

Appendix C

Mitigation



Appendix C. Mitigation Measures

Introduction

The Shoreline II Outfitter and Guide EIS utilizes design features and mitigation measures, to alleviate, or prevent negative social and environmental impacts that could occur due to implementation of this project.

Design features are specific requirements to avoid or minimize environmental impacts that are required by law, regulation, or policy. Examples include, , but are not limited to, BMPs, Forest Plan standards and guidelines, and standard operating procedures. They can also come from IDT recommendations; issues or concerns from the public or other agencies; or scientific literature. They are built into the design of the proposed action and alternatives to prevent impacts.

Mitigation measures alleviate potential adverse effects from natural or human caused disturbances. Mitigation includes doing any, or a combination of, the following: (a) avoiding the impact altogether by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and (e) compensating for the impact by replacing or providing substitute resources or environments (40 CFR 1508.20).

In this document, “mitigation measures” serves as a blanket term for design features and mitigation measures that have been built into, or developed, specifically for this project.

The following is a comprehensive list of mitigation measures that apply to outfitter/guide activities for all of the action alternatives. These mitigation measures are incorporated into permits as stipulations where applicable and may be further refined during the monitoring and administration of outfitter/guide permits as additional information becomes available. In addition, some site-specific resource concerns and mitigation measures are listed in the narrative of the Use Area cards in Appendix A and on the Large Group Area cards in Appendix B. These cards provide guidance for outfitter/guide permit preparation and administration and include a map.

Outfitter/guide special use permits shall be administered in accordance with the direction in Forest Service Manual 2720, Forest Service Handbook 2709.14, and Region 10 supplements. Required stipulations and clauses shall be included in the permit. A copy of the current Tongass-wide stipulations are included in the project record. It is important to note, the Tongass-wide stipulations are revised periodically – more often than the Shoreline analysis. As updates occur, the latest version is available upon request from any Tongass supervisor’s office.

Pre-Application Actions

Outfitter/guide permit proposals go through two levels of screening before becoming a formal application (36 CFR 254.54 (e) (1) and (2)).

Initial screening ensures the proposed use is:

- Consistent with applicable laws, regulations, orders, and policies.
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- Consistent (or can be made consistent) with Forest Plan standards and guidelines;
- Not a serious or substantial risk to public health or safety;
- Not something which would create an exclusive or perpetual right of use or occupancy;
- Not something which would unreasonably conflict or interfere with administrative use by the Forest Service, other scheduled or authorized existing uses of the National Forest System, or use of adjacent non-National Forest System lands;
- Not by a proponent with delinquent debt owed to the Forest Service under a prior or existing authorization (with certain exceptions);
- Not involving gambling or sexually-oriented commercial services;
- Not involving military or paramilitary training or exercises by private organizations or individuals (with exceptions); and
- Not involving disposal of solid waste or radioactive or other hazardous substances.

Proposed uses that do not pass initial screening, shall not receive further evaluation and processing.

A proposal that passes initial screening, proceeds to second-level screening and consideration.

During the secondary screening, an authorized officer shall reject any proposal if he or she determines:

- The proposed use would be inconsistent or incompatible with the purposes for which the lands are managed, or with other uses; or
- The proposed use would not be in the public interest; or
- The proponent is not qualified; or
- The proponent does not or cannot demonstrate technical or economic feasibility of the proposed use or the financial or technical capability to undertake the use;
- The proponent cannot fully comply with the terms and conditions of the authorization; or
- There is no person or entity authorized to sign a special use authorization, and/or there is no person or entity willing to accept responsibility for adherence to the terms and conditions of the authorization.

If a request for proposed use meets the criteria of both initial and second-level screening, the proposal may be formally accepted as an application, and processed as such.

Outfitter/Guide Special Use Permits

Once a special use permit application is accepted, the authorized officer evaluates the proposed use and other relevant information such as environmental findings to decide whether to approve, approve with modifications, or deny the proposed use.

If a permit is issued, standard terms and conditions are incorporated. A sample copy of FS-2700-4i, the agency's special use permit form for outfitting and guiding, is available in the project record, or at any Tongass supervisor's office upon request.

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1. Unless otherwise stated in site-specific mitigations (Appendix A and B), group size is limited to the applicable ROS standards and guidelines prescribed by LUDs in the Forest Plan (See Forest Plan pp. 3-18 to 3-19, 4-46, and I-1 to I-6), which will be stated as follows in permit stipulations.
 - Wilderness, Primitive and Semi-Primitive ROS: Group size limit is 12 people (including guides). No more than two groups of up to 12 people (including guides) from a single vessel or other means of transport or access are allowed. No more than 24 individuals from a vessel may use a specific wilderness in a single day. These groups are required to disperse out of sight and sound from each other when using National Forest System lands to minimize impacts to a specific site or others using the area.
 - Non-Wilderness, Primitive ROS: Group size limit is 12 people (including guides). Maximum of two groups per day. If more than one group goes ashore at a time the groups shall not be within sight or sound of each other.
 - Non-Wilderness, Semi-Primitive ROS: Group size limit is 20 people (including guides). If more than one group goes ashore at a time the groups shall not be within sight or sound of each other.
 - Other ROS classes and designated Large Group Areas: Group size limit is 75 people (including guides). Large groups are not allowed to camp or conduct consumptive recreational activities such as hunting, fishing or plant collecting.

Resource Protection Measures ---

Air

Outfitter/guides will manage their activities to control and minimize air pollution impacts and to ensure that predicted emissions from all pollution sources do not exceed Ambient Air Quality Standards as specified under the Alaska Administrative Code, Title 18, Chapter 50.

Outfitter/guides will cooperate with regulatory authorities to prevent adverse effects of air pollutants and atmospheric deposition on forest ecosystems.

Beach and Estuary Fringe

As indicated in the R10 Leave No Trace document, outfitter/guides shall follow the following practices for camping.

- Outfitter/guides and their clients will not camp in beach meadows to minimize the impacts to these areas. When walking through beach meadows, people should stay on existing paths and game trails to avoid trampling or damaging vegetation.
- Group camping permits shall recommend minimal trampling on sandy areas of beaches where botrychium ferns and beach grasses may be present, or in wetland habitats. Kayak pullouts and campsites should be durable sites, such as gravel areas devoid of plant life. One access trail in and out of campsite should be used to minimize ground disturbance.
- Locations with few anchorages and access will require a site visit by a Forest Service botanist or ecologist to assess the area for sensitive and rare plants and their habitats, recognizing that impacts at these sites are likely to be concentrated in specific areas. Exact camping or use areas must be identified in actual use reports.

Karst and Cave Resources

Outfitter/guides will protect karst and cave resources as required by the Federal Cave Resources Protection Act (FCRPA). Cave use is not permitted without an approved Cave Protection Plan.

Riparian Management Areas

Riparian management areas are areas of special concern for fish, other aquatic resources, and wildlife values. These areas are delineated according to the process group direction in the riparian Forest-wide standards and guidelines. To protect fish habitat and water quality, Forest Plan standards and guidelines for riparian areas are applied to all fish streams, and to non-fish-bearing Class III and Class IV streams within the analysis area. Best management practices will be used to minimize the risk of land management activities impairing water quality. Special provisions are specified to protect soil and water quality.

Lower Intertidal and Subtidal Areas

Eelgrass is assumed to be important near-shore habitat for a variety of marine species. Outfitter/guides should avoid repeated boat anchoring in vegetated areas where practicable, to minimize adverse effects on eelgrass and other marine vegetation.

Oil Pollution Prevention

During servicing or refueling of equipment, petroleum products may be spilled and potentially enter a watercourse. Locating service and refueling sites well away from wetlands and stream channels will minimize this risk.

Minor oil spills will be prevented by using good housekeeping techniques, which include: (1) collecting any used oil, oil filters, and grease tubes; (2) requiring equipment operators to carry absorbent pads; (3) providing containment and cleanup for portable fuel tanks (including hose and nozzle); (4) following approved disposal methods for waste products; and (5) repairing equipment leaks promptly.

Wetlands

Best management practices (BMPs) and Forest-wide standards and guidelines will be the primary mitigation measure for reducing the effects of recreation use on wetlands.

People should stay on existing paths and game trails to avoid excessive trampling or damaging wetlands, where practical.

If monitoring determines that wetlands have been adversely affected by outfitter/guide activities, use in these areas will be restricted and the areas revegetated or hardened to minimize effects.

To minimize impacts to non-forested and steeply sloping wetlands, outfitter/guides and their clients should abandon any user-created trail wider than 2 feet to allow recovery. Outfitter/guides should also report any user-created trail wider than 2 feet to the Forest Service, and encourage their clients to practice Leave No Trace principles, such as pick hiking routes with durable surfaces (e.g., beaches, gravel bars, unvegetated forest duff), and spread out when hiking over vegetation so no single plant receives multiple footfalls and a trail is less likely to form.

Soil and Water

Best management practices and Forest Plan standards and guidelines will be used for primary mitigation. The following best management practices for soil protection associated with this project apply to all proposed commercial recreation activities.

- Floodplain identification, evaluation, and protection (BMP 12.4)
- Wetland identification, evaluation, and protection (BMP 12.5)
- Riparian area designation and protection (BMP 12.6)
- Control of activities under special-use permit (BMP 12.10)
- Sanitary facilities (BMP 12.15)
- Control of solid waste disposal (BMP 12.16)
- Revegetation of disturbed sites (BMP 12.17)
- Road and trail erosion control plan (BMP 14.5)
- Measures to minimize surface erosion (BMP 14.8)
- Drainage control to minimize erosion and sedimentation (BMP 14.9)
- Surface erosion controls at facilities (BMP 14.25)
- Recreation facilities planning and location (BMP 16.1)
- Trail construction and maintenance (BMP 16.4)

REC-3. Dispersed Use Recreation

The National BMP handbook addresses several recreation concerns. The following National BMPs address dispersed recreation use in wetland areas.

- Develop and designate campsites in appropriate locations;
- Limit group size and periods of use; and
- Close and rehabilitate dispersed or undeveloped sites that are causing unacceptable adverse effects on soil, water quality, and riparian resources.

PLAN-3. Aquatic Management Zone Planning

The following guidelines are from the National BMPs regarding project planning in the aquatic management zone.

- Avoid or minimize unacceptable impacts to riparian vegetation, groundwater recharge areas, steep slopes, highly erodible soils, or unstable areas;
- Maintain or provide sufficient ground cover to encourage infiltration, avoid or minimize erosion, and to filter pollutants;
- Avoid, minimize, or restore detrimental soil compaction; and
- Restore existing disturbed areas that are eroding and contributing sediment to the waterbody.

Rec-9. Recreation Special Use Authorization

The following guideline is from the National BMPs regarding special use authorizations for recreation in aquatic areas.

- Administer the permit to appropriate standards to avoid, minimize, or mitigate adverse effects of permitted activities to soil, water quality, and riparian resources.
- Areas with unstable soil or hazardous conditions will be avoided.
- Water diversion or dams for consumptive water use is not allowed.

Reroutes should be out of sight of the existing worn trail to allow for recovery.

Outfitter/guide activities shall not result in impacts exceeding soil quality standards. In order to meet soil quality standards (SQS), the acreage of affected soil conditions may not exceed 15 percent of the total acreage within the activity area. Activity areas are defined as the total area of ground surface affected by an activity and include the area surrounding a trail, footpath, picnic site, or other area of concentrated use. Activity areas exclude specified trails, footpaths, or developed sites. If activities and use levels result in unacceptable impacts, corrective action will occur. This may include limiting use and hardening, stabilizing, and revegetating sites.

Although natural revegetation is not expected to be a problem in any area, ongoing monitoring of plant growth in wetland areas receiving intensive recreation use will be conducted to determine: 1) the level of disturbance, 2) the amount and types of vegetation to be used to revegetate the area, and 3) whether or not any areas are in need of fertilization and the frequency of fertilizer application.

Wildlife Viewing

Aircraft operations will implement the following BMPs and flightseeing/wildlife viewing guidelines.

- All flight operators shall comply with FAA restrictions.
- Consistent with aircraft passenger safety, pilots shall avoid deliberate close overflights of animals for the purpose of viewing. For fixed-winged aircraft, 500 ft is the minimum distance for overflights or approaches. For helicopters, the minimum distance is 1,500 ft. When on regular flight paths, incidental overflights are allowed.
- Hovering near, herding, harassing, or driving bears or other wildlife in any way is not allowed. If an animal, or group of animals, shows signs of disturbance, the aircraft is too close.
- Outfitter/guides will use flight paths that avoid known sensitive wildlife areas, including kidding and calving areas, dens, nest sites, haul-outs, rookeries, and seabird colonies, during critical time periods.
- Consistent with aircraft and passenger safety, operators should establish routes that will provide regular and consistent aircraft operations, which will encourage habituation and minimal disturbance to wildlife.

Bald Eagles

Activities shall be conducted to avoid disturbing or harassing eagles. A minimum 330-foot radius non-disturbance zone will be maintained around each identified active bald eagle nest tree.¹ Guided recreation activities should be minimized within the non-disturbance zones of active nests and camping is not allowed.

Because no reliable maps are available for active bald eagle nests, outfitters and guides should be asked to use their best judgment in respecting bald eagle nests. If guides notice their guided activities are disturbing eagles near nests, as indicated by frequent, agitated calling or aerial displays, they should move their clients away to a distance that allows the eagles to calm down and resume their normal activities.

Great Blue Herons, Hawks, and Owls

Activities shall be conducted to avoid disturbing or harassing herons, hawks, or owls. A minimum 600-foot radius non-disturbance zone will be maintained around each identified active great blue heron, hawk, and owl nest tree². Guided recreation activities should be minimized within the non-disturbance zones of active nests and camping is not allowed.

Northern Goshawk (including the Queen Charlotte goshawk subspecies)

Activities shall be conducted to avoid disturbing or harassing goshawks. A minimum 600-foot radius non-disturbance zone will be maintained around each identified active goshawk nest tree³. Guided recreation activities should be minimized within the non-disturbance zones of active nests and camping is prohibited. All goshawk sightings, particularly any aggressive behaviors (indicative of nesting), shall be reported to the to the permit administrator who will follow-up with the district wildlife biologist for appropriate action.

Peale's Peregrine Falcon

In general a minimum 2-mile radius non-disturbance zone will be maintained around each identified inhabited Peale's peregrine falcon nest tree⁴. Exceptions can be made for certain activities deemed as

¹ From March 1 to May 31, all bald eagle nest trees are considered active; June 1 to August 31 – trees with nests containing eggs or young as indicated by the observation of eggs or young eagles or of adult eagles exhibiting nesting behavior are considered active.

² All great blue heron, hawk and owl nest trees are considered active from March 1 to July 31. After August 1, trees with nests containing eggs or young, as indicated by observation of eggs or young birds, or of adult birds exhibiting nesting behavior, are considered active. These protection measures may be lifted if the nest(s) are inactive for 2 consecutive years.

³ All nest sites will be considered active from March 15 to August 15. After August 15, sites with nests containing eggs or young, as indicated by the observation of eggs or young birds, or of adult birds exhibiting nesting behavior, will be considered active.

⁴ All nest trees will be considered active from April 15 to August 31. After August 31, trees with nests containing eggs or young, as indicated by the observation of eggs or young birds, or of adult birds exhibiting nesting behavior, will be considered active.

low or no risk (consult local district biologist). Camping is not allowed within the non-disturbance zone of active nests. Other Guided recreation activities should be minimized within the non-disturbance zones of active nests. Activities shall be conducted to avoid disturbing or harassing falcons. All nest trees will be considered active from April 15 to August 31. After August 31, trees with nests containing eggs or young, as indicated by observation of eggs, young birds, or by the presence of adult birds in nesting activities, will be considered active.

Black oystercatcher

All outfitters and guides should follow good wildlife viewing etiquette practices with their clients. Report any black oystercatcher sightings, and particularly any birds that appear to be nesting to the permit administrator who will follow-up with the district wildlife biologist for appropriate action.

Seabird Rookeries and Waterfowl Concentration Areas

Implementing the following actions will protect the seabird rookeries and waterfowl concentration areas that provide important prey foraging habitat for the American peregrine falcon.

- For permitted outfitter/guide aircraft flights, maintain a constant flight direction and airspeed, and a minimum flight elevation of 1,500 feet for helicopters and fixed-winged aircraft when weather conditions permit. Avoid flying over seabird colonies/rookeries where possible.
- An 820-foot radius non-disturbance zone on upland habitats around seabird colonies and rookeries will be maintained. No camping is permitted within this zone. Other activities shall be conducted to avoid disturbing or harassing the birds.
- Outfitter/guides shall collect and properly dispose of their garbage to prevent gulls from feeding and gathering on it.

Osprey

Activities shall be conducted to avoid disturbing or harassing ospreys. A minimum 330-foot radius non-disturbance zone will be maintained around each identified osprey nest tree. Guided recreation activities should be minimized within the non-disturbance zones of active nests and camping is prohibited.

Trumpeter Swan

No camping will be allowed within ½ mile of known nesting, brood-rearing, and wintering trumpeter swans. Other guided recreation activities will be conducted to minimize disturbing or harassing swans.

Waterfowl and Shorebirds

Activities shall be conducted to avoid disturbing or harassing birds. Guided recreation activities should be minimized within 330 feet of known waterfowl or shorebird concentration and nesting areas. Camping is not allowed within this zone.

Vancouver Canada Geese

Forest, riparian, and estuarine areas are important nesting, brooding, rearing and molting areas for Vancouver Canada geese. Locate concentrated human activities as far from known waterfowl concentration and nesting areas as feasible providing a minimum distance of 330 feet.

Marine Mammals

The term “marine mammals” encompasses the following species: Steller sea lions, seals, sea otters, dolphins, porpoises, and whales. Viewing activities will comply with the code of conduct provisions in the National Marine Fisheries Service (NMFS) *Alaska Marine Mammal Viewing Guidelines* brochure.

- Remain at least 100 yards from marine mammals and haul-outs.
- Time spent observing individual(s) should be limited to a ½-hour.
- Whales should not be encircled or trapped between boats, or between boats and shore.
- If approached by a whale, put the engine in neutral and allow the whale to pass. Boat movement should be from the rear of a whale.
- ‘Taking’ marine mammals protected under the Marine Mammal Protection Act is prohibited; taking includes harassing, pursuing, or attempting any such activity (16 CFR Part 1532). For example, if a boat approaches a known Steller sea lion haul-out too closely and sea lions or seals leave the haul-out and escape to the sea, the boat operator may be harassing the animals.
- Waste oil and fuels will be managed in compliance with all State and Federal regulations to prevent pollution impacts to marine mammals.
- Harbor seal pups are often left alone while the mother feeds. They are not abandoned and should not be disturbed.
- Locate camps 1 mile from known haul-outs.
- The NMFS requires the following terrestrial, air, and aquatic zones around critical habitat for Steller sea lions (50 CFR Part 226).
 - Terrestrial zones extend 3,000 feet landward from the baseline or base point of each major rookery and major haul-out in Alaska.
 - Air zones extend 3,000 feet above the terrestrial zone of each major rookery and major haul-out in Alaska, measured vertically from sea level.
 - Aquatic zones extend 3,000 feet seaward in State and federally managed waters from the baseline or basepoint of each major rookery and major haul-out in Alaska that is east of 144 degrees west longitude.

Fisheries

If detrimental impacts to fisheries resources are identified as a result of guided use following implementation of this EIS mitigative measures will be developed and implemented. Recreation personnel will work with the district fish biologist and other resource specialists as needed to develop realistic mitigations. This process fits with the “adaptive management” concept being used in this project. Mitigation could include, but is not limited to:

- Restrict use in affected area.
- Encourage use in other area providing similar experience.
- Revegetate with native plant species.
- Reduce permitted numbers until impacts are mitigated.

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- Close area to all users (outfitter/guide and non-guided).

Typically, impacts to other resource areas would occur prior to measurable impacts to aquatic resources. It is thought mitigative measures which benefit several resource areas would be most effective at minimizing or negating impacts to aquatic resources.

The following recommendations will further reduce impacts to aquatic resources.

- Develop a monitoring strategy that includes a variety of the use areas, especially incorporating Large Group Areas (LGAs).
- Provide clear guidance on mitigation measures that help prevent invasive species introduction and lessen the impact of outfitter/guide use on the landscape.
- Have clear and appropriate repercussions for outfitter/guides who do not adhere to mitigation measures established to decrease the likelihood of spreading invasive species and lessen the impact on the landscape.

Brown Bears

Outfitter/guides shall include bear safety education elements in their safety plans. These elements will include field sanitation, basic bear biology and behavior, how to avoid confrontations with bears in the field, viewing distances, and what to do in case of a bear encounter, including requirements for guides to carry bear spray. Outfitter/guides will not harass or chase bears with motorized land vehicles, boats, or aircraft.

Food and solid waste should be managed according to the following methods.

- Outfitter/guides will segregate and store organic wastes and items, such as cans and jars contaminated with organic waste, in a bear-proof container for disposal in an approved disposal site. Freezing organic wastes until disposal is the preferred storage method. Alternatives are: (1) incinerate organic waste and other combustibles in a locally fabricated incinerator meeting ADEC standards for residue; or (2) use garbage grinders with disposal to a sewer system (not appropriate for septic tank systems) to remove organic wastes, while incinerating or temporarily storing (as above) contaminated combustible and non-combustible wastes.
- When storing food and organic wastes outdoors in bear habitat, use sealed bear-proof containers. Do not leave fish or game carcasses near a human use area including a campsite, or other place with high potential for bear/human conflicts.
- Burn all combustibles and pack out all non-combustibles. Do not discard organic material along or near trails.
- Never allow bears access to human foods.
- Baiting and feeding bears and other wild game is prohibited except for trapping furbearers or hunting black bears consistent with State regulations regarding black bear baiting (GMU 1D in the analysis area).

The following are additional guidelines for bear viewing where bears are *not* habituated to people.

- Remain far enough away from the bear(s) so human presence, if noticed, does not affect the animal's behavior.

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- Avoid guided activities (e.g., camping, hiking, nature tours) within 500 feet of foraging habitat to avoid disrupting bears and to reduce chances of human/bear incidents. Move further away if bears change behavior (e.g., stop foraging, raise head).
- View bears from safe locations that do not make people vulnerable to a surprise bear approach.
- Do not approach bears directly.
- Avoid startling bears.
- If seen by a bear, avoid moving. Even minor movements will encourage wary bears to leave the area.
- Never use a motorized vehicle, aircraft, or boat to get close to a bear.
- Never run from an approaching bear; it may trigger a prey chase response. When moving away from a bear, do so in a slow, deliberate manner.
- Show respect and courtesy to other bear viewers. Conduct viewing in a way that does not detract from the experience.
- When possible, approach downwind of bears or areas where bears are likely to be.
- If possible, arrange for travel to and from the viewing site(s) at the same time each day.
- Small groups are less likely to disturb bears and have better viewing. Keep group sizes as small as possible, but keep in mind there is safety in numbers.
- Keep portions of each day visitor free to allow non-habituated bears a period of use without the stress of having people present.

The following are additional guidelines for bear viewing where bears are habituated to people.

- Primary use of the area will be by bears; human use will be secondary.
- Minimize the size of the viewing site(s); limit group size by the space limitations of the viewing site and by the acceptance of the bears as indicated by their behavior. Viewing sites are defined as a specific spot in an area used by people to view bears, such as a pad, platform, blind, or tower.
- Concentrate viewing to a few sites to minimize disturbance to bears.
- Do not locate viewing site(s) in areas regularly used by bears; instead, locate viewing site(s) adjacent to these areas.
- Access viewing sites from a single trail.
- Where possible, visually screen the approach and departure of visitors to the viewing site(s) from the bears and make viewers at the site(s) unobtrusive.
- Minimize the number of trips to and from viewing site(s); instruct groups to plan on only one round trip to and from viewing site(s).
- Minimize the number of groups viewing bears in space and time; a larger group size is generally preferable to an increased number of groups.
- If possible, arrange for travel to and from the viewing site(s) to occur at the same time each day.
- Outfitter/guides will be responsible for maintaining control of their clients at all times.

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- Guides are encouraged to use aircraft and boats only for transportation to and from designated on-the-ground viewing site(s) and not for flightseeing or sightseeing in the general vicinity.

Human/bear high use zones, such as estuaries and other areas merit special attention. Estuaries are defined in the Forest Plan as, “An ecological system at the mouth of a stream where fresh water and salt water mix, and where salt marshes and intertidal mudflats are present. The landward extent of an estuary is the limit of salt-intolerant vegetation, and the seaward extent is a stream’s delta at low tide.” Estuaries and fish stream areas in human/bear high use zones will be managed on a two-tier basis according to the following criteria.

Tier I: From the *Southeast Alaska Unit 4 Brown Bear Management Strategy*: “Areas with consistently good bear habitat with repetitive and frequent human use sufficient to generate immediate management concerns (amount of use may vary by location).” Includes, but not limited to, Lake Eva Estuary on Baranof Island, and Mud Bay and the head of Idaho Inlet at the Trail River Estuary on Chichagof Island.

- Required: (a) No campfires, barbeques, or picnics in Tier I locations; (b) no overnight camping in estuary areas or within 100 feet of salmon streams in Tier I locations; (c) visitors will not be transported into estuaries by airplanes, OHVs, jet boats, or helicopters. Visitors will be transported to drop-off points outside of the estuary where they will walk in to the destination.

Tier II: From the *Southeast Alaska Unit 4 Brown Bear Management Strategy*: “Areas with consistently good bear habitat where human use is not immediately a problem but has the potential to be a problem and is approaching the level of Tier I areas.” Includes, but not limited to, Green’s Creek and Pybus Bay Streams on Admiralty Island, and Red Bluff Bay Streams on Baranof Island.

- Compliance with Tier I direction is voluntary in Tier II areas.
- Conditions that may change a Tier II area into a Tier I area include, but are not limited to: (a) increased use by commercial and non-commercial users; (b) change in mode of access, such as from non-motorized to motorized; (c) conflicts with bears; (d) evidence of abuse (e.g., littering or making organic material, such as human food scraps, available to bears).

Sensitive and Rare Plants

The following design criteria are included as assumptions for the overall project implementation for sensitive and rare plants.

- Collecting or disturbing sensitive or rare plants or plant parts is prohibited unless authorized by the responsible official. In cases of legitimate scientific or educational use, permits will be required to collect sensitive or rare plants.
- Outfitter/guide activities in the vicinity of known sensitive or rare plant populations and their immediate habitat must be avoided.
- 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 is allowed.
- Existing paths and game trails should be used where possible to limit trampling or damaging vegetation or sensitive plant habitats.
- Sightings of listed sensitive plants shall be reported to the Forest Service.

Invasive Plants

- Locations within use areas that are infested by priority invasive plant species shall be closed to outfitter/guide use.
- Infestations of priority invasive plants located in or adjacent to LGAs should be considered a priority for treatment and control activities.
- Prior to entering or re-entering a use area, all equipment used in outfitter/guide activities, including but not limited to boats, vehicles, camping gear, boots, clothing, and fishing waders, shall be inspected and cleaned of all attached or loose soil and plant parts
- Activities should be designed to minimize disturbance to soil and natural vegetation cover, in order to prevent establishment of invasive plants.
- Sightings of new infestations of priority invasive plants shall be reported to the Forest Service.
- The Forest Service will provide training materials and/or brief workshops on invasive plants to permit holders each year prior to the summer field season. In use areas with known infestations of high or medium priority invasive plants, outfitter/guides shall be required to annually report implementation of required mitigations specified in their permits.

Heritage Resources

Heritage sites will be protected through avoidance, mitigation, regulatory enforcement, and monitoring. Items of historical, prehistoric, or paleontological value are protected under various Federal laws, including the National Historic Preservation Act; the Antiquities Act of 1906; the Archaeological Resource Protection Act of 1979 and other Federal regulations.

If historical, prehistoric, or paleontological objects or sites are discovered during activities under this permit, the permit holder is responsible for assuring that those objects or sites are not disturbed during the course of the activities of the permit holder or the permit holder's clients. This includes digging and disturbing sites, and picking up and removing artifacts from sites.

If any historical, prehistoric, or paleontological objects or sites are located, permit holders are required to report, at the earliest opportunity, their findings to the Forest Service.

Leave No Trace principles will be incorporated into permitted operations. Any activities requiring ground disturbance or construction are required to undergo a separate environmental analysis and Section 106 review.

Additional requirements and best practices:

- Include R10-X106 permit clause on all permits;
- Provide outfitter/guide training/education;
- Conduct site monitoring on a regular and consistent basis;
- Implement management plans to avoid or minimize effects to historic properties within LGAs; and
- Engage in collaborative stewardship with Tribes.

Additional mitigation is discussed in Table C-1 below.

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The Forest Service only authorizes use on National Forest Lands. The permit holder is responsible for understanding where they are authorized to take clients under the terms of their permit. This includes understanding private property and in-holdings. Jamboree Bay, Sinitsin Cove and the Redoubt Lake all have small parcels selected and pending conveyance to Sealaska Corp under ANCSA. As such, they shall be treated as if they have been conveyed into private ownership.

Sealaska Corporation will be submitting 76 ANCSA Section 14(h)(1) selection applications, adding to the three pending ANCSA selections listed here (Jamboree Bay, Sinitsin Cove, and Redoubt Lake). Of the 76 sites to be selected by Sealaska Corporation, it appears there will be 24 new applications within the Shoreline II project area. Sealaska Corporation will be submitting their selections soon.

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Table C-1. Mitigation plan for heritage resources

Resource Indicator	Mitigation	Threshold/ Trigger	Adaptive Action
Historic Properties *	Monitor historic properties for impacts and complete comprehensive inventories where prior inventories, if any, have been incomplete. Evaluate sites for which National Register evaluations are pending.	300 reported service days used in a single year at discrete locations within any GUA and outside of LGAs	If eligible properties are present then a site specific management plan will be developed to avoid, minimize, or mitigate adverse effects. Measures may include: Site avoidance Minimize potential for effect by reducing numbers of service days allocated Mitigate adverse effects by data recovery, including as appropriate, systematic excavation, interpretation or other means All management plans will include an effectiveness monitoring strategy.
Historic Properties *	Monitor historic properties for impacts and complete comprehensive inventories where prior inventories, if any, have been incomplete. Evaluate sites for which National Register evaluations are pending.	40 or more reported service days used per mile of shoreline within a GUA**	Comprehensive archaeological inventory of the shoreline of the GUA required within five field seasons. If historic properties are present, a site-specific management plan will be developed to avoid, minimize, or mitigate adverse effects. All management plans will include an effectiveness monitoring strategy.
Historic Properties *		Upon Application for use of a LGA with documented historic properties within the boundary	A site-specific management plan will be developed to avoid, minimize or mitigate adverse effects to historic properties. All management plans will include an effectiveness monitoring strategy.
Historic Properties *		Upon Application for use of a LGA with known AHRS listed properties within the boundary.	Before issuing new permits, complete determinations of eligibility for those sites that are known and unevaluated within a LGA. For those site determined eligible, a site specific management plan will be developed to avoid, minimize or mitigate adverse effects to historic properties. All management plans will include an effectiveness monitoring strategy.
Sacred Sites/Places		Application for use on Kruzof Island	Government to Government consultation with the Sitka Tribe prior to issuing permits
14(h)1 ANCSA Private Inholding, Pending and Conveyed	Work with the Tribes and Corporations to develop Collaborative Stewardship program to monitor private	Permit applications in vicinity of all private inholdings, as well as near selected, but not yet conveyed ANCSA 14 (h)(1) properties.	Work with the Tribes and Corporation to develop Collaborative Stewardship program to monitor private lands and sites of concerns within Traditional Territories.

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Resource Indicator	Mitigation	Threshold/ Trigger	Adaptive Action
	lands and sites of concerns within Traditional Territories		

* Historic properties are those pre or post-contact sites that have been determined eligible for or are listed in the National Register of Historic Places.

** Use data will be compiled by special use permit administrators and presented on an annual basis to Heritage Program staff.

Recreation Resources

Outfitter/guide camps are prohibited within 1 mile of any Forest Service recreation cabin in the project area unless otherwise authorized.

The use of public recreation cabins or their amenities (e.g. skiffs, firewood, fire rings, toilets) by outfitter/guides is prohibited unless specifically authorized in their permit. Exceptions to this rule vary by ranger district/monument. When a cabin is authorized, the permit holder shall adhere to the Policy for Outfitter/Guide Use of Tongass National Forest Public Use Cabins.

Appendix D

Adaptive Management



Appendix D. Adaptive Management

What is Adaptive Management? _____

Adaptive management is a management tool that allows decision-makers to acknowledge the uncertainties surrounding the management of natural systems. It helps managers respond to resource or system conditions over time through the collection and evaluation of additional information.

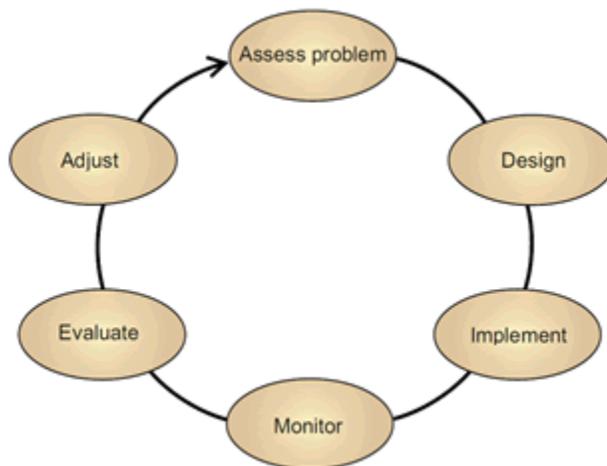
How does Adaptive Management work? _____

Adaptive management seeks to provide a structure to evaluate how to best meet projects short-term and long-term goals, and helps answer the basic question: Are our management actions having the predicted or desired effects?

Adaptive Management is not a ‘trial and error’ process, but one that emphasizes learning while doing. Adaptive Management does not represent an end in itself, but a means to more effective decisions. Adaptive Management requires a measureable objective, monitoring to determine the effectiveness of the management practices used in achieving the objective, evaluation to determine if the objective is being reached, and adaptation based on the results.

Adaptive management requires managers to predict, mitigate, implement, monitor, and adapt (Figure 1). Managers repeat these steps over time to improve their understanding of a system and incorporate learning into resource management and protection.

Figure D-1. Adaptive Management process



Adaptive management seeks to:

1. Allow for adaptation to meet a project’s environmental, social, and economic goals;
2. Involve stakeholders; and
3. Incorporate new knowledge into a transparent and agreed to framework to adjust decision- making as conditions change.

Why apply Adaptive Management to the Shoreline II Outfitter/Guide project?

Shoreline II Outfitter/Guide (hereafter Shoreline II) is a landscape-level project that recognizes demand for certain types and amounts of guided and non-guided use and resource conditions will change incrementally over time due to economic trends, peoples' preferences of recreation activities, and natural changes in ecological systems. Those changes may necessitate adjustments (increase/decrease in guided use) in the management of effects to resources in use areas (UA). While the Forest Service has gained experience through years of managing guided use there are still uncertainties surrounding how resources will respond to increased use, and the effects to the visitor experience. Based on the results, the Forest Service may adjust allocations in order to better protect resources and to improve visitor experiences.

When developing a framework for authorizing commercial recreation use on the National Forest, a discussion between the terms “allocated use” and “actual use” is necessary to understand the impacts and impreciseness of the permitting framework. The Shoreline II DEIS presents the analysis of four alternatives on how to allocate a proportion of total (commercial and non-commercial) visitor capacity to commercial uses. The remainder of the total visitor capacity would be reserved to represent the non-commercial recreation use that happens on the landscape. A business who obtains an outfitter/guide permit is authorized a portion of the total commercial allocation. In a typical use area, there are multiple businesses operating at the same time and collectively they utilize the allocation of commercial use service days. This is referred to as the allocated use, or what businesses are authorized to use in a single year.

Actual use is the amount of an individual guide's allocated use that gets utilized by paying clients in a single year. Every year guide companies have some degree of uncertainty on how many clients they will be able to attract to utilize all their allocated use. These uncertainties typically result from global, national and regional economic conditions, weather, and transportation logistics (i.e., the number of available seats to transport clients equals the number of service days authorized). Most guide companies desire an authorization of use at a level greater than their actual use. This offers opportunity for business growth if favorable conditions exist, rather than turn clients away or ask the agency for more use mid-season. This generally results in a gap where actual use is less than the allocated, or authorized, use.

The Forest Service Manual establishes a policy to keep allocated (authorized) use in check with actual use. Every 5 years each special use authorization undergoes a review to rebalance allocated and actual use. Ideally these numbers would be in equilibrium, but the desire for flexibility and growth by the industry and maximizing public recreation experiences by the agency make it unlikely. This results in an imprecise allocated use-actual use permitting framework.

This element of uncertainty lends itself to an adaptive approach, and allows for a better assessment of use allocations and whether those allocations are meeting the project's purpose and need. Integrating Adaptive Management and the NEPA process gives the Forest Service a tool that provides the flexibility to address unanticipated results of project implementation and to adjust decisions regarding the amount and locations of guided use for practical reasons.

Goals and desired outcome for the Shoreline II Adaptive Management Strategy _____

The Shoreline II DEIS lays the foundation for a collaborative Adaptive Management strategy to inform and improve outfitter and guide use management. The purpose of this plan is to meet the following three goals:

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1. To provide a structured method to monitor and evaluate the impacts of outfitter and guide use within use areas (UAs), in order to help managers implement actions that keep resource impacts within the range predicted in the EIS.
2. To provide baseline, and ongoing data regarding the impacts of outfitter guide use and impacts within UAs to inform adaptive decisions to increase or decrease use within specific UAs.
3. To track changes to the project area throughout the life of the project, to continue to offer quality recreation experiences, and expand economic opportunities if resource conditions allow.

What is collaborative Adaptive Management?

Collaborative Adaptive Management emphasizes joint learning and active partnership between managers, operators, and the public. Under the Adaptive Management framework for the Shoreline II project, holders of outfitter guide special use permits will be required to participate through terms of their permits such as reporting actual use data (numbers of clients, dates, locations) and voluntarily by reporting monitoring data collected in the field as they operate their businesses. The Forest Service's goal is to reframe a traditional public-private regulatory relationship into a public-private collaborative partnership realizing common interests in providing the highest quality national forest experiences and supporting local economies.

The public will be invited to attend meetings to discuss the suggested metrics contained in this DEIS during several public meetings to be held after its release, and will also have the opportunity to provide comments during the 45-day comment period. This will provide individuals with the opportunity for input on what metrics should be considered for inclusion in the final Adaptive Management Strategy, based on the extent to which they meet the its goals: importance, measurability, and feasibility.

The final decision regarding which metrics to monitor rests with the responsible official. The final Adaptive Management Strategy will be published as part of the FEIS. The Adaptive Management Strategy is intended to be flexible in that as new information is collected and evaluated, the Forest Service and the public will continually re-examine the goals of the program, monitoring strategies, and management actions. The Forest Service will keep the public updated on new information and any changes to monitoring strategies or use management through the Tongass National Forest website, monitoring reports, and public meetings, as needed.

Appendix D—Adaptive Management

Table D-1. Phases of Shoreline II adaptive management process

Phase	Step or Activity	Description
Set-up phase of Adaptive Management	Forest Service development of Adaptive Management plan	Fall 2015
	Stakeholder involvement	Ongoing: The public will be introduced to the Adaptive Management plan in Winter of 2015/2016 when the DEIS is published and the comment period is initiated. Public meetings will be held, and written comments will be accepted during designated comment periods.
	Monitoring protocols/resource indicators	Will be revised and adjusted based on public input between DEIS and FEIS.
Iterative phase of Adaptive Management	Decision making	Adaptive Management may be selected within the Shoreline II ROD, with the potential to make future adjustments within parameters of the FEIS analysis; metrics will be prioritized with public input (provided between Draft and Final EIS) and the responsible official may select final metrics.
	Stakeholder involvement	Outfitter/guides, members of the public, and the Forest Service collaborate on collecting data to support implementation of Adaptive Management.
	Monitoring begins	Once decided to implement Adaptive Management in a use area, a 2-year period of monitoring to gather baseline data is required, before Adaptive Management decisions can be instituted. Special use permits will be amended to include Adaptive Management requirements for operator in these use areas.
	Ongoing monitoring	Monitoring will be conducted as outlined in Table D-2, and reports will be published in the Tongass Forest Plan Monitoring Report.
	Assessment, learning and feedback	Ongoing, with periodic stakeholder meetings to discuss monitoring results throughout the life of the project.

How would Adaptive Management changes occur for this project? _____

Adaptive management would be applied to outfitter/guide allocations described in all the alternatives and would be designed to meet Shoreline II’s purpose and need. More specifically, the Adaptive Management strategy may be implemented when any use area’s actual use data fall within the range of 80 percent to 110 percent of the allocation for any use season (early spring, late spring, summer, fall, winter) and there is a request for additional use from an outfitter/guide. The authorized officer has discretion whether or not to implement Adaptive Management based on budget and workforce capacity. Outfitter/guides requesting

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use the implements Adaptive Management may be subject to additional fees under cost recovery regulations.

Actual use data is information guides are required to report to the Forest Service at the end of every operating season. The actual use data provides specific information about activity location, client numbers hosted at each location, and the date the activity occurred. Actual use data is entered into an outfitter/guide database managed by the Forest Service. The outfitter/guide database is used to track trends of actual use, determine specific locations that receive intensive use, provide information that determine whether new applications for authorized use will be approved, and influence where monitoring may be necessary. Concerns regarding inaccurate self-reporting of actual use data are alleviated by policy that directs the Forest Service to reduce authorized use to what is actually used and to charge a fee for what is authorized in the permit. Under-reporting of actual use results in the reduction of an individual guide's authorization; over-reporting of use requires the guide to pay more for their permit.

The decision space for this Adaptive Management framework is 1) when any UA for any season has between 80 percent and 110 percent of its allocation utilized in actual use and 2) whether or not to implement it considering agency capacity. To ensure adequate baseline information is collected, decisions based on the Adaptive management framework will not be implemented until at least two years after the Record of Decision. The priority for collecting baseline information will be in those use areas and use seasons that currently have 75 percent to 80 percent of the allocation utilized in actual use.

While the responsible official may take action in response to monitoring data collected, the Forest Service could not, under any scenario, authorize more than 110 percent of the allocated use (the maximum number of days evaluated under the selected alternative in the Selected Alternative) through Adaptive Management, unless additional National Environmental Policy Act (NEPA) compliance is completed (see the NEPA Review section).

The following sections describe the components of the Adaptive Management framework, and the associated monitoring plan that would provide the information used to determine which/or what sort of adaptive action(s) could occur.

What is a monitoring plan? _____

A monitoring plan standardizes the process used to determine resource status to identify appropriate management actions through the use of monitoring data.

A monitoring plan helps structure and guide decision making by linking the definition of project specific resource indicators, monitoring, and triggers/thresholds to assessment results, which in turn determine adaptive actions. An effective monitoring plan should be designed to ensure that resource parameters are adequately measured, provide a timeframe for actions, and be appropriately focused by outlining relevant resource indicators.

What components would the Shoreline II monitoring plan include? _____

Resource Indicators

In order to evaluate the impacts of this project and to make adjustments, a series of resource indicators have been developed. Resource indicators are measurable attributes that identify which factors would initially guide data collection and provide a link between the projects overall goals and the desired resource outcomes. For this project, the resource indicators are a reflection of the issues that drove the various action alternatives: crowding, user conflict and other resources of concern.

Appendix D—Adaptive Management

These key indicators (see Table D-2) will be measured regardless of where the monitoring data is collected. Contingent and/or supplemental indicators would be measured when necessary to address specific local, regional, or national resource needs or objectives.

Monitoring

Monitoring is defined as anything necessary and appropriate to determine the accuracy of impact predictions, and the effectiveness of mitigation measures. Monitoring provides the ability to adequately evaluate the effects of potential adaptive measures to allow for mid-course corrections, without requiring new or supplemental NEPA review. Without monitoring there would be no improved understanding of conditions or responses to management actions, and therefore, no informed adjustment of on-the-ground practices. Effective monitoring is required to reduce uncertainty, and to determine how and when subsequent action will be taken.

Monitoring:

- Provides data to evaluate progress towards achieving project objectives;
- Increases understanding of resource dynamics;
- Allows for an evaluation of impacts predicted and those actually occurring; and
- Provides a basis/justification for adjusting management actions.

Monitoring can be performed in a variety of ways. Sometimes observation of conditions readily identifiable without the aid of special equipment is sufficient. Other times, monitoring might involve detailed sampling. Monitoring results may also suggest that other metrics need to be evaluated, that other resources should be evaluated, or that adjustments to the way resources are monitored should be made.

Triggers

Triggers or thresholds define a resource condition that would initiate adaptive action(s) based on the outcome of monitoring information (i.e. if this (trigger is met), then that (adaptive action occurs).

The thresholds in the Shoreline II project were established by the interdisciplinary team (IDT) based on Forest Plan standards and guidelines or their individual resource analyses. Thresholds act as triggers that, when monitoring data exceeds the prescribed threshold, an adaptive action could be implemented. The adaptive action is either to increase, hold constant, or decrease the allocation of outfitter/guide use in a use area.

Adaptive Actions

Adaptive actions are actions that will be taken when certain conditions (triggers/thresholds) are or are not met. For this project, the adaptive actions primarily relate to increasing or decreasing the allocation in the selected alternative between 80 percent and 110 percent. Management actions may also involve other practices employed by outfitter guides such as communication and coordination with each other or avoidance of certain areas to mitigate certain site specific impacts. The acceptable range of management actions, except the adjustment of allocations between 80 percent and 110 percent, can change through time, as stakeholder perspectives and resource conditions evolve, legal requirements change, and new information becomes available.

All possible management actions cannot be fully detailed in this document. Actions would be tailored to respond to the specific/identified impact to the affected resource. An appropriate response would be evaluated within the Forest Service's capacity to utilize all available information, best science and coordination with appropriate agency specialists and outfitter guides.

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The resource indicators displayed below in Table D-2 have been selected to represent key resource concerns, and are tied to the issues brought forward by the public during scoping. These issues are tied directly to each alternative developed for analysis. The indicators selected for monitoring are capable of showing trends over time and will respond to adaptive actions in line with the overall desired condition of the project area.

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Table D-2. Resource indicators and corresponding adaptive actions

Resource: Indicator	Monitoring	Threshold/Trigger	Adaptive Action
Recreation & Wilderness: Crowding	Monitor the use area and use season of concern annually for the first two years to establish a baseline estimate of the number of encounters per day. Then monitor biannually until data and impact relationship remains stable for three consecutive data points.	Encounters with or amongst outfitter/guides and public groups exceed the Forest Plan ROS standards and guidelines at one or more use locations more than 15% of the season of concern.	<p>Require guides to monitor and report the number of encounters per day with their actual use report.</p> <p>If monitoring data is below threshold, authorize up to 95% of the use area allocation. Continue monitoring annually for 2 years. If data remains below the threshold, authorize up to the maximum 110 percent of the use area allocation.</p> <p>If monitoring data exceeds the threshold, do not authorize additional use and implement the following actions in priority order to the point where the threshold/trigger is achieved: Encourage outfitter/guide communication to coordinate activities to certain days/times to reduce encounters. Guides voluntarily reduce the number of authorized service days. Agency formally revokes authorized service days proportionally from all guides utilizing the use area.</p>
Recreation: Conflict between user groups	Annually monitor use area and season conflicts through ad-hoc field monitoring and reports from the public and outfitter/guide businesses.	Conflicts between user groups result in a diminished recreation experience and are recorded in any 2 of 5 year period in any single use area and season.	<p>Require guides to report the number of conflicts that result in a diminished recreation experience for their clients or public with their actual use report.</p> <p>If monitoring data is below threshold, authorize up to 95 percent of the use area allocation. Continue monitoring annually for 2years. If data remains below the threshold, authorize up to 110 percent of the use area allocation.</p> <p>If monitoring data exceeds the threshold, do not authorize additional use and implement the following actions in priority order to the point where the threshold/trigger is achieved: Encourage outfitter/guide communication to coordinate activities to certain days/times to eliminate conflict. Guides voluntarily reduce the</p>

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Resource: Indicator	Monitoring	Threshold/Trigger	Adaptive Action
			<p>authorized number of service days.</p> <p>Agency formally revokes service days proportionally from all guides utilizing the Use Area.</p>
Other Resources	<p>Monitor botany and heritage resources in proposed use area at least once prior to implementing an Adaptive Management action. See Additional Monitoring section below.</p>	<p>Monitoring report concludes that botany and heritage resource conditions in the field are outside of the expected range of effects disclosed in the FEIS.</p>	<p>If monitoring data is below threshold, authorize up to 95 percent of the use area allocation. Continue monitoring annually for two years. If data remains below the threshold, authorize up to 110 percent of the use area allocation.</p> <p>If monitoring data exceeds the threshold, do not authorize additional use and implement the following actions in priority order to the point where the threshold/trigger is achieved:</p> <p>Encourage outfitter/guide communication to coordinate activities to certain days/times to reduce encounters.</p> <p>Guides voluntarily reduce the authorized number of service days.</p> <p>Agency formally revokes service days proportionally from all guides utilizing the Use Area.</p>

Additional Monitoring

Heritage

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"). A Forest Service archeologist will conduct a cultural resource survey in the area of potential effect and conduct a files review to ensure compliance with NHPA and ensure that no historic properties will be affected.

Botany

The most current information on sensitive, rare and invasive plants will be used to assess the need for additional avoidance or mitigation measures. This includes the most current versions of the Alaska Region sensitive species list, the Tongass National Forest rare plant list, and the Tongass National Forest high priority invasive plant species list.

Any occurrence of previously undiscovered rare or sensitive plants documented before or during implementation will be evaluated to assess the need for additional avoidance or mitigation measures. Outfitter/guide permits will include site-specific practices to prevent the introduction and spread of invasive plants.

On a site-specific basis, other species may be of concern and warrant additional management considerations. The Invasive Species standards and guidelines (USDA Forest Service 2008c, p. 4-22) and 2011 Invasive Species Management Forest Service manual (FSM 2900) provide direction for minimizing spread of invasive species.

Project specific management considerations and mitigation are noted on the use area, and large group area cards located in Appendices A and B respectively. For further site specific design features and mitigation measures see Appendix C of this DEIS.

Data Collection and Documentation

Monitoring data will be input, and housed in the Outfitter and Guide database, and the results will be published in the Tongass National Forest Monitoring and Evaluation Report, and will also be available upon request from the Forest Service. Data will be reviewed by the interdisciplinary team, and Decision Maker to inform and evaluate Adaptive Management decisions.

NEPA Review

An interdisciplinary environmental review check-in will be done for all proposed Adaptive Management actions. The District Ranger, and the responsible official, will determine the level of environmental review necessary.

The effects of proposed increase or decrease in allocations to various resources can be reduced or avoided through the use of Forest Plan Standards and Guidelines including the best management practices (BMPs). Additional mitigation measures may be identified during the environmental review. If any resource concern cannot be successfully mitigated or does not conform to the Forest Plan Standards and

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Guidelines, the proposed action would not be implemented under the Shoreline II Outfitter and Guide EIS, and a separate NEPA analysis would be required. The requirement to prepare a supplemental analysis would continue to apply when the adapting responses, and their effects, exceed the scope of the NEPA analysis.

Once it is determined a potential increase/decrease in allocated use is necessary or desirable to better achieve Adaptive Management objectives, an environmental screening process will be conducted to determine what, if any, additional environmental compliance may be required. Through this screening process, the following will be determined:

- Is the increase or decrease in proposed use expected to be consistent with the range of effects disclosed, and analyzed for in the existing NEPA document given current environmental concerns, interests, and resource values?
- Is the existing analysis valid in light of any new information or circumstances since the decision was signed?
- Are the direct, indirect, and cumulative effects that would result from implementation of the new proposed use allocation (s) for a/each GUA similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?

Environmental Review Process

The purpose of the environmental review is to determine how proposed Adaptive Management actions (increase, or decrease of allocated use in individual use areas (UAs)) would affect resources. If resource specialists find the effects of implementing the adaptive action is within the effects described in the Shoreline II EIS, a subsequent environmental review would not be needed prior to approval of the action.

An environmental review of Adaptive Management proposals must be conducted by the IDT, and Adaptive Management decisions may be implemented if the district ranger and the responsible official (Forest Supervisor) concur with the findings of the IDT. The implementation sheet/environmental review checklist, provided below, shall be completed before an adaptive action could be taken, and adaptive actions will be considered no sooner than 2 years after the Record of Decision has been issued, to ensure baseline monitoring data has been collected to provide a basis for decisions. Monitoring results will be handled as outlined in the Data Collection and Review section.

The implementation sheet outlines a structured format for documenting and approving adaptive actions. The monitoring plan above provides information for the IDT, and district ranger/responsible official to base determinations of whether adaptive changes are warranted over time and if so, which UAs meet the criteria for changes in use levels.

Prior to Implementation

Project leaders will provide to the IDT a brief description and rationale for the proposed adaptive action, including location, season, and percent of proposed increase or decrease from current use levels in the selected GUA.

The IDT will review, and determine if site visits are necessary to determine if additional resource protection measures are necessary. The IDT will provide a consolidated response (see Environmental Review Worksheet below) to the district ranger for approval prior to implementation.

Scope of Work during Implementation

Project-level monitoring is a commitment of resources to manage the national forest. If included in the Selected Alternative, Adaptive Management will be implemented contingent upon agency funding and capacity. The estimated scope of work to implement Adaptive Management in the first 2 to 5 years varies by alternative. Each alternative proposes an allocation that, when taken into consideration of actual use, results in varying proportions of actual/ allocated use. Adaptive management would be employed when 80 percent of the allocated use is utilized by actual use. Optimally, monitoring would start at 75 percent, so that there is a level of certainty regarding future management between agency and outfitter guide businesses. This scope of work is based on the number of use areas and season that will be at 75 percent or higher in each alternative.

Table D-3. Alternative 1 use areas where Adaptive Management strategy would be employed in first 2 to 5 years of implementation

District	Use Area	Season	Actual Use 2010-2014	Proposed Allocation	Proportion (Percent)
JRD	01-05D Tracy Arm	Fall	56	45	124
JRD	01-05E Fords Terror	Summer	293	153	192
SRD	04-01A Gut Bay, Baranof	Summer	235	311	76
SRD	04-02A Redoubt Lake	Summer	258	101	255
SRD	04-04B Kelp Bay	Spring	211	201	95
SRD	04-04B Kelp Bay	Summer	2,825	1,181	239
ANM	04-06A Pybus Bay	Summer	573	590	97
HRD	04-16C Idaho Inlet	Summer	1,188	954	125
HRD	04-16E Port Althorp	Spring	200	127	157
HRD	04-16E Port Althorp	Summer	917	607	151

Table D-4. Alternative 2 use areas where Adaptive Management strategy would be employed in first 2 to 5 years of implementation

District	Use Area	Season	Actual Use 2010-2014	Proposed Allocation	Proportion (Percent)
JRD	01-05E Fords Terror	Summer	293	125	234
ANM	04-10A Greens Creek	Summer	190	250	76

Table D-5. Alternative 3 use areas where Adaptive Management strategy would be employed in first 2 to 5 years of implementation

District	Use Area	Season	Actual Use 2010-2014	Proposed Allocation	Proportion (Percent)
JRD	01-05D Tracy Arm	Fall	56	75	75
JRD	01-05E Fords Terror	Summer	293	95	308
SRD	04-01A Gut Bay, Baranof	Summer	235	315	75
SRD	04-01A Gut Bay, Baranof	Fall	42	55	76
SRD	04-04B Kelp Bay	Spring	211	220	96
ANM	04-06A Pybus Bay	Summer	573	510	112

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District	Use Area	Season	Actual Use 2010-2014	Proposed Allocation	Proportion (Percent)
ANM	04-07A Gambier Bay	Spring	45	60	75
ANM	04-10A Greens Creek	Summer	190	190	100

Table D-6. Alternative 4 use areas where Adaptive Management strategy would be employed in first 2 to 5 years of implementation

District	Use Area	Season	Actual Use 2010-2014	Proposed Allocation	Proportion (Percent)
JRD	01-05E Fords Terror	Summer	293	200	147

Environmental Review Worksheet_____

Guide Use Area:

Season:

Located in a Wilderness Area: Y/N

Current Allocation:

Proposed Allocation:

Adaptive Action Resource Effects

Please supply resource specific answers to the following questions:

- Would the effects of implementing this action (direct/indirect/cumulative) match those described in NEPA analysis for each resource?
- Have conditions changed (i.e., new listed species in project area; new invasive species in project area; change in regulation)? If so, describe.
- Are there specific mitigation measures needed?
- Is there a need to review new information (FSH 1909.15 Section 18)?

Heritage:

Wildlife/Subsistence:

Recreation:

Hydrology/Fisheries:

Botany: Invasive Plants:

Soils and Wetlands:

Wilderness:

I have reviewed the activities proposed for the Shoreline II Guide Use Area_____. Based on my review, the decision to_____is consistent with the Shoreline II Outfitter and Guide Environmental Impact Statement and Record of Decision.

X_____

District Ranger

X_____

Forest Supervisor