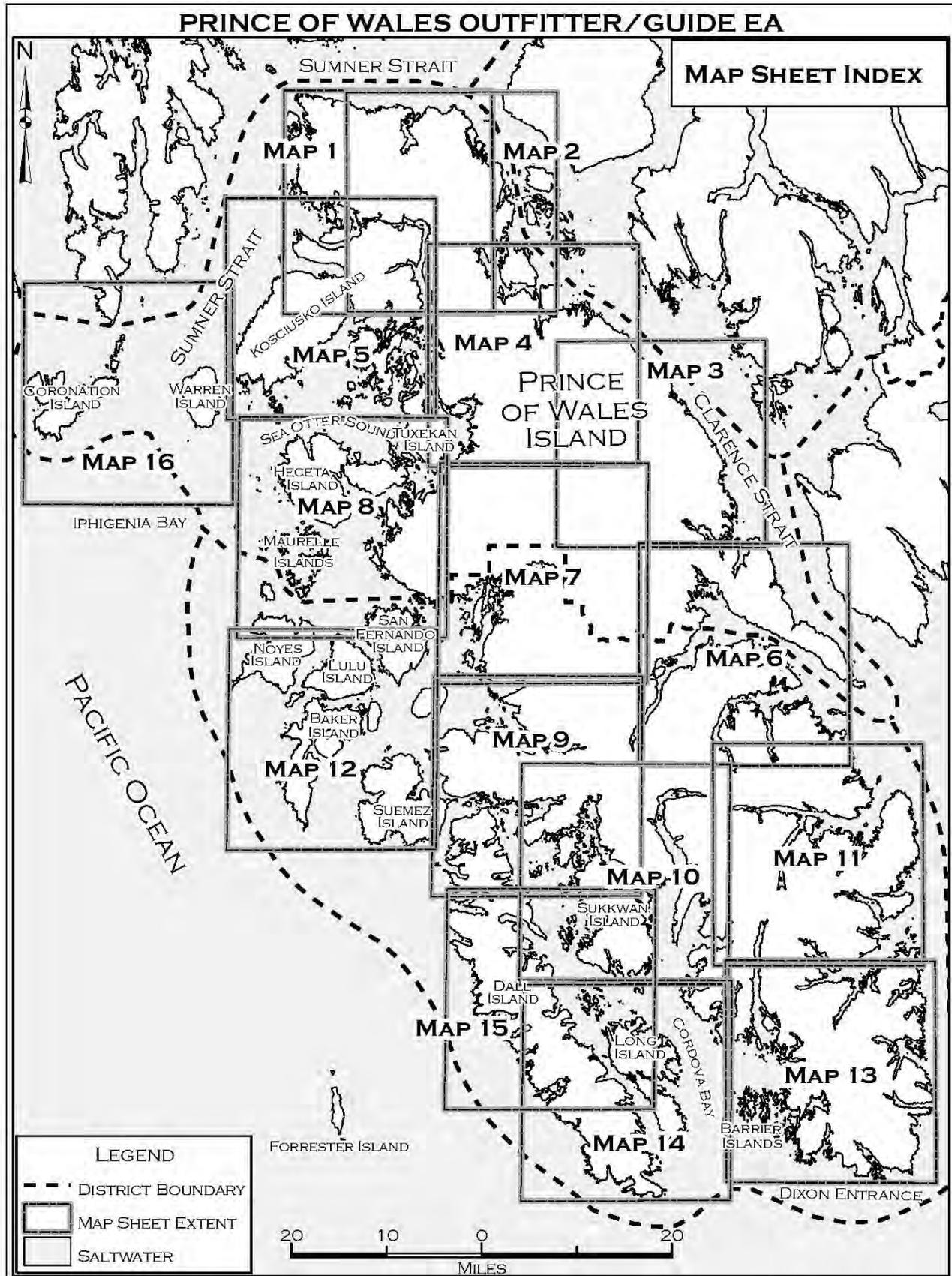
Shore site concerns: All sites accessed from the marine shoreline may be assumed to have bald eagle nests and marine mammals occurring nearby such as humpback whales, sea lions, and seals.

Mitigations:

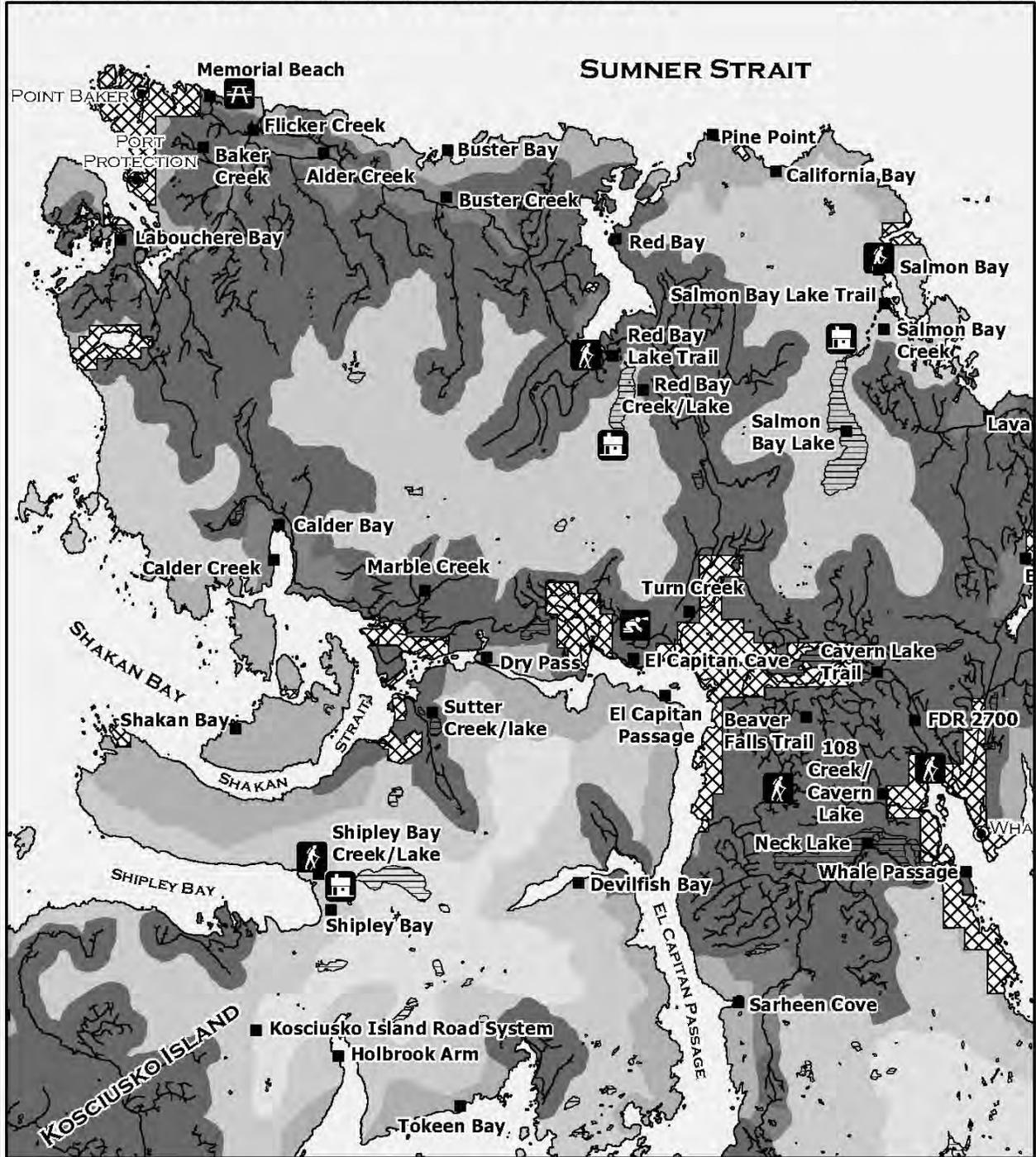
- Guides and clients must follow applicable guidelines for eagles and marine mammals.
- Report any black oystercatcher sightings and particularly any that appear to be nesting to POW biologists to document likely nesting habitat. Refrain from disturbing nesting oystercatchers by leaving the area if birds flush or react to clients with alarm calls.

Areas of concern with no required mitigation measures are provided to increase permit administrator and outfitter and guide awareness about wildlife. Where possible, avoid disturbing identified wildlife species. If excessive disturbance of wildlife is noted by permit administrators, outfitters or guides, or clients, inform and consult with POW wildlife staff to determine if any action can or should be taken.

PRINCE OF WALES OUTFITTER/GUIDE EA



S. BURCH, POWOG_MAPSHEETINDEX_08292011.PDF



	RANGER STATION		PICNIC AREA		HIKING TRAILS	ROS CLASS P SPNM SPM R RN RM
	SHELTER		FISHPASS		ROADS	
	TRAILHEAD		EL CAP CAVE		LAKES	
	CABIN		CANOE ROUTE		SALTWATER	
	CAMPGROUND		BUOY/DOCK		NONNFS LANDS	
	CAMPSITE				2 1 0 2 MILES	

S. BURCH, POWOG_RECREATIONUse_08262011_MAP 1 OF 16.PDF

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How do I find the Recreation Use Area I am interested in?

Starting with Map 1, recreation use areas are discussed in the first location/card where they are shown on a map. Thus, areas which fall in Map 1 are discussed in the tables for Map 1. Areas on Map 2 that fall outside Map 1 are discussed in the tables for Map 2; areas that fall in Map 2 and Map 1 are displayed in the tables for Map 1 only. The tables for Map 3 and subsequent maps only contain data for those areas that are new to that map. The data for areas covered on earlier maps (and in earlier cards) is not repeated. Table A-2 displays all of the recreation use areas alphabetically followed by the map number/group number where each area is first discussed.

Table A- 2) Cross-reference for Recreation Use Area and Map #/Group #

Recreation Use Areas	Map/Group #	Recreation Use Areas	Map/Group #
108 Creek/Cavern Lake	1	Mclean Arm	13
Aats Bay	16	Mcleod Bay	14
Aiken Cove	11	Memorial Beach	1
Alder Creek	1	Menefee Anchorage	11
Arena Cove	12	Miller Lake	11
Aston Island	14	Moira Sound	11
Baker Creek	1	Moira Sound , South Arm	13
Barnes Lake	2	Moira Sound, North Arm	11
Barrier Islands	13	Monie Lake	6
Beaver Falls Trail	1	Naukati Bay	
Beaver Mountain	10	Neck Lake	4
Big Creek, W. Cholmondoley	11	Niblack Lake	1
Big Lake	3	Nichols Bay	11
Biscuit Lagoon	13	No Name Lake, S8 T68S R 79E	13
Black Bear Lake	7	North Bay	4
Bobs Place	8	Nossuk Bay	9
Boyd Lake	4	Nowiskay Cove	8
Brownson Bay	13	Nutkawa Inlet	11
Buster Bay	1	Nutkawa Lagoon	10
Buster Creek	1	Old Franks Creek	10
Cable Creek	9	Old Log Camp	6
Calder Bay	1	Old Toms Creek	6
Calder Creek	1	One Duck Lake	6
California Bay	1	One Duck Road System	9
Cape Chacon	13	Orr Island	9
Cavern Lake Trail	1	Paul Bight	5
China Cove	16	Paul Young Creek	6
Cholmondeley Sound, NE	11	Pine Point	6
Cholmondeley Sound, South Arm	11	Point Dolores	1
Cholmondeley Sound, West	11	Pole Anchorage	12

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Arm			
Clover Lake	6	Polk Inlet Overlook	5
Cora Point	16	Polk Inlet, East	6
Datzkoo Harbor	14	Polk Inlet, North	6
Devilfish Bay	1	Polk Pass	6
Dickman Bay	13	Pond Bay	6
Diver Bay	9	Port Alice	14
Dog Salmon Creek	6	Port Refugio	8
Dog Salmon Fishpass	6	Port Santa Cruz	12
Dog Salmon Lake	10	Ratz Creek	12
Dry Pass	1	Ratz Harbor	3
Dunbar Inlet	10	Red Bay	3
Eagle Creek	3	Red Bay Creek/Lake	1
Eagle Creek (cont.)	3	Red Bay Lake Trail	1
Eagle Island	5	Rip Point	1
Egg Harbor	16	Roller Bay, Noyes Island	11
El Capitan Cave	1	Ruins Point	12
El Capitan Passage	1	Sakie Bay	5
Essowah Lakes	14	Salmon Bay	15
Exchange Cove, West	2	Salmon Bay Creek	1
Exchange Cove, East	2	Salmon Bay Lake	1
FDR 2700	1	Salmon Bay Lake Trail	1
Fisherman Cove	15	Salt Chuck	1
Flicker Creek	1	Salt Lake Bay	6
Fredrick Cove	13	Sarheen Cove	8
Gandlaay Haanaa (Fubar Creek)	9	Sarkar Lake	1
Goat Island	9	Scott Lagoon	4
Gold Harbor	15	Security Cove	8
Goose Bay	6	Shaheen Creek	14
Gosti Island	6	Shakan Bay	7
Granite Mountain	6	Shipley Bay	1
Gulch Creek	9	Shipley Bay Creek/Lake	1
Halibut Harbor	5	Shipwreck Point	1
Harris Ridge	7	Skowl Arm	13
Harris River	7	Snag Island	6
Harris River (cont.)	7	Snakey Lake	9
Hassiah Inlet	10	Soda Bay	3
Hatchery Creek	4	Spanish Islands	9
Hessa Inlet	13	Spiral Cove	16
Holbrook Arm	1	Staney Creek, Main Stem	6
Hole In The Wall	8	Staney Creek, North Fork	4
Hook Arm	15	Staney Creek, South Fork	7
Horseshoe Island	9	Staney Creek, Upper	7
Hunter Bay	13	Steamboat Bay	7

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Hunter Bay (cont.)	13	Stone Rock Bay	8
Hunter Creek	13	Sumez Island Road System	13
Hunter Creek (cont.)	13	Survey Cove	12
Indian Creek	9	Sutter Creek/Lake	5
Indian Creek (cont.)	9	Sweetwater Lake	1
Ingraham Bay	13	Tah Bay	4
Island Bay	10	Tenass Bay	13
Jinhi Bay	5	The Saitchuck	5
Johnson Cove	13	Thorne River, Lower	13
Karheen Cove	8	Thorne River, Lower (cont.)	3
Kasaan Bay	6	Thorne River, North	3
Kasook Inlet	10	Thorne River, Tributaries	3
Kassa Inlet	14	Thorne River, Upper	3
Keete Inlet	11	Tlevak Narrows	3
Kegan Creek	11	Tokeen Bay	9
Kendrick Bay	13	Trocadero Creek	5
Klakas Inlet	11	Trout Creek	9
Klakas Lake	11	Trumpeter Lake	5
Kosciusko Island Road System	1	Turn Creek	3
Kugel Lake	11	Tuxekan Island Road System	1
Kugun Creek	4	Twelvemile Arm Creek	8
Labouchere Bay	1	Twelvemile Arm Road System	6
Lake Galea	3	Upper Trocadero Mountain	6
Lancaster Cove	11	Upper Trocadero Road System	9
Lava Creek	1	Upper Twelvemile Arm Road System	9
Logjam Creek	4	Van Sant Cove	9
Logjam Creek	4	Waterfall Bay	5
Luck Lake	3	West Sentinel Island	15
Luelia Lake	11	Whale Passage	6
Mabel Island	10	Windy Bay	1
Marble Island	5	Winter Bay	16
Max Cove	13	Winter Harbor	13
Maybeso River	6	Wolf Lake	3
McKenzie Inlet, South	6	Wolk Harbor	6
McKenzie Inlet, West	6		14

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Table A-3 lists the recreation use areas in this group, area uses, and the number of service days (SDs) allocated in each alternative. Specific resource concerns are listed by recreation use area in the second table.

Table A- 3) Group 1 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
108 Creek/Cavern Lake	Road	Fishing	692	62	116	346	173	128
Alder Creek	Road	fishing, hunting	2,306	0	105	1,153	577	116
Baker Creek	Road	Traditional use area for Prince of Wales residents.	2,306	0	10	1,153	577	11
Beaver Falls Trail	Road	All people come to walk the trail and see the sinkholes.	2,318	60	0	1,159	1,738	66
Buster Bay	Shore	Hunting, fishing, passive/active touring	2,822	11	28	1,411	706	31
Buster Creek	Road	Hunting, fishing, passive/active touring	2,306	0	0	1,153	577	66
Calder Bay	Road	hiking, passive touring. Freshwater fishing and hunting opportunities.	2,117	19	418	1,059	529	460
Calder Creek	Road	freshwater fishing and wildlife viewing	2,306	0	105	1,153	577	116
California Bay	Road	Hunting, passive/active touring	2,117	7	0	1,059	529	44
Cavern Lake Trail	Road	passive/ active touring, freshwater fishing	696	57	0	348	174	63
Devilfish Bay	Shore	Fishing, hunting, passive/active touring	282	23	28	141	71	31
Dry Pass	Shore	Kayaking, fishing, shrimping, sight-seeing	2,822	8	38	1,411	706	42

¹ This is the highest outfitter and guide use reported from 2005 to 2009. The number of permitted days appears in Alternative 1, the no action alternative.

² Alternative 1 – rows have zeros if there is no permitted use in those areas this year; however, there has been past use and will probably be use in the future.

³ Additional limitations related to fishing and/or hunting apply to the action alternatives as described in Chapter 2 of the EA

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Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
El Capitan Cave	Road	hiking	7,560	112	1,167	3,780	1,890	1,284
El Capitan Passage	Shore	Hiking, hunting, passive touring	927	34	0	464	232	37
FDR 2700	Road	biking, hiking	2,318	7	0	1,159	580	8
Flicker Creek	Road	freshwater fishing	2,306	19	0	1,153	577	21
Holbrook Arm	Shore	Hunting, passive/active touring	2,822	8	0	1,411	706	77
Kosciusko Island Road System	Road	Hunting, passive/active touring	2,117	12	8	1,059	529	9
Labouchere Bay	Road	hunting, passive/active touring	635	10	10	318	159	11
Lava Creek	Road	Most people come to fish, hunt, and view Clarence Strait.	635	7	14	318	159	15
Memorial Beach	Road	hunting, passive/active touring	2,318	4	0	1,159	580	4
Neck Lake	Road	fishing	2,306	75	175	1,153	577	193
Pine Point	Shore	hunting	2,822	1	0	1,411	706	11
Red Bay	Road	hunting	2,117	16	338	1,059	529	372
Red Bay Creek/Lake	Road	fishing	696	13	233	348	174	256
Red Bay Lake Trail	Road	hiking	692	31	259	346	173	285
Salmon Bay	Shore	hunting and fishing	282	42	210	141	71	141
Salmon Bay Creek	Remote	hunting and fishing	461	18	72	231	115	79
Salmon Bay Lake	Remote	hunting and fishing	461	19	168	231	115	185
Salmon Bay Lake Trail	Shore	fishing	309	0	233	155	77	155
Sarheen Cove	Shore	hunting	847	10	10	424	212	11
Shakan Bay	Shore	hunting	282	22	80	141	71	88
Shipley Bay	Shore	hunting	282	32	138	141	71	141
Shipley Bay Creek/Lake	Shore	hunting	307	0	195	154	77	154
Sutter Creek/Lake	Shore	fishing, hunting	307	0	95	154	77	105
Turn Creek	Road	fishing	2,306	47	0	1,153	577	52
Whale Passage	Road	biking, hiking, fishing	2,318	32	0	1,159	580	35
TOTAL			61,523	818	4,253	30,768	16,548	4,903

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
108 Creek/Cavern Lake	Near Whale Pass. 50 miles north of Craig on FR 20 to FR 2700. The creek runs alongside the road and through young and old growth forest.	Whale Pass private land	none	Access: Bushwhack to creek if done by many people in the same place may cause muddy conditions, vegetation trampling and erosion.	Fisheries: summer run coho, small steelhead system	Recreation: Site exceeds capacity July and Aug	Wildlife: This site is in an Old Growth Reserve.
Alder Creek	150 miles north of Craig on the 20 road. Near Memorial Beach.	Point Baker, Port Protection	none	Fisheries: fishing access fairly easy because Alder creek is crossed by the main 20 road. Visitors tend to fish in all of the small creeks between Red Bay and Memorial Beach.	Wildlife: See All Locations.		
Baker Creek	62 miles north of Craig by boat (outside Baker). LUD II area uncut, rugged coastline. Sea Caves.	Point Baker, Port Protection	none	Access: Access to this site is very weather dependent.	Recreation: Picnics and fishing occur at Baker Creek currently by local users. A recreation trail proposal on Baker Island was rejected by the Craig community	Wildlife: See All Locations.	
Beaver Falls Trail	45 miles north of Craig on FR 20. Muskeg. Access is fairly easy by gravel road.	none nearby	Board walk trail, 2 kiosks, 4 car parking area, SST	Invasive Species: Invasive plants known in the parking area, recommend future monitoring to	Recreation: popular attraction to locals and visitors to POW alike. Serving the	Wildlife: See All Locations.	

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
			toilet.	determine possible spread.	purpose it was designed to. Compliments El Cap Cave		
Buster Bay	About 90 miles north of Craig. Old growth forest along the beach. Beautiful views of Kupreanof	Point Baker, Port Protection	none	Wildlife: This is a shore access site; refer to shore site concerns. Rocky shorelines may provide habitat for nesting black oystercatchers. Disturbance to black oystercatchers is a concern. See mitigation measures.			
Buster Creek	About 90 miles north of Craig. Old growth forest along the beach. Beautiful views of Kupreanof	Point Baker, Port Protection	none	Wildlife: See All Locations.			
Calder Bay	75 miles north of Craig (by boat). Calder Bay was once a heavily used marble quarry. There's old roads and timber harvest areas around. Unharvested area to the west is	none nearby	none	Recreation: Small cruise boat is thinking about using this area. Consistent use may have conflicts.	Wildlife: Large estuary system important to waterfowl, deer and bear. This site provides high value habitat during periods of critical use for black bears. Easy access by boat		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	managed as LUD II.				and road leaves bears vulnerable to harvest.		
Calder Creek	75 miles north of Craig (by boat). Calder Bay was once a heavily used marble quarry. There are old roads and timber harvest areas around. Unharvested area to the west is managed as LUD II.	none nearby	none	Recreation: Small cruise boat is thinking about using this area. Consistent use may have conflicts.	Wildlife: Large estuary system important to waterfowl, deer and bear. Bald eagle nests occur here. This site provides high value habitat during periods of critical use for black bears. Easy access by boat and road leaves bears vulnerable to harvest.		
California Bay	About 90 miles north of Craig. Old growth forest along the beach. Beautiful views of Kupreanof	none nearby	none	Wildlife: See All Locations.			
Cavern Lake Trail	50 miles north of Craig on the north end of the Whale Pass loop. Young growth surrounds area.	none nearby	500 foot trail, viewing platform	Invasive Species: Reed Canarygrass is known along the trail and stream, and St. John's Wort at nearby rock pit. Continued treatment of this infestation of St.	Fisheries: 108 Creek drainage, small steelhead system, summer run coho	Recreation: moderate use. Compliments El Cap tour	Wildlife: This site is in an Old Growth Reserve.

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
				John's Wort should continue, as well as future monitoring of the reed canarygrass infestation.			
Devilfish Bay	60 miles north of Craig by boat. Undeveloped area, but legend holds that this is the site of Tlingit Village that was swallowed by the Devilfish.	none nearby	none	Recreation: Small cruise boat is thinking about using this area. Consistent use may have conflicts.	Wildlife: This is a shore access site; refer to shore site concerns.		
Dry Pass	40 miles north of Craig. Old growth on south shore, young growth on the north. Ocean shore.	areas of private inholdings	El Capitan dock, trail and living area. Private docks.	Wildlife: This is a shore access site; refer to shore site concerns. Black bears are vulnerable to spring harvest in this location.			
El Capitan Cave	50 miles north of Craig on FR 20. Site of old logging camp heavily developed. Young growth surrounds area. Up near the cave there is old growth. Access by road and a hike. Access is relatively easy because it is	Adjacent land in private ownership (lodge).	El Cap Trail, El Cap Cave, Cave shed to store gear, Cave housing (permanent admin site), boat launch, hardened	Invasive Species: The administrative site at El Cap has many high priority invasives. Recommend continued treatment and future monitoring.	Wildlife: Bats occur here. Potential for transference of "white nose syndrome" to bats. Continue to implement strict regulations regarding disinfection of shoes, clothes,		

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Recreation Use Area	Location	Nearby Commu-nities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	on the road system, although 2+ hours north of Craig.		area for camping, dock (dock is in poor condition).		and other equipment prior to entry into the cave.		
El Capitan Passage	50 miles north of Craig on FR 20. Old growth in the foreground, timber harvest in the background. Shoreline. El Cap passage can be accessed at the boat launch at El Cap	Some private inholdings along shore.	none except at El Cap and private land.	Wildlife: This is a shore access site; refer to shore site concerns. This site is adjacent to an Old Growth Reserve. This site provides high value habitat during periods of critical use in spring and fall for black bears. Easy access by boat leaves bears vulnerable to harvest.			
FDR 2700	50 miles north of Craig on FR 20. 1 mile from Whale Pass. Young growth surrounds area. Access is relatively easy because it is on the road system, although 2+ hours north of Craig.	Whale Pass	none	Recreation: Popular local use area for Whale Pass and other communities. Increased guide use may conflict with local use for few resources.	Wildlife: Adjacent to an Old Growth Reserve.		
Flicker Creek	About 90 miles north of Craig. Roadside creek.	Point Baker, Port Protection	Road pull-off by creek	Fisheries: small steelhead system	Wildlife: See All Locations.		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	Young growth forest in area.						
Holbrook Arm	Southern Kosciusko Island. 50 miles north of Craig by boat. Beach fringe, LUD II, old growth.	none nearby	none	Recreation: Kosciusko is a popular hunting area but mostly in the roaded section. The LUD II area receives less use.	Wildlife: This is a shore access site; refer to shore site concerns.		
Kosciusko Island Road System	Kosciusko Island. 50 miles north of Craig by boat. Beach fringe with young growth stands nearby. Many roads on the island if people bring an ATV.	Edna Bay	none	Botany: Rare plant populations known. Recommend future surveys of high use areas and follow-up monitoring.	Invasive Species: Several high priority invasive plants known along the road system. Recommend future monitoring and ongoing treatment as feasible.	Recreation: Kosciusko is a popular hunting area for locals because of the road system. People bring ATVs to hunt and recreate. Increased hunting may put pressure on locals to find deer elsewhere.	Wildlife: Estuaries may have wintering swans.
Labouchere Bay	About 100 miles north of Craig by road. Lab Bay is a large log landing at the far north of POW. It is surrounded by second growth.	Point Baker, Port Protection	MAF and big open landing	Botany: Minimal weed survey of area. Recommend weed/rare plant survey of area.	Wildlife: Rocky shorelines may provide habitat for black oystercatchers. Disturbance to black oystercatchers is a concern. See mitigation measures.		
Lava Creek	About 80 road	Whale Pass	none	Access: Bushwhack	Invasive Species:	Recreation:	Wildlife: See All

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	miles north of Craig on FR 20. 1 mile from Whale Pass. Young growth around area. Access is relatively easy because it is on the road system, although 2+ hours north of Craig.			to creek if done by many people in the same place may cause muddy conditions, vegetation trampling and erosion.	Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Popular local use area for Whale Pass and other communities. Increased guide use may conflict with local use for few resources.	Locations.
Memorial Beach	About 100 miles north of Craig by road. Beach is accessed by a maintained trail. Old growth forest by ocean. Second growth surrounding. Named for an air craft crash in front of the beach in Sumner Strait. 7 Forest Service personnel perished.	State land adjacent to west. Point Baker, Port Protection	600 foot trail. 2 hardened campsites. Within the next two seasons, there will be a 3-sided shelter installed.	Recreation: popular location despite the long drive to get there.	Wildlife: Rocky shorelines may provide habitat for black oystercatchers. Disturbance to black oystercatchers is a concern. See mitigation measures.		
Neck Lake	70 road miles north of Craig on FR 20. 1 mile from Whale Pass. Young growth along southwestern	Whale Pass	Gravel turn around and parking, boat	Botany: Several known rare plant populations near the road and lake. Recommend future surveys of high use	Invasive species: Several high priority invasive plants known. Recommend additional surveys,	Fisheries: Coho hatchery, lake has resident fish, barrier by hatchery	Wildlife: The north shore of Neck Lake is an Old Growth Reserve. A pinch point for wildlife recognized in the

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	shore. Access is relatively easy because it is on the road system, although 2+ hours north of Craig.		launch	areas and follow-up monitoring.	future monitoring, and treatment as feasible.		Forest Plan in this area. Maintaining habitat connectivity is a goal at this site.
Pine Point	60 air miles from Craig at the far north end of POW near Red Bay. Mature young growth. Karst geology.	Private land	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Red Bay	55 miles north of Craig on FDR 20.	Point Baker, Port Protection	none	Invasive Species: Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Wildlife: This site is a large estuary system important to waterfowl, swans, deer and bear. Disturbance to waterfowl is a concern. There is a high potential for conflict between users for fishing, hunting and viewing of bears.		
Red Bay Creek/Lake	55 mile north of Craig on the 20 road. Access by road and hiking or floatplane. Access is medium because it is a long	none nearby	Red Bay Lake Cabin, Red Bay Trail. 3 car parking area.	Fisheries: small steelhead system, sockeye	Wildlife: Waterfowl, trumpeter swans, loons, and geese occur here. Disturbance to waterfowl is a		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	way to drive on the 20 road and then one must hike.				concern.		
Red Bay Lake Trail	55 mile north of Craig on the 20 road. Access to lake by road and hiking or floatplane. Access to Creek is by road.	none nearby	Red Bay Lake Cabin, Red Bay Trail. 3 car parking area.	Botany: Several known rare plant populations along the trail. Recommend future surveys of high use areas and follow-up monitoring.	Invasive Species: Conduct official survey of trail, stream and parking area for weeds/rare plant habitat	Wildlife: This site is in an Old Growth Reserve.	
Salmon Bay	50 miles north of Craig. Closer to Wrangell and Petersburg. Lake shore, old growth, young growth, salmon stream. Access is available by floatplane or boat and hike though difficult due to lack of roads and a hike is required even if accessed by boat.	none nearby	2 mile trail, Salmon Bay Lake Cabin.	Wildlife: This is a shore access site; refer to shore site concerns. This large estuary system is important to waterfowl, swans, deer and bear. Disturbance to waterfowl is a concern.			
Salmon Bay Creek	50 miles north of Craig. Closer to Wrangell and Petersburg. Lake shore, old growth, young growth, salmon stream.	none nearby	2 mile trail, Salmon Bay Lake Cabin.	Fisheries: remote system, sockeye, large steelhead system	Wildlife: This large estuary is important to waterfowl, deer and black bear. Disturbance to waterfowl is a		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	Access is available by floatplane or boat and hike, though it is difficult due to lack of roads and a hike is required even if accessed by boat.				concern. Black bears are vulnerable to harvest on beaches and salmon streams at this site because they tend to congregate in these areas during periods of critical use.		
Salmon Bay Lake	50 miles north of Craig. Closer to Wrangell and Petersburg. Lake shore, old growth, young growth, salmon stream. Access is available by floatplane or boat and hike, though it is difficult due to lack of roads and a hike is required even if accessed by boat.	none nearby	2 mile trail, Salmon Bay Lake Cabin.	Fisheries: remote system, sockeye, large steelhead system	Wildlife: This large estuary is important to waterfowl, deer and black bear. Disturbance to waterfowl is a concern. Black bears are vulnerable to harvest on beaches and salmon streams at this site because they tend to congregate in these areas during periods of critical use.		
Salmon Bay Lake Trail	20 air miles east of Craig in the Karta	none	Cabin, trail,	Botany: Several known rare plant	Invasive Species: Several high	Fisheries: sockeye, large	Wildlife: This is a shore access site;

Prince of Wales Outfitter and Guide Management Plan

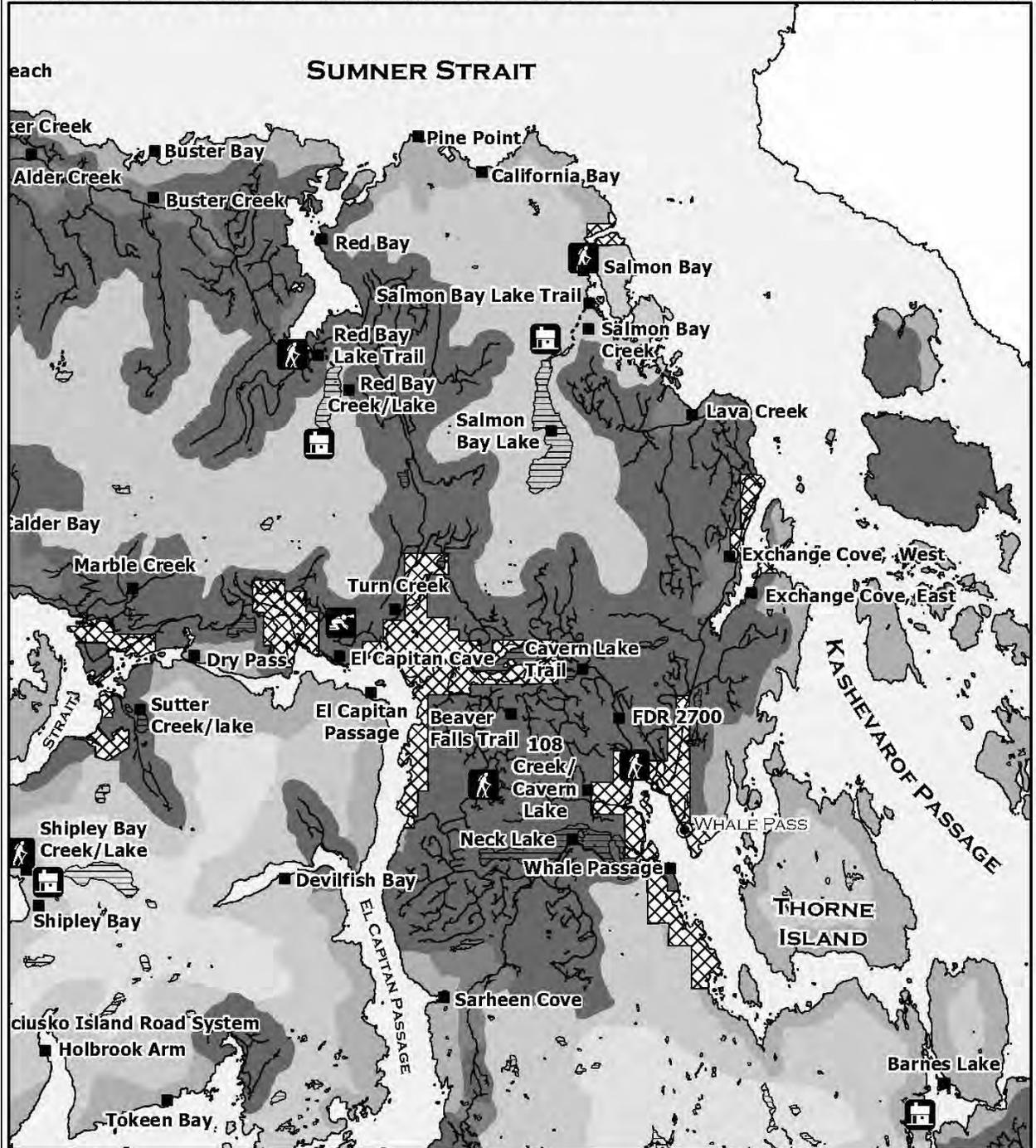
Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	River Wilderness.		abandoned cabin	populations along the lake shoreline. Recommend future surveys of high use areas and follow-up monitoring.	priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	steelhead system, summer run coho	refer to shore site concerns. This large estuary is important to waterfowl, deer and black bear. Disturbance to waterfowl is a concern. Black bears are vulnerable to harvest on beaches and salmon streams at this site because they tend to congregate in these areas during periods of critical use.
Sarheen Cove	40 air miles north of Craig on El Capitan Passage. Unharvested.	none	none	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve.			
Shakan Bay	50 air miles north of Craig on Kosciusko Island.	none	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Shiple Bay	40 air miles north from Craig. Fairly undeveloped. LUD II. Old Growth, big	none	Shiple Bay Cabin, Shiple Bay Trail.	Wildlife: This is a shore access site; refer to shore site concerns.			

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	intertidal area. Access is available by boat or floatplane though challenging due to remoteness and lack of roads.						
Shiple Bay Creek/Lake	40 air miles north from Craig. Fairly undeveloped. LUD II. Old Growth, big intertidal area. Access is available by boat or floatplane and is challenging due to remoteness and lack of roads.	none	Shiple bay Cabin, Shiple Bay Trail.	Wildlife: This is a shore access site; refer to shore site concerns.			
Sutter Creek/Lake	West end of Dry Pass, North End of Kosciusko Island. LUD II. Old harvest and alder in road.	Private land to the west of Sutter Lake	none	Recreation: A few visitors come to fish and hunt in this area. Important native site.	Wildlife: This is a shore access site; refer to shore site concerns.		
Turn Creek	50 miles north of Craig on FDR 20, near El Capitan Cave.	State	none	Fisheries: small steelhead system	Wildlife: See All Locations.		
Whale Passage	50 miles north of Craig on FR 20. 1 mile from Whale Pass. Young growth surrounds	Whale Pass	None	Botany: Several known rare plant populations. Recommend future surveys of high use	Wildlife: See All Locations.		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	area. Access limited to boaters and weather dependent in Clarence Strait. Can access Whale passage by FR 20 to Whale Pass.			areas and follow-up monitoring.			



	RANGER STATION	PICNIC AREA	HIKING TRAILS	ROS CLASS P SPNM SPM R RN RM
	SHELTER	FISHPASS	ROADS	
	TRAILHEAD	EL CAP CAVE	LAKES	
	CABIN	CANOE ROUTE	SALTWATER	
	CAMPGROUND	BUOY/DOCK	NONNFS LANDS	
	CAMPSITE		<p>2 1 0 2 MILES</p>	

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Table A- 4) Group 2 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Barnes Lake	Remote	bear hunting, crabbing, canoe and kayaking, relaxing	461	18	0	231	115	20
Exchange Cove, West	Road	biking, fishing, hunting, sightseeing	2,318	100	10	1,159	580	11
Exchange Cove, East	Shore	hunting, fishing, sightseeing	2,822	8	0	1,411	706	66
TOTAL			5,601	126	10	2,801	1,401	97

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Barnes Lake	Remote, pristine lake. Old growth.	none	Barnes Lake Cabin, outhouse and woodshed	Access: Salt chuck or bottleneck where water can move through fast due to tide change. Can be unsafe if people don't know how to read the tide.	Fisheries: Sweetwater drainage, concerns Hatchery sockeye, large steelhead system. Limit service days.	Recreation: Low use cabin. People from Coffman Cove use this cabin.	Wildlife: No big-game guiding or outfitting is permitted per the 1994 Big Game EA. This site provides wintering habitat for trumpeter swans.

¹ This is the highest outfitter and guide use reported from 2005 to 2009. The number of permitted days appears in Alternative 1, the no action alternative.

² Alternative 1 – rows have zeros if there is no permitted use in those areas this year; however, there has been past use and will probably be use in the future.

³ Additional limitations related to fishing and/or hunting apply to the action alternatives as described in Chapter 2 of the EA

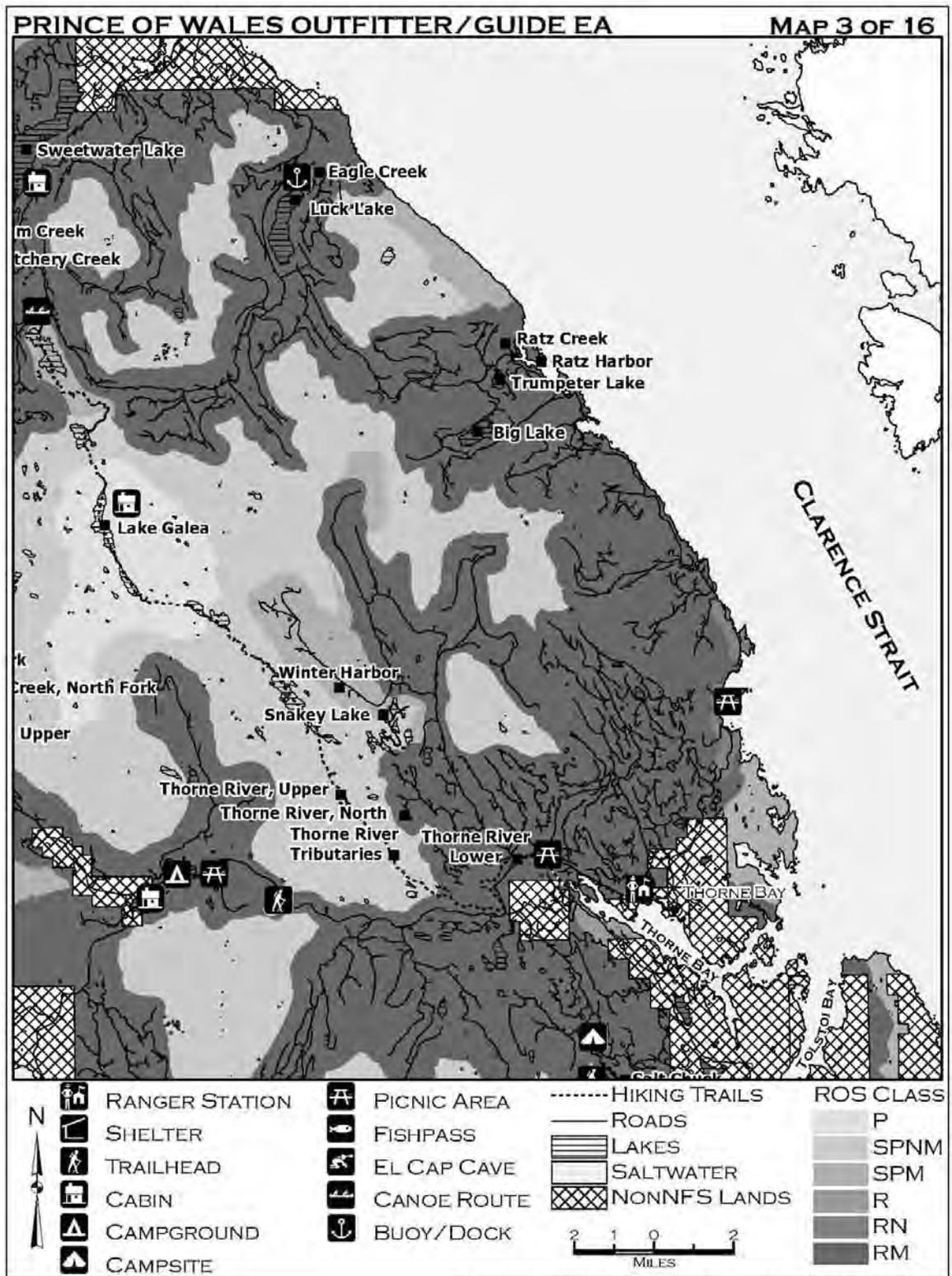
Prince of Wales Outfitter and Guide Management Plan

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Exchange Cove, West	50 miles north of Craig on FR 20. 1 mile from Whale Pass. Young growth forest in northern end of cove. Access is relatively easy because it is on the road system, although 2+ hours north of Craig.	Whale Pass	none	Invasive Species: Several high priority invasive plant infestations known, recommend future monitoring and treatment where feasible.	Fisheries: Exchange creek small steelhead system	Recreation: Popular local use area for Whale Pass and other communities. Increased guide use may conflict with local use for few resources.	Wildlife: The head of the bay is part of an Old Growth Reserve. This site includes a large estuary system important to waterfowl, deer and bear. This site provides high value habitat during periods of critical use for black bears. Easy access by boat and road leaves bears vulnerable to harvest. There is high potential for conflict between users for fishing, hunting and viewing of bears.
Exchange Cove, East	50 miles north of Craig on FR 20. 1 mile from Whale Pass. Young growth forest in northern end of cove. Access is relatively easy because it is on the road system,	Whale Pass	none	Recreation: Popular local use area for Whale Pass and other communities. Increased guide use may conflict with local use for few resources.	Wildlife: This is a shore access site; refer to shore site concerns. The head of the bay is part of an Old Growth Reserve. This site includes a large estuary system important		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	although 2+ hours north of Craig.				to waterfowl, deer and bear. This site provides high value habitat during periods of critical use for black bears. Easy access by boat and road leaves bears vulnerable to harvest. There is high potential for conflict between users for fishing, hunting and viewing of bears.		

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Table A- 5) Group 3 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Big Lake	Road	Fish and wildlife viewing.	2,306	5	95	1,153	577	105
Eagle Creek	Road	Fishing (popular steelhead and salmon fishing area). Used heavily by locals from Coffman Cove and other island communities. Hunting also possible.	692	61	224	346	173	246
Lake Galea	Remote	Canoeing, fishing, hunting, trapping	1,391	0	85	696	348	94
Luck Lake	Road	fishing, hunting, camping	2,306	81	169	1,153	577	186
Ratz Creek	Road	hunting and fishing	692	27	315	346	173	346
Ratz Harbor	Shore	hunting and fishing	927	0	0	464	232	22
Snakey Lake	Road	canoeing, fishing	692	0	85	346	173	94
Thorne River, Lower	Road	Fishing	2,306	243	543	1,153	577	597
Thorne River, North	Road	Fishing	692	0	0	346	173	60
Thorne River, Tributaries	Remote	Fishing	1,383	0	0	692	346	60
Thorne River, Upper	Remote	Fishing	1,383	0	0	692	346	60
Trumpeter Lake	Road	fishing, hunting	2,306	40	10	1,153	577	11
Winter Harbor	Road	boating, hunting, camping	2,318	0	0	1,159	580	330
TOTAL			19,394	457	1,526	9,699	4,852	2,211

¹ This is the highest outfitter and guide use reported from 2005 to 2009. The number of permitted days appears in Alternative 1, the no action alternative.

² Alternative 1 – rows have zeros if there is no permitted use in those areas this year; however, there has been past use and will probably be use in the future.

³ Additional limitations related to fishing and/or hunting apply to the action alternatives as described in Chapter 2 of the EA

Prince of Wales Outfitter and Guide Management Plan

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Big Lake	About 18 miles north of Thorne Bay on the Sandy Beach Road FR 30 to FR 302350. Older second growth. Salmon Stream.	none nearby	Fish Ladder and small 100ft trail	Invasive Species: Disjunct population of orange hawkweed on Big Lake road. Population of orange hawkweed should be treated, as feasible, to prevent further spread.	Fisheries: Sweetwater drainage, concerns Hatchery sockeye, large steelhead system	Recreation: Use is very low considering the amount of infrastructure to support use. May need to advertise better.	Wildlife: Potential wintering or nesting area for swans.
Eagle Creek	same as Luck Lake	none nearby	Old trappers cabin at the mouth of the lake and the outlet of Eagle Creek. FS may develop a cabin or shelter on Eagle Creek.	Access: current use levels have caused user made trails with trampled vegetation and some soil compaction/erosion. Consider soils mitigation.	Botany: One rare plant population known along Eagle Creek, recommend future monitoring.	Invasive Species: Reed Canarygrass known along stream channel, recommend future monitoring.	Fisheries: sockeye run, large steelhead run. Limit/reduce service days
Eagle Creek (cont.)				Recreation: Popular fishing site. Some user conflicts apparent. Increased use may lead to more conflict.	Wildlife: This site is in an Old Growth Reserve. Trumpeter swans winter here. This site has potential for conflict between user groups for hunting and viewing of		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
					bears.		
Lake Galea	7 miles south of the Hatchery Creek. This lake provides access to the Honker Divide Canoe Route. Honker Lake Cabin is located on Lake Galea.	none	Honker Lake Cabin	Access: Water Levels make this canoe route difficult during late summer, fall and early spring.	Recreation: The Honker Lake Cabin receives very little use. Outfitter and guide use, if scheduled and managed, could improve the usage of this canoe route when it is reopened. Outfitter and guide use at the most popular times may cause conflict with other users.	Soil/Wetland: The Honker Divide trail traverses a palustrine forested wetland, emergent sedge fens, tall sedge fen, and moss muskeg. There are mucky, puddle and trampled areas along the trail. Outfitter guide use will not be allowed in this severely affected area until it is either hardened or the trail relocated to avoid adverse soil impacts. This trail is planned to be mitigated in the next two years by hardening and/or rerouting (based on priority ranking and current budget constraints). The area will be monitored	Wildlife: Potential wintering habitat for waterfowl and trumpeter swans.

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
						afterwards to determine if the mitigation was successful. The site will be re-evaluated to determine if outfitter guide use can be allowed in the area. Apply BMPs 12.5, 16.1, and 16.4.	
Luck Lake	40 miles northeast of Craig, 30 miles north of Thorne Bay on the Sandy Beach Rd, 1 mile outside of Coffman Cove. Areas of young growth and old growth, lake shore, riparian areas, salmon stream. Relatively good access because of the paved road to Coffman Cove.	City of Coffman Cove	Gravel turn around and parking, boat launch. User-made trail to Eagle Creek.	Botany: Several known rare plant populations near Luck Lake. Recommend future surveys of high use areas and follow-up monitoring.	Invasive species: Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Fisheries: sockeye, large steelhead system	Wildlife: Loons, trumpeter swans, and waterfowl use this area.
Ratz Creek	58 miles northeast of Craig on FDR 30 on the east coast of POW. Harvested, roaded.	none nearby	none	Fisheries: large steelhead system, sockeye	Wildlife: This site is in an Old Growth Reserve. This site has easy access by road or		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
					boat. Black bears are vulnerable to harvest on beaches and salmon streams at this site because they tend to congregate in these areas during periods of critical use. There is high potential for conflict between users for fishing, hunting and viewing of bears.		
Ratz Harbor	58 miles northeast of Craig on FDR 30 on the east coast of POW. Harvested, roaded.	none nearby	Former MAF	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve. This site has easy access by road or boat. Black bears are vulnerable to harvest on beaches and salmon streams at this site because they tend to congregate in these areas during periods of critical use. There is high potential for conflict between	Recreation: undeveloped/unmaintained boat launch and campsite		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
				users for fishing, hunting and viewing of bears.			
Snakey Lake	5 miles E of Thorne Bay off the NSR 3016. Road Access due to former timber sale activity. Snakey Lakes is a system of lakes and streams that ultimately tie into the Thorne River.	none	none	Access: There is no developed access so canoe/kayakers make user trails near bridge and may erode banks accessing the Snakey Lake System	Recreation: Used infrequently for fishing and passive viewing	Wildlife: See All Locations.	
Thorne River, Lower	3-7 miles E from Thorne Bay. Riparian and forest within the stream buffer .	None nearby	Gravelly Creek Picnic area - Pump toilet, 5 car parking, 800 ft gravel trail, picnic shelter, 2 picnic sites, burn toilet, access stairs to Thorne River.	Access: Unmaintained routes developed to access stream are not marked and do not meet trails standards.	Botany: Several known rare plant populations around this area. Recommend future surveys of high use areas and follow-up monitoring.	Invasive Species: Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Wildlife: No big-game guiding or outfitting is permitted per the 1994 Big Game EA. This is a high value habitat area during periods of critical use for species such as black bear, trumpeter swans and other waterfowl. Black bears are vulnerable to harvest at this site due to its easy access and seasonal concentration of

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
							food resources. This site has high potential for conflict between users for fishing, hunting and viewing of bears.
Thorne River, Lower (cont.)				Fisheries: Steelhead, sockeye, summer run coho	Recreation: Some recreationists want undeveloped access so that there is less competition to favored sites.		
Thorne River, North	3-7 miles E from Thorne Bay. Riparian and forest within the stream buffer .	None nearby	none	Access: Unmaintained access routes to Thorne River from 3015 and 3016	Recreation: Guides and locals use the North Thorne Falls Area. Great fishing hole in a beautiful location. Visitor made trail is in very poor condition and causing erosion/sedimentation. There is competition between guides and locals.	Soil/Wetlands: The trail at North Thorne Falls traverses a palustrine forested wetland/ emergent sedge fen and has mucky spots up to 30 feet wide. Outfitter guide use will not be allowed in this severely affected area until it is either hardened or the trail relocated to avoid adverse soil impacts. This area is planned to	Wildlife: No big-game guiding or outfitting is permitted per the 1994 Big Game EA. This site has high potential for conflict between users for fishing, hunting and viewing of bears.

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
						<p>be mitigated in the next two years by adding slash on top of the trail to reduce erosion and prevent further widening and impacts, hardening, and/or rerouting. The area will be monitored afterwards to determine if the mitigation was successful. The site will be re-evaluated to determine if outfitter guide use can be allowed in the area. Apply BMPs 12.5, 16.1, and 16.4.</p>	
Thorne River, Tributaries	3-7 miles E from Thorne Bay. Riparian and forest within the stream buffer.	None nearby	none	<p>Wildlife: No big-game guiding or outfitting is permitted per the 1994 Big Game EA. This site has high potential for conflict between users for fishing, hunting and viewing of bears.</p>			

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Thorne River, Upper	3-7 miles E from Thorne Bay. Riparian and forest within the stream buffer.	None nearby	none	Access: Unmaintained access routes to Thorne River from 3015 and 3016	Recreation: Guides and locals use the North Thorne Falls Area. Great fishing hole in a beautiful location. Visitor made trail is in very poor condition and causing erosion/sedimentation. There is competition between guides and locals.	Soil/Wetlands: The trail at North Thorne Falls traverses a palustrine forested wetland/ emergent sedge fen and has mucky spots up to 30 feet wide. Outfitter guide use will not be allowed in this severely affected area until it is either hardened or the trail relocated to avoid adverse soil impacts. This area is planned to be mitigated in the next two years by adding slash on top of the trail to reduce erosion and prevent further widening and impacts, hardening, and/or rerouting. The area will be monitored afterwards to determine if the mitigation was	Wildlife: No big-game guiding or outfitting is permitted per the 1994 Big Game EA. Black bears are vulnerable to harvest at this site due to its easy access and seasonal concentration of food resources. This site has high potential for conflict between users for fishing, hunting and viewing of bears.

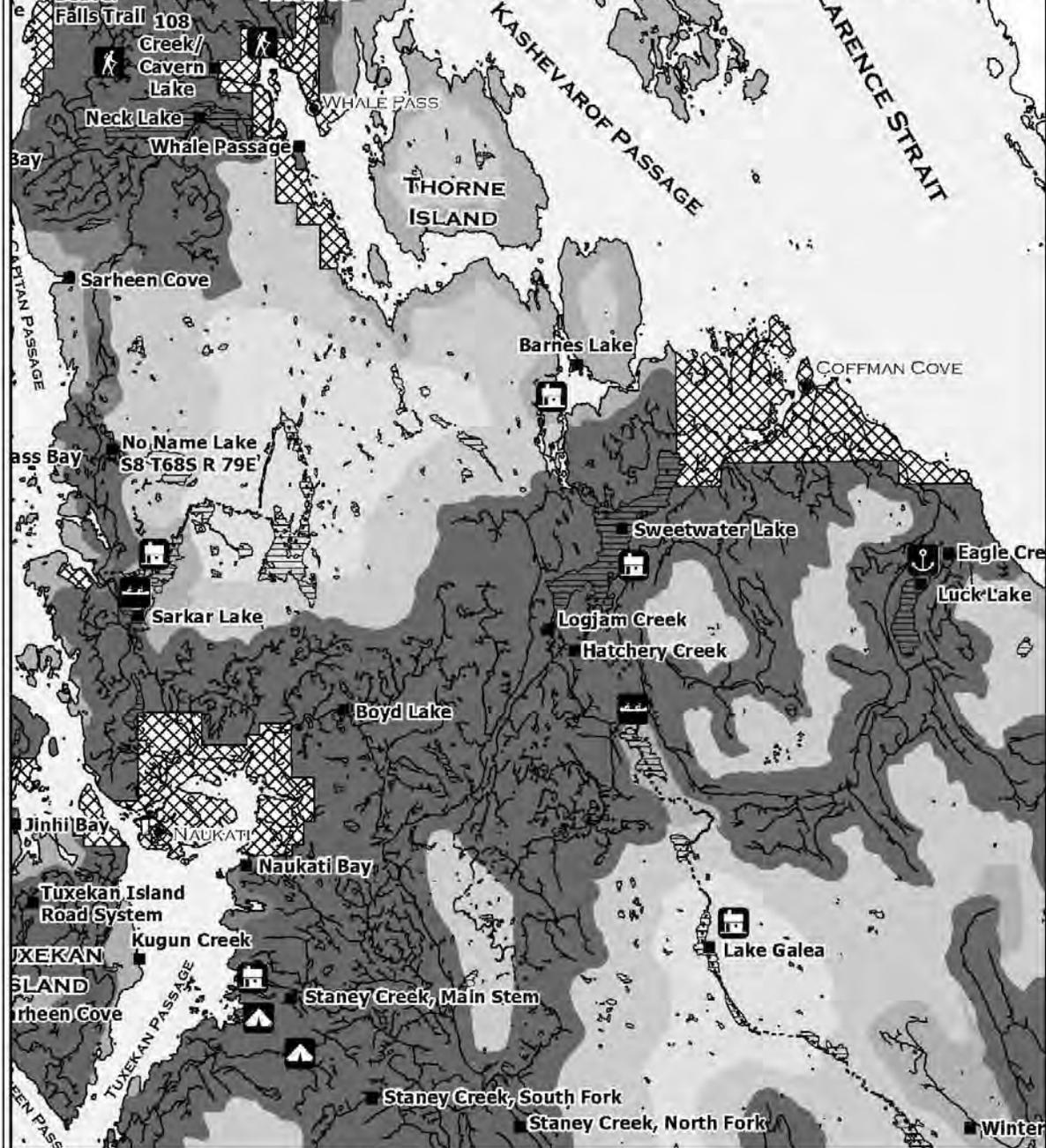
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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
						successful. The site will be re-evaluated to determine if outfitter guide use can be allowed in the area. Apply BMPs 12.5, 16.1, and 16.4.	
Trumpeter Lake	10 miles north of Thorne Bay on the Sandy Beach Road. Young growth, lake shore, stream. Access simple because of the gravel road and nearness to Thorne Bay.	none nearby	none	Fisheries: large steelhead system, sockeye	Wildlife: This site has important overwinter habitat for trumpeter swans.		
Winter Harbor	Located on the 2050 road, south of Staney Creek. About 25 air miles north of Craig and 25 air miles west of Thorne Bay.	none	Large boat ramp. Log transfer or Marine Transfer facility. 2-3 acres flat and graveled staging area. Planning to construct a	Recreation: Heavily used area for boating and camping. Locals like this location. Many fire pits. Some issues with people camping in front of the boat launch. Conflicts may arise when the 3-sided shelter is constructed.	Wildlife: See All Locations.		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
			small 3-sided shelter				

PRINCE OF WALES OUTFITTER/GUIDE EA **MAP 4 OF 16**



<p>N</p>	<ul style="list-style-type: none"> RANGER STATION SHELTER TRAILHEAD CABIN CAMPGROUND CAMPSITE 	<ul style="list-style-type: none"> PICNIC AREA FISHPASS EL CAP CAVE CANOE ROUTE BUOY/DOCK 	<ul style="list-style-type: none"> HIKING TRAILS ROADS LAKES SALTWATER NONNFS LANDS <p style="text-align: center;">2 1 0 2 MILES</p>	<p>ROS CLASS</p> <ul style="list-style-type: none"> P SPNM SPM R RN RM
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Table A- 6) Group 4 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Boyd Lake	Road	freshwater fishing	2,306	2	32	1,153	577	35
Hatchery Creek	Road	Most users come to fish for salmon in Hatchery Creek. State of AK closed this system to subsistence sockeye fishing.	692	100	26	346	173	29
Kugun Creek	Shore	fishing	2,822	1	0	1,411	706	11
Logjam Creek	Road	fishing and hunting	2,306	19	99	1,153	577	109
Naukati Bay	Road	hunting and fishing	2,117	3	0	1,059	529	33
No Name Lake, S8 T68S R 79E	Road	fishing, hunting	2,306	0	90	1,153	577	99
Sarkar Lake	Road	fishing, boating	692	29	159	346	173	175
Staney Creek, Main Stem	Road	Hunting, fishing, driving	2,306	171	500	1,153	577	550
Sweetwater Lake	Road	fishing	2,306	18	117	1,153	577	129
TOTAL			17,853	343	1,023	8,927	4,466	1,170

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Boyd Lake	Approximately 20 miles north of Craig on FR 20 near Naukati. Older second	Naukati	none	Access: Bushwhack to lake if done by many people in the same place may cause muddy conditions,	Invasive Species: Several high priority invasive plants known along the road	Fisheries: Part of Naukati Creek, small steelhead system	Wildlife: This site bounds an Old Growth Reserve. No big-game guiding or outfitting

¹ This is the highest outfitter and guide use reported from 2005 to 2009. The number of permitted days appears in Alternative 1, the no action alternative.

² Alternative 1 – rows have zeros if there is no permitted use in those areas this year; however, there has been past use and will probably be use in the future.

³ Additional limitations related to fishing and/or hunting apply to the action alternatives as described in Chapter 2 of the EA

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	growth area.			vegetation trampling and erosion.	system. Recommend future monitoring and ongoing treatment as feasible.		is permitted per the 1994 Big Game EA.
Hatchery Creek	35 miles northeast or Craig, 35 miles north of Thorne Bay on the Sandy Beach Rd, 5 mile outside of Coffman Cove. Riparian areas, salmon stream, muskeg.	none nearby	boardwalk trail. 2 Viewing platforms, fish ladder.	Invasive Species: One high priority invasive plant, reed canarygrass, is known along Hatchery Creek, recommend future monitoring.	Fisheries: early sockeye run, large steelhead system, summer coho. reduce/limit service days	Recreation: Site is in social conflict because the access created affected the fish population. Design meets use needs, but affects fisheries resource needs	Wildlife: No big-game guiding or outfitting is permitted per the 1994 Big Game EA. There is high potential for conflict between bear hunters and viewers at this salmon stream where bears congregate seasonally, particularly at Hatchery Falls.
Kugun Creek	About 40 miles north of Craig, 1 mile south of Naukati on the 20 road. Young growth stands, stream buffer.	Naukati private land to north	none	Access: Bushwhack to creek if done by many people in the same place may cause muddy conditions, vegetation trampling and erosion.	Wildlife: This is a shore access site; refer to shore site concerns. Part of this area is in an Old Growth Reserve.		
Logjam Creek	About 30 mile north of Craig on the 3030 road to Coffman Cove. The road is newly	none nearby	road pull-off and signage	Access: Bushwhack to creek if done by many people in the same place may cause muddy conditions,	Invasive Species: Several high priority invasive plants known. Recommend	Fisheries: large steelhead, summer run coho, sockeye. Reduce/limit	Recreation: Popular local use area for communities. Increased guide use

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	paved and this pull-off is well marked. Young growth forest surrounds with a stream buffer.			vegetation trampling and erosion.	additional surveys, future monitoring, and treatment as feasible.	service days.	may conflict with local use for few resources.
Logjam Creek (cont.)				Wildlife: No big-game guiding or outfitting is permitted per the 1994 Big Game EA. Black bears forage for salmon here in the late summer and fall. There is high potential for conflict between users for hunting and viewing of bears at the falls.			
Naukati Bay	42 road miles from Craig on FDR 20. Near the community of Naukati	State, private	public boat dock	Wildlife: No big-game guiding or outfitting is permitted per the 1994 Big Game EA.			
No Name Lake, S8 T68S R 79E	Between Sarkar Lakes and Sweetwater Lake. Boating in from Rocky Bay would be a challenge. Access is generally by a rough bushwhack.	none	none	Access: challenging to access.	Wildlife: Likely provides habitat for wintering trumpeter swans.		
Sarkar Lake	48 road miles north	none	Cabin,	Botany: Several	Invasive Species:	Fisheries:	Wildlife: No big-

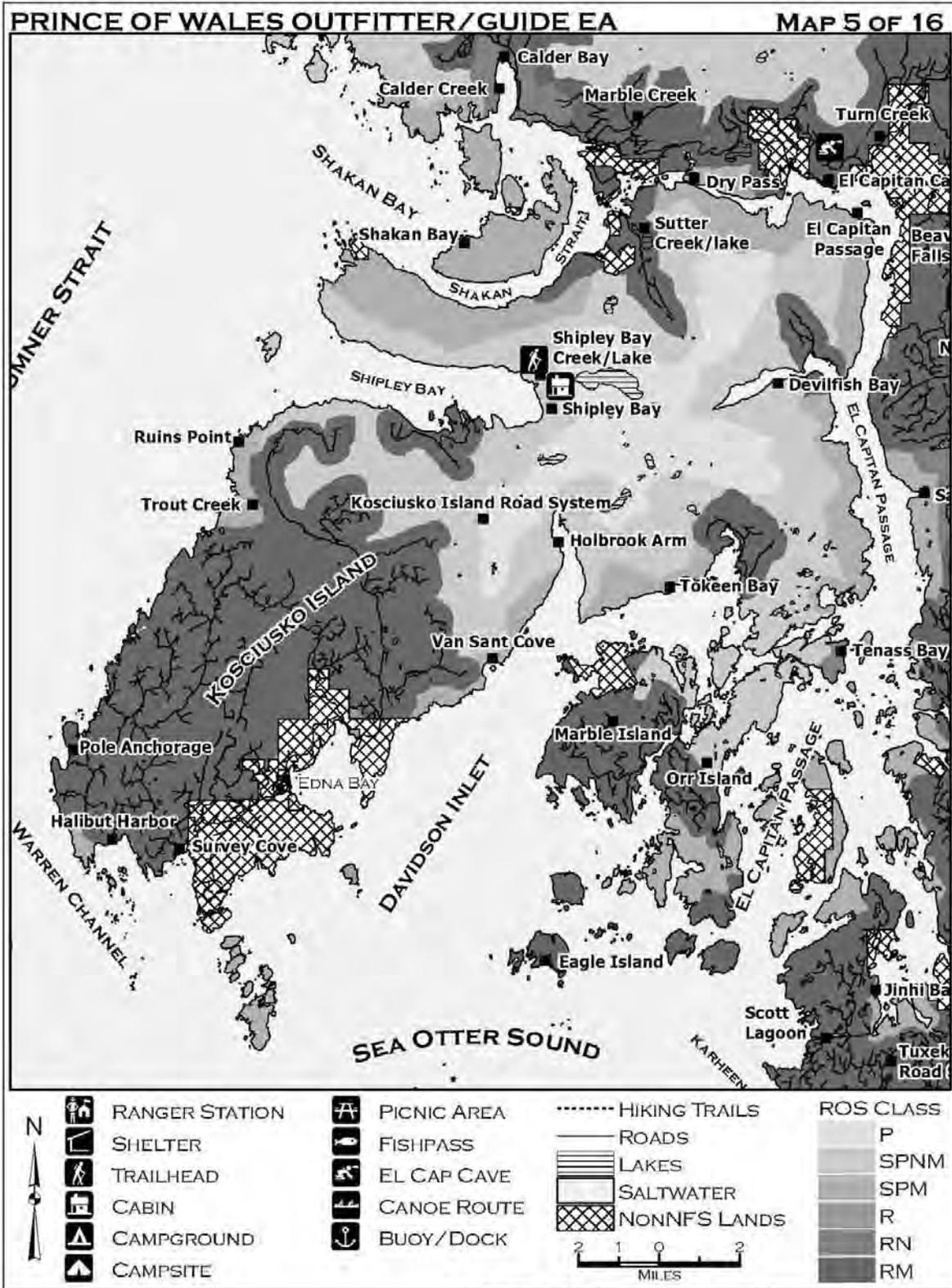
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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	of Craig on FDR 20. Developed recreation site.		trail, dock, parking, outhouses, dumpsters.	known rare plant populations near the lake. Recommend future surveys of high use areas and follow-up monitoring.	Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	sockeye, large steelhead system	game guiding or outfitting is permitted per the 1994 Big Game EA.
Staney Creek, Main Stem	About 30 miles N of Craig and W of Thorne Bay. Riparian Area, old growth forest along Creek, young growth timber and muskeg outside riparian. Access is simple with lots of roads within the area. Hiking is more challenging from the road through young growth.	None nearby	2 small campsites, Staney Creek Cabin.	Botany: Several known rare plant populations. Recommend future surveys of high use areas and follow-up monitoring.	Invasive Species: Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Fisheries: summer coho, large steelhead system	Wildlife: No big-game guiding or outfitting is permitted per the 1994 Big Game EA. This site is important to wildlife, including overwintering trumpeter swans, raptors, and waterfowl, Disturbance to waterfowl is a concern. Black bears are vulnerable to harvest here in spring and fall. This site has high potential for conflict between users for fishing, hunting and viewing of bears.
Sweetwater	60 road miles from	State,	Cabin,	Fisheries: Early	Wildlife: No big-		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Lake	Craig on FDR 30 near Coffman Cove. Harvested, roaded.	private	parking area	sockeye run, large steelhead system, summer coho	game guiding or outfitting is permitted per the 1994 Big Game EA.		

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Table A- 7) Group 5 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation on Visitor Capacity (SDs)	Highest Annual Use¹	Alternative 1² (SDs)	Alternative 2³ (SDs)	Alternative 3³ (SDs)	Alternative 4³ (SDs)
Eagle Island	Shore	Saltwater fishing, passive/active touring	927	20	0	464	232	22
Halibut Harbor	Shore	Hunting, passive/active touring	847	13	828	424	212	424
Jinhi Bay	Shore	hunting and freshwater fishing, ATV use	847	2	28	424	212	31
Marble Island	Shore	Hunting, passive/active touring	2,822	5	0	1,411	706	33
Orr Island	Shore	hunting	2,822	4	0	1,411	706	33
Pole Anchorage	Shore	hunting	2,822	2	0	1,411	706	22
Ruins Point	Shore	hunting	282	2	0	141	71	22
Survey Cove	Shore	hunting	2,822	8	800	1,411	706	880
Tenass Bay	Shore	hunting	847	12	0	424	212	121
Tokeen Bay	Shore	hunting	282	5	0	141	71	55
Trout Creek	Shore	hunting	2,822	11	28	1,411	706	31
Van Sant Cove	Shore	hunting	282	3	0	141	71	33
TOTAL			18,424	87	1684	9,214	4611	1707

¹ This is the highest outfitter and guide use reported from 2005 to 2009. The number of permitted days appears in Alternative 1, the no action alternative.

² Alternative 1 – rows have zeros if there is no permitted use in those areas this year; however, there has been past use and will probably be use in the future.

³ Additional limitations related to fishing and/or hunting apply to the action alternatives as described in Chapter 2 of the EA

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Eagle Island	About 55 miles north of Craig by boat. This little island receives open ocean surge. Previously roaded and trees harvested; currently appears undeveloped. Rugged coastal.	none nearby	none	Access: open ocean surge and weather limit access.	Wildlife: This is a shore access site; refer to shore site concerns. Rocky shorelines may provide habitat for black oystercatchers. Disturbance to black oystercatchers is a concern. See mitigation measures.		
Halibut Harbor	Southern Kosciusko Island. 50 miles north of Craig by boat. Cliffs, sea caves, forested beach fringe with young growth stands above cliffs. Many roads.	Community of Edna Bay 2 miles east.	none	Botany: Rare plant populations known. Recommend surveys of high use areas and future monitoring.	Invasive Species: One non-native plant infestation along the shoreline, recommend follow up monitoring, and treatment if feasible.	Recreation: Kosciusko is a popular hunting area for locals because of the road system. People bring ATVs to hunt and recreate. Increased hunting may put pressure on locals to find deer elsewhere.	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve. Rocky shorelines may provide habitat for black oystercatchers. Disturbance to black oystercatchers is a concern. See mitigation measures.
Jinhi Bay	About 45 mile north of Craig by boat to Tuxekan Island. Safe harbor on the north	state land to the north of bay	none	Recreation: popular hunting area for locals because of road system. Increased pressure on animals	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	east side of island. Developed with roads and harvest areas.			may cause conflict.	Growth Reserve.		
Marble Island	Southeast of Kosciusko Island. 50 north of Craig by boat. Beach fringe with young growth stands nearby. Many roads.	Private land on north end of Marble Island	none	Recreation: Kosciusko is a popular hunting area for locals because of the road system. People bring ATVs to hunt and recreate. Increased hunting may put pressure on locals to find deer. Increased hunting may put pressure on locals to find deer.	Wildlife: This is a shore access site; refer to shore site concerns. Rocky shorelines may provide habitat for black oystercatchers. Disturbance to black oystercatchers is a concern. See mitigation measures.		
Orr Island	35 air miles from Craig in Sea Otter Sound. Heavily harvested/young growth forest. Karst geology.	none	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Pole Anchorage	42 air miles from Craig. Southwest corner of Kosciusko Island.	non-NFS inholdings at Cape Pole	Cape Pole was an old logging camp with an MAF, jetty, and old buildings	Botany: Several known rare plant populations near the road system. Recommend future surveys of high use areas and follow-up monitoring.	Invasive Species: Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Wildlife: This is a shore access site; refer to shore site concerns.	
Ruins Point	46 air miles	none	none	Wildlife: This is a			

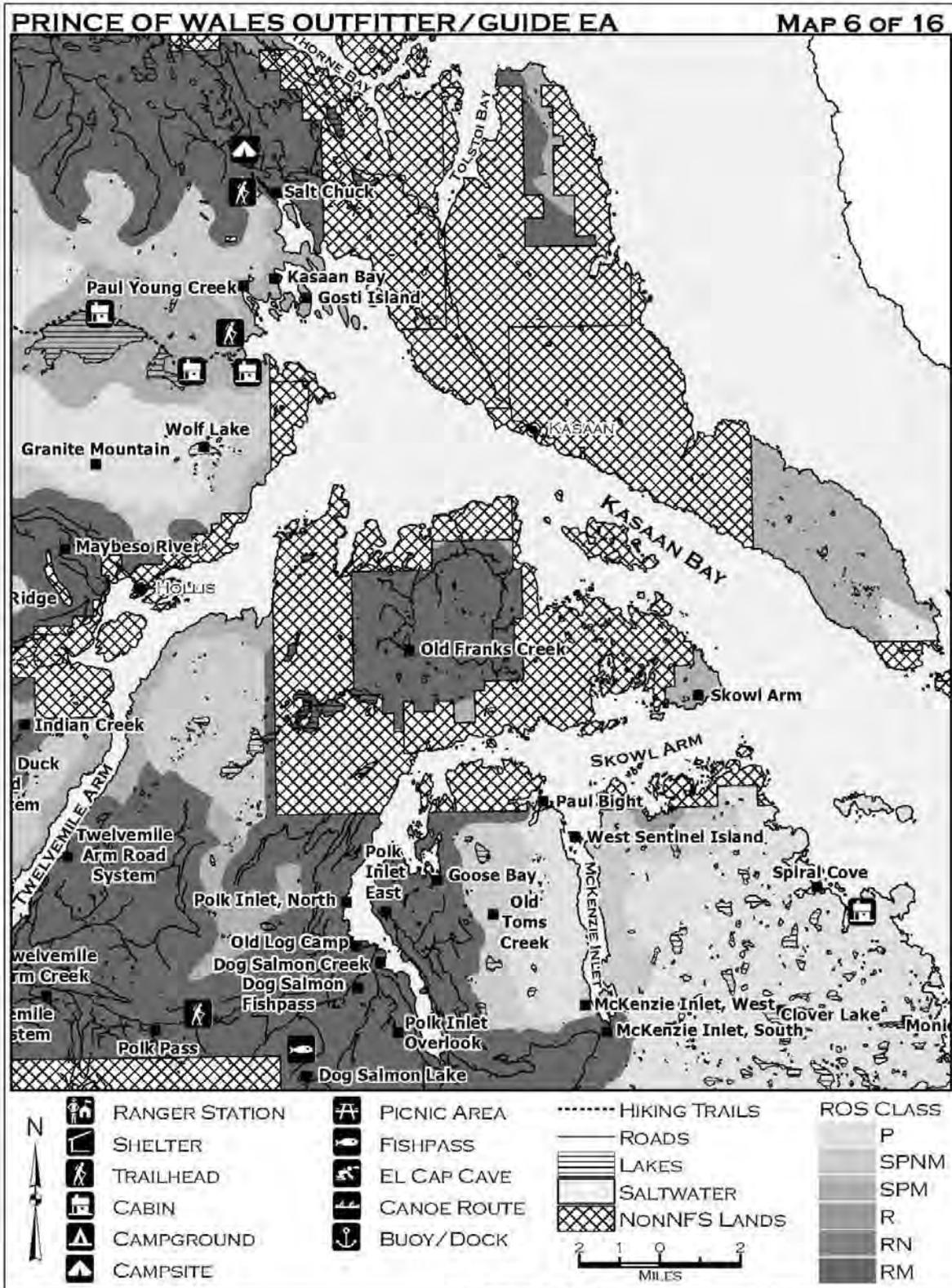
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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	northwest of Craig on Kosciusko Island. Harvested inland.			shore access site; refer to shore site concerns.			
Survey Cove	39 air miles northwest of Craig on Kosciusko Island near Edna Bay. Harvested, roaded.	State, private	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Tenass Bay	36 air miles north of Craig on southeast shore of Kosciusko Island. Mature second growth.	none	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Tokeen Bay	39 air miles north of Craig on Kosciusko Island in the Mt. Calder/Mt. Holbrooke LUD II. Unharvested.	private land	none	Wildlife: This is a shore access site; refer to shore site concerns. This is an important area for waterfowl. Disturbance to waterfowl is a concern.			
Trout Creek	46 air miles northwest of Craig on Kosciusko Island. Harvested inland.	none	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Van Sant Cove	39 air miles northwest of Craig on Kosciusko Island near Edna Bay. Near Karst	none	none	Wildlife: This is a shore access site; refer to shore site concerns.			

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	special interest area.						

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Table A- 8) Group 6 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Clover Lake	Remote	freshwater fishing	1,270	4	128	635	318	141
Dog Salmon Creek	Road	passive touring, fishing, hunting. Commercial tours brought by floatplane from cruise boats. Visitors drive from local POW communities and lodges to wildlife viewing site.	2,696	32	0	1,348	674	35
Dog Salmon Fishpass	Road	Commercial tours brought by floatplane from cruise boats. Visitors drive from local POW communities and lodges to wildlife viewing site.	8,733	1,396	1,722	4,367	6,550	1,894
Goose Bay	Shore	fishing, hunting	847	9	0	424	212	44
Gosti Island	Shore	hunting	847	1	0	424	212	11
Granite Mountain	Remote	hunting	423	12	9	212	106	10
Kasaan Bay	Shore	Site seeing, hunting, fishing.	847	2	18	424	212	20
Maybeso River	Road	popular ATV area. Hunting and fishing	635	11	9	318	159	10
McKenzie Inlet, South	Road	fishing, hunting	2,117	48	0	1,059	529	92
McKenzie Inlet, West	Shore	fishing, hunting	922	10	200	461	231	220
Monie Lake	Remote	freshwater fishing	4,612	0	65	2,306	1,153	72
Old Franks Creek	Road	fishing, hunting, passive touring	2,306	42	19	1,153	577	21
Old Log Camp	Road	hunting, fishing, passive touring, access.	2,117	1	110	1,059	529	121

¹ This is the highest outfitter and guide use reported from 2005 to 2009. The number of permitted days appears in Alternative 1, the no action alternative.

² Alternative 1 – rows have zeros if there is no permitted use in those areas this year; however, there has been past use and will probably be use in the future.

³ Additional limitations related to fishing and/or hunting apply to the action alternatives as described in Chapter 2 of the EA

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Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Old Toms Creek	Road	hunting, fishing, passive touring, active touring	270	19	10	135	68	11
Paul Bight	Shore	hunting	282	3	10	141	71	11
Paul Young Creek	Shore	hunting	847	3	10	424	212	11
Polk Inlet Overlook	Road	hunting	2,117	4	0	1,059	529	33
Polk Inlet, East	Shore	hunting	2,822	2	0	1,411	706	22
Polk Inlet, North	Road	hunting, passive touring	2,117	88	180	1,059	529	198
Polk Pass	Road	hunting	2,117	5	0	1,059	529	22
Salt Chuck	Shore	passive touring, sightseeing, fishing	3,595	56	500	1,798	899	550
Skowl Arm	Shore	hunting	2,822	23	178	1,411	706	196
Spiral Cove	Shore	hunting	847	4	0	424	212	44
Twelvemile Arm Creek	Road	hunting and fishing	2,117	7	33	1,059	529	36
Twelvemile Arm Road System	Road	Hunt, fish, cabin use, view birds, walk in the estuary, collect shrimp and crabs.	2,117	11	0	1,059	529	66
West Sentinel Island	Shore	hiking	927	8	0	464	232	9
Wolf Lake	Remote	hunting	4,234	6	0	2,117	1,059	22
TOTAL			55,603	1,807	3,201	27,810	18,272	3,922

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Clover Lake	25 miles by plane from Ketchikan. This site is a remote lake north of Chomondeley and east of Polk Inlet. There are no roads nearby and no access from saltwater.	none nearby	none	Access: Only people who can afford a flight go here.	Wildlife: This site is in an Old Growth Reserve. Sandhill cranes and other waterfowl use this area.		
Dog Salmon Creek	See Dog Salmon Fish Pass 35 miles from Craig. 30 air-miles from Ketchikan. Riparian area and young growth forest. Access is simple due to road connection	None-nearby	600-ft gravel trail, 2-car parking, directional signs, interp. signs, fish ladder, wildlife viewing platform.	Invasive Species: Several high priority invasive plant infestations known. Also, a high number of potential vectors. Recommend future monitoring and treatment where feasible.	Fisheries: sockeye run, small steelhead system	Wildlife: This site is a seasonal bear congregation area for black bears foraging for salmon. Conflicts between user groups have occurred here. This site has high potential for further development as a bear viewing location. Establish a no-hunting zone around the viewing area.	
Dog Salmon Fishpass	35 miles SE of Craig; 30 air-miles W from Ketchikan; Riparian area and	None nearby	600-ft gravel trail, 2-car parking,	Invasive Species: Several high priority invasive plant infestations known.	Fisheries: sockeye run, small steelhead system	Recreation: Site exceeds capacity July and Aug. Conflict between	Wildlife: This site is a seasonal bear congregation area for black bears

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	young growth forest		directional signs, interp. signs, fish ladder, wildlife viewing platform.	Also, a high number of potential vectors. Recommend future monitoring and treatment where feasible.		wildlife and viewers	foraging for salmon. Conflicts between user groups have occurred here. This site has high potential for further development as a bear viewing location. Establish a no-hunting zone around the viewing area.
Goose Bay	35 mile west of Ketchikan by boat. North McKenzie Inlet. Remote, but harvested (particularly around Polk Inlet).	Native Land close to the north.	none	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve.			
Gosti Island	24 air miles west of Craig. Near Kasaan & Karta River Wilderness.	Kavilco, Sealaska, State & private.	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Granite Mountain	18 air miles east of Craig in the Karta River Wilderness. Alpine.	none	none	Wildlife: This is an alpine area where there is potential for user conflicts due to limited number of alpine sites with reasonable access.			
Kasaan Bay	30 miles from Thorne Bay. Salt Chuck mine site	native land	Salt Chuck Trail and interp. site.	Access: developed trail allows for easier access to site.	Invasive Species: Several high priority invasive	Recreation: trail is not over crowded. Some	Wildlife: This is a shore access site; refer to shore site

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	and trail. Second growth		Historic mine site.		plants known along the road system. Recommend future monitoring and ongoing treatment as feasible.	increase in use would be valuable. Mine site is dangerous.	concerns. This site includes an Old Growth Reserve.
Maybeso River	About 25 mile east of Craig. Experimental Forest area. Older second growth.	State land to the south	none	Access: Conflicts between ATV use and experimental forest management; area is heavily used by ATV riders.	Fisheries: Small steelhead run.	Recreation: Management and user conflict between ATV users and FSL. If guides use ATVs there may be more conflict.	Wildlife: Black bears use this area for foraging on salmon in summer and fall. There is potential for conflict between users for hunting and viewing of black bears at this site.
McKenzie Inlet, South	35 mile west of Ketchikan by boat. North McKenzie Inlet. Remote, but heavily harvested.	Native Land close to the north.	none	Wildlife: Trumpeter swans, waterfowl, and a heron rookery occur here. Disturbance to waterfowl is a concern.			
McKenzie Inlet, West	35 mile west of Ketchikan by boat. North McKenzie Inlet. Remote, but heavily harvested.	Native Land close to the north.	none	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve. Trumpeter swans, waterfowl, and a heron rookery occur here. Disturbance to waterfowl is a concern.			

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Monie Lake	25 miles by plane from Ketchikan. This site is a remote lake north of Chomondeley and east of Polk Inlet. There are no roads nearby and no access from saltwater.	none nearby	none	Recreation: none-- only people who can afford a flight go here.	Wildlife: May provide habitat for wintering trumpeter swans.		
Old Franks Creek	35 mile southeast of Craig on FR 21. The area is mostly young growth forest with some protected areas. Access is simple by road, and many people from the southern community of Hydaburg use this area.	none nearby	none	Fisheries: sockeye, summer run coho, large steelhead, remote system	Wildlife: Loons, waterfowl, and swans occur on lake system. Disturbance to waterfowl is a concern.		
Old Log Camp	36 miles from Craig on west side of Polk Inlet. 30 air-miles from Ketchikan. Riparian area and young growth forest.	none	MAF, dock	Invasive Species: Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Wildlife: See All Locations below.		
Old Toms Creek	30 air miles from Craig on the west	Kavilco	none	Wildlife: See All Locations below.			

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	side of McKenzie Inlet. Research natural area.						
Paul Bight	30 air miles from Craig on the west side of McKenzie Inlet. Near heavily harvested native lands and Old Tom Creek Natural Area.	Kavilco	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Paul Young Creek	23 air miles from Craig. Near Kasaan & Karta River Wilderness. Old growth reserve.	Kavilco, Sealaska, State & private.	none	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve.			
Polk Inlet Overlook	37 miles from Craig on the road system. FDR 2103. Clear cut, view location.	none	none	Invasive Species: Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Wildlife: See All Locations.		
Polk Inlet, East	26 air miles from Craig. East side of Polk Inlet.	none	none	Invasive Species: Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Wildlife: This is a shore access site; refer to shore site concerns. This site has high potential for conflict between users for fishing, hunting and		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
					viewing of bears.		
Polk Inlet, North	40 miles fro Craig, 25 miles from Hydaburg. Young growth. Access is easy by road or boat.	none nearby	none	Invasive Species: Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Wildlife: This site has high potential for conflict between users for fishing, hunting and viewing of bears.		
Polk Pass	23 miles southeast of Craig on FDR 2100. Alpine.	Sealaska	none	Invasive Species: Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Wildlife: Sandhill cranes use this area and gulls nest on an island in lake.		
Salt Chuck	35 mile northeast of Craig, 10 miles west of Thorne Bay. The area is heavily harvested. There is a stream and an abandoned mine site. The site is a registered CERCLA site with on-going environmental mitigations. Access is by road and hiking. Access is simple because it is on the road system	Corporation land and private parcels nearby.	Salt Chuck Mine trail. Nearby is the Lake Ellan Number 3 campsite.	Botany: Several known rare plant populations along the shoreline. Recommend future surveys of high use areas and follow-up monitoring.	Invasive Species: Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Wildlife: This is a shore access site; refer to shore site concerns.	Heritage: Relevant Outfitter/Guide activities may be conducted in an area of Heritage concern. The Salt Chuck Mine, a National Register of Historic Places eligible site is located within 1 mile of O/G location. Increased visitation might result in physical impact to the site.

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	and it is close to the City of Thorne Bay.						
Skowl Arm	33 air miles east of Craig near Kasaan Bay.	Kavilco, Sealaska	none	Wildlife: This is a shore access site; refer to shore site concerns. Trumpeter swans have been reported by public in this area. Disturbance to waterfowl is a concern.			
Spiral Cove	37 air miles east of Craig on the east coast of POW, south of Skowl Arm. Unharvested.	none	none	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve.			
Twelvemile Arm Creek	38 miles southeast of Craig on FDR 21.	Sealaska	none	Fisheries: small steelhead system	Wildlife: This site includes a large estuary system important to trumpeter swans, waterfowl, deer and bear. Disturbance to waterfowl is a concern. Black bears are vulnerable to harvest at this site due to its easy access and		

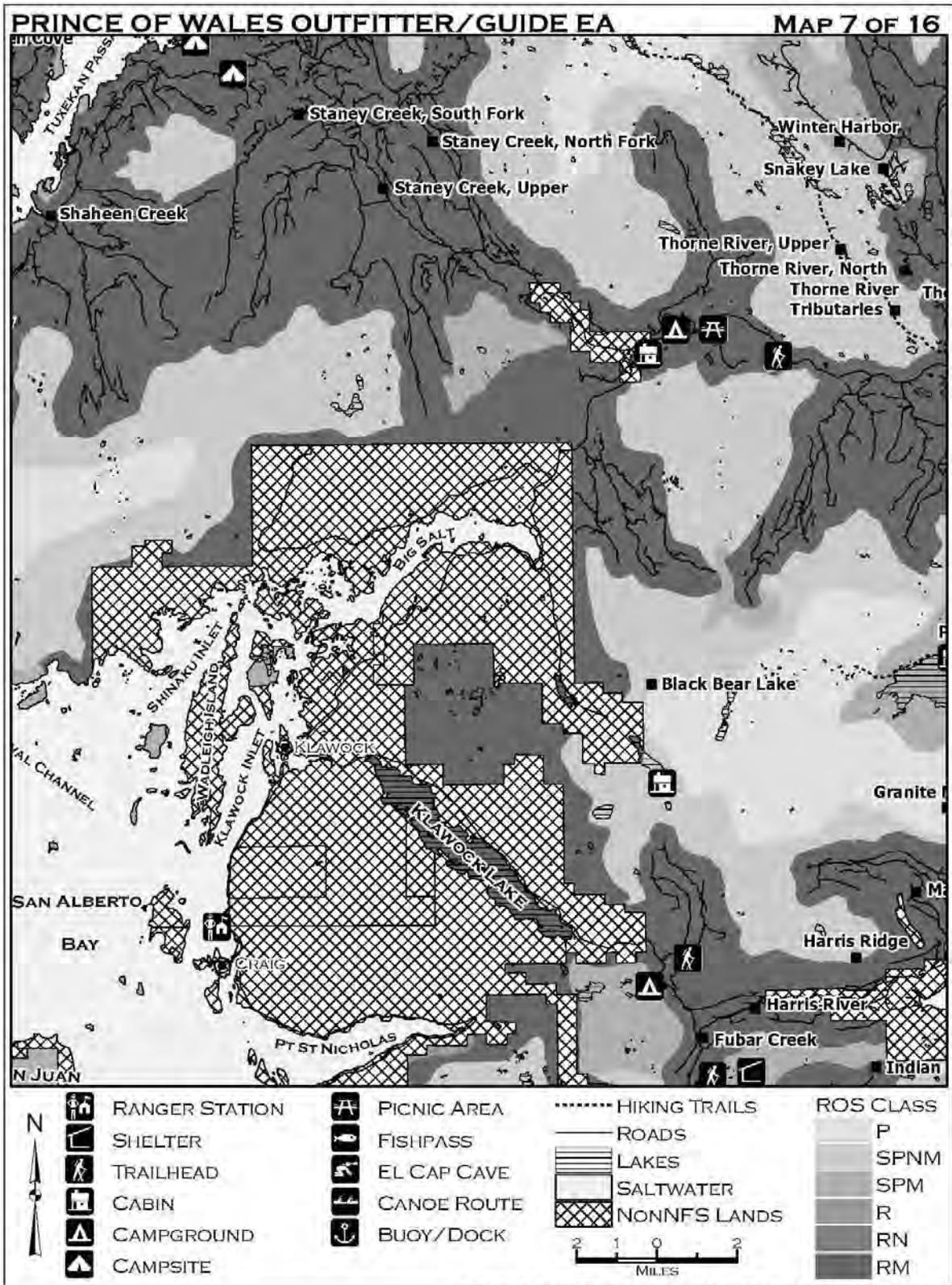
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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
					seasonal concentration of food resources. This site has high potential for conflict between users for fishing, hunting and viewing of be		
Twelvemile Arm Road System	35 mile southeast of Craig on FR 21. The terrain is heavily timber harvested with some protected areas. Access is simple because of the roads and many people from the southern community of Hydaburg use this area.	none nearby	Twelve-mile Cabin, Twelve-mile Trail, three vehicle parking, abandoned logging camp, MAF.	Wildlife: This estuary is a high value habitat area during periods of critical use for species such as black bear, trumpeter swans and other waterfowl. Disturbance to waterfowl is a concern. Black bears are vulnerable to harvest at this site due to its easy access and seasonal concentration of food resources. This site has high potential for conflict between users for fishing, hunting and viewing of bears.			
West Sentinel Island	30 air miles from Craig in McKenzie Inlet. Unharvested	none	none	Wildlife: This is a shore access site; refer to shore site concerns.			

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Wolf Lake	21 air miles east of Craig near the Karta Rive Wilderness. Alpine lake.	none	none	Wildlife: See All Locations.			

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Table A- 9) Group 7 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Black Bear Lake	Remote	Most visitors climb up to access the Black Bear Lake Cabin and Klawock Mountains. Some people back-country ski/ snowboard. Others camp, hunt the alpine in early deer season, or fish -- lake has a rainbow trout population, but water levels fluctuate significantly.	4,612	0	20	2,306	1,153	22
Harris Ridge	Road	hunting	635	4	10	318	159	11
Harris River	Road	Community of Hollis developed a picnic area with picnic shelter and trail on the Harris river. Most people visit to fish, although more people are coming to learn about the restoration and timber thinning projects taking place in the area.	2,306	190	339	1,153	577	373
Shaheen Creek	Road	fishing	2,306	9	4	1,153	577	4
Staney Cr., North Fork	Road	Hunting, fishing, driving	2,306	0	0	1,153	577	55
Staney Cr., South Fork	Road	Hunting, fishing, driving	2,306	0	0	1,153	577	55
Staney Cr., Upper	Road	Hunting, fishing, driving	2,306	0	0	1,153	577	55
TOTAL			16,777	203	373	8,389	4,197	575

¹ This is the highest outfitter and guide use reported from 2005 to 2009. The number of permitted days appears in Alternative 1, the no action alternative.

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³ Additional limitations related to fishing and/or hunting apply to the action alternatives as described in Chapter 2 of the EA

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Black Bear Lake	Located at approximately 3000 feet elevation in the Klawock Mountain, central Prince of Wales Island.	Private land adjacent for the hydroelectric dam.	Site of a hydro-electric dam that powers most POW communities.	Access: The hike is through private land. Float plane access is limited due to the changing water levels at the lake and freezing lake water. Inexperienced visitors may injure themselves trying to access the lake.	Recreation: Black Bear lake is popular with younger visitors looking for an adventure. It is also a known deer hunting location if one is willing to hike in and carry a deer out. Float plane access is expensive. The recreation cabin is in poor condition due to the snow pack.	Wildlife: See All Locations.	
Harris Ridge	20 miles east of Craig on paved 924 road. Rugged mountain face with young and old growth stands. Extensive alpine at top.	State land to the south, less than a mile.	none	Access: hike in access only. Used for hunting.	Invasive Species: Several high priority invasive plant infestations known along the road, recommend continued treatment where feasible and future monitoring.	Wildlife: This is an alpine area where there is potential for user conflicts due to limited alpine sites with reasonable access.	
Harris River	20 miles SE of Craig, 5 miles W of Hollis. Riparian, young growth forest.	Hollis community is nearby. State land nearby.	Interpretive Trail 2500-ft. Access Trail 5 miles.	Botany: A rare plant population is known, recommend future surveys in high use areas, and follow up monitoring.	Invasive Species: Several high priority invasive plant infestations known, along the road system and	Fisheries: small steelhead system	Recreation: Harris River is moderately used but is growing in use as FS brings tours and school groups. Use is less

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
			Interp. signs. Campground--14 sites, 2 vault toilets, water source. Day Use -- picnic shelter, pit toilet, 2 picnic sites, water source.		streambanks, recommend continued treatment where feasible and future monitoring.		than design use.
Harris River (cont.)				Wildlife: Black bears and waterfowl depend on quality habitat at the estuary. This site provides high value habitat during periods of critical use for black bears. Easy access by road leaves bears vulnerable to harvest. There is high potential for conflict between users for fishing, hunting and viewing of bears.			
Shaheen	43 road miles north	none	none	Invasive Species:	Fisheries: small	Wildlife: No big-	

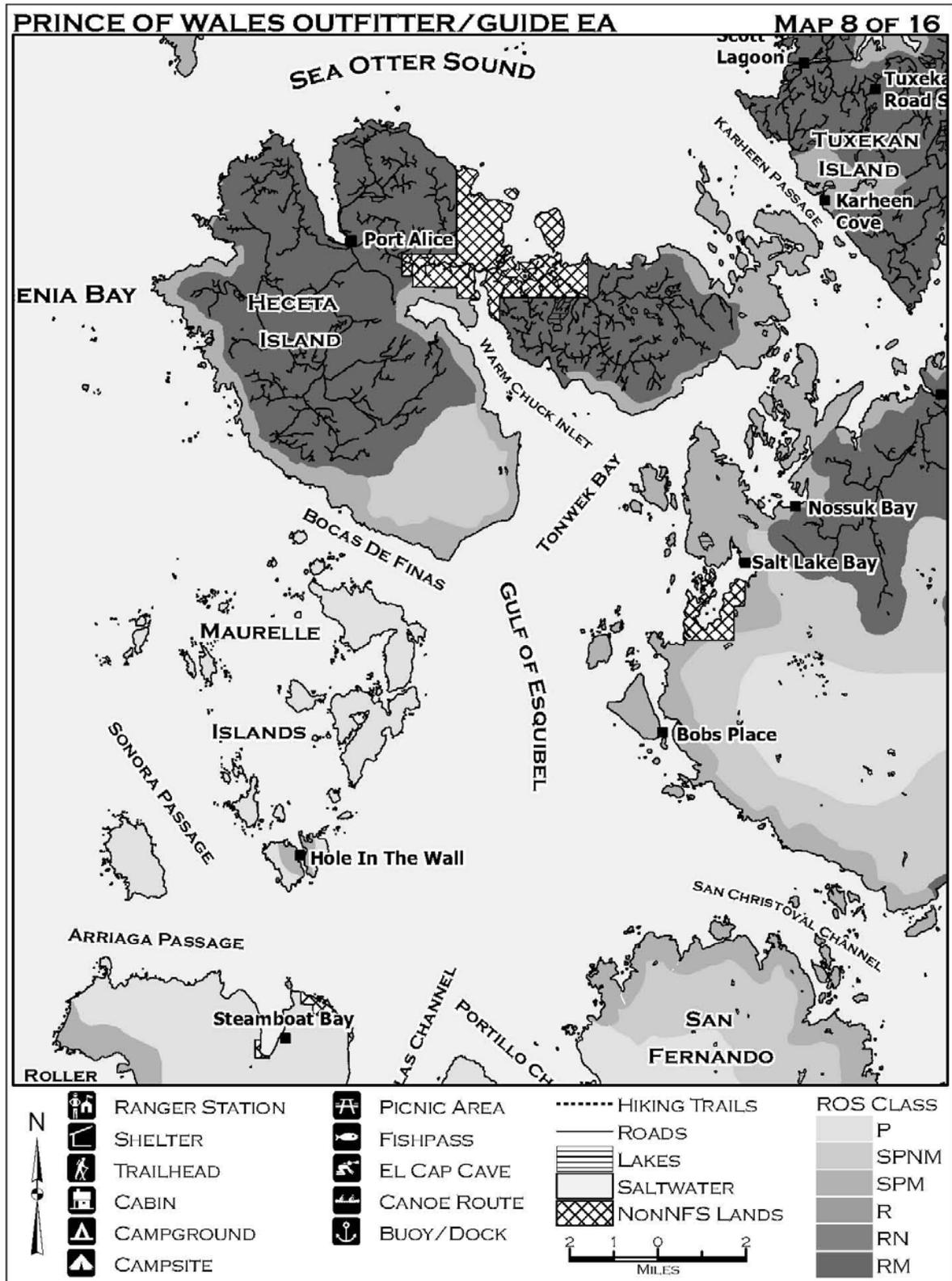
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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Creek	of Craig on FDR 2050. Harvested, roaded.			Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	steelhead system	game guiding or outfitting is permitted per the 1994 Big Game EA. There is a high potential for conflict between users for fishing, hunting and viewing of bears.	
Staney Creek, North Fork	About 30 miles N of Craig and W of Thorne Bay. Riparian Area, young growth timber and muskeg. Access is simple with lots of roads within the area. Hiking is more challenging from the road through young growth.	None nearby	2 small campsites, Staney Creek Cabin.	Wildlife: No big-game guiding or outfitting is permitted per the 1994 Big Game EA. This site has high potential for conflict between users for fishing, hunting and viewing of bears.			
Staney Creek, South Fork	About 30 miles N of Craig and W of Thorne Bay. Riparian Area, young growth timber and muskeg. Access is simple with lots of roads within the	None nearby	2 small campsites, Staney Creek Cabin.	Wildlife: No big-game guiding or outfitting is permitted per the 1994 Big Game EA. This site has high potential for conflict between users for fishing, hunting and viewing of bears.			

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	area. Hiking is more challenging from the road through young growth.						
Staney Creek, Upper	About 30 miles N of Craig and W of Thorne Bay. Riparian Area, young growth timber and muskeg. Access: road and hiking. Access is simple with lots of roads within the area. Hiking is more challenging from the road through young growth.	None nearby	2 small campsites, Staney Creek Cabin.	Wildlife: No big-game guiding or outfitting is permitted per the 1994 Big Game EA.			

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Table A- 10) Group 8 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Bobs Place	Shore	active/passive touring. Saltwater Fishing.	847	3	0	424	212	33
Hole In The Wall	Shore	Fishing, fish processing, camping,	282	17	34	141	71	37
Karheen Cove	Shore	hunting and freshwater fishing, ATV use	2,822	2	0	1,411	706	22
Nossuk Bay	Shore	hunting and fishing	2,822	15	828	1,411	706	911
Port Alice	Shore	hunting	847	3	0	424	212	33
Salt Lake Bay	Shore	hunting	847	11	28	424	212	31
Scott Lagoon	Shore	hunting	2,822	17	0	1,411	706	99
Steamboat Bay	Shore	hunting	309	2	0	155	77	55
Tuxekan Island Road System	Shore	hunting	847	9	0	424	212	66
TOTAL			12,445	79	890	6,225	3114	1287

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Bobs Place	About 10 miles north from Craig. By St. Phillip	State Land 2 miles north	none Potential 3-sided	Access: Attempting to develop site as part of the west coast kayak	Recreation: Encourage O/Gs to use the north	Wildlife: This is a shore access site; refer to shore site	

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	Island. Remote, unharvested area. Safe harbor south of Sea Otter Sound.		shelter location for future.	route. Access by kayak. Weather dependent.	end of Phillips Island to reduce resource concerns. Could be a lot of boats during fishing season. If 3-sided shelter is constructed, then we will monitor for conflicts, but it is not likely.	concerns.	
Hole In The Wall	Maurelle Island Wilderness. 25 miles NW of Craig. Old growth but small trees. Rugged shoreline.	none nearby	floating dock used by fish tender. Makeshift fish camp.	Access: For a Wilderness, Maurelle Islands is relatively close to town and heavily used by boat traffic	Recreation: During July, site is crowded although not on the land. Great deal of boat traffic and noise and disturbance due to fish processing. Boat generators all night etc.	Wilderness: areas within wilderness have had observable social and resource impacts for the past several years during wilderness monitoring trips. Wilderness regs. must apply to all activities; consider recommendation that commercial outfitter and guide services be restricted.	Wildlife: This is a shore access site; refer to shore site concerns.
Karheen Cove	About 35 mile north of Craig by boat to Tuxekan Island. Harbor on	state land to the north of bay	none	Wildlife: This is a shore access site; refer to shore site concerns.			

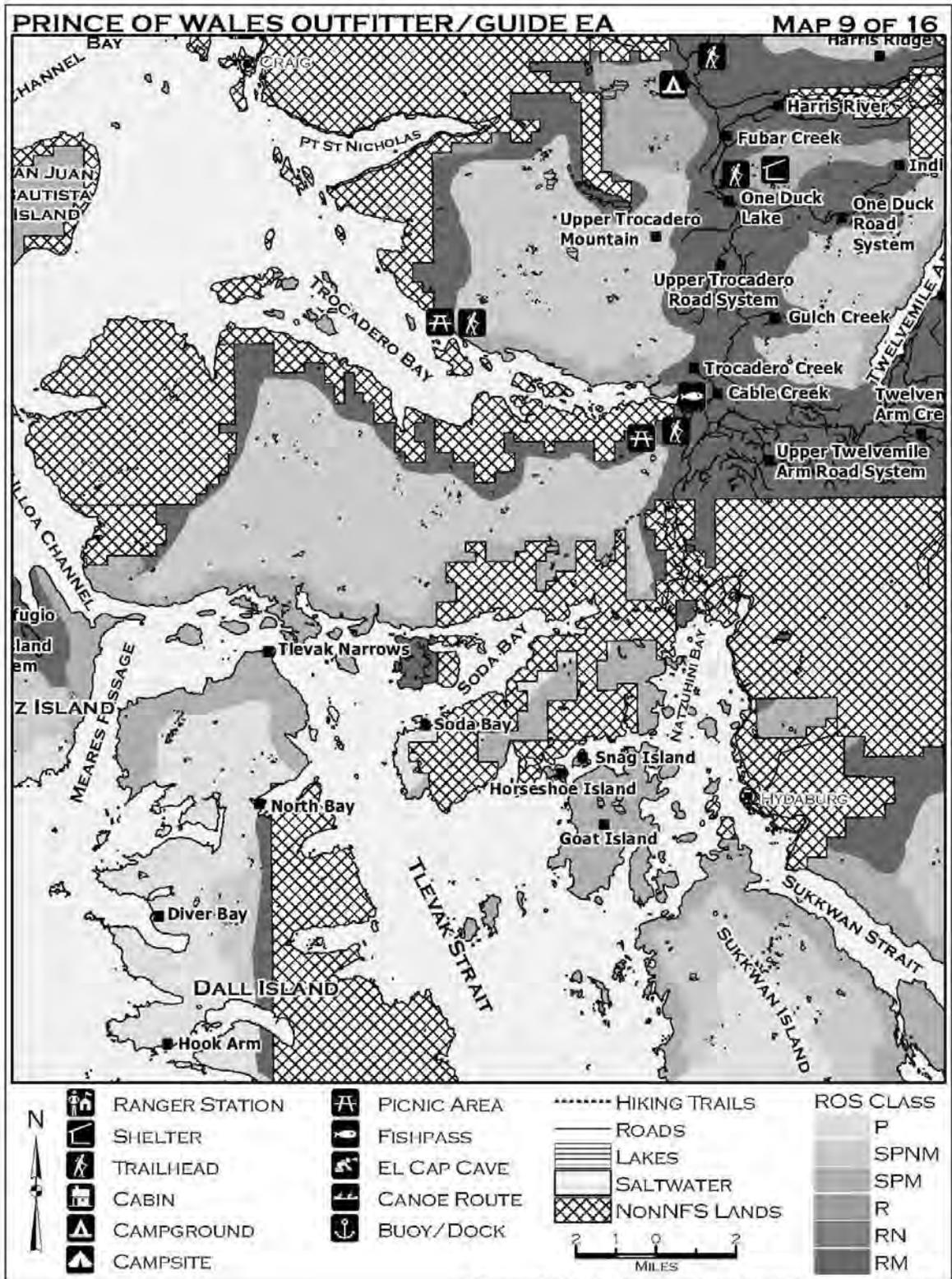
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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	the west side of island. Developed with roads and harvest areas.						
Nossuk Bay	18 air miles from Craig on west side of POW. Unharvested.	none	none	Wildlife: This is a shore access site; refer to shore site concerns. Trumpeter swans use this area. Disturbance to trumpeter swans is a concern. Excellent habitat for a wide variety of species. This site has high potential for conflict between users for fishing, hunting and viewing of bears.			
Port Alice	28 air miles northwest of Craig on Heceta Island. Harvested, roaded.	State	none	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve.			
Salt Lake Bay	17 air miles northwest of Craig. Unharvested.	State	none	Wildlife: This is a shore access site; refer to shore site concerns. Wintering waterfowl use this area. Disturbance to waterfowl is a concern.			
Scott Lagoon	27 air miles north of Craig on	none	none	Wildlife: This is a shore access site;			

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	Tuxekan Island.			refer to shore site concerns.			
Steamboat Bay	20 air miles west of Craig in the Outside Islands LUD II. Unharvested.	Haida Village, Private	none	Wildlife: This is a shore access site; refer to shore site concerns. Offshore bird species have been reported here.			
Tuxekan Island Road System	25 air miles north of Craig with several individual sites listed. Harvested, roaded.	State	none	Invasive Species: Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Wildlife: This is a shore access site; refer to shore site concerns. Part of this site is in an Old Growth Reserve.		

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Table A- 11) Group 9 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Cable Creek	Road	Fish and wildlife viewing.	692	12	9	346	173	10
Diver Bay	Shore	hunting, fishing	2,822	2	0	1,411	706	22
Gandlaay Haanaa (Fubar Cr.)	Road	fishing, hiking	2,117	2	0	1,059	529	22
Goat Island	Shore	Hunting and fishing, maybe passive and active touring.	847	3	0	424	212	23
Gulch Creek	Road	Fish and wildlife viewing.	2,117	2	9	1,059	529	10
Horseshoe Island	Shore	hunting	847	3	0	424	212	33
Indian Creek	Road	hunting, snow mobiling, hiking,	635	1	19	318	159	21
North Bay	Shore	hunting and fishing	847	2	0	424	212	22
One Duck Lake	Road	hunting	2,117	2	0	1,059	529	22
One Duck Road System	Road	hunting	2,117	1	0	1,059	529	11
Snag Island	Shore	hunting	847	2	0	424	212	22
Soda Bay	Shore	hunt	847	1	0	424	212	11
Tlevak Narrows	Shore	hunting	2,822	12	0	1,411	706	143
Trocadero Creek	Road	hunting and fishing	635	7	9	318	159	10
Upper Trocadero Mountain	Road	hunting	2,117	2	0	1,059	529	22
Upper Trocadero Road System	Road	hunting	2,117	7	19	1,059	529	21
Upper Twelvemile Arm Road System	Road	hunting	2,117	7	10	1,059	529	11
TOTAL			26,660	68	75	13,337	6,666	436

¹ This is the highest outfitter and guide use reported from 2005 to 2009. The number of permitted days appears in Alternative 1, the no action alternative.

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Cable Creek	16 miles south of Craig on Hydaburg Road. Stream buffer, riparian area, salmon stream.	Sealaska land nearby	Accessible boardwalk trail, viewing platform, interpretive signs	Fisheries: small steelhead system, only one fishing hole in area, use is concentrated. Limit/reduce service days	Recreation: No use record, but observations show that it receives low use--no cars parked and no encounters. Heavy infrastructure for little use.	Wildlife: This site is in an Old Growth Reserve. High use area for both bears and humans due to quality foraging habitat and the location of a recreation trail here. Trumpeter swans winter in this area.	
Diver Bay	About 45 miles south of Craig by boat to northwest coast of Dall Island. Remote, undeveloped area. Old Growth forest and open ocean coast.	none nearby	none	Wildlife: This is a shore access site; refer to shore site concerns. In addition to all the common marine mammals, goshawks have been reported here. Black oystercatchers are known to nest in the area.			
Gandlaay Haanaa (Fubar Cr.)	30 miles south of Craig by paved road. Young growth, riparian area. Hardened for stream restoration	state land nearby	parking area, trail,	Invasive Species: Several high priority invasive plant infestations known, recommend continued treatment where feasible and future monitoring.	Fisheries: small steelhead system (Harris drainage)	Wildlife: See All Locations.	
Goat Island	About 45 miles	none nearby	none	Botany: A rare plant,	Recreation: Used	Wildlife: This is a	

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Recreation Use Area	Location	Nearby Commu- nities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	south of Craig by boat. North of Sukkwan Island. This is a low lying, muskeg area. Undeveloped.			<i>Cardamine angulata</i> , is known, recommend future surveys in high use areas, and follow up monitoring.	by people from Hydaburg. May be conflicts with local users.	shore access site; refer to shore site concerns. There are numerous bald eagle nests here. Muskeg areas support grouse.	
Gulch Creek	16 miles south of Craig on Hydaburg Road. Stream buffer, riparian area, salmon stream.	SeaAK land nearby, State selection to the south	none	Access: Bushwhack to creek if done by many people in the same place may cause muddy conditions, vegetation trampling and erosion.	Recreation: Used by people from Hydaburg. May be a subsistence area. May be conflicts with local users.	Wildlife: See All Locations.	
Horseshoe Island	Small island 20 air miles southeast of Craig, north of Goat Island near Hydaburg. Unharvested.	Sealaska, Haida Village	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Indian Creek	About 20 miles from Craig to the Southeast toward Hydaburg (State highway 913). This gated road leads to upland muskegs and alpine.	none nearby	none	Access: Indian Creek is one of 4 gated roads on POW, gated to prevent motorized use. Cross-country skiers, snowshoers and hikers use this area. There is a conflict between motorized and non-motorized uses.	Invasive Species: Several high priority invasive plants known along the road system. Recommend future monitoring and ongoing treatment as feasible.	Fisheries: Part of Harris watershed, small steelhead system	Recreation: Conflict between motorized and non-motorized user groups. Increased use may impact conflict.
Indian Creek				Wildlife: This site is in			

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
(cont.)				an Old Growth Reserve.			
North Bay	19 air miles from Craig on east side of Dall Island. Unharvested.	Sealaska	none	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve. Trumpeter swans use this area. Disturbance to trumpeter swans is a concern.			
One Duck Lake	21 road miles from Craig on the Hydaburg Road. Harvested.	none	none	Invasive Species: Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Wildlife: Waterfowl and possibly sandhill cranes use this area. Disturbance to waterfowl is a concern.		
One Duck Road System	24 road miles from Craig on the FDR 2016. Access to alpine. Harvested.	none	none	Invasive Species: Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Wildlife: This is an alpine area where there is potential for user conflicts due to limited number of alpine sites with reasonable access.		
Snag Island	Small island 20 air miles southeast of Craig, north of Goat Island near Hydaburg.	Sealaska, Haida Village	none	Wildlife: This is a shore access site; refer to shore site concerns.			

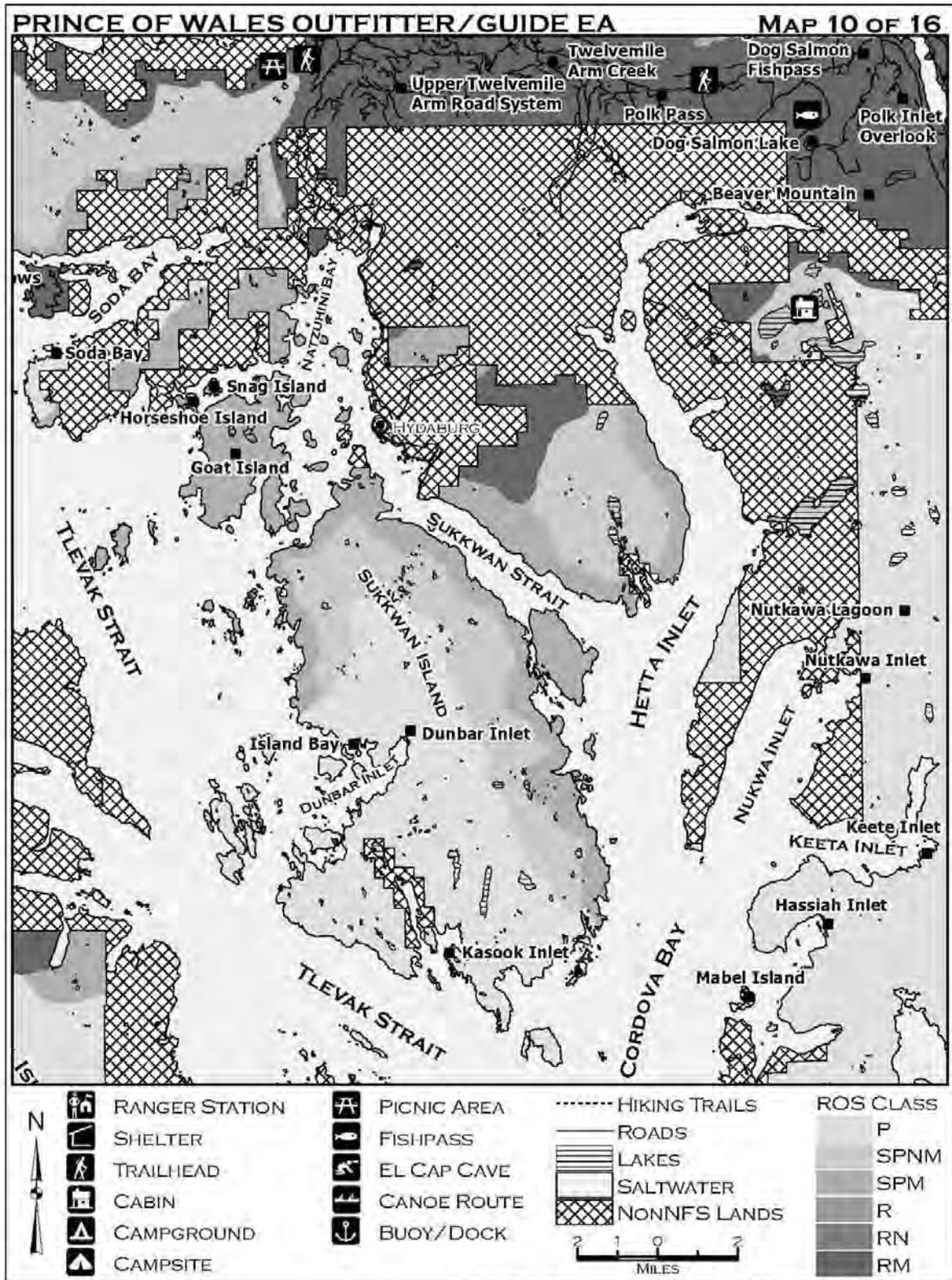
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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	Unharvested.						
Soda Bay	18 air miles southeast of Craig, near Hydaburg.	Sealaska	none	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve. Seal haul outs occur here.			
Tlevak Narrows	15 air miles south of Craig near Hydaburg on the north end of Dall Island.	none	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Trocadero Creek	37 miles south of Craig on Hydaburg Road. Riparian.	State	none	Fisheries: small steelhead system	Wildlife: This site is in an Old Growth Reserve. Trumpeter swans winter in the estuary here. Disturbance to waterfowl is a concern. This is a high use area for both bears and humans due to quality foraging habitat and the location of a recreation trail here. This site has potential for conflict between users for fishing,		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
					hunting and viewing of bears.		
Upper Trocadero Mountain	24 road miles from Craig on the Hydaburg Road. Harvested.	none	none	Wildlife: Possible alpine species and/or sandhill cranes may use this area.			
Upper Trocadero Road System	24 road miles from Craig on the Hydaburg Road. Harvested.	none	none	Wildlife: See All Locations.			
Upper Twelvemile Arm Road System	20 road miles south of Craig on Hydaburg Road. Harvested.	Sealaska	none	Wildlife: Possible alpine species and/or sandhill cranes may use this area.			

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Table A- 12) Group 10 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Beaver Mountain	Remote	hunting and hiking	4,234	2	0	2,117	1,059	22
Dog Salmon Lake	Road	hiking, bear hunting/viewing, deer hunting, berry picking	635	2	0	318	159	22
Dunbar Inlet	Shore	Hunting and fishing, maybe passive and active touring.	847	30	0	424	212	88
Hassiah Inlet	Shore	hunting and fishing	2,822	2	26	1,411	706	29
Island Bay	Shore	Hunting and fishing, maybe passive and active touring.	927	8	0	464	232	9
Kasook Inlet	Shore	hunting and fishing	282	2	0	141	71	22
Mabel Island	Road	hunting and fishing	2,306	0	0	1,153	577	44
Nutkawa Inlet	Shore	hunting and fishing	2,822	4	0	1,411	706	22
Nutkawa Lagoon	Remote	hunting and fishing	423	24	65	212	106	72
TOTAL			15,298	74	91	7,651	3,828	330

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Beaver Mountain	50 miles south of Craig toward Polk and Chomondeley	Sealaska area south	none	Access: access to the foot of the mountain is fairly easy but climbing	Recreation: Popular hunting area for people	Wildlife: This is an alpine area that occurs near a	

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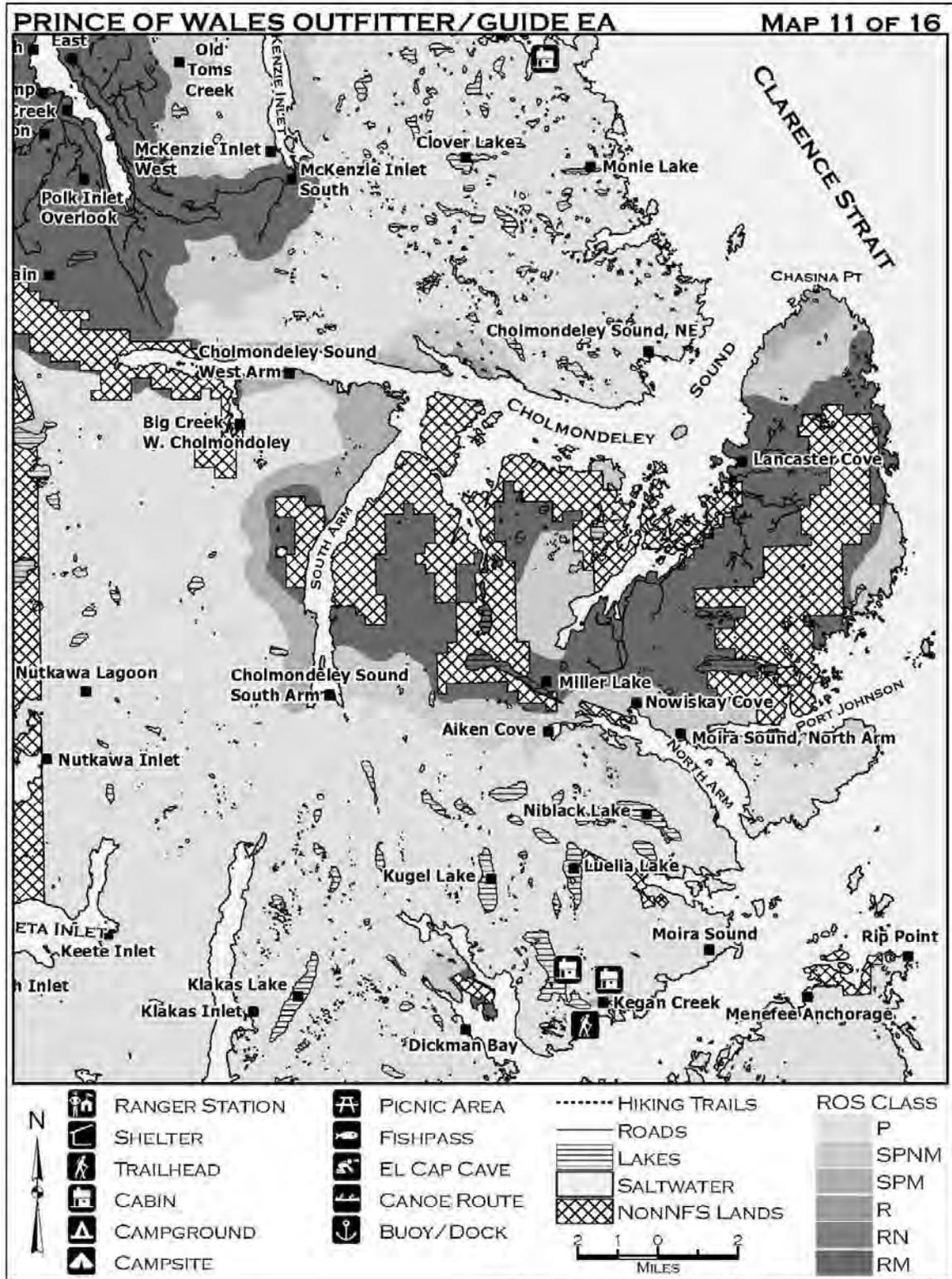
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Recreation Use Area	Location	Nearby Commu- nities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	Sound. This mountain is near an active corporation timber harvest area. Roads and harvest units are visible. The mountain is rugged with a fair amount of alpine.			the mountain is more of a challenge.	from Hydaburg. Potential for conflict for prime hunting locations, but this site is far enough off the coast that it is less likely to have conflicts.	pinch point for wildlife where a narrow spit of land connects two larger lobes of the island.	
Dog Salmon Lake	35 miles SE of Craig; 30 air-miles W from Ketchikan; Riparian area and young growth forest	none nearby	none	Fisheries: sockeye run, small steelhead run	Recreation: low use due to 2 mile bushwhack to area	Wildlife: This site is in an Old Growth Reserve. Loons, geese, and trumpeter swans use this area.	
Dunbar Inlet	About 45 miles south of Craig by boat to western Sukkwan Island. This is a low lying, muskeg area. Undeveloped.	none nearby	none	Recreation: Used by people from Hydaburg. May be a subsistence area. May be conflicts with local users.	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve.		
Hassiah Inlet	About 80 miles south of Craig by boat. Old growth. Protected shoreline.	Encumbered land to the south	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Island Bay	About 45 miles south of Craig by boat to western Sukkwan Island. This is a low lying,	none nearby	none	Recreation: Used by people from Hydaburg. May be a subsistence area. May be conflicts with local users.	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	muskeg area. Undeveloped.				Growth Reserve. Mudflats at the head of the bay may provide foraging opportunities for migrating shorebirds.		
Kasook Inlet	About 45 miles south of Craig by boat. Old growth. Protected shoreline.	Encumbered land to the south	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Mabel Island	About 55 miles south of Craig by boat. Old growth. Protected shoreline.	Area may be encumbered.	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Nutkawa Inlet	35 air miles from Craig in southwest POW. Near Nutkawa LUD II.	Sealaska	none	Wildlife: This is a shore access site; refer to shore site concerns. Trumpeter swans winter here and other waterfowl use this area. Disturbance to waterfowl is a concern.			
Nutkawa Lagoon	35 air miles from Craig in southwest POW. Within Nutkawa LUD II.	Sealaska	none	Wildlife: Trumpeter swans winter here and other waterfowl use this area.			

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Table A- 13) Group 11 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Aiken Cove	Shore	Hunting, fishing, passive/active touring	847	9	12	424	212	13
Big Creek, W. Cholmondoley	Shore	bear viewing and fishing	1,079	0	500	540	270	540
Cholmondeley Sound, NE	Shore	Recreation visitors come to hunt and view wildlife. Roads built in association with timber harvest increase hunting access in the area.	1,079	54	425	540	270	468
Cholmondeley Sound, South Arm	Shore	Recreation visitors come to hunt. Roads built in association with timber harvest increase hunting access in the area.	1,079	84	500	540	270	540
Cholmondeley Sound, West Arm	Shore	Recreation visitors come to hunt. Roads built in association with timber harvest increase hunting access in the area.	1,079	26	0	540	270	29
Keete Inlet	Shore	hunting and fishing	2,822	14	0	1,411	706	88
Kegan Creek	Shore	Fishing, hunting, passive/active touring	307	0	69	154	77	76
Klakas Inlet	Shore	Most visitors boat to this area to view wildlife or to hunt bears. Sockeye fishing at the falls. Subsistence salmon fishing.	360	208	854	180	90	180
Klakas Lake	Remote	Most visitors boat then hike into the lake or float plane to the lake. Most visitors view wildlife or hunt bears. Sockeye fishing at the falls and in the	461	0	212	231	115	231

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Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
		lake. Subsistence salmon fishing.						
Kugel Lake	Remote	fishing and hunting	1,618	57	85	809	405	94
Lancaster Cove	Shore	hunting	2,822	98	0	1,411	706	176
Luelia Lake	Remote	passive touring, fishing, hunting	539	144	285	270	135	270
Menefee Anchorage	Shore	hunting	847	2	0	424	212	22
Miller Lake	Remote	fishing and hunting	1,618	44	500	809	405	550
Moira Sound	Shore	hunting, passive touring, fishing, wildlife viewing	2,822	121	8	1,411	706	9
Moira Sound, North Arm	Shore	hunting	847	2	0	424	212	22
Niblack Lake	Remote	fishing and hunting	1,383	0	128	692	346	141
Nowiskay Cove	Shore	passive touring	1,079	74	0	540	270	81
Rip Point	Shore	hunting	2,822	2	0	1,411	706	22
TOTAL			25,510	939	3,578	12,761	6,383	3,552

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Aiken Cove	South end of POW, Moira Sound North Arm, near Niblack. Remote cove. Old Growth and little evidence of human use.	Private land just north of cove.	None	Botany: Rare plant known. The only known Alaska population of low bull rush, <i>Isolepis cernua</i> , is known from the upper beach meadow at a tidal flat in Aiken Cove. Recommend surveys to determine presence/absence and	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve.		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
				document exact extent, and follow up monitoring if necessary.			
Big Creek, W. Cholmondoley	25 air miles from Craig. Closer for Ketchikan residents to boat over. Old growth, shoreline.	Native Corporation Land to the west and south in Cholmondoley	none	Recreation: Observed planes flying in July to see bears in big creek. May be competition between bear viewing visitors.	Wildlife: This is a shore access site; refer to shore site concerns.		
Cholmondoley Sound, NE	25 air miles from Craig. Closer for Ketchikan residents to boat over. Old growth, shoreline.	Corporation land around Cholmondoley Inlet.	none	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve.			
Cholmondoley Sound, South Arm	25 air miles from Craig. Closer for Ketchikan residents to boat over. NFS land is old growth forest, corporation land is young growth forest, shoreline.	Corporation land all around Cholmondoley Inlet.	none	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve.			
Cholmondoley Sound, West Arm	25 air miles from Craig. Closer for Ketchikan residents to boat over. NFS land is old growth forest, corporation land is	Corporation land all around Cholmondoley Inlet.	none	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve. This site includes valuable			

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Recreation Use Area	Location	Nearby Commu- nities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	young growth forest or is being harvested, shoreline.			black bear, shorebird and waterfowl habitat.			
Keete Inlet	About 60 miles south of Craig by boat. Old growth. Protected shoreline.	Encumbered land to the south	none	Wildlife: This is a shore access site; refer to shore site concerns. There are some seal haulout areas here. Some mudflats may provide shorebird habitat.			
Kegan Creek	About 50 miles by boat from Ketchikan	none	two recreation cabins and a 1/2 mile trail	Access: The bay is small and difficult to navigate with a float plane or a boat larger than the landing craft.	Recreation: Recreation cabins located in the area are used heavily during the salmon run, July-September. They are also used by spring and fall bear hunters. Competition between cabin users and guides could arise on Kegan Creek.	Wildlife: This is a shore access site; refer to shore site concerns.	
Klakas Inlet	50 miles SE of Craig. Ocean Inlet with old growth forest. Access is by boat or plane and is difficult	None nearby	none	Fisheries: sockeye, steelhead (documented subsistence use). Area once used a lot for sockeye fishing, but	Wilderness: Wilderness regs. must apply to all activities	Wildlife: This is a shore access site; refer to shore site concerns. Seabird wintering habitat and harbor	

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	because this site is remote and there is no road access.			doesn't seem to be used as much in the past 5 years. May attract use for sockeye fishing		seal haulout areas occur here. Bears may be vulnerable to harvest here during periods of critical use at seasonally important foraging areas.	
Klakas Lake	50 miles S from Craig. Old growth forest. Access is by boat or plane and is difficult because this site is remote and there is no road access. The lake has a lot of log jams making it difficult for a plane to land at times.	None nearby	none	Fisheries: sockeye, steelhead. Area once used a lot for sockeye fishing, but doesn't seem to be used as much in the past 5 years. May attract use for sockeye fishing	Wilderness: Wilderness regs. must apply to all activities	Wildlife: See All Locations.	
Kugel Lake	30 air miles from Craig. Old growth, lake shore, riparian, stream.	None nearby	none	Access: very remote location. Likely only people who can afford to charter a flight would visit this location	Wildlife: Potential access to nearby alpine, potential habitat for swans and sandhill cranes on and around the lake.		
Lancaster Cove	25 air miles from Craig. Closer for Ketchikan residents to boat	Corporation land around Cholmondely Inlet.	none	Botany: A rare plant population known in the area. Recommend future surveys of high	Invasive Species: Several high priority invasive plants known at	Wildlife: This is a shore access site; refer to shore site concerns. Osprey	

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	over. Old growth, shoreline. Roads built in association with timber harvest increase hunting access in the area but do not connect the area by road to the north. Access is by boat or float plane. Boating across Clarence Strait makes access challenging.			use sites and follow-up monitoring.	the MAF. Recommend additional surveys, future monitoring, and treatment as feasible.	have been observed in this area.	
Luelia Lake	30 air miles from Craig. Old growth, lake shore, riparian, stream. Access is challenging because no roads and one must boat in or across Clarence Strait then bush whack to the lake system, or charter a floatplane. Very remote.	None nearby	none	Botany: A rare plant population is known in the area. Recommend future surveys of high use areas and follow-up monitoring.	Wildlife: Trumpeter swans, loons, and waterfowl use this area; possibly sandhill cranes as well.		
Menefee Anchorage	54 air miles southeast of Craig in Moira Sound.	State	none	Wildlife: This is a shore access site; refer to shore site			

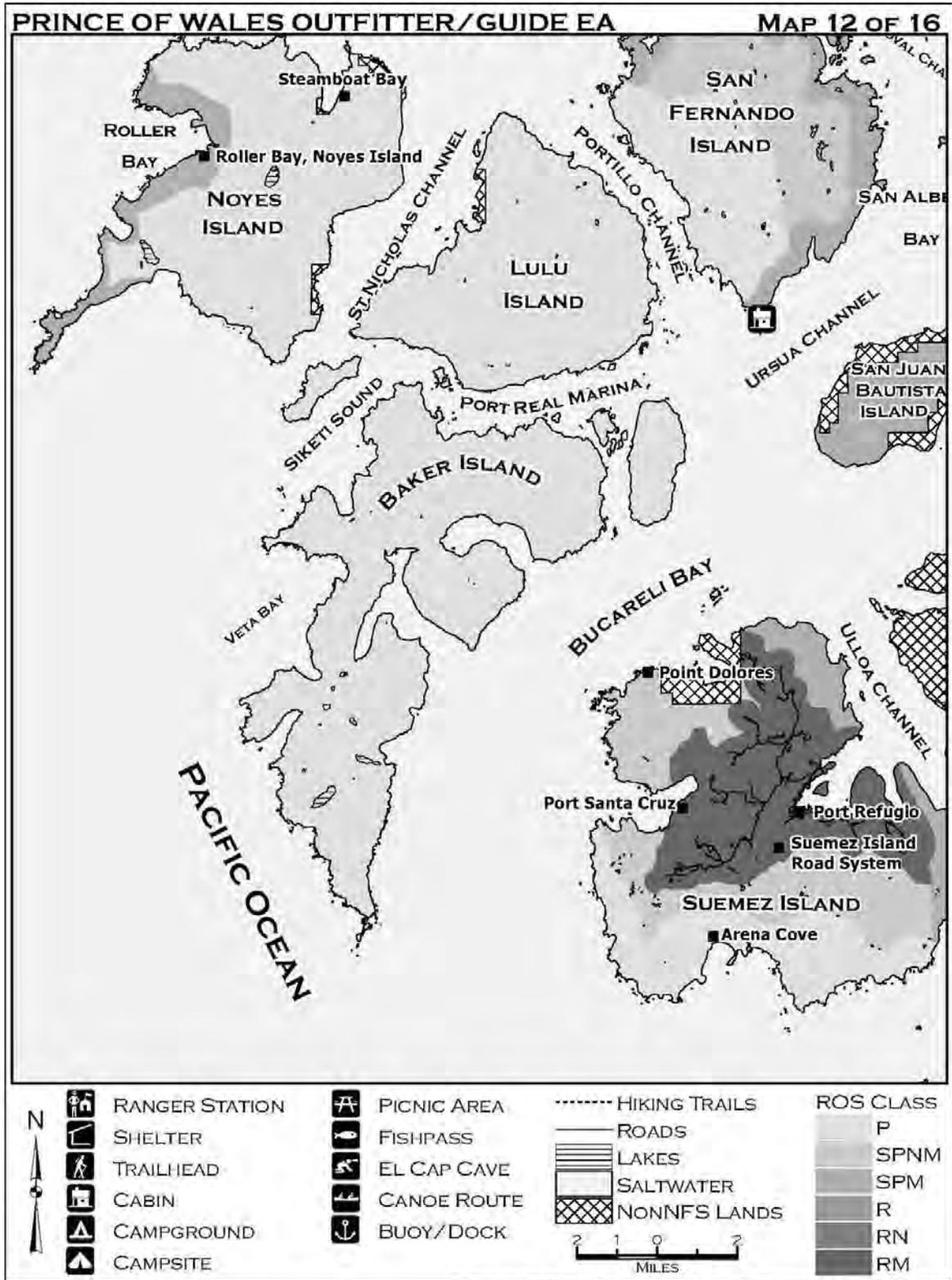
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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	Unharvested			concerns. This site is in an Old Growth Reserve.			
Miller Lake	About 40 miles west of Ketchikan by boat. Close to timber area. Young growth visible and roads.	native land and encumbered land on north and west sides.	none	Wildlife: This site is in an Old Growth Reserve.			
Moira Sound	30 air miles from Craig. Closer for Ketchikan residents to boat over. Old growth, shoreline. Access is by boat or floatplane and is challenging because no roads and one must boat in or across Clarence Strait.	none	Kegan Cove Cabin, Kegan Creek Cabin, Kegan trail	Botany: Several known rare plant populations. Recommend future surveys of high use areas and follow-up monitoring.	Wildlife: This is a shore access site; refer to shore site concerns.		
Moira Sound, North Arm	47 air miles southeast of Craig. Unharvested.	Kootznoowoo, private	none	Invasive Species: No survey data - remote area	Wildlife: This is a shore access site; refer to shore site concerns.		
Niblack Lake	30 air miles from Craig. Old growth, lake shore, riparian, stream.	None nearby	none Visitors fish or hunt	Recreation: very remote location. Likely only people who can afford to charter a flight would visit this location	Wildlife: Likely provides habitat for wintering trumpeter swans.		
Nowiskay	45 air miles from	Private land	none	Wildlife: This is a			

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Cove	Craig in north arm of Moira Sound on east side of POW.			shore access site; refer to shore site concerns. This site is in an Old Growth Reserve. Trumpeter swans may winter here.			
Rip Point	55 air miles southeast of Craig at the southeast entrance to Moira Sound.	State	none	Wildlife: This is a shore access site; refer to shore site concerns.			

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Table A- 14) Group 12 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Arena Cove	Shore	Surfing, beach combing, watching the ocean	282	2	0	141	71	22
Point Dolores	Shore	hunting	2,822	4	0	1,411	706	22
Port Refugio	Shore	hunting	2,822	8	0	1,411	706	55
Port Santa Cruz	Shore	hunting	2,822	1	0	1,411	706	22
Roller Bay, Noyes Island	Shore	beach combing	309	0	0	155	77	22
Suemez Island Road System	Shore	hunting	3,091	12	0	1,546	773	13
TOTAL			12,148	27	0	6,075	3,039	156

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Arena Cove	15 mile south of Craig by boat. Large sandy beach facing open ocean. Old growth on the shore.	none nearby	none	Wildlife: This is a shore access site; refer to shore site concerns. Peregrine falcons and black oystercatchers use the area around Cape Felix.			
Point Dolores	16 air miles southwest of Craig.	State	none	Wildlife: This is a shore access site;			

¹ This is the highest outfitter and guide use reported from 2005 to 2009. The number of permitted days appears in Alternative 1, the no action alternative.

² Alternative 1 – rows have zeros if there is no permitted use in those areas this year; however, there has been past use and will probably be use in the future.

³ Additional limitations related to fishing and/or hunting apply to the action alternatives as described in Chapter 2 of the EA

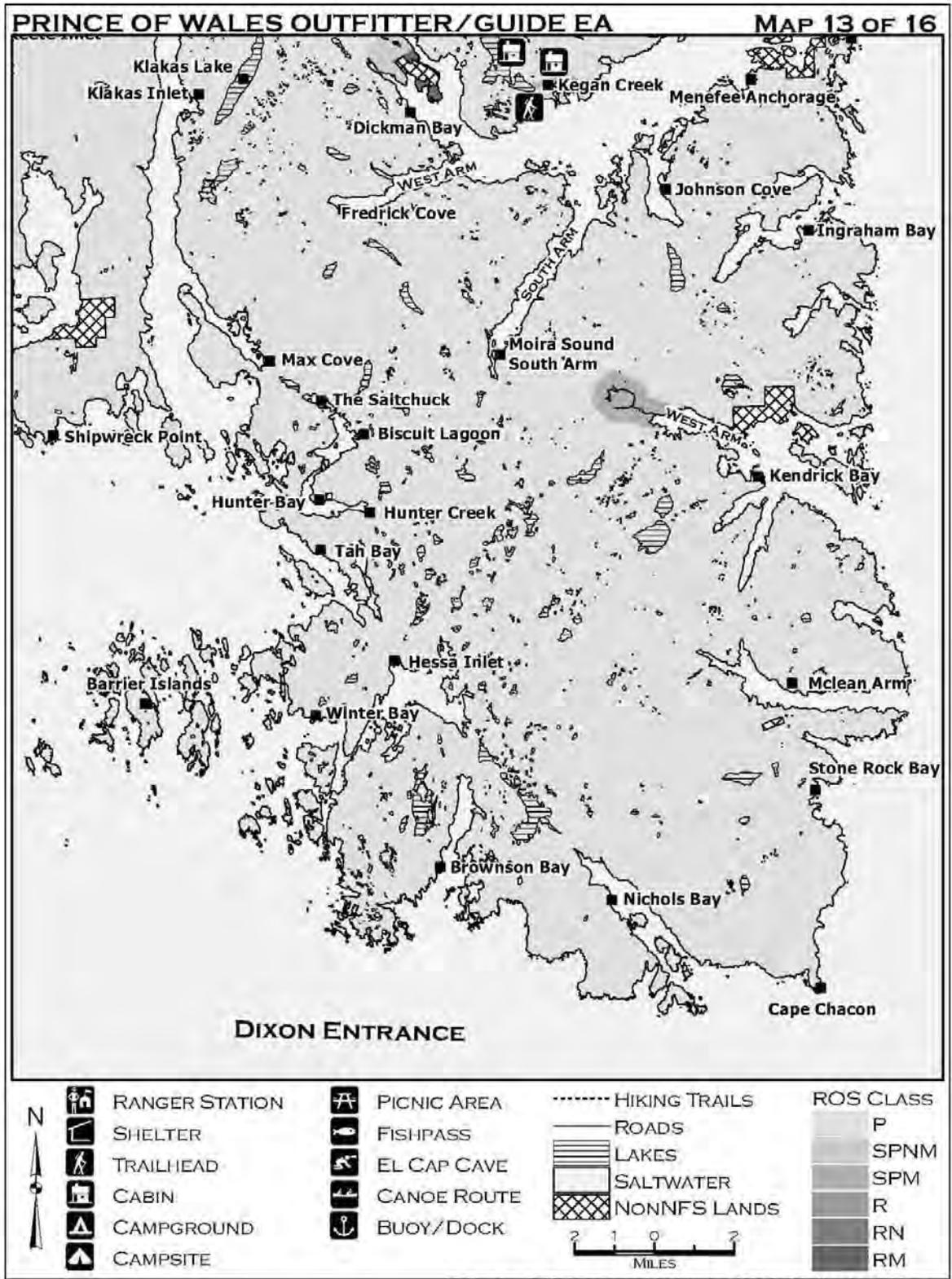
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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	Northwest corner of Suemez Island. Unharvested.			refer to shore site concerns. Migrating shorebirds and black oystercatchers use this site. Disturbance to black oystercatchers is a concern.			
Port Refugio	15 air miles southwest of Craig on Suemez Island. Harvested, roaded.	none	MAF	Botany: Several known rare plant populations. Recommend future surveys of high use areas and follow-up monitoring.	Invasive Species: Several high priority invasive plants known. Recommend additional surveys, future monitoring, and treatment as feasible.	Wildlife: This is a shore access site; refer to shore site concerns. Trumpeter swans, waterfowl, goshawk nests and deer exclosures are present on the island. Disturbance to waterfowl, goshawk, and deer exclosures are concerns.	
Port Santa Cruz	18 air miles southwest of Craig on Suemez Island. Watershed is harvested, roaded.	none	none	Wildlife: This is a shore access site; refer to shore site concerns. Black bears are vulnerable to harvest on beaches at this site because they tend to congregate in these areas during periods of critical use.			
Roller Bay,	20 air miles west of	none	none	Recreation: People	Wildlife: This is a		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Noyes Island	Craig in the Outside Islands LUD II. Unharvested.			visit this open sandy beach on nice days.	shore access site; refer to shore site concerns.		
Suemez Island Road System	Medium-sized island 17 air miles southwest of Craig with several individual use area locations identified.	State	none	Wildlife: This is a shore access site; refer to shore site concerns. Sandhill cranes, geese, known goshawk nests, waterfowl, and deer exclosures occur in this area. Disturbance to raptors, waterfowl, and deer exclosures are concerns.			

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Table A- 15) Group 13 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Barrier Islands	Shore	Otter hunting. Camping. Haida traditional use and gathering area.	309	0	200	155	77	155
Biscuit Lagoon	Shore	Most visitors boat to this area to view wildlife or to hunt bears. Some fishing in the stream. Signs of trapping.	360	69	538	180	90	180
Brownson Bay	Shore	Most visitors boat to this area to view wildlife or to hunt bears. Beach comb	282	2	8	141	71	9
Cape Chacon	Shore	Saltwater fishing, hunting, passive and active touring	847	5	0	424	212	44
Dickman Bay	Shore	Fishing, hunting, passive/active touring	847	4	0	424	212	22
Fredrick Cove	Shore	freshwater fishing, hunting	3,595	32	12	1,798	899	13
Hessa Inlet	Shore	Most visitors boat to this area to view wildlife or to hunt bears. Some fishing in the stream. Signs of trapping.	282	6	522	141	71	141
Hunter Bay	Shore	Most visitors boat to this area to view wildlife or to hunt bears. Some fishing in the stream.	360	89	212	180	90	180
Hunter Creek	Shore	Most visitors boat to this area to view wildlife or to hunt bears. Some fishing in the stream.	307	0	2	154	77	2
Ingraham Bay	Shore	fishing and hunting	847	11	0	424	212	55
Johnson Cove	Shore	freshwater fishing, hunting	2,822	6	12	1,411	706	13
Kendrick Bay	Shore	fishing and hunting	2,822	6	20	1,411	706	22
Max Cove	Shore	passive touring, hunting	360	97	218	180	90	180
Mclean Arm	Shore	fishing and hunting	847	4	38	424	212	42

¹ This is the highest outfitter and guide use reported from 2005 to 2009. The number of permitted days appears in Alternative 1, the no action alternative.

² Alternative 1 – rows have zeros if there is no permitted use in those areas this year; however, there has been past use and will probably be use in the future.

³ Additional limitations related to fishing and/or hunting apply to the action alternatives as described in Chapter 2 of the EA

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Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Moira Sound South Arm	Shore	camping, passive touring, hunting	1,079	135	500	540	270	540
Nichols Bay	Shore	hunting and fishing	847	4	20	424	212	22
Shipwreck Point	Shore	hunting	282	4	0	141	71	22
Stone Rock Bay	Shore	hunting	847	4	12	424	212	13
Tah Bay	Shore	hunting, wildlife viewing	282	3	12	141	71	13
The Saitchuck	Remote	recreation uses on the trail to look at the old mine site	539	0	500	270	135	270
Winter Bay	Shore	hunting	282	2	0	141	71	22
TOTAL			19,045	483	2,826	9,528	4,767	1,960

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Barrier Islands	South Prince of Wales Wilderness Area. 30 air miles from Hydaburg. Old Growth Forest, shoreline. Small remote islands with no road access and boat access is at least 40 miles.	none	none	Access: Access is very weather dependent. Large surge in this area.	Recreation: Small camp observed. Local traditional use site, but no conflicts observed.	Wildlife: This is a shore access site; refer to shore site concerns. Colonies of nesting seabirds occur on Barrier Islands.	
Biscuit Lagoon	South Prince of Wales Wilderness Area. 30 air miles from Hydaburg. Old Growth Forest, shoreline. Cove is remote with no	Sealaska Heritage site (Klinkwan). Boyer owns 10 acre inholding at cannery site.	none	Botany: Rare plant populations were found in the area around Hunter Bay. Recommend future surveys of high use areas, and follow-up	Recreation: no encounters during monitoring. Monitoring showed little disturbance from use.	Wilderness: Wilderness regs. must apply to all activities	Wildlife: This is a shore access site; refer to shore site concerns. This area is popular for wildlife viewing and black bear hunting.

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	road access and boat access is at least 40 miles.			monitoring.			
Brownson Bay	South Prince of Wales Wilderness Area. About 40 miles by boat from Hydaburg. Old Growth Forest, shoreline. Cove is remote with no road access and boat access is at least 40 miles.	none nearby	none	Botany: One rare plant population at head of bay. Recommend follow-up monitoring.	Recreation: No encounters during monitoring. Monitoring showed little disturbance from use.	Wilderness: Wilderness regs. must apply to all activities	Wildlife: This is a shore access site; refer to shore site concerns. Known sea lion haulouts occur just outside of this bay. Rocky shorelines may provide habitat for nesting black oystercatchers. Disturbance to black oystercatchers is a concern. See mitigation measures.
Cape Chacon	About 95 miles south of Craig by boat. Cape Chacon is the southernmost point on Prince of Wales Island. It is a rugged, storm swept area, with little evidence of human use.	none nearby	none	Access: bad weather limits access.	Wildlife: This is a shore access site; refer to shore site concerns. Rocky shorelines may provide habitat for black oystercatchers. Disturbance to black oystercatchers is a concern. See mitigation measures.		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Dickman Bay	About 50 miles by boat from Ketchikan	one small inholding to the north	none	Wildlife: This is a shore access site; refer to shore site concerns. Seals with pups use this area.			
Fredrick Cove	West most point Moira Sound. About 40 boat miles from Ketchikan. Remote, undeveloped area. Old Growth Forest.	none nearby	none	Wildlife: This is a shore access site; refer to shore site concerns. Seals with pups occur here. There is an Old Growth Reserve in this area.			
Hessa Inlet	South Prince of Wales Wilderness Area. 40 miles by boat from Hydaburg. Old Growth Forest, shoreline. Cove is remote with no road access and boat access is at least 40 miles.	none nearby	none	Botany: One rare plant population is known. Recommend surveys in high use areas, and future monitoring.	Recreation: little sign of use on shores	Wilderness: Wilderness regs. must apply to all activities	Wildlife: This is a shore access site; refer to shore site concerns.
Hunter Bay	South Prince of Wales Wilderness Area. 30 air miles from Hydaburg. Old Growth Forest, shoreline.	Sealaska Heritage site (Klinkwan). Boyer owns 10 acre inholding at cannery site.	none	Botany: Rare plant populations known in the area. Recommend future surveys of high use areas, and follow-up monitoring.	Heritage: Modern topographic maps note an abandoned cannery within 1 mile of the O/G spot. Increased visitation might cause physical	Invasive Species: Several non-native plants known at the former cannery site. Recommend follow up monitoring and treatment as	Fisheries: sockeye, steelhead (documented subsistence use)

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
					impact to the site.	necessary.	
Hunter Bay (cont.)				Recreation: some boat visitors, site-seeing. Little signs of use.	Wilderness: Wilderness regs. must apply to all activities	Wildlife: This is a shore access site; refer to shore site concerns. Rocky shorelines at the mouth of the bay may provide habitat for black oystercatchers. Disturbance to black oystercatchers is a concern. See mitigation measures. Black bears are vulnerable to harvest on beaches and salmon streams at this site because they tend to congregate in these areas during periods of critical use.	
Hunter Creek	South Prince of Wales Wilderness Area. 30 air miles from Hydaburg. Old Growth Forest, shoreline.	Sealaska Heritage site (Klinkwan). Boyer owns 10 acre inholding at	none	Botany: Rare plant populations known the area. Recommend future surveys of high use areas, and follow-up monitoring.	Invasive Species: Several non-native plants known at the former cannery site. Recommend	Fisheries: Steelhead, sockeye	Recreation: Some boat visitors, site-seeing. Little signs of use.

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
		cannery site.			follow up monitoring and treatment as necessary.		
Hunter Creek (cont.)				Wilderness: Wilderness regs. must apply to all activities	Wildlife: This is a shore access site; refer to shore site concerns.		
Ingraham Bay	About 45 miles west of Ketchikan. Remote bay south of Moira Sound. Old growth and undeveloped.	none nearby	none	Wildlife: This is a shore access site; refer to shore site concerns. This site is in an Old Growth Reserve.			
Johnson Cove	Moira Sound. About 40 boat miles from Ketchikan. Remote, undeveloped area. Old Growth Forest.	none nearby	none	Botany: A rare plant population is known at this use area, recommend future surveys in high use areas, and follow up monitoring.	Wildlife: This is a shore access site; refer to shore site concerns. Goshawks may occur here.		
Kendrick Bay	About 45 miles west of Ketchikan. Remote bay south of Moira Sound. NFS lands-old growth and undeveloped. Site of active mine claim with roads and young growth.	Private mine holding	none	Recreation: Mining activity may affect experience	Wildlife: This is a shore access site; refer to shore site concerns. Mudflats occur at the heads of some arms here that may provide habitat for migrating shorebirds.		
Max Cove	South Prince of	None nearby	none	Access: Access is	Wildlife: This is a		

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	Wales Wilderness Area. 30 air miles from Hydaburg. Old Growth Forest, shoreline. Access is available by boat or float plane.			difficult because Max Cove is remote with no road access and boat access is at least 40 miles.	shore access site; refer to shore site concerns. Opportunities for both sustainable hunting and viewing of black bears occur here.		
Mclean Arm	About 45 miles west of Ketchikan. Remote bay south of Kendrick Bay. Old growth and undeveloped.	none nearby	none	Wildlife: This is a shore access site; refer to shore site concerns. Mud flats at the head of the bay may provide habitat for shorebirds. Rocky shorelines at the mouth of the bay may provide habitat for black oystercatchers. Disturbance to black oystercatchers is a concern. See mitigation measures.			
Moira Sound , South Arm	30 air miles from Craig. Closer fro Ketchikan residents to boat over. Old growth, shoreline. Access is by boat or floatplane and is challenging because no roads	none nearby	none	Botany: Several known rare plant populations in this area. Recommend future surveys of high use areas and follow-up monitoring.	Wildlife: This is a shore access site; refer to shore site concerns.		

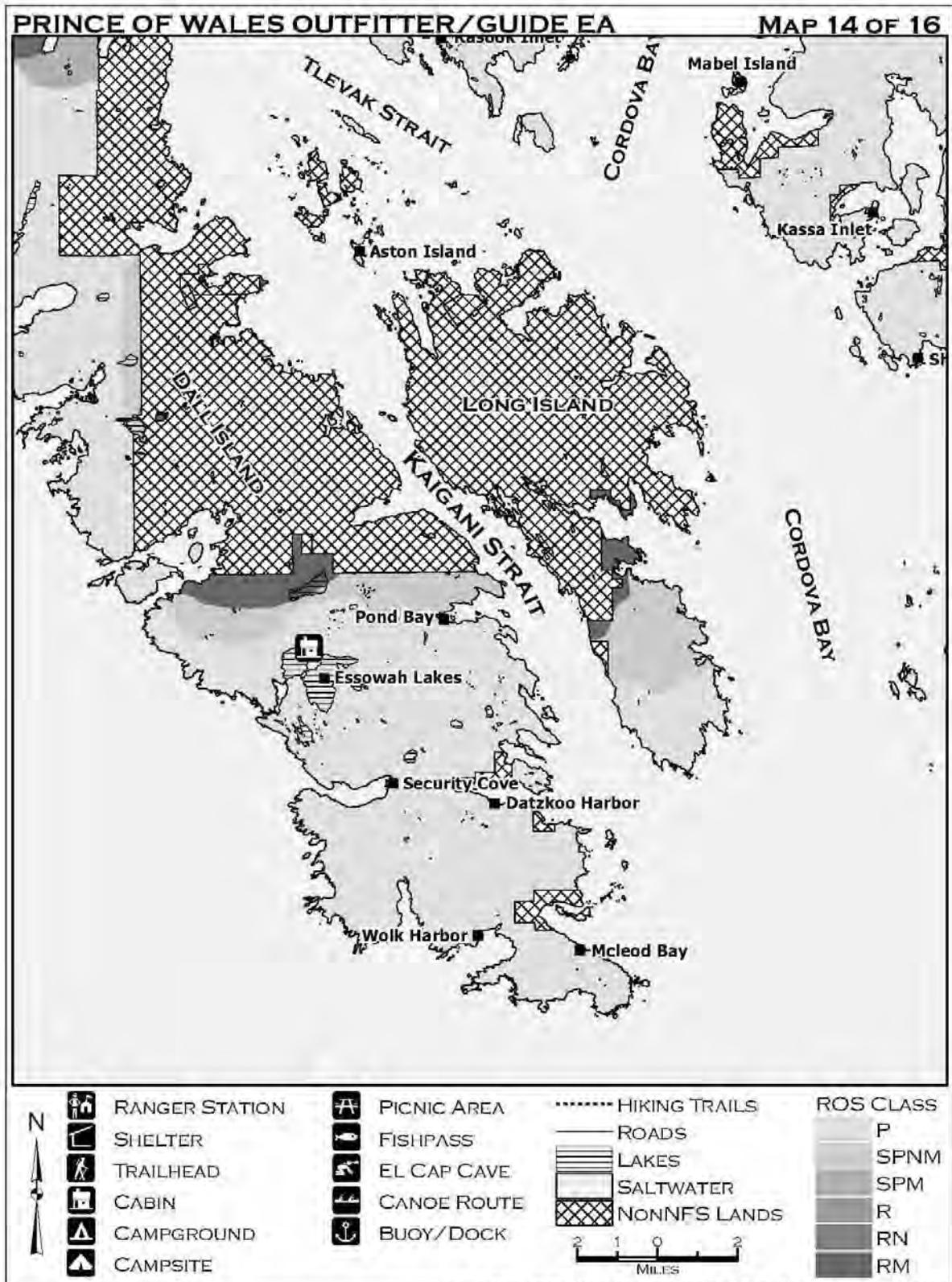
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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	and one must boat in or across Clarence Strait.						
Nichols Bay	65 air miles south of Craig. Extreme south end of POW. Unharvested.	none	none	Botany: <i>Cardamine angulata</i> and <i>Lonicera involucreta</i> found along a stream and the shoreline immediately North of the 1-mile buffer.	Wildlife: This is a shore access site; refer to shore site concerns. Waterfowl and trumpeter swans use this estuary. Disturbance to waterfowl is a concern.		
Shipwreck Point	48 air miles southeast of Craig in the South Prince of Wales Wilderness. Unharvested.	none	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Stone Rock Bay	67 air miles southeast of Craig at the extreme southeast corner of POW.	Private land	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Tah Bay	South Prince of Wales Wilderness Area. 30 air miles from Hydaburg. Old Growth Forest, shoreline. Access is available by boat or float plane and is difficult because	None nearby	none	Access: Access is difficult because it's remote with no road access and boat access is at least 40 miles.	Wilderness: Wilderness regs. must apply to all activities	Wildlife: This is a shore access site; refer to shore site concerns.	

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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	it's remote with no road access and boat access is at least 40 miles.						
The Saitchuck	15 miles Southwest of Thorne Bay and 15 miles northwest of Kasaan on FS 2030. Old mine site. Site of recent superfund clean-up project. Heavily roaded and timber harvested.	State land to the east.	trail and mine interpretation	Access: Access has greatly improved with the CERCLA clean-up, the mine site is currently accessible by gated road	Recreation: Visitors may enter the mine site and injure themselves.	Wildlife: See All Locations.	
Winter Bay	58 air miles southeast of Craig in the SPOW Wilderness.	none	none	Wildlife: This is a shore access site; refer to shore site concerns. Nesting colonies of seabirds occur on Barrier Islands.			

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Table A- 16) Group 14 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Aston Island	Shore	fishing, maybe hunting but it very little. Passive and active touring could take place here.	847	1	0	424	212	11
Datzkoo Harbor	Shore	hunting, freshwater fishing	847	4	0	424	212	44
Essowah Lakes	Remote	hunting, fishing, kayaking, boating, sightseeing	423	2	0	212	106	22
Kassa Inlet	Shore	hunting and fishing	2,822	14	26	1,411	706	29
Mcleod Bay	Shore	hunting	847	4	0	424	212	44
Pond Bay	Shore	hunting	847	1	0	424	212	11
Security Cove	Shore	hunting	847	2	0	424	212	22
Wolk Harbor	Shore	hunting	847	2	0	424	212	22
TOTAL			8,327	30	26	4,167	2,084	205

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Aston Island	Approximately 45 miles south of Craig, just north of Long Island and east of Dall Island. This small island is	Long Island and much of Dall is non FS land	none	Wildlife: This is a shore access site; refer to shore site concerns. Rocky shorelines provide habitat for nesting			

¹ This is the highest outfitter and guide use reported from 2005 to 2009. The number of permitted days appears in Alternative 1, the no action alternative.

² Alternative 1 – rows have zeros if there is no permitted use in those areas this year; however, there has been past use and will probably be use in the future.

³ Additional limitations related to fishing and/or hunting apply to the action alternatives as described in Chapter 2 of the EA

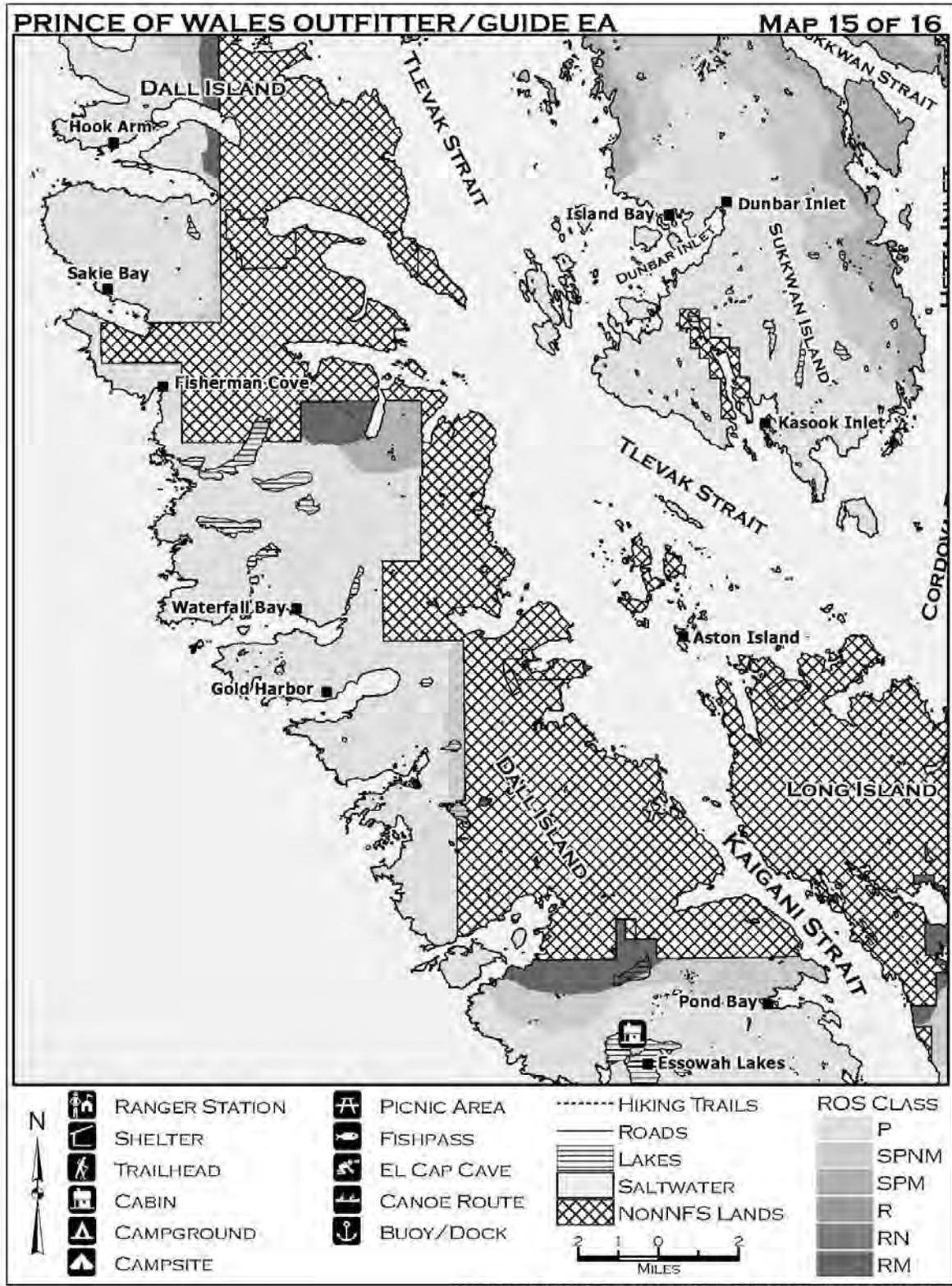
Prince of Wales Outfitter and Guide Management Plan

Recreation Use Area	Location	Nearby Commu- nities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
	remote and uncut, but logging operations are visible.			black oystercatchers. Disturbance to black oystercatchers is a concern. See mitigation measures.			
Datzkoo Harbor	About 90 miles south of Craig by boat. Located southeast Dall Island. Old Growth forest and saltwater anchorage.	One small private area to the west and another to the east about 3-4 miles.	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Essowah Lakes	90 miles south of Craig by boat. Old Growth, ocean shoreline, saltchuck.	none nearby	none	Access: Very remote on the open ocean. Limited visitation	Recreation: few visitors due to weather and remoteness	Wildlife: This very remote site provides important wintering habitat for trumpeter swans, and loons may use the lake.	
Kassa Inlet	About 55 miles south of Craig by boat. Old growth. Protected shoreline.	Encumbered land to the south	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Mcleod Bay	56 air miles south of Craig on Dall Island.	Haida Village	none	Wildlife: This is a shore access site; refer to shore site concerns. Rocky shorelines may provide habitat for black oystercatchers. Disturbance to black			

Prince of Wales Outfitter and Guide Management Plan

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
				oystercatchers is a concern. See mitigation measures.			
Pond Bay	49 air miles from Craig on the southeast corner of Dall Island. Unharvested	Sealaska	none	Wildlife: This is a shore access site; refer to shore site concerns.			
Security Cove	52 air miles south of Craig on Dall Island.	none	none	Wildlife: This is a shore access site; refer to shore site concerns. Trumpeter swans, waterfowl, and loons have been recorded in this area. Disturbance to waterfowl is a concern.			
Wolk Harbor	56 air miles south of Craig on Dall Island.	private land nearby	none	Wildlife: This is a shore access site; refer to shore site concerns.			

Prince of Wales Outfitter and Guide Management Plan



Prince of Wales Outfitter and Guide Management Plan

Table A- 17) Group 15 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Fisherman Cove	Shore	hunting, fishing	847	3	0	424	212	22
Gold Harbor	Shore	hunting, fishing	282	2	0	141	71	22
Hook Arm	Shore	hunting, fishing	847	4	0	424	212	22
Sakie Bay	Shore	hunting	847	2	20	424	212	22
Waterfall Bay	Shore	hunting	847	3	0	424	212	88
TOTAL			3,670	14	20	1,837	919	176

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Fisherman Cove	About 45 miles south of Craig by boat to northwest coast of Dall Island. Remote, undeveloped area. Old Growth forest and open ocean coast.	none nearby	none	Wildlife: This is a shore access site; refer to shore site concerns. Rocky shorelines provide habitat for black oystercatchers. Disturbance to black oystercatchers is a concern. See mitigation measures. Grey whales have			

¹ This is the highest outfitter and guide use reported from 2005 to 2009. The number of permitted days appears in Alternative 1, the no action alternative.

² Alternative 1 – rows have zeros if there is no permitted use in those areas this year; however, there has been past use and will probably be use in the future.

³ Additional limitations related to fishing and/or hunting apply to the action alternatives as described in Chapter 2 of the EA

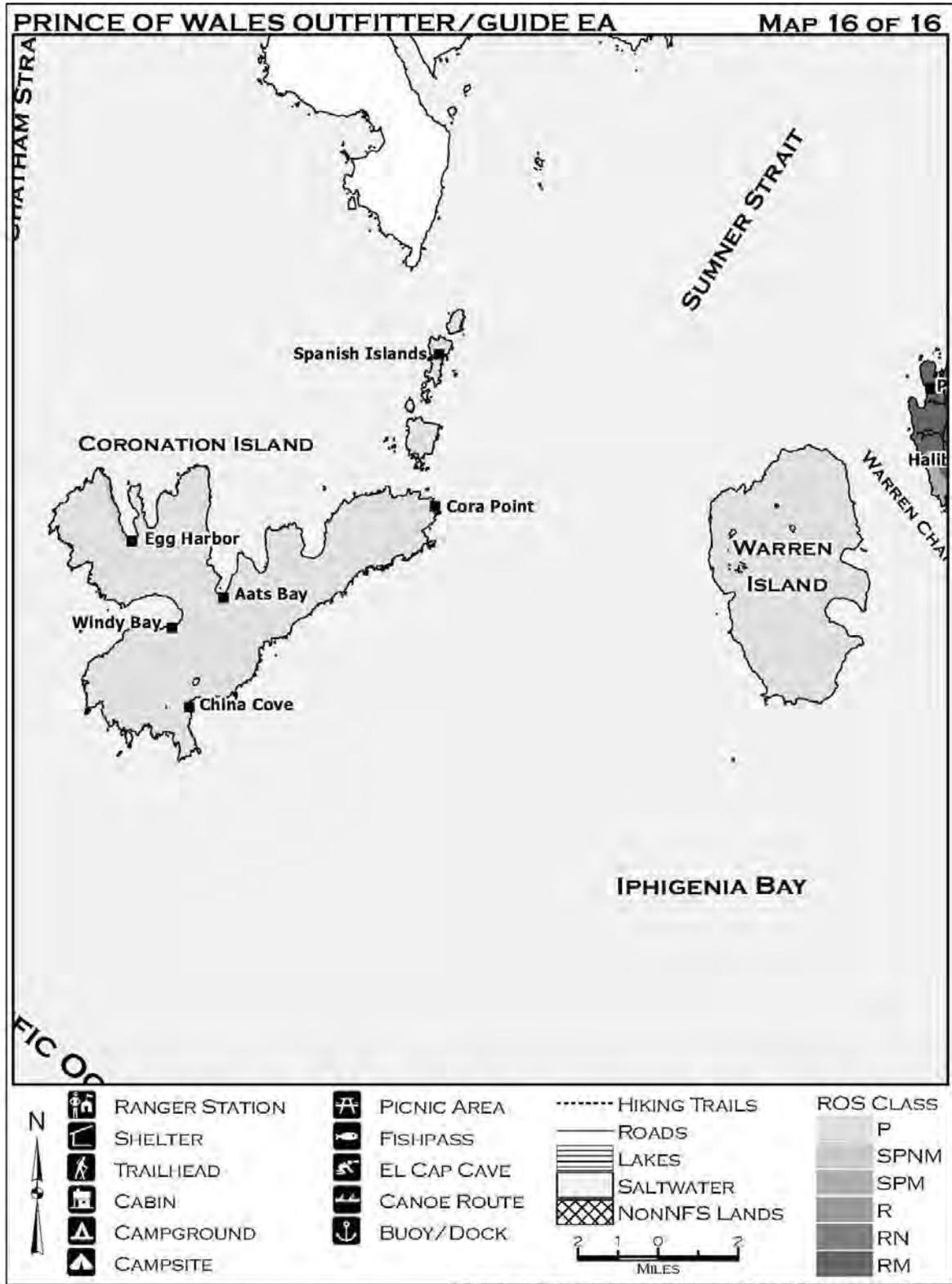
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Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
				been seen south of Fisherman Cove.			
Gold Harbor	About 45 miles south of Craig by boat to northwest coast of Dall Island. Remote, undeveloped area. Old Growth forest and open ocean coast.	none nearby	none	Wildlife: This is a shore access site; refer to shore site concerns. Rocky shorelines may provide habitat for nesting black oystercatchers. Disturbance to black oystercatchers is a concern. See mitigation measures.			
Hook Arm	About 45 miles south of Craig by boat to northwest coast of Dall Island. Remote, undeveloped area. Old Growth forest and open ocean coast.	Private land close to north	none	Recreation: Developed area may be seen and/or heard.	Wildlife: This is a shore access site; refer to shore site concerns. Rocky shorelines found here may provide habitat for black oystercatchers. Disturbance to black oystercatchers is a concern. See mitigation measures.		
Sakie Bay	29 air miles south of Craig on Dall Island.	Sealaska	none	Wildlife: This is a shore access site; refer to shore site concerns. Known sea lion haulout occurs at			

Prince of Wales Outfitter and Guide Management Plan

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
				Sakie Point.			
Waterfall Bay	37 air miles south of Craig on Dall Island.	Sealaska	none	Wildlife: This is a shore access site; refer to shore site concerns.			

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Prince of Wales Outfitter and Guide Management Plan

Table A- 18) Group 16 Recreation Use Areas with Service Days (SDs)

Recreation Use Area	Access	Area Uses	Recreation Visitor Capacity (SDs)	Highest Annual Use ¹	Alternative 1 ² (SDs)	Alternative 2 ³ (SDs)	Alternative 3 ³ (SDs)	Alternative 4 ³ (SDs)
Aats Bay	Shore	Most people beach comb or look at caves.	309	24	63	155	77	69
China Cove	Shore	Most people beach comb or look at caves.	309	36	63	155	77	69
Cora Point	Shore	Most people beach comb or look at caves.	309	55	42	155	77	46
Egg Harbor	Shore	hiking	309	29	20	155	77	22
Spanish Islands	Shore	camping	309	24	0	155	77	26
Windy Bay	Shore	camping	309	24	63	155	77	69
TOTAL			1,854	192	251	930	462	301

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
Aats Bay	Coronation Wilderness Area. 50 air miles from Craig. Old Growth but small trees. Rugged shoreline. Sea caves.	none nearby	none	Recreation: Locals want undeveloped access so that there is less competition to favored sites	Wilderness: Wilderness regs. must apply to all activities	Wildlife: This is a shore access site; refer to shore site concerns. Rocky shorelines may provide habitat for nesting black oystercatchers. Disturbance to black oystercatchers is a concern. See	

¹ This is the highest outfitter and guide use reported from 2005 to 2009. The number of permitted days appears in Alternative 1, the no action alternative.

² Alternative 1 – rows have zeros if there is no permitted use in those areas this year; however, there has been past use and will probably be use in the future.

³ Additional limitations related to fishing and/or hunting apply to the action alternatives as described in Chapter 2 of the EA

Prince of Wales Outfitter and Guide Management Plan

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
						mitigation measures.	
China Cove	Coronation Wilderness Area. 50 air miles from Craig. Old Growth but small trees. Rugged shoreline. Sea caves. Challenging due to remoteness and lack of roads.	none nearby	none	Recreation: Used by a permit holder. No signs of use evident during monitoring	Wilderness: Wilderness regs. must apply to all activities	Wildlife: This is a shore access site; refer to shore site concerns. Steep cliff walls may make appropriate habitat for nesting seabirds and peregrine falcons.	
Cora Point	Coronation Wilderness Area. 50 air miles from Craig. Old Growth but small trees. Rugged shoreline. Sea caves.	none nearby	none	Recreation: Use by permit holder. Monitoring has shown little evidence of use.	Wilderness: Wilderness regs. must apply to all activities	Wildlife: This is a shore access site; refer to shore site concerns.	
Egg Harbor	Coronation Wilderness Area. 50 air miles from Craig. Old Growth but small trees. Rugged shoreline. Sea caves. Access occurs by floatplane or boat and is challenging due to remoteness and lack of roads.	none nearby	none	Botany: Rare plant populations known near the shoreline. Recommend future monitoring.	Wilderness: areas within wilderness have had observable social and resource impacts for the past several years during wilderness monitoring trips. Wilderness regs. must apply to all activities; consider recommendation that commercial	Wildlife: This is a shore access site; refer to shore site concerns. Mud or sand flats that may be good habitat for shorebirds. Rocky shorelines may provide habitat for black oystercatchers. Disturbance to black oystercatchers is	

Prince of Wales Outfitter and Guide Management Plan

Recreation Use Area	Location	Nearby Communities and non-NFS Land	Forest Service Facilities	Resource Information	Resource Information	Resource Information	Resource Information
					outfitter and guide services be restricted.	a concern. See mitigation measures. Critical habitat is identified for a sea lion haulout at Alikula Bay just east of Egg Harbor. No shore landing is authorized in Alikula Bay within 3000 feet of the Coronation Island sea lion haulout site.	
Spanish Islands	52 air miles northwest of Craig in the Coronation Island Wilderness.	none	none	Wilderness: Wilderness regs. must apply to all activities	Wildlife: This is a shore access site; refer to shore site concerns. Offshore seabird species may occur here.		
Windy Bay	52 air miles northwest of Craig in the Coronation Island Wilderness.	none	none	Botany: Several known rare plant populations. Recommend future surveys of high use areas and follow-up monitoring.	Wilderness: Wilderness regs. must apply to all activities	Wildlife: This is a shore access site; refer to shore site concerns.	

Recreation Visitor Capacity Analysis
Amended August, 2011

Craig Ranger District

Thorne Bay Ranger District



Prepared By: *1/s Melanie M. Slayton*

Date: 12/15/2010

Amended By: *1/s Melanie M. Slayton*

Date: 08/31/2011

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Cover Photo: El Capitan Cave Entrance – from the inside looking out

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INTRODUCTION

The need for a recreation visitor capacity analysis was identified in response to several factors: a management decision to cap the number of guided bear hunts allowed; a perception by ADF&G that there were too many guided bear hunts allowed; new Forest Service Handbook direction allowing the issuance of 10-year priority use outfitter-guide permits; and a perception of overcrowding by local residents and Forest Service personnel.



Black Bear in Alpine

PURPOSE

The carrying capacity model provides a basis for examining several important interactions: between supply and demand considerations, between concerns about resource conditions and perceived recreational quality, and between the quantity of recreational opportunities supplied and the quality of experiences derived from them (Stankey & Manning, 1986).

The purpose of this analysis is to determine a sustainable level of outfitter-guide use on the Thorne Bay and Craig Ranger Districts, while limiting impacts to the environment, local economy and visitor experience.

STUDY AREA

The study area includes all of the Thorne Bay and Craig Ranger Districts, Tongass National Forest, Alaska. Thorne Bay and Craig Ranger Districts are located primarily on Prince of Wales Island.

Prince of Wales (POW) Island and its surrounding islands are part of the Alexander Archipelago located at the southeastern end of the Alaskan mainland. The island is 135 miles long and 45 miles wide, encompassing an area of 2,577 mi². There are over 990 miles of coastline within the study area.

The temperate climate is influenced by the Japanese current and gives Prince of Wales Island between 60 and 200 inches of precipitation per year. Mean temperatures range from around 35 degrees in January to about 58 degrees in July. Daylight on the longest day of the year is about 15½ hours with about 7 hours on the shortest day of the year. Most of the island is characterized by steep, forested mountains (2,000-3,000 feet high) carved by glacial ice which left deep U-shaped valleys with streams, lakes, saltwater straits and bays. The forest is made up of Sitka spruce and western hemlock with some western red and yellow cedar, alder, and shore pine. Sitka black tailed deer and black bear are the primary game animals, and the island supports several packs of wolves. The streams and lakes contain a variety of trout, and all of the major drainages have a salmon spawning run. Eagles are a common sight and waterfowl abound during the nesting season (Prince of Wales Chamber of Commerce, 2008).

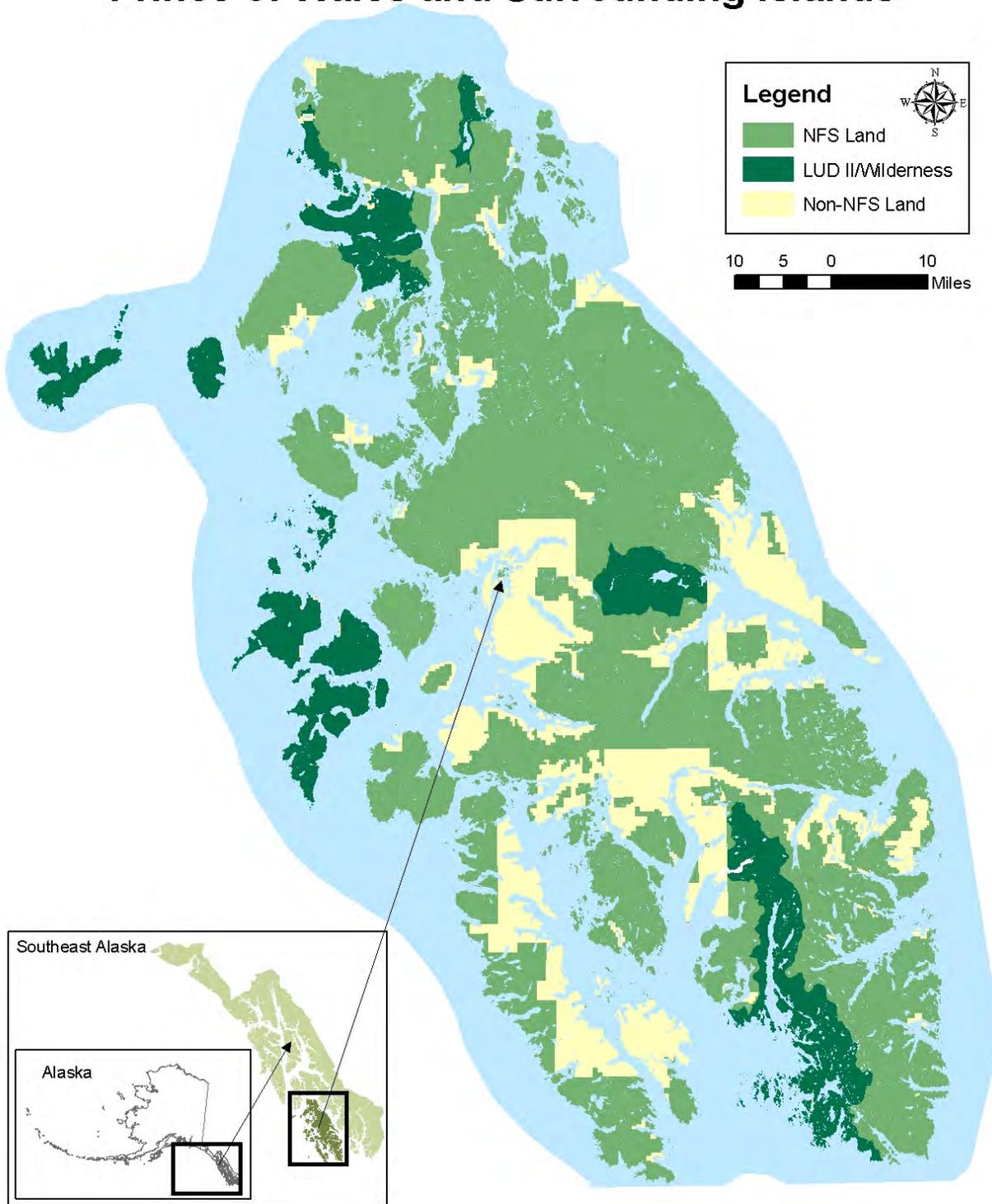


Mount Calder

Prince of Wales Island has more roads than any other area in southeast Alaska. Many of these roads are the legacy of the island's timber industry. POW boasts about 105 miles of paved road, nearly 155 miles of improved gravel roads, and over 2,000 miles of shot-rock logging roads (USDA Forest Service, 2008).

Figure 1 - Map of the Study Area

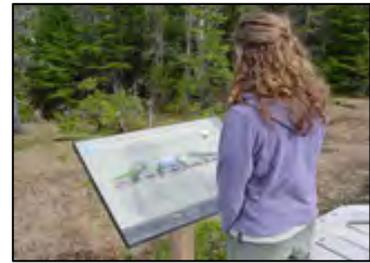
Prince of Wales and Surrounding Islands



TOURISM AND TOURISM ECONOMICS

Southeast Alaska

Recreation opportunities in Southeast Alaska are growing with increased tourism to the area. Nearly 1 million tourists visited Southeast Alaska in 2004 (Cervený, 2005), with seventy-five percent arriving by cruise ship. Non-cruise tourists tend to either utilize package deals designed to provide transportation, lodging, meals and activities or visit as independent travelers. These independent travelers design their own travel itineraries and tend to utilize public transportation systems and stay in the local communities. For the majority of Alaska visitors, it is important to experience the natural resources, cultural history and wildness of the region. Many have expectations of seeing glaciers, wildlife or being able to bring home wild game and fish. According to Cervený (2005), “tourism providers often rely on public lands to bring guest closer to glaciers, bears, and whales.” For example, in 1998, 262 outfitter and guide permits were issued for commercial use of the Tongass National Forest (USDA Forest Service, 1999). In 2001, it was estimated that 188,000 visitors participated in guided commercial tours on Tongass National Forest lands (Cervený, 2005). The direct and indirect economic value of tourism to Alaska is estimated to be \$1.5 billion, and provides approximately 26,000 jobs (Global Insight, 2004). Recreation opportunities on the Tongass National Forest are an important part of Alaska’s tourism and economic sustainability.



Interpretive sign at Beaver Falls Trail

Prince of Wales

Prince of Wales Island tourism is limited by its remoteness. Cruise ships do not travel to Prince of Wales and until recently, the ferry system only traveled to Prince of Wales once a week and the island road system was not paved between most of the island communities. Federal Highway grants, however, have expanded the paved road system throughout the island, while the new privately owned Inter-island ferry system transports people to Prince of Wales on a daily basis. A newly constructed ferry terminal in Coffman Cove and continued road development are predicted to increase tourism to the island. The majority of tourists to

Nearly 1 million tourists visited Southeast Alaska in 2004.

Prince of Wales Island and the surrounding area come to fish and hunt. Independent travelers comprise a small percentage of the area’s tourism. The extensive road system provides a unique tourism opportunity in Southeast Alaska for access to fishing, hunting and other forms of recreation.

RECREATION VISITOR CAPACITY

There are many methods for determining recreation visitor capacity, ranging from a simple calculation of total area divided by desired user density, to a complex planning and management framework. Factors that can affect recreation capacity are related to facility design, social expectations, and land management policy and direction.

Ultimately, capacity is a measurement of volume or “how much”, and is most easily understood as a numerical value. A mathematical formula is used to determine the number of recreation

visitors that can be accommodated at a recreation location, while balancing the need for a variety of visitor experiences, and following Forest Plan direction.

The two dynamics, a variety of visitor experience and following Forest Plan direction, have been distilled into several variables and constants, which will be described in the following sections. The recreation visitor capacity has been calculated for every location that has reported use or has been requested for use by an outfitter-guide using the Recreation Visitor Capacity Formula.

Data Collection

Outfitter-guides permitted to operate within the analysis area are required to return actual use reports recording the type of use, location and number of clients. The actual use reports are used by permit administrators to determine the annual fees paid by each guide and to evaluate their performance. The actual use data is also used for statistical analysis. This resource capacity analysis is based on actual use reports submitted by permitted outfitters and guides operating between 2004 and 2008, the *analysis period*.

It is important to note that the number of days derived from the actual use reports used in this analysis represent *location days*, not *service days* or *recreation visitor days*. The Forest Service Handbook (FSH 2709.11 §41.53d) defines service days as: *An allocation of use constituting a day or any part of a day on National Forest System (NFS) lands for which an outfitter or guide provides services to a client. The total number of service days is calculated by multiplying each service day by the number of clients on the trip.* Service days are used to calculate fees paid by outfitter-guides and often a service day may be used in multiple locations or represent more than one activity, if the activities are similar.

The term *Recreation Visitor Day*, or RVD, is equal to 12 hours of recreation use on National Forest System lands or water by an outfitted or guided client(s). One RVD may be one client for 12 hours, 12 clients for one hour, or any combination that equals 12 hours of use on National Forest System lands. The inherent problem with using RVDs to determine recreation carrying capacity at a location is that it assumes that there is no difference between one client for 12 hours and 12 clients for one hour.

A *location day* represents 1 client in 1 location, regardless of the fee paid or time spent on NFS lands. This distinction is most noticeable when dealing with big game hunts, which are allocated as 1 hunt = 1 client. A single hunt may represent 14 days of use with multiple locations visited each day.

Data Errors

There are several known data errors that have been mitigated in this report:

Table 1 - Data Errors

<i>Error Type</i>	<i>Mitigation</i>
<i>Data Entry</i>	<i>Reviewed original actual use report.</i>
<i>Activity</i>	<i>Similar activities were consolidated. For example, Hunting - Black Bear (Camping) and Hunting - Black Bear (Day Use) were combined into Hunting - Black Bear.</i>
<i>Location</i>	<i>Some locations merited consolidation. For example, Old Tom Creek and Tom Creek were recorded as separate locations. Note: the location name retained</i>

Prince of Wales Outfitter and Guide Management Plan

	<i>in the data was verified in the Geographic Name Information System.</i>
<i>Missing Data</i>	<i>One of the more active outfitter-guides operating on Prince of Wales was unable to return an actual use report in 2005. After reviewing the available actual use records for the analysis period, the actual use data for 2006 was duplicated for 2005. The total actual use for this guide in 2006 was less than in 2004, which should prevent a false inflation of actual use.</i>

Business Locations

A total of 50 outfitter-guides operated on the Prince of Wales Island Districts during 2004-2008. The business location for each outfitter-guide is determined by the address on the most current business license submitted as part of their annual operating plan and has been characterized as one of the following:

Table 2 - Business Locations

<i>Business Location</i>	<i>Description</i>
<i>Prince of Wales Island</i>	<i>Prince of Wales and surrounding islands</i>
<i>Southeast Alaska</i>	<i>Southeast Alaska - exclusive of Prince of Wales and surrounding islands</i>
<i>Alaska</i>	<i>Alaska - exclusive of Prince of Wales Island and the rest of Southeast Alaska</i>
<i>Outside Alaska</i>	<i>Outside of Alaska</i>

Seventy six percent of the businesses were located within Alaska, primarily in the Southeast. Twelve outfitter-guide businesses were located outside of Alaska.

Figure 2 – Outfitter-Guides by Business Location

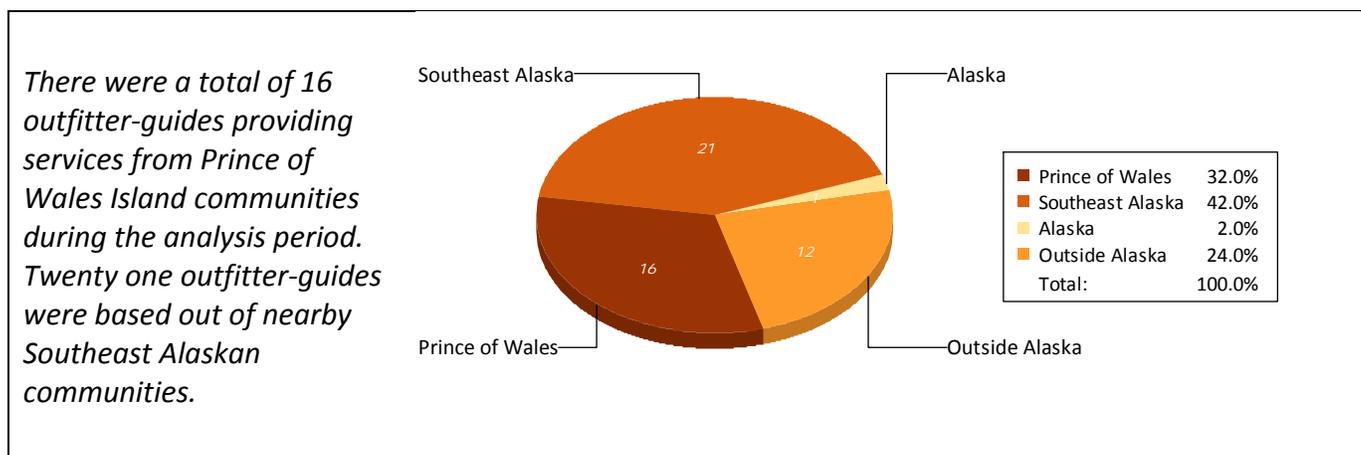


Table 3 - Years in Operation by Business Location

	1	2	3	4	5	Total
<i>Total</i>	15	11	8	1	15	50
<i>Prince of Wales Island</i>	4	6	2	1	3	16
<i>Southeast Alaska</i>	7	3	3	0	8	21
<i>Alaska</i>	0	0	1	0	0	1
<i>Outside Alaska</i>	4	2	2	0	4	12

Thirty percent of the outfitter-guides operated all 5 years, while another 30% operated for only a single year.

Types of Use

There were a total of 16 different activities recorded during 2004-2008 by outfitter-guides within the analysis area. The activities ranged from passive, short term activities such as wildlife viewing to more active, multi-day activities like big game hunting. These activities have been grouped into six activity types, based on similarity of experience, in order to better understand the nature of outfitter-guide use within the analysis area.

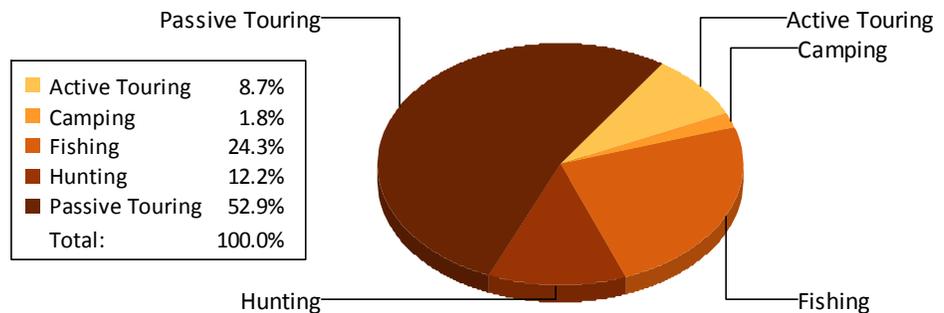
Prior to 2004, fishing was the dominant use. The increase in passive touring can be attributed to several operators that began providing fly-in nature viewing opportunities to cruise ship visitors from Ketchikan. The almost steady increase in location days since 2004 indicates that passive touring is likely to remain the dominant use in the future.

Table 4 - Activity Types

<i>Activity Type</i>	<i>Activity</i>
<i>Active Touring</i>	<i>Biking</i>
	<i>Hiking</i>
	<i>Kayaking</i>
<i>Camping</i>	<i>Camping</i>
<i>Fishing</i>	<i>Fishing</i>
	<i>Steelhead Fishing</i>
<i>Hunting</i>	<i>Black Bear</i>
	<i>Deer</i>
	<i>Waterfowl</i>
	<i>Wolf</i>
	<i>Combination Hunts</i>
<i>Passive Touring</i>	<i>Nature Viewing</i>
	<i>Sightseeing</i>
	<i>Wildlife Viewing</i>
<i>*One of the above</i>	<i>Outfitting</i>
	<i>Transporting</i>

Figure 3 – Percentage of Use by Activity Type

During the analysis period, passive touring represented 52.9% of the guided use in the analysis area. Combined with fishing (24.3%), they comprise more than 77% of the outfitter-guide services on Prince of Wales and surrounding islands. Hunting represents 12.2% of location days, followed by active touring with 8.7%.



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Table 5 – Location Days by Activity Type

	2004	2005	2006	2007	2008	Total
<i>Total</i>	3,076	3,207	3,391	2,834	3,325	15,833
<i>Active Touring</i>	398	224	255	327	171	1,375
<i>Camping</i>	8	48	88	84	60	288
<i>Fishing</i>	911	946	759	599	633	3,848
<i>Hunting</i>	429	286	348	347	529	1,939
<i>Passive Touring</i>	1,330	1,703	1,941	1,477	1,932	8,383

The reduced number of location days in 2007 is due to an accident that shut down one operator for several weeks.

Ten operators provided active touring during the analysis period. The largest, providing 1,115 location days, began operating in 2004, and accounts for more than 80% of all Active Touring on Prince of Wales Island.

Camping represents the least amount of commercial use on Prince of Wales and surrounding islands. Camping use almost doubled in 2006; however the use levels are still low.

Fishing and hunting combined represent 36.5% of the total location days during the analysis period. The number of hunting guides is stable due to an administrative cap on the number of guided black bear hunts allowed in the analysis area. There have been requests from existing guides for additional hunts, as well as new proposals for additional big game guiding.

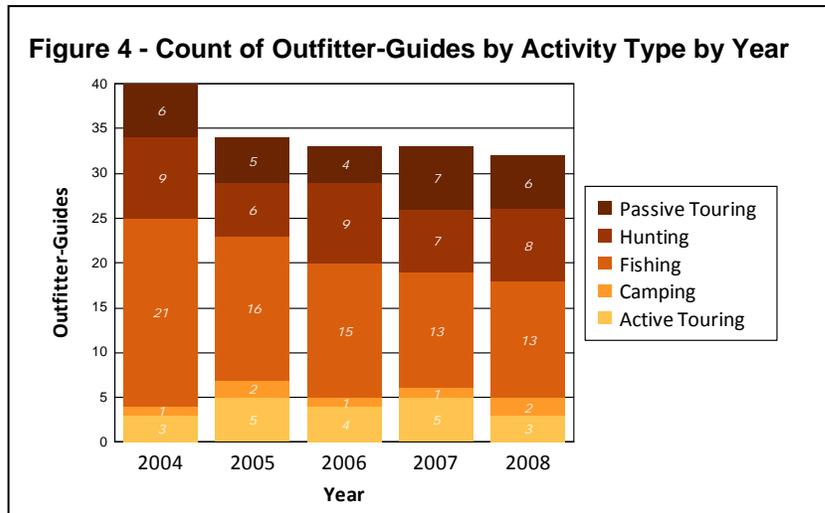
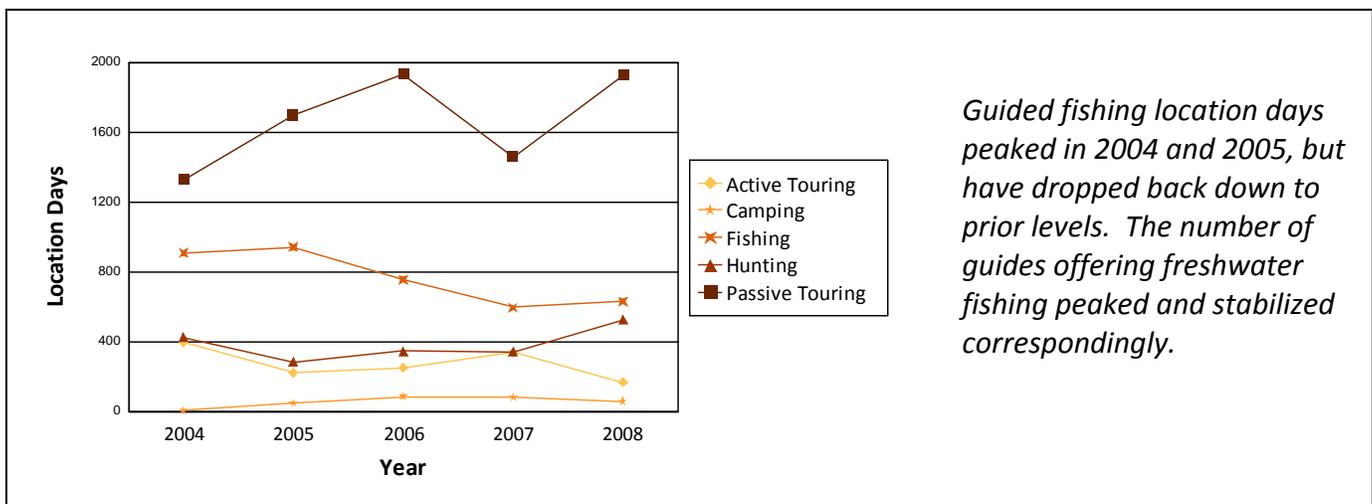


Figure 5 - Activity Type Trends

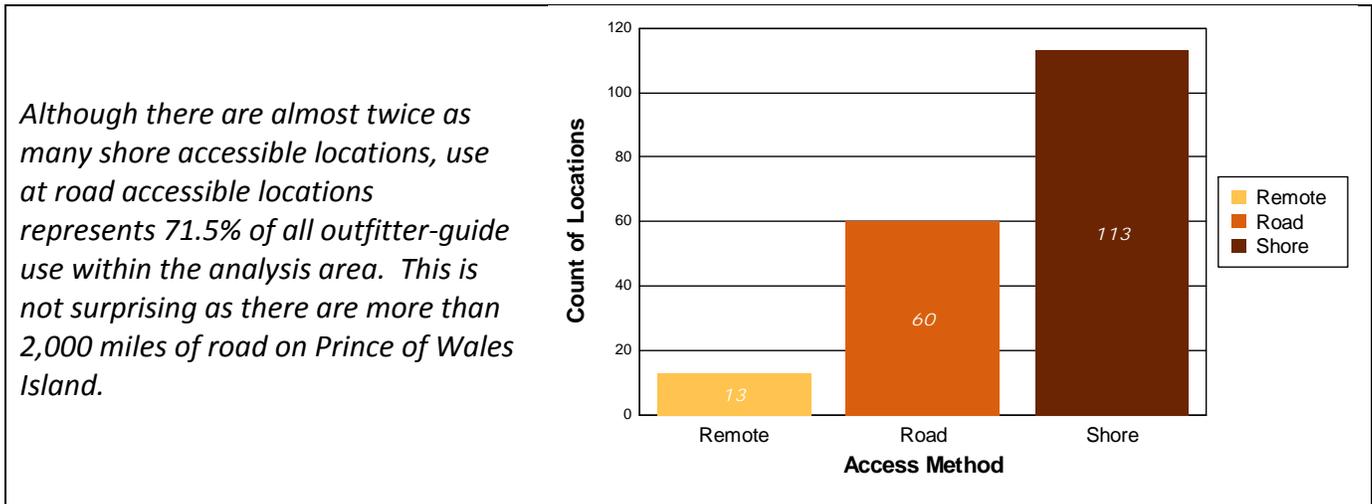


Guided fishing location days peaked in 2004 and 2005, but have dropped back down to prior levels. The number of guides offering freshwater fishing peaked and stabilized correspondingly.

Access

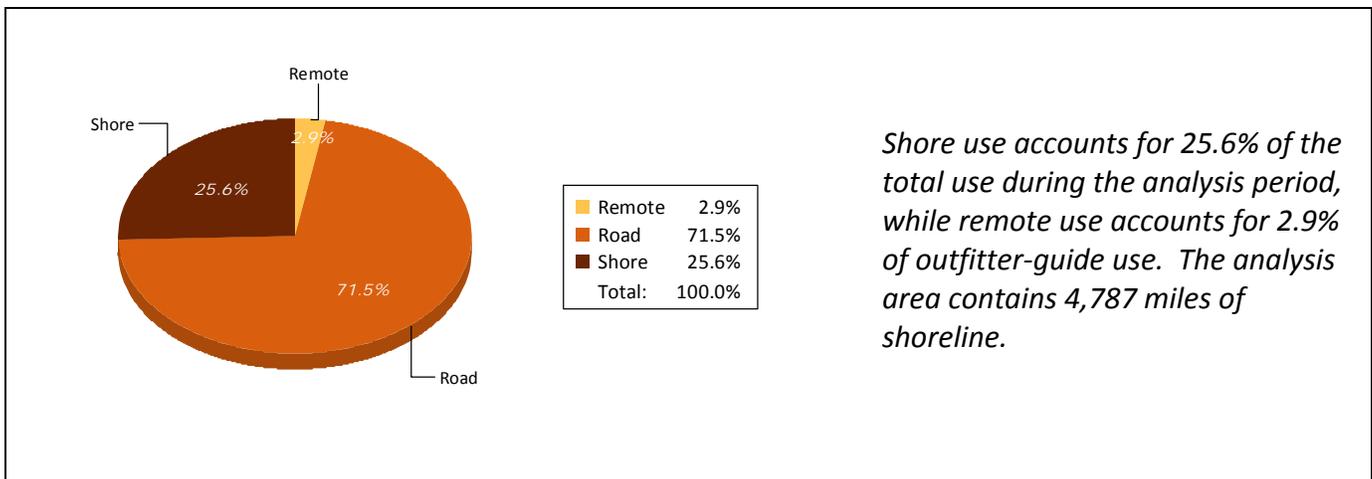
There are three methods of access: road, shore, and remote. To be considered road accessible, a location needs to be within easy walking distance of a road. Similarly, shore accessible locations are near the shore. A location that is considered remote is only accessible by float plane or hiking a considerable distance. The type of access designated to a location is determined by the simplest form of access available. For example, although the preponderance of use at the Dog Salmon Fishpass is accessed by float plane, the site itself is road accessible. On Prince of Wales and the surrounding islands there are 113 shore accessible locations, 60 accessible by road, and only 13 remote locations identified as currently in use by outfitter-guides, based on the actual use reports for the study period. Refer to the Locations section on page 9 for more information.

Figure 6 - Locations by Access Method



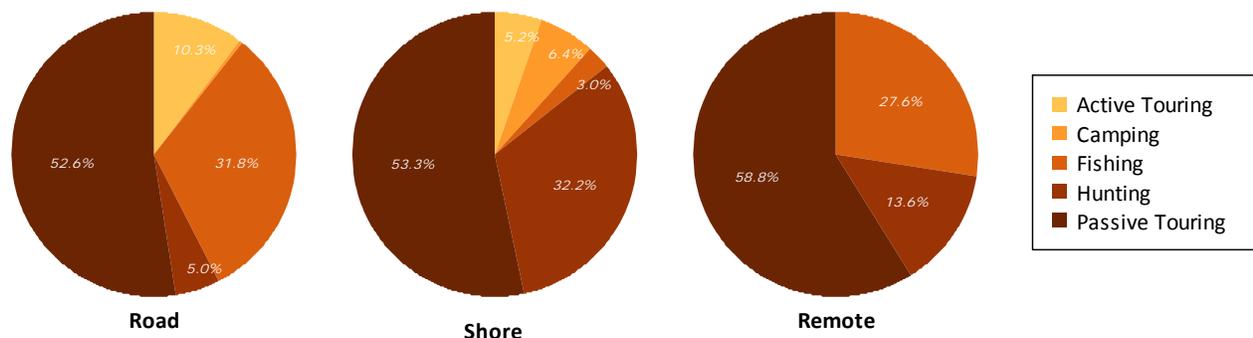
Only sites on the road system of Prince of Wales Island are considered road accessible. Although a few of the larger surrounding islands have an extensive logging road system, the islands themselves are not connected with Southeast Alaska by a ferry system. Thus, any vehicle use on these islands represents a significant investment in time, money and energy; and all sites not on the shore of the surrounding islands are considered remote.

Figure 7 - Percentage of Use by Access Method



Passive touring is the dominant activity type, regardless the access method. But for road accessible locations this represents a distortion of the actual access method, as a single operator provided 5,721 location days at Dog Salmon Fishpass during the analysis period. And, although Dog Salmon Fishpass is located on the road system, the outfitter-guide was providing floatplane based wildlife viewing to cruise ship tourists from Ketchikan. Thus, the typical activity types actually accessed by road within the analysis area would be fishing, active touring, and hunting.

Figure 8 - Percentage of Use by Activity Type and Access



Values less than 1% not shown.

Table 6 – Location Days by Activity Type and Access Method

	Road	Shore	Remote	Total
<i>Total</i>	11,320	4,057	456	15,833
<i>Active Touring</i>	1,164	211	0	1,375
<i>Camping</i>	30	258	0	288
<i>Fishing</i>	3,602	120	126	3,848
<i>Hunting</i>	571	1,306	62	1,939
<i>Passive Touring</i>	5,953	2,162	268	8,383

For shore accessible locations, passive touring and hunting are the dominant activity types, while passive touring and fishing are the activity types of choice for remote locations.

Locations

During the analysis period 186 locations were identified as used by outfitter-guides. Every location can be uniquely described by several attributes:

Table 7 - Location Attributes

<i>Attribute</i>	<i>Description</i>
<i>Dominant Activity</i>	<i>The activity type with the most use reported. This may vary over time as commercial use patterns change.</i>
<i>Access Method</i>	<i>Road, Shore, or Remote. Refer to section on Access.</i>
<i>Land Use Designation (LUD)</i>	<i>Determined by the Forest Plan.</i>
<i>Managed Recreation Opportunity Spectrum (MROS)</i>	<i>Determined by LUD and Forest Plan. Refer to section on Encounters.</i>

Of the top ten locations, five rank in the top ten for fishing, four for passive touring, and one for active touring.

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The top 5 active touring locations are all found on the north end of Prince of Wales Island, and can be attributed to a single outfitter-guide providing services from the nearby community of Whale Pass. As active touring requires a certain level of coordination, transportation and, often, equipment, it is no surprise that all of these locations are on the road system and that three of the locations are trails or recreation sites maintained by the Forest Service.

All 5 top camping locations are located along the shoreline in the Coronation Island Wilderness, one of the outlying islands to the northwest of POW Island, where a single operator provides an annual, week-long camping/kayaking expedition for a small group.

The top five fishing locations are all in the top ten for overall use. They are also road accessible, near communities, and popular fishing locations for local residents, subsistence fishing, and unguided visitors.

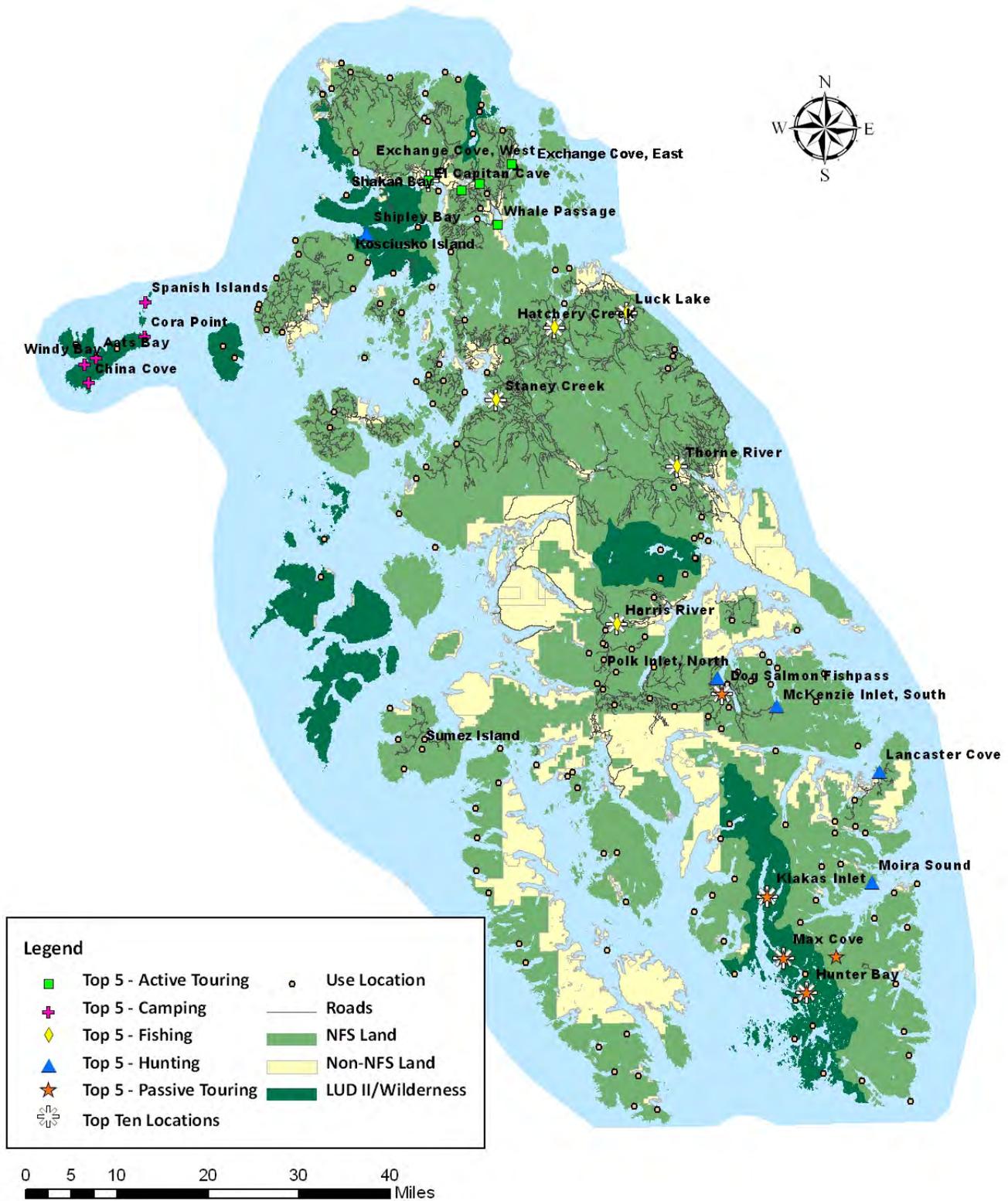
Four of the five top locations for hunting are located on the southeast coast of Prince of Wales Island. Two of the locations are road accessible. The other 3 are shore accessible. However, more than 80% of all guided hunts are conducted by motorized boat, and only a single guide provides hunting on the road system.

The top five passive touring locations are all located on the south end of POW, most likely due to its proximity to Ketchikan and the large number of cruise ship passengers seeking flightseeing tours. Four of the sites are shore accessible, 3 of which are located in the South Prince of Wales Wilderness. The 5th site, Dog Salmon Fishpass, is ranked #1 for overall use, where a single operator represents 100% of all the guided use.

Table 8- Top 10 Locations

<i>Top Ten Locations</i>				Active Touring	Camping	Fishing	Hunting	Passive Touring
<i>Location</i>	<i>Rank</i>	<i>Access</i>	<i>Total</i>					
<i>Dog Salmon Fishpass</i>	1	Road	5,721					5,721
<i>Thorne River</i>	2	Road	867		6	861		
<i>Staney Creek</i>	3	Road	690			684	4	2
<i>Klakas Inlet</i>	4	Shore	581			12	41	528
<i>Harris River</i>	5	Road	508	1		482	25	
<i>Max Cove</i>	6	Shore	396				25	371
<i>El Capitan Cave</i>	7	Road	384	383				1
<i>Hunter Bay</i>	8	Shore	256			18	12	226
<i>Luck Lake</i>	9	Road	248			248		
<i>Hatchery Creek</i>	10	Road	240			240		

Figure 9 - Outfitter Guide Use Map



ANALYSIS

Recreation Visitor Capacity

In order to identify areas of concern, it is first necessary to determine if the level of use at a location has exceeded a definable quantity, or capacity. It is equally important to be able to adapt to changes in visitor use patterns, and incorporate new requests for commercial use into the current mix of recreation opportunities. For this analysis, the recreation visitor capacity will be determined for every location that has reported use by an outfitter-guide using the following formula:

Figure 10 – Recreation Visitor Capacity Formula

$$\frac{\text{Maximum Group Size (MG)} * \text{Encounters (E)} * \text{Season Days (SD)}}{\text{Temporal Displacement Factor (TD)}} \times \text{Service Day Conversion Ratio}$$

The Maximum Group Size is multiplied by the number of Encounters allowed between groups. This gives the number of location days per day. Multiplying the number of location days per day by the number of days in a season (Season Days) results in the maximum number of location days per year. Divide the maximum number of location days per year by the Temporal Displacement Factor and the result is the Recreation Visitor Capacity expressed in location days. Finally, multiply the recreation visitor capacity by the ratio of location days to service days (Service Day Conversion Ratio). The result is the recreation visitor capacity, expressed in service days.

This same formula will be used to determine the capacity of locations that may be used in the future. The variables for calculating the recreation visitor capacity of a location are detailed in the following sections.

Maximum Group Size

Group sizes tend to vary according to activity type, with 12 being the largest recorded group size. The term “capacity” implies a maximum amount; consequently, a Maximum Group Size constant has been determined, based on the following group size statistics developed from actual use data for the analysis period. The exception is fishing, which has an established maximum group size of 6, based on current planning decisions. (USDA Forest Service, 1998)

Table 9 - Group Size Statistics

<i>Group Size Statistics</i>	<i>Smallest Group Size</i>	<i>Average Group Size</i>	<i>Largest Group Size</i>	<i>Maximum Group Size</i>
<i>Activity Type</i>				
<i>Active Touring</i>	1	4	12	12
<i>Camping</i>	2	7	12	12
<i>Fishing</i>	1	3	12	6
<i>Hunting</i>	1	2	6	6
<i>Passive Touring</i>	1	6	12	12

Encounters

A discussion regarding Encounters starts with a discussion of the Recreation Opportunity Spectrum (ROS). ROS is a classification system used to describe recreation settings. Recreation settings are diverse and range from primitive to urban, with all the variations in between. (USDA Forest Service, 1982) The Tongass National Forest Land and Resource Management Plan (Forest Plan) directs recreation specialists to use the ROS system to assess the potential effects of activities on recreation settings. (USDA Forest Service, 2008)

Each ROS class has seven setting indicators: Scenic Quality, Access, Remoteness, Visitor Management, On-site Recreation Development, Social Encounters, and Visitor Impacts. Each setting indicator has applicable standards and guidelines for managing the setting. For example, the standards and guidelines for the Primitive class, Visitor Impact indicator states:

Visitor-caused impacts to resources are slight and usually not noticeable the following year. Site hardening is limited to boardwalk trails and necessary boat moorings or bear-proof food caches and rustic public recreation cabins.

Using the ROS system allows land managers to quantify levels of use, typically defined as Low, Moderate or High. In analyzing outfitter-guide use at a location, the most meaningful indicator is Social Encounters.

Table 10 - Social Encounters Indicator

<i>Social Encounters Indicator</i>	<i>High</i>	<i>Moderate</i>	<i>Low</i>
<i>ROS Class</i>			
<i>Primitive</i>	<i>>3</i>	<i>3</i>	<i>1</i>
<i>Semi-Primitive Non-Motorized</i>	<i>>10</i>	<i>10</i>	<i>3</i>
<i>Semi-Primitive Non-Motorized - Wilderness</i>	<i>>6</i>	<i>6</i>	<i>3</i>
<i>Semi-Primitive Motorized</i>	<i>>10</i>	<i>10</i>	<i>3</i>
<i>Roaded Natural</i>	<i>>20</i>	<i>20</i>	<i>10</i>
<i>Roaded Modified</i>	<i>>20</i>	<i>20</i>	<i>10</i>
<i>Rural</i>		<i>No limit</i>	
<i>Urban</i>		<i>No limit</i>	

The *Managed Recreation Opportunity Spectrum* (MROS) determines which ROS Class to apply to each location. The MROS describes the desired condition for a location and can be found in the Tongass National Forest Land and Resource Management Plan (Forest Plan) by referencing the Recreation and Tourism Standards and Guidelines for the Land Use Designation (LUD) for each location. The following table represents the MROS for each LUD:

Table 11 - MROS by LUD

<i>LUD</i>	<i>MROS</i>
<i>Experimental Forest (EF)</i>	<i>Semi-Primitive Non-Motorized/Semi-Primitive Motorized</i>
<i>Land Use Designation II (L2)</i>	<i>Primitive/ Semi-Primitive Motorized</i>
<i>Modified Landscape (ML)</i>	<i>Roaded Modified</i>
<i>Old Growth (OG)</i>	<i>Semi-Primitive Non-Motorized/Semi-Primitive Motorized</i>
<i>Recreational River (RR)</i>	<i>Roaded Natural</i>
<i>Research Natural Area (RA)</i>	<i>Primitive</i>
<i>Remote Recreation (RM)</i>	<i>Primitive</i>
<i>Scenic River (SR)</i>	<i>Semi-Primitive Non-Motorized/Semi-Primitive Motorized</i>

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<i>Scenic Viewshed (SV)</i>	<i>Adopt MROS of surrounding LUDs.</i>
<i>Semi-Remote Recreation (SM)</i>	<i>Semi-Primitive Non-Motorized/Semi-Primitive Motorized</i>
<i>Special Interest Area (SA)</i>	<i>Primitive/ Semi-Primitive Motorized</i>
<i>Timber Production (TM)</i>	<i>Roaded Modified</i>
<i>Wild River (WR)</i>	<i>Primitive/ Semi-Primitive Motorized</i>
<i>Wilderness (WW)</i>	<i>Primitive</i>

Where there are two ROS classes, the access type will determine which applies. For example, Cavern Lake Trail and Paul Young Creek are both located within an Old Growth LUD (OG). The MROS for Cavern Lake Trail is Semi-Primitive Motorized, because it is accessible by road. The MROS for Paul Young Creek is Semi-Primitive Non-Motorized, because it is not accessible by road.

Due to the relatively isolated nature of the study area, the expense of travel, and the level of difficulty to access even the highest use locations, a Social Encounters Indicator of Low will be the default level of use for all locations and activities within the study area.

The values for encounters are determined by the dominant activity type, and the Managed Recreation Opportunity Spectrum (MROS) class of each location.

Table 12 - Encounters

<i>Encounters</i>	<i>MROS Class</i>					
	<i>Primitive</i>	<i>Non-Motorized</i>	<i>Semi-Primitive Motorized</i>	<i>Semi-Primitive Motorized</i>	<i>Roaded Natural</i>	<i>Modified Roaded</i>
<i>Activity Type</i>						
<i>Active Touring</i>	1	3	3	3	10	10
<i>Big Game Hunting</i>	1	3	3	3	10	10
<i>Camping</i>	1	3	3	3	10	10
<i>Fishing</i>	1	3	3	3	10	10
<i>Passive Touring</i>	1	3	3	3	10	10

Season Days

The numbers of days in a season varies by activity type:

Table 13 – Season Days by Activity Type

<i>Season Days</i>	<i>Season of Use</i>	<i>Season Days</i>
<i>Activity Type</i>		
<i>Active Touring</i>	<i>Jun 1 – Aug 30</i>	<i>92</i>
<i>Camping</i>	<i>Jun 1 – Aug 30</i>	<i>92</i>
<i>Fishing</i>	<i>Apr 1 - Sep 30</i>	<i>183</i>
<i>Hunting</i>	<i>Apr 15 – Jun 30</i> <i>Aug 15 - Nov 15</i>	<i>168</i>
<i>Passive Touring</i>	<i>Jun 1 – Sep 15</i>	<i>107</i>

Temporal Displacement Factor

The Temporal Displacement Factor is defined as the amount by which the total number of location days is divided in order to allow for temporal displacement. A Temporal Displacement Factor (TDF) is used to mitigate the lack of management control of “when” location days are used. In the absence of assigning specific dates and times for the use of each location day, also known as a *temporal visitor control*, the Temporal Displacement Factor reduces the number of location days allowed, thus preventing some conflicts without excessive management oversight.

For this analysis, the TDF is based on access method. Over 70% of all commercial use occurs at locations accessed by the road system. Since commercial use is a subset of recreation visitor use, it is safe to conclude that over 70% of all recreation visitor use will occur at road accessible location. Thus, a higher TDF will be needed to prevent conflicts and overuse. Shore accessible locations represent 25.6% of the total use, while remote accessible locations account for 2.9% of the total use.

Table 14 – Temporal Displacement Factor by Access Method

<i>Access Method</i>	<i>Percent of Use</i>	<i>TDF</i>
Road	71.5%	4
Shore	25.6%	3
Remote	2.9%	2
Exceptions		1

There are currently two locations in the Study Area that have temporal visitor controls. El Capitan Cave is on the road system and has a locked gate. It is only accessible to the public via a guided tour. The tour is approximately 1 ½ hours long, with 3 tours daily, 5 days per week. Tours operate from Memorial Day Weekend through Labor Day Weekend. There is a limit of 6 visitors per tour:

Figure 11 - El Capitan Cave Tour Commercial Use Calculation

$$\frac{6 \text{ visitors}^* \quad 3 \text{ tours}^* \quad (14 \text{ weeks} * 5 \text{ days})}{\text{(MG)} \quad \text{(E)} \quad \text{(SD)}} \div 1 \text{ (TD)} \times \text{Service Day Conversion Ratio}$$

Since 100% of visitor use at El Capitan Cave is controlled, no temporal displacement factor need be applied.

Dog Salmon Fishpass is the second location with a temporal visitor control. This location is road accessible and has a short commercial use season - approximately 6 weeks from mid-July through the end of August. During that time, over a thousand visitors are flown in from Ketchikan for wildlife viewing, where a Forest Service guide provides tours 6 days per week, 4 tours per day, with a maximum group size of 12. However, unlike El Capitan Cave, access to the fishpass is not physically restricted. Of the 107 season days, 36 days, or 33%, have a visitor control:

Figure 12 - Dog Salmon Fishpass Commercial Use Calculation

$$\frac{12 \text{ visitors}^* \quad 4 \text{ tours}^* \quad (6 \text{ weeks} * 6 \text{ days})}{\text{(MG)} \quad \text{(E)} \quad \text{(SD)}} \div 1 \text{ (TD)} + \frac{12^* \quad 10^* \quad (107 - 36)}{\text{(MG)} \quad \text{(E)} \quad \text{(SD)}} \div 4 \text{ (TD)} \times \text{Service Day Conversion Ratio}$$

Service Day Conversion Ratio

The final variable in the calculating recreation visitor capacity is the Service Day Conversion Ratio. The Forest Service Handbook (FSH 2709.11 §41.53d) defines service days as: *An allocation of use constituting a day or any part of a day on National Forest System (NFS) lands for which an outfitter or guide provides services to a client. The total number of service days is calculated by multiplying each service day by the number of clients on the trip.* Service days are used to calculate fees paid by outfitter-guides and often a service day may be used in multiple locations or represent more than one activity, if the activities are similar.

The data used in this analysis is based on actual use reports recorded by outfitter-guides. The reports provide a detailed record of each location visited, the number of clients, the activity, method of access, and the amount of time spent at each location visited. This very specific information is referred to as *location days* and is the most accurate data available for determining the impact of outfitter-guide use on the ground. A location day represents 1 client in 1 location, regardless of the fee paid or time spent on NFS lands.

Since outfitter-guide use is allocated in service days, a conversion ratio was developed to translate location days to service days, using the actual use data. The ratio of all service days to all location days is 84%, which will be used as the conversion ratio for this analysis:

Table 15 - Service Day Conversion Ratio

<i>Service Day Statistics</i>	<i>Location Days</i>	<i>Service Days</i>	<i>Conversion Ratio</i>
Activity Type			
<i>Active Touring</i>	1,375	1,096	0.80
<i>Camping</i>	288	222	0.77
<i>Fishing</i>	3,848	3,240	0.84
<i>Hunting</i>	1,939	1,756	0.91
<i>Passive Touring</i>	8,383	6,917	0.83
<i>Total</i>	15,833	13,231	0.84

Proximity

Proximity is not a variable in the formula for calculating recreation visitor capacity, it is a method to determine whether 2 or more locations are close enough to be considered a single location. Since commercial use is currently documented with actual use reports, we have a very thorough history of use locations. For this analysis, we have applied a 1 mile radius to all locations. Any use reported within 1 mile of an existing location will be assigned to that location.

Applying the Formula

To determine the recreation visitor capacity of a location, currently used or for future use requests, it is a 4-step process:

1. Determine if this location is already identified in the outfitter-guide database, or, by proximity, can be considered an existing location.
2. Determine the attributes of the location:

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- a. What is the dominant or proposed activity type? *Determined by checking the actual use records for existing locations or proposal for new locations.*
 - b. What is the managed ROS for that location? *Determined by the Land Use Designation of the location. See Table 11 - MROS by LUD.*
 - c. What is the temporal displacement factor? *Determined by access type. See Table 14 – Temporal Displacement Factor by Access Method.*
3. Determine if there are any existing temporal visitor controls for the location. *Temporal visitor controls require a management decision and are made during a separate study. Currently there are only 2 locations with temporal visitor controls: Dog Salmon Fishpass and El Capitan Cave.*
 4. Calculate the recreation visitor capacity using the location attributes determined in Step 1. *Refer to the Figure 10 – Recreation Visitor Capacity Formula.*

The following example may make this easier to understand:

During the study period, the Thorne River had the greatest amount of recorded commercial use for fishing, and ranked second for overall use.

Location	Total Use	Highest Annual Use	MROS	Dominant Activity	Access	Active Touring	Camping	Fishing	Hunting	Passive Touring
Thorne River	867	243	RN	Fishing	Road	0	6	861	0	0

1. Determine if this location is already identified in the outfitter-guide database, or, by proximity, can be considered an existing location. ***This is an existing location.***
2. Determine the attributes of the location:
 - a. Dominant Activity = **Fishing** – Based on actual use recorded.
 - b. MROS = **RN** – Based on the Recreational River LUD.
 - c. Temporal Displacement Factor = **4** - Based on Road access type.
3. Determine if there are any existing temporal visitor controls for the location: ***There are no temporal visitor controls on the Thorne River.***
4. Calculate the recreation visitor capacity:

Figure 13 - Recreation Visitor Capacity Calculation Example

$$\begin{array}{ccccccc}
 6 & * & 10 & * & 183 & / & 4 & * & 84\% & = & 2,306 \text{ Location Days} \\
 \text{Max Group Size} & & \text{Encounters} & & \text{Season Days} & & \text{Temporal Displacement Factor} & & \text{Service Day Conversion Ratio} & & \text{Recreation visitor capacity}
 \end{array}$$

Conflicting Activity Types

Certain activity types inherently conflict with other activity types. Hunting is the most obvious example. From the perspective of the big game hunter, encountering other recreational users during a hunt would be considered a negative social encounter. This is most likely to occur along rivers and streams where other recreational users could be fishing or wildlife viewing. From the other perspective, encountering a big game hunter while fishing or wildlife viewing would also be considered a negative social encounter.

Table 16 - Activity Type Conflicts

<i>Activity Type</i>	<i>Conflicting Activity Types</i>
<i>Active Touring</i>	<i>Hunting</i>
<i>Hunting</i>	<i>Active Touring</i> <i>Camping</i> <i>Fishing</i> <i>Passive Touring</i>
<i>Camping</i>	<i>Hunting</i>
<i>Fishing</i>	<i>Hunting</i>
<i>Passive Touring</i>	<i>Hunting</i>

Dealing with conflicting user groups is a long standing problem for public land managers. For this analysis, specific locations with conflicting activity types have been identified.

Areas of Concern

Capacity:

Using the Recreation visitor capacity formula, the level of recreation visitor capacity was determined for each location currently used by Outfitter-Guides in the study area. If a location had different activity types with similar use numbers, the activity type with the least amount of capacity was used to determine capacity for that location because the lower threshold more accurately reflects an area of concern. Refer to Table 22 - Use Statistics by Location in the Appendix for the complete list. There are no locations exceeding or approaching recreation visitor capacity.

Conflict:

In order for there to be a real conflict of activity type, a location needs a minimum of five days of the conflicting use during the study period. Additionally, if the percent of capacity is less than 10%, there is no perceived conflict of activity type because the possibility of 2 outfitter-guides operating in the same location at the same time is greatly reduced. These locations have conflicting activity types:

Table 17 - Areas of Concern for Conflicting Activity Types

<i>Location</i>	<i>Conflict</i> Dominant use is underlined.	<i>MROS</i>	<i>LUD or Wilderness</i>	<i>Recreation Visitor Capacity</i> Dominant use.	<i>Percent of Capacity</i>
<i>Biscuit Lagoon</i>	<u><i>Passive Touring</i></u> vs. <i>Hunting</i>	<i>P</i>	<i>South POW Wilderness</i>	<i>360</i>	<i>19.2%</i>
<i>Hunter Bay</i>	<u><i>Passive Touring</i></u> vs. <i>Hunting</i>	<i>P</i>	<i>South POW Wilderness</i>	<i>360</i>	<i>24.8%</i>
<i>Klakas Inlet</i>	<u><i>Passive Touring</i></u> vs. <i>Hunting</i>	<i>P</i>	<i>South POW Wilderness</i>	<i>360</i>	<i>57.9%</i>
<i>Max Cove</i>	<u><i>Passive Touring</i></u> vs. <i>Hunting</i>	<i>P</i>	<i>South POW Wilderness</i>	<i>360</i>	<i>27.0%</i>
<i>Salmon Bay</i>	<u><i>Hunting</i></u> vs. <i>Fishing</i>	<i>P</i>	<i>LUD II</i>	<i>282</i>	<i>14.9%</i>

RECOMMENDATIONS

With the use of the Outfitter-Guide database and the requirement that guides turn in their actual use reports at the end of their operating season, the authorized officer is able to make timely decisions regarding capacity. All locations can be monitored each year and use can be diverted to similar locations, if needed. Similar locations are described as locations with the same access method and dominant activity type.

Monitoring

1. Produce an outfitter-guide use report annually, using the data provided by actual use reports. The report should analyze:
 - a. Activity type trends
 - b. Access type trends
 - c. Locations that are approaching or exceeding capacity
 - d. Activity type conflicts
2. Determine if there are data gaps that need to be addressed.

Capacity Issues

For any location that approaches (>85%) or exceeds commercial capacity, determine a strategy to mitigate any problems arising from excessive commercial use at that location.

Activity Type Conflict

For any location that exhibits conflicting activity types, redirect the conflicting use to a similar location.

Big Game Hunting Allocations

1. Work with ADF&G to determine a sustainable number of hunts for big game.
2. Allocate 50% of those hunts to existing big game guides as priority hunts.
3. Use the other 50% to adapt to changing needs in the form of a priority use pool. One technique might be:
 - a. Working with ADF&G, determine annually if the resource can support all of the hunts in the priority use pool.
 - b. Allocate to priority use permit holders and new operators using a lottery system.
 - c. Hunts relinquished by existing operators will be placed in the priority use pool.

AMENDMENTS

During interdisciplinary evaluation, several amendments were made to the original report.

New Locations

The original list of locations was determined by actual use. However, there were several locations that had been allocated use, but where no actual use was recorded. These locations were added, and the capacity for these locations was determined using the proposed dominant use.

Table 18 - New Locations

Location	Dominant Activity	MROS	Access	RV Capacity
Alder Creek	Fishing	RM	Road	2306
Baker Creek	Fishing	RM	Road	2306
Barrier Islands	Active Touring	P	Shore	309
Big Creek, W. Cholmondoley	Passive Touring	SPNM	Shore	1079
Black Bear Lake	Fishing	RM	Remote	4612
Buster Creek	Fishing	RM	Road	2306
Calder Creek	Fishing	RM	Road	2306
Hunter Creek	Fishing	P	Shore	307
Kegan Creek	Fishing	P	Shore	307
Klakas Lake	Fishing	P	Remote	461
Lake Galea	Active Touring	SPNM	Remote	1391
Marble Creek	Fishing	RM	Road	2306
Monie Lake	Fishing	RM	Remote	4612
Niblack Lake	Fishing	SPNM	Remote	1383
No Name Lake, S8 T68S R 79E	Fishing	RM	Road	2306
Ratz Harbor	Active Touring	SPNM	Shore	927
Roller Bay, Noyes Island	Active Touring	P	Shore	309
Salmon Bay Lake Trail	Active Touring	P	Shore	309
Shibley Bay Creek/Lake	Fishing	P	Shore	307
Snakey Lake	Fishing	SPM	Road	692
Staney Creek, North Fork	Fishing	RM	Road	2306
Staney Creek, South Fork	Fishing	RM	Road	2306
Staney Creek, Upper	Fishing	RM	Road	2306
Sutter Creek/lake	Fishing	P	Shore	307
The Saitchuck	Passive Touring	P	Remote	539
Thorne River, North	Fishing	SPM	Road	692
Thorne River, Tributaries	Fishing	SPNM	Remote	1383
Thorne River, Upper	Fishing	SPNM	Remote	1383
Winter Harbor	Active Touring	RM	Road	2318

Split Locations

Two locations, Staney Creek and Thorne River, encompass large river systems with multiple access locations. In order to more accurately reflect how recreation visitors use these large river systems, they were subdivided into smaller systems. This does add recreation visitor capacity to the overall totals; however, it also adds the ability to more closely manage individual subsections of the larger systems.

Table 19 - Split Locations

Location	Dominant Activity	MROS	Access	RV Capacity
Staney Creek, Main Stem	Fishing	RM	Road	2306
Staney Creek, North Fork	Fishing	RM	Road	2306
Staney Creek, South Fork	Fishing	RM	Road	2306
Staney Creek, Upper	Fishing	RM	Road	2306
Thorne River, Lower/Angel Lake	Fishing	RN	Road	2306
Thorne River, North	Fishing	SPM	Road	692
Thorne River, Tributaries	Fishing	SPNM	Remote	1383
Thorne River, Upper	Fishing	SPNM	Remote	1383

Combined Locations

Three small lakes have been combined with their creek/river system to more accurately reflect the impact of recreational fishing on local fish populations.

Table 20 - Combined Locations

Location	Dominant Activity	MROS	Access	RV Capacity
108 Creek/Cavern Lake	Fishing	SPM	Road	692
Red Bay Creek/Lake	Fishing	SPM	Road	692
Thorne River, Lower/Angel Lake	Fishing	RN	Road	2306

Removed Locations

After completion of a Needs Assessment to determine the need for commercial use in designated wilderness areas, the following locations were removed from the list of locations available for commercial use. Karta River, Karta River Trail and Salmon Lake are all located within the Karta River Wilderness, where there was not a need to provide commercial use for fishing or active touring. Warren Cove is located within the Warren Island Wilderness where no commercial use is allowed.

Table 21 - Removed Locations

Location	Dominant Activity	MROS	Access	RV Capacity
Karta River	Fishing	P	Shore	307
Karta River Trail	Active Touring	P	Shore	309
Salmon Lake	Fishing	P	Remote	461
Warren Cove	Active Touring	P	Shore	309

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APPENDIX

Table 22 - Use Statistics by Location

Location	Highest Actual Use	Dominant Activity	MROS	Access	Recreation Visitor Capacity
108 Creek/Cavern Lake	62	Fishing	SPM	Road	692
Aats Bay	24	Camping	P	Shore	309
Aiken Cove	9	Hunting	SPNM	Shore	847
Alder Creek		Fishing	RM	Road	2,306
Arena Cove	2	Hunting	P	Shore	282
Aston Island	1	Hunting	SPNM	Shore	847
Baker Creek		Fishing	RM	Road	2,306
Barnes Lake	18	Fishing	P	Remote	461
Barrier Islands		Active Touring	P	Shore	309
Beaver Falls Trail	60	Active Touring	RM	Road	2,318
Beaver Mountain	2	Hunting	RM	Remote	4,234
Big Creek, W. Cholmondoley		Passive Touring	SPNM	Shore	1,079
Big Lake	5	Fishing	RM	Road	2,306
Biscuit Lagoon	69	Passive Touring	P	Shore	360
Black Bear Lake		Fishing	RM	Remote	4,612
Bobs Place	3	Hunting	SPNM	Shore	847
Boyd Lake	2	Fishing	RM	Road	2,306
Brownson Bay	2	Hunting	P	Shore	282
Buster Bay	11	Hunting	RM	Shore	2,822
Buster Creek		Fishing	RM	Road	2,306
Cable Creek	12	Fishing	SPM	Road	692
Calder Bay	19	Hunting	RM	Road	2,117
Calder Creek		Fishing	RM	Road	2,306
California Bay	7	Hunting	RM	Road	2,117
Cape Chacon	5	Hunting	SPNM	Shore	847
Cavern Lake Trail	4	Active Touring	SPM	Road	696
China Cove	57	Camping	P	Shore	309
Cholmondoley Sound, NE	36	Passive Touring	SPNM	Shore	1,079
Cholmondoley Sound, South Arm	54	Passive Touring	SPNM	Shore	1,079
Cholmondoley Sound, West Arm	84	Passive Touring	SPNM	Shore	1,079
Clover Lake	26	Hunting	SPNM	Remote	1,270
Cora Point	4	Camping	P	Shore	309
Datzkoo Harbor	55	Hunting	SPNM	Shore	847
Devilfish Bay	4	Hunting	P	Shore	282
Dickman Bay	23	Hunting	SPNM	Shore	847
Diver Bay	4	Hunting	RM	Shore	2,822
Dog Salmon Creek	23	Passive Touring	RM	Road	2,696
Dog Salmon Fishpass	1396	Passive Touring	RM	Road	8,733
Dog Salmon Lake	2	Hunting	SPM	Road	635

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Location	Highest Actual Use	Dominant Activity	MROS	Access	Recreation Visitor Capacity
Dry Pass	8	Hunting	RM	Shore	2,822
Dunbar Inlet	30	Hunting	SPNM	Shore	847
Eagle Creek	61	Fishing	SPM	Road	692
Eagle Island	20	Active Touring	SPNM	Shore	927
Egg Harbor	29	Active Touring	P	Shore	309
El Capitan Cave	112	Active Touring	SPM	Road	7,560
El Capitan Passage	34	Active Touring	SPNM	Shore	927
Essowah Lakes	2	Hunting	P	Remote	423
Exchange Cove, East	8	Hunting	RM	Shore	2,822
Exchange Cove, West	100	Active Touring	RM	Road	2,318
FDR 2700	7	Active Touring	RM	Road	2,318
Fisherman Cove	3	Hunting	SPNM	Shore	847
Flicker Creek	19	Fishing	RM	Road	2,306
Fredrick Cove	32	Passive Touring	RM	Shore	3,595
Fubar Creek	2	Hunting	RM	Road	2,117
Goat Island	3	Hunting	SPNM	Shore	847
Gold Harbor	2	Hunting	P	Shore	282
Goose Bay	9	Hunting	SPNM	Shore	847
Gosti Island	1	Hunting	SPNM	Shore	847
Granite Mountain	12	Hunting	P	Remote	423
Gulch Creek	2	Hunting	RM	Road	2,117
Halibut Harbor	13	Hunting	SPNM	Shore	847
Harris Ridge	4	Hunting	SPM	Road	635
Harris River	190	Fishing	RM	Road	2,306
Hassiah Inlet	2	Hunting	RM	Shore	2,822
Hatchery Creek	100	Fishing	SPM	Road	692
Hessa Inlet	6	Hunting	P	Shore	282
Holbrook Arm	8	Hunting	RM	Shore	2,822
Hole In The Wall	17	Hunting	P	Shore	282
Hook Arm	4	Hunting	SPNM	Shore	847
Horseshoe Island	3	Hunting	SPNM	Shore	847
Hunter Bay	89	Passive Touring	P	Shore	360
Hunter Creek		Fishing	P	Shore	307
Indian Creek	1	Hunting	SPM	Road	635
Ingraham Bay	11	Hunting	SPNM	Shore	847
Island Bay	8	Active Touring	SPNM	Shore	927
Jinhi Bay	2	Hunting	SPNM	Shore	847
Johnson Cove	6	Hunting	RM	Shore	2,822
Karheen Cove	2	Hunting	RM	Shore	2,822
Kasaan Bay	2	Hunting	SPNM	Shore	847
Kasook Inlet	2	Hunting	P	Shore	282
Kassa Inlet	14	Hunting	RM	Shore	2,822
Keete Inlet	14	Hunting	RM	Shore	2,822

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Location	Highest Actual Use	Dominant Activity	MROS	Access	Recreation Visitor Capacity
Kegan Creek		Fishing	P	Shore	307
Kendrick Bay	6	Hunting	RM	Shore	2,822
Klakas Inlet	208	Passive Touring	P	Shore	360
Klakas Lake		Fishing	P	Remote	461
Kosciusko Island Road System	12	Hunting	RM	Road	2,117
Kugel Lake	57	Passive Touring	SPNM	Remote	1,618
Kugun Creek	1	Hunting	RM	Shore	2,822
Labouchere Bay	10	Hunting	SPM	Road	635
Lake Galea		Active Touring	SPNM	Remote	1,391
Lancaster Cove	98	Hunting	RM	Shore	2,822
Lava Creek	7	Hunting	SPM	Road	635
Logjam Creek	19	Fishing	RN	Road	2,306
Luck Lake	81	Fishing	RM	Road	2,306
Luelia Lake	144	Passive Touring	P	Remote	539
Mabel Island	2	Hunting	SPNM	Shore	847
Marble Creek		Fishing	RM	Road	2,306
Marble Island	5	Hunting	RM	Shore	2,822
Max Cove	97	Passive Touring	P	Shore	360
Maybeso River	11	Hunting	SPM	Road	635
McKenzie Inlet, South	48	Hunting	RM	Road	2,117
McKenzie Inlet, West	10	Fishing	SPNM	Shore	922
Mclean Arm	4	Hunting	SPNM	Shore	847
Mcleod Bay	4	Hunting	SPNM	Shore	847
Memorial Beach	4	Active Touring	RM	Road	2,318
Menefee Anchorage	2	Hunting	SPNM	Shore	847
Miller Lake	44	Passive Touring	SPNM	Remote	1,618
Moira Sound	121	Hunting	RM	Shore	2,822
Moira Sound, North Arm	2	Hunting	SPNM	Shore	847
Moira Sound, South Arm	135	Passive Touring	SPNM	Shore	1,079
Monie Lake		Fishing	RM	Remote	4,612
Naukati Bay	3	Hunting	RM	Road	2,117
Neck Lake	75	Fishing	RM	Road	2,306
Niblack Lake		Fishing	SPNM	Remote	1,383
Nichols Bay	4	Hunting	SPNM	Shore	847
No Name Lake, S8 T68S R 79E		Fishing	RM	Road	2,306
North Bay	2	Hunting	SPNM	Shore	847
Nossuk Bay	15	Hunting	RM	Shore	2,822
Nowiskay Cove	74	Passive Touring	SPNM	Shore	1,079
Nutkawa Inlet	4	Hunting	RM	Shore	2,822
Nutkawa Lagoon	24	Hunting	P	Remote	423
Old Franks Creek	42	Fishing	RM	Road	2,306
Old Log Camp	1	Hunting	RM	Road	2,117
Old Toms Creek	19	Passive Touring	P	Road	270

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Location	Highest Actual Use	Dominant Activity	MROS	Access	Recreation Visitor Capacity
One Duck Lake	2	Hunting	RM	Road	2,117
One Duck Road System	1	Hunting	RM	Road	2,117
Orr Island	4	Hunting	RM	Shore	2,822
Paul Bight	3	Hunting	P	Shore	282
Paul Young Creek	3	Hunting	SPNM	Shore	847
Pine Point	1	Hunting	RM	Shore	2,822
Point Dolores	4	Hunting	RM	Shore	2,822
Pole Anchorage	2	Hunting	RM	Shore	2,822
Polk Inlet Overlook	4	Hunting	RM	Road	2,117
Polk Inlet, East	2	Hunting	RM	Shore	2,822
Polk Inlet, North	88	Hunting	RM	Road	2,117
Polk Pass	5	Hunting	RM	Road	2,117
Pond Bay	1	Hunting	SPNM	Shore	847
Port Alice	3	Hunting	SPNM	Shore	847
Port Refugio	8	Hunting	RM	Shore	2,822
Port Santa Cruz	1	Hunting	RM	Shore	2,822
Ratz Creek	27	Fishing	SPM	Road	692
Ratz Harbor		Active Touring	SPNM	Shore	927
Red Bay	16	Hunting	RM	Road	2,117
Red Bay Creek/Lake	31	Fishing	SPM	Road	692
Red Bay Lake Trail	13	Active Touring	SPM	Road	696
Rip Point	2	Hunting	RM	Shore	2,822
Roller Bay, Noyes Island		Active Touring	P	Shore	309
Ruins Point	2	Hunting	P	Shore	282
Sakie Bay	2	Hunting	SPNM	Shore	847
Salmon Bay	42	Hunting	P	Shore	282
Salmon Bay Creek	18	Fishing	P	Remote	461
Salmon Bay Lake	19	Fishing	P	Remote	461
Salmon Bay Lake Trail		Active Touring	P	Shore	309
Salt Chuck	56	Passive Touring	RM	Shore	3,595
Salt Lake Bay	11	Hunting	SPNM	Shore	847
Sarheen Cove	10	Hunting	SPNM	Shore	847
Sarkar Lake	29	Fishing	SPM	Road	692
Scott Lagoon	17	Hunting	RM	Shore	2,822
Security Cove	2	Hunting	SPNM	Shore	847
Shaheen Creek	9	Fishing	RM	Road	2,306
Shakan Bay	22	Hunting	P	Shore	282
Shiple Bay	32	Hunting	P	Shore	282
Shiple Bay Creek/Lake		Fishing	P	Shore	307
Shipwreck Point	4	Hunting	P	Shore	282
Skowl Arm	23	Hunting	RM	Shore	2,822
Snag Island	2	Hunting	SPNM	Shore	847
Snakey Lake		Fishing	SPM	Road	692

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Location	Highest Actual Use	Dominant Activity	MROS	Access	Recreation Visitor Capacity
Soda Bay	1	Hunting	SPNM	Shore	847
Spanish Islands	24	Camping	P	Shore	309
Spiral Cove	4	Hunting	SPNM	Shore	847
Staney Creek, Main Stem	171	Fishing	RM	Road	2,306
Staney Creek, North Fork		Fishing	RM	Road	2,306
Staney Creek, South Fork		Fishing	RM	Road	2,306
Staney Creek, Upper		Fishing	RM	Road	2,306
Steamboat Bay	2	Active Touring	P	Shore	309
Stone Rock Bay	4	Hunting	SPNM	Shore	847
Somez Island Road System	12	Active Touring	RM	Shore	3,091
Survey Cove	8	Hunting	RM	Shore	2,822
Sutter Creek/lake		Fishing	P	Shore	307
Sweetwater Lake	18	Fishing	RN	Road	2,306
Tah Bay	3	Hunting	P	Shore	282
Tenass Bay	12	Hunting	SPNM	Shore	847
The Saitchuck		Passive Touring	P	Remote	539
Thorne River, Lower	243	Fishing	RN	Road	2,306
Thorne River, North		Fishing	SPM	Road	692
Thorne River, Tributaries		Fishing	SPNM	Remote	1,383
Thorne River, Upper		Fishing	SPNM	Remote	1,383
Tlevak Narrows	12	Hunting	RM	Shore	2,822
Tokeen Bay	5	Hunting	P	Shore	282
Trocadero Creek	7	Hunting	SPM	Road	635
Trout Creek	11	Hunting	RM	Shore	2,822
Trumpeter Lake	40	Fishing	RM	Road	2,306
Turn Creek	47	Fishing	RM	Road	2,306
Tuxekan Island Road System	9	Hunting	SPNM	Shore	847
Twelvemile Arm Creek	7	Hunting	RM	Road	2,117
Twelvemile Arm Road System	11	Hunting	RM	Road	2,117
Upper Trocadero Mountain	2	Hunting	RM	Road	2,117
Upper Trocadero Road System	7	Hunting	RM	Road	2,117
Upper Twelvemile Arm Road System	7	Hunting	RM	Road	2,117
Van Sant Cove	3	Hunting	P	Shore	282
Waterfall Bay	3	Hunting	SPNM	Shore	847
West Sentinel Island	8	Active Touring	SPNM	Shore	927
Whale Passage	32	Active Touring	RM	Road	2,318
Windy Bay	24	Camping	P	Shore	309
Winter Bay	2	Hunting	P	Shore	282
Winter Harbor		Active Touring	RM	Road	2,318
Wolf Lake	6	Hunting	RM	Remote	4,234
Wolk Harbor	2	Hunting	SPNM	Shore	847

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Appendix C

Other Issues

Issues and Concerns Not Used to Develop Alternatives

For the purposes of this analysis, issues identified during the public involvement process were categorized as those that were used to develop alternatives or those that were not used to develop alternatives. Issues that were directly or indirectly caused by implementing the proposed action and represent disputes, disagreements or debate about the effects of the proposed action were used to design alternatives

The remaining issues that were not used in developing alternatives are those: 1) outside the scope (not related to the effects) of the proposed action; 2) already decided by law, regulation, Forest Plan, or other higher level decision; 3) irrelevant to the decision to be made; or 4) conjectural and not supported by scientific or factual evidence. The Council for Environmental Quality (CEQ) NEPA regulations require this delineation in Sec. 1501.7, “...identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3)...” This appendix considers those issues that were not used to develop alternatives.

Several external and internal concerns and suggestions were considered as issues but were determined not to be alternative-driving issues. Where possible, suggestions about the project were incorporated into the design of all the action alternatives. Concerns related to this project, followed by the rationale for why these concerns were not used in developing alternatives, is found below.

Concern

There are concerns about limiting commercial uses in Wilderness areas based on the Wilderness Needs Assessment (WNA), which did not have a public review.

- The most common approach to determining the need for Commercial Services in wilderness has been to prepare a WNA. Agency policy does not require a needs assessment nor provide guidance as to required content in determining a need for commercial services beyond what is stated in the Wilderness Act (TWA). A Needs Assessment is typically a programmatic assessment that does not require a NEPA analysis.

Identification of need is not based solely on public need for a service but may consider how an outfitter-guide operation can contribute to meeting wilderness management objectives and support the public purposes of wilderness [TWA, Section 4(b)]. The public’s need for services can be determined by examining current and past use and trends, results of a visitor preference survey, state game hunting license data, etc. The IDT determined that this issue is outside of the scope of this document, since the Wilderness Needs Assessments were completed in accordance with direction.

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Concern

How does this proposal deal with transporters? If transporters are included in this POW Outfitter and Guide Management Plan, a fixed percentage allocation and possible limits would effectively restrict public access and use of an area.

- Transporters are not managed or controlled by the Forest Service, thus, their management is outside the scope of this document.

Concern

Bear hunting at or near the Dog Salmon Fishpass may endanger visitors to the observation deck and may discourage bear from using the site, which will negatively affect the expected recreation experience.

- Dog Salmon Creek fishpass in Polk Inlet currently shows the highest recorded commercial use (7,006 service days, 2004-2010) in GMU 2. The only guided activity recorded at this site during this timeframe is wildlife viewing. Though most bear hunting in North Polk Inlet occurs during the spring, any hunters harvesting bears in this area may be harvesting bears that use the Dog Salmon Fishpass in late summer and fall to fatten up on salmon. Confrontations between hunters and bear viewing guides/clients at Dog Salmon Fishpass have occurred in recent years and are expected to continue to occur. The Forest Service has received complaints from a variety of user groups that have clearly identified a conflict between uses in this area.

The primary tour operator at Dog Salmon Fishpass submitted a proposal to the Alaska Board of Game requesting they designate the site as a bear viewing area and close the area to bear hunting; however, the proposal failed to pass at the Board of Game meeting in November 2010. The Forest Service recreation group is considering improvements to accommodate viewing such as improved parking, and has provided a seasonal interpreter in the area to help educate the public, enhance safety and reduce conflict. The Forest Service is currently pursuing a ¼-mile closure to bear hunting around the fishpass to provide for safety and to promote the salmon and bear viewing opportunities at that site. The closure would occur through a Forest Order, enforced by law enforcement.

Concern

There is a concern about allowing guided big-game hunting in the central WAAs (1318, 1319, 1421, 1422).

- Guided big game hunting has not been allowed in Wildlife Analysis Areas (WAAs) 1318, 1319, 1421, and 1422 since 1994 (USFS 1994, Big Game EA). This is referred to as the “Central WAAs Closure” in this EA. The Big Game EA restricts guided big-game hunting for black bears, wolves, and deer. The closure will apply to all alternatives in this EA.

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Concern

Increased outfitter and guide allocations may contribute to population declines already identified by ADF&G for bears and wolves in GMU 2.

Control bear hunts so bear are not over hunted, which requires controlling outfitters, guides, transporters, and out of state hunters.

Need to limit transporting and non-resident hunters to protect bears. Guided hunters are more careful and limit harvest to mature adults.

- The recent declines in harvest, reductions in skull size, and changes in sex ratios of harvested bears raised concerns about black bear population sustainability in the POW Zone (Larson 2010). Analysis of harvest data from the late 1990s onward revealed large numbers of female bears have been harvested during the fall bear hunt since the late 1990s. This, in combination with the apparent population decline, led the Board of Game to establish a controlled use area (CUA) at their 2008 meeting, which restricted the use of motorized land vehicles for bear hunting during September in GMUs 2 and 3. The new regulation made it illegal to use motorized land vehicles to hunt bears, transport bear hunters, hunting equipment or bear parts during the month of September. They also established a requirement for all black bear hunters to obtain a harvest ticket/report prior to hunting, in an effort to gather more information about hunter effort, success, and the state of the bear population (Larson 2010).

More emphasis was placed on black bear populations with regulatory changes made at the November 2010 Alaska Board of Game meeting. The board revisited the CUA established at the 2008 meeting and opted to extend the CUA restricting motorized access in GMU 2 until October 31, 2012. Citing concerns about black bear numbers in GMU 1-3 in Southeast Alaska, the Board of Game adopted a drawing permit hunt for nonresident black bear hunters who do not hunt with guides. Resident hunters and nonresident hunters who employ a guide were not affected by the new regulation, but, in exchange, guides agreed to a reduced hunt allocation based upon their average actual harvest 2007-2009 (ADF&G January 6, 2011 letter to Forrest Cole.). The Forest Service will work cooperatively with ADF&G to set appropriate use levels for hunting guides, but this process will take place independently of this NEPA analysis.

Concern

Disallow or severely limit O/G days within a set geographical area around Craig that has been traditionally used for recreation and subsistence harvest of deer. Restrictions could include limitations on hunting as an allowed O/G activity within these areas.

- Rather than develop one local use area for one community, it makes more sense to monitor guided deer hunting at all sites and re-evaluate the permitting if it goes above a certain level. Furthermore, the proposed Craig local use area does not currently produce much deer harvest, not compared to the central Wildlife Analysis Areas (WAAs), which are already closed to guided hunting.
- Development of one local use area for one community may appear to unfairly benefit subsistence users in one community above another. Instead we set a cap for the total number of service days at any site and will be monitoring deer harvest

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- In addition:
 - 1) Recent data indicate there is very little demand for guided hunts in this area. Only eight of the 15 sites in the area had deer or fall bear hunting from 2004-2009. The average service days for each of these eight sites between 2004 and 2009 was 1.5 service days per year including both deer and fall bear hunting.
 - 2) The central WAAs Closure provides subsistence hunting opportunities free from competition with guided hunters. Furthermore,
 - much of POW's current deer harvest already comes from the Central WAAs Closure area.
 - Future hunting opportunities in young-growth areas are concentrated in the Central WAAs closure area.
 - And the Central WAAs closure area is closer to more communities, giving more communities an opportunity to subsistence hunt for deer in places unavailable to guided hunters (thus causing no competition from guided hunters).
 - 3) By monitoring use at each site and evaluating permit allocations, if any sites exceed a low threshold for deer hunting, subsistence resources can be protected from competition with guided hunters more evenly across the landscape.

Concern

Whale Pass does not need outfitters and guides due to the lodges and cabins for self-guided people.

- The POW Outfitter and Guide Management Plan looks at the entire project area, including Whale Pass. The range of alternatives addresses your concern about outfitter and guide use in the Whale Pass area through the No Action Alternative, which keeps outfitter and guide activity at the current level. Alternative 4 also keeps outfitter and guide allocations low, just 10% over the current level.

Concern

If the Forest Service regulates outfitters and guides, then they need to regulate all users to “keep access fair.”

- There is no plan to regulate unguided users; the POW Outfitter and Guide Management Plan only addresses guided users.

Forest Plan direction requires the district to:

“Work with recreation service partners and the tourism industry in identifying and developing services and opportunities. Recreation service partners provide services and opportunities that supplement the use and enjoyment of the national forests by a variety of people.” (Forest Plan, page 4-45)

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And,

“Manage outfitter and guide services as partnerships with the Forest Service, as a way to nurture and encourage assistance and support for attaining the objectives of the LUD, and to assist in increased public understanding and appreciation of the Forest Service's mission and goals.” (Forest Plan 4-46)

If,

“The operations can be carried out in a manner that is compatible with existing or expected use by the non-guided public and adverse impacts to subsistence users are minimized.” (Ibid)

Since the Forest Plan directs that operations be carried out in a manner compatible with existing and expected use by non-guided public, we are not attempting to regulate unguided visitors. Our goal is to allocate service days to support our outfitter and guide partners while limiting the impact to unguided visitors.

Concern

All use in Moira Sound is low due to no roads and remoteness, so keep it the way it is now. Do not lower the allocation to guides.

- The alternatives in this analysis range from the no action alternative to a 50% allocation of the recreation visitor capacity to outfitters and guides. The no action alternative addresses your request for no decrease or increase in allocation in Moira Sound.

Concern

Group size should be at least 15 for some activities (kayak tours).

- Group sizes tend to vary according to activity type, with 12 being the largest recorded group size in the project area. Maximum Group Size was determined, based on statistics developed from actual use data for the analysis period. The exception is fishing, which has an established maximum group size of 6, based on current planning decisions (USDA Forest Service, 1998). If an outfitter or guide wanted an increase in group size, they would have to request the exception at the time they apply for their permit. The district may or may not grant an exemption, depending on resource impacts and public concerns for crowding.
- The Forest Plan does allow for larger groups outside of Wilderness Areas, 12 to 20 (Forest Plan, page 46); however, for this analysis, the group size is limited to 12. As stated, the limit is based on actual recorded use and may be adjusted upon request.

Concern

Use of the area south of Craig to Cape Chacon is low so do not need to limit guides in this area.

The southern half of the island does not get as much use as the northern half of the island due to access so the management should not be the same.

Do not restrict southern outfitter and guide use.

- The POW Outfitter and Guide Management Plan looks at the entire project area, including the area south of Craig to Cape Chacon. The range of alternatives

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addresses your concern about outfitter and guide use in the area by Alternative 2, which would allocate 50% of the recreation visitor capacity to outfitters and guides.

Concern

Need to get permits earlier in the season or multi-year permits to keep business going.

- This POW Outfitter and Guide Management Plan does not change how early in the season permits are issued but does allow the district to issue multi-year permits for qualified outfitters and guides. Business opportunities are considered in Issue 3.

Concern

Open more logging roads for recreation opportunities.

- The decision on which roads to keep open was made during the Access and Travel Management Planning and is not part of this decision.

Concern

Only “cap” guided use where it is absolutely needed.

- The POW Outfitter and Guide Management Plan does set a level of use available to outfitters and guides based on the recreation visitor capacity completed for the project area. The level of available use varies between alternatives. For most areas, even with the lowest allocation of service days to outfitters and guides, there is still room for growth in the guided industry. The purpose of the POW Outfitter and Guide Management Plan is to set reasonable levels of use based on social and environmental conditions, while minimizing potential impacts to all resources. A cap is needed to maintain quality recreation opportunities for both guided and unguided visitors and protect forest resources.

Concern

Make separate allocations for outfitters and guides that are road (land) based and those that are water based because they have limited overlap.

- Each recreation use area has an allocation based on the recreation visitor capacity formula. The capacity formula has a temporal displacement factor, based on access method. Thus, the allocations consider access.

Concern

Guided and transported hunters should only be allowed to use roads by foot or bicycle, with boat transport, to take pressure off bears.

- The district rangers have authority to do an emergency order to close hunting or fishing if there is a threat to wildlife or fish populations. The Forest Service does not set access regulations. The Alaska Department of Fish and Game and the State Game Board set hunting regulations including access. In Game Management Unit (GMU) 2, ADF&G Regulations state that Unit 2 is closed to the use of any motorized land vehicle for black bear hunting Sept 1-Oct 31. The State is responsible for any additional closures.

Prince of Wales Outfitter and Guide Management Plan

Concern

Guided fishing trips should be limited to remote streams to reduce conflicts with locals.

- The range of alternatives does limit guided use on some streams to reduce conflicts with other users. These limits are in the percent of the recreation visitor capacity allocated to outfitters and guides and fishing restrictions to protect steelhead, sockeye salmon and summer run coho salmon.

Concern

No guided trips on the weekends on heavily used rivers like Harris, Klawock, Lower Thorne, and Eagle Creek.

- The environmental analysis includes adaptive management (Chapter 2). In cases of crowding or other user conflicts, the district rangers have the option to reduce the number of outfitter and guide weekend and holiday days to relieve conflicts.

Concern

Limit guides based on years of experience (to limit new guides).

- This analysis does not change how guide permits are issued. Permit administrators will issue permits based on outfitter and guide permitting regulations.

Concern

Concerned about guides using rental cabins for clients - they should only be allowed to use low use cabins.

Guides using cabins increases impacts to all resources.

Guides using cabins limits available use by island residents for subsistence gathering.

- This decision occurred prior to this analysis. A recreation master management plan was done that considered these concerns. Public input was sought on the proposal to allow outfitters and guides to use rental cabins. An administrative decision was made in 2007 to allow cabins to be used based on the conditions described in this EA under Other Related Efforts. These conditions are meant to provide the public with adequate opportunity to use cabins as they desire. Limitations on guided use of cabins is tracked in special use permits; to date, little or no guided cabin use is occurring. Additionally, cabins are still available under a first-come-first-served reservation system, thus allowing equal access for any given date to all users.

