United States
Department of
Agriculture

Forest
Service

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Environmental Assessment

Outfitter and Guide Permits

Adventure Powersports

BC Adventure Guides

Boulder Creek Enterprises

Cascade Powder Cats

Glacier Peak Guides

Red's Fly Shop

Sahaptin Outfitters

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CHAPTER 1 – PURPOSE AND NEED

Introduction

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 EA discloses the direct, indirect, and cumulative environmental impacts that would result from issuing seven different outfitter and guide permits on the Cle Elum Ranger District of the Okanogan-Wenatchee National Forest.

The EA is organized as follows:

- *Chapter 1 – Purpose and Need* describes the purpose and need for the project, and the agency's proposal for achieving that purpose and need (the proposed action). It also describes how the Forest Service informed the public of the proposal and how the public responded. It lists issues raised during scoping and how the Interdisciplinary Team (IDT) considered them in the analysis.

  All of the issues raised that were within the scope of the project were addressed by incorporating design criteria and required mitigations into the proposed action, therefore only one action alternative (Alternative 2—the proposed action) is fully evaluated in this EA. There were no alternatives considered but eliminated from detailed study.

- *Chapter 2 – Alternatives and Required Mitigations* provides a more detailed description of the agency's proposed action (alternative 2) and required mitigation measures. Alternative 1 (no action) provides a baseline for the analysis of environmental consequences.
- *Chapter 3 - Environmental Consequences* describes the existing conditions for each affected resource area, and effects from taking no action and from implementing the proposed action.
- *Chapter 4 - Agencies and Persons Consulted* lists members of the IDT and the agencies consulted during the development of this EA.
- *Chapter 5 – References* lists literature cited in the EA.
- *Appendices:* The appendices provide more detailed information to support the analyses presented in the environmental assessment. Appendix A includes maps and detailed descriptions of each outfitter guide's proposed activities, based on season of use and type of activity. Appendix B includes tables supporting the wildlife analysis.

Background Information

Outfitting and guiding services have been available on the Cle Elum Ranger District for many years. Current permitted outfitter and guide activities include pack and saddle stock trips, hiking, snowmobiling, mountaineering, cross-county skiing, snowshoeing, and cycling. There are currently four companies that hold long term priority use permits with the Cle Elum Ranger District. Five other companies hold multi-forest permits that include use on the Cle Elum Ranger District. The current holders have been operating from 2 to 40 years.

A recent surge in interest from the public for outfitter and guiding opportunities prompted the District Ranger to accept the seven new applications for priority use permits, and to analyze them in one combined EA. A project initiation letter was sent to the IDT on Jan 11, 2012.

When an outfitter-guide company is issued a priority (up to 10-year) or temporary (six months or less) permit, the company receives a service day allocation for the activity they are providing.

Each Outfitter-Guide submits an application specifying the requested number of service days, locations/areas of service, and type of service provided. A service day is defined as a day, or part of a day, on National Forest System land for which an outfitter-guide provides goods or services, including transportation, to a client. The total number of service days is calculated by multiplying each service day by the number of clients on the trip.

Management Direction for Issuance of Outfitter-Guide Permits

Forest Service handbook 2709.11, Chapter 40 provides direction for administering permits for outfitting and guiding.

Under the Wenatchee National Forest Land and Resource Management Plan (US Forest Service 1990, hereafter referred to as "LRMP" or "Forest Plan") the management objective for recreation is to *"provide a well-balanced array of recreation opportunities across the breadth of the recreation opportunity spectrum in accordance with resource capability, public demands and expectations for outdoor recreation"* (LMRP page IV-2). The LRMP also states that *"Many dispersed recreation activities will be supported or made possible by cooperators or the private sector, such as recreation organizations, clubs, and commercial outfitter-guides. In activities such as river rafting, fishing, backpacking, hunting, climbing, and ski touring, experienced guides or outfitters will continue to provide these opportunities for the public" (*LMRP page IV-31).

Project Record

The Project Record includes Specialist Reports pertaining to Soils, Hydrology, Aquatic Species, Wildlife, Heritage Resources, Recreation, and Botany. The EA incorporates by reference the entire Project Record (40 CFR 1502.21), including all Specialist Reports, Biological Assessments, and other technical documentation used to support the analysis and conclusions in this EA. The Project Record is located at the Cle Elum Ranger Station in Cle Elum, WA. Chapter 3 summarizes the various Specialist Reports, providing enough site-specific information to demonstrate a reasoned consideration of the environmental impacts associated with each alternative and how these impacts can be mitigated, without repeating detailed analysis and background information available elsewhere in the Project Record.

Purpose and Need for Action

Seven outfitter-guide operators have submitted written applications for priority use outfitting and guiding permits on the Cle Elum Ranger District. The purpose and need for action is to respond to each of these applicants, and if permits are issued, identify any mitigation measures needed to ensure that each operation is consistent with applicable Forest Plan standards and guidelines.

The need for more Outfitter and Guide services on the Cle Elum Ranger District, due to increasing recreational uses of this district. Inquiries and proposals from prospective outfitter and guides to the permit administrator on the Cle Elum Ranger District over the last 3 years have easily tripled.

The proposed activities range in technical difficulty from guided day hikes to expert level guided whitewater kayaking. Demand for outfitter guiding has increased over the years as more people are visiting the area without specialized skills, experience, and equipment.

Tourism to Kittitas County has increased over the last 5 years and local communities are hoping to increase it further by promoting National Forest lands as a destination for people visiting the area. Outfitter and guiding on National Forest lands is a desirable commodity for visitors and local economies.

Proposed Action

Seven outfitter-guides (Adventure Powersports, BC Adventure Guides, Boulder Creek Enterprises, Cascade Powder Cats, Adventrepreneur, Sahaptin Outfitters, and Red's Fly Shop) submitted written proposals (applications) identifying "services to be performed, proposed number of services days, National Forest System lands to be occupied, modes of transportation to be used, proposed season of use and itinerary" (FSH 2709.11 sec 41.53h).

The Proposed Action is to issue each applicant a priority use outfitter-guide permit, as proposed by the applicant, adding reasonable mitigations where needed to ensure consistency with federal laws, direction and policy. The term of the permits may vary from 1 to 10 years, at the discretion of the Forest Service.

A proposal is considered a proposed action for purposes of NEPA when it is accepted as a formal written application. Proposed actions must be evaluated pursuant to NEPA, its implementing regulations, and agency NEPA procedures" (FSH 2709.11 sec 12.5).

Activity Description for Each Applicant

Adventure Powersports is proposing to deliver personal watercraft (jet skis) to Kachess Lake Campground boat launch, Speelyi Beach, and Wish Poosh boat launch. Delivery of personal watercraft will occur by a prearranged meeting location and time.

They are also proposing to deliver snowmobiles to the Salmon la Sac Sno-Park and designated parking areas along Hwy 903, the Salmon la Sac Road. They are proposing to be able to conduct guided snowmobile trips on existing groomed snowmobile trails in the Cle Elum Valley, on Table Mountain and in the Upper Taneum Creek valley. They are requesting 30 days for guiding, 25 days for delivery of snowmobiles and 45 day for delivering personal watercraft.

BC Adventure Guides is requesting 150 service days to conduct avalanche education courses, guided snowshoe and ski touring and winter travel instruction at Mt. Margaret, Red Mountain, an area east of Cold Creek (near Mt. Catherine), and Silver Creek. They are also requesting 40 service days to lead guided ski touring trips at Esmerelda Peaks.

Red's Fly Shop is requesting 50 service days for guided, walk and wade fly fishing trips on the Upper Cle Elum River. They are requesting 40 service days for guided float fishing trips between Salmon la Sac Campground and Lake Cle Elum. They are also requesting 40 service days for guided fly fishing on Cooper Lake and 30 service days for guided fly fishing trips between Cooper Lake and the confluence with the Cle Elum River.

Boulder Creek Enterprises is requesting 600 service days for delivery of snowmobiles to all Sno-Parks and designated parking areas along Hwy 903, the Salmon la Sac Road and for guided snowmobile trips on all the groomed snowmobile routes in the Cle Elum Valley.

They are requesting delivery of scooters (200 service days) to the FS system roads in the Cle Elum Valley; personal watercraft (jet skis) (350 service days) to Wish Poosh boat launch, Speelyi Beach, Morgan Creek and Dry Creek; canoes (125 service days) to Wish Poosh boat launch Speelyi Beach, Morgan Creek, Dry Creek and Cooper Lake; mountain bikes (50 service days) to FS system roads and trail that are open for mountain bike use; boats/party boat (150 service days) to Wish Poosh boat launch, Speelyi Beach, Morgan Creek and Dry Creek.

Cascade Powder Cats is requesting 50 service days to conduct avalanche education courses, guided snowshoe and ski touring and winter travel instruction at Mt. Margaret, Red Mountain, an area east of Cold Creek, Silver Creek, and Esmerelda Peaks.

Adventrepreneur is requesting 20 service days for guided mountain bike and white water kayak trips near Lake Kachess, Cooper Lake and the Upper Cle Elum River.

Sahaptin Outfitters is requesting122 service days for winter activities that include guided day snowshoe and cross-country ski trips; 184 service days for summer activities that include guided hiking, backpacking and mountain biking trips.

For additional information about each operation, see descriptions and maps of permit areas in Appendix A.

Decision Framework

Given the purpose and need, the deciding official (Judy Hallisey, District Ranger on the Cle Elum Ranger District) will decide whether to implement the Proposed Action (as written or modified), and what mitigation measures and monitoring will be implemented with each outfitter-guide permit.

Public Involvement and Consultation

The project has been listed on the Okanogan-Wenatchee National Forest Schedule of Proposed Actions since the first quarter of 2012. Letters describing the proposed action were mailed on July 10, 2012 to tribal governments of the Confederated Tribes of the Colville Reservation and the Yakama Nation. Tribal governments expressed no concerns about the project.

Scoping letters were mailed on July 19, 2012 to the general public (the Cle Elum Ranger District mailing list). Two individuals and one organization responded to the scoping effort. No unresolved conflicts emerged from Forest Service analysis of issues raised during scoping (see discussion of issues in the following section).

Pursuant to Section 7 of the Endangered Species Act, the District prepared a draft Biological Assessment (BA) of the project's effects on federally listed wildlife and bull trout. Level I review of the BA is nearing completion and will immediately be followed by section 7 consultation with U.S. Fish and Wildlife Service. Consultation with NOAA Fisheries is not required for this Project (See EA Chapter 3, effects to aquatic species).

Issues and Alternative Formulation

Issues raised during scoping were analyzed by the Interdisciplinary Team (IDT) to distinguish non-significant issues from "unresolved conflicts". Non-significant issues are already decided by law, regulation, the Forest Plan, or other higher level decision; are irrelevant to the decision being made; or are conjectural and not supported by scientific or factual evidence. Unresolved conflicts are those issues that warrant consideration of alternatives to the Proposed Action. Comments received during scoping are summarized, as follows:

- In a letter dated August 23, 2012, the Wilderness Society recommended that the EA address how the needs of diverse populations (including youth, minorities, and the socioeconomically disadvantaged) would be accommodated by these proposed outfitter-guide operations. The Wilderness Society also advocated for a thorough and robust analysis of project effects, "to avoid legal challenges that would threaten the public's ability to enjoy our public lands through reasonable and responsible recreational activities." (*IDT Response: no specific issue is raised. Effects of the project on diverse populations will be addressed in the context of Environmental Justice, as required under Executive Order 12898*).

- In a letter dated July 27, 2012, a cabin owner on Lake Kachess raised concerns about the effects of proposed outfitter-guide operations on the condition of FS Road 4818. He stated that a group of cabin owners have paid a yearly fee to re-gravel and grade this road, and suggested that these outfitter-guides should pay some of that cost. (*IDT Response: Non-significant issue. FS Road 4818 is a "Maintenance Level 2" (ML2) road suitable for high clearance vehicles, not passenger cars. Cabin owners elected to improve the road to a higher standard than required for this particular road. The road is open year round to public use. The appropriateness of the ML2 designation for this road is outside the scope of this project*).
- The same individual expressed concerns about the noise of snowmobiles and equipment using the road, and snowmobiles racing on the road. (*IDT Response: Non-significant issue, because winter use of this road is already permitted under the District Road Management Plan. Also a winter speed limit already exists on groomed snowmobile routes, and would apply to all users of the road, including outfitter-guides and their clients).*
- The cabin owner also raised questions about the process for obtaining an outfitter-guide permit, and about local problems resulting from recreational uses unrelated to proposed outfitter-guide activities. The Forest Service responded separately to these unrelated questions (*IDT Response: Non-significant issues, unrelated to and outside the scope of this project*).
- NOAA Fisheries responded on July 31, 2012, expressing a concern that some of the proposed outfitter-guide activities would overlap areas with listed anadromous fish, specifically the Teanaway River. Therefore, proposed outfitter-guide activities have a potential to adversely affect federally listed fish (Middle Columbia River steelhead) and their designated critical habitat, through redd trampling, disturbance during rearing, and degradation of riparian habitat. NOAA Fisheries urged caution in permitting activities that disturb or degrade listed fish, their habitat, and that do not contribute to the recovery of Mid-Columbia River steelhead. (*IDT Response*: *The Proposed Action in the original scoping letter for this Project included proposed guided fly fishing trips on the Teanaway River*; *however, the final application dropped this are*a. *The issue is moot because there is no longer any proposed activity on the Teanaway River*).

Because no unresolved conflicts emerged from issues that fell within the scope of the project, this EA evaluates a single action alternative—the proposed action. A *No Action* alternative—in which applicants are denied priority use permits—is analyzed to provide a baseline for comparing environmental effects. There were no alternatives considered but eliminated from detailed study.

CHAPTER 2 – ALTERNATIVES AND REQUIRED MITIGATIONS

No Action Alternative

The Council on Environmental Quality (CEQ) defines two possible no-action alternatives in their 40-Most Asked Questions. CEQs second definition for the no-action alternative is used in this EA. Under the no action alternative no priority use permits would be issued to the seven outfitter-guide applicants.

Proposed Action (Alternative 2)

The proposed action is to issue priority use (up to ten-year) outfitter-guide permits to each applicant, authorizing activities as proposed by each applicant to the Forest Service, and adding reasonable mitigations required to ensure consistency with federal laws, direction and policy.

Proposed activities are summarized in Table 1. For additional details, legal locations, and maps, see Appendix A.

Table 1. Description of proposed activities for each OFG applicant, and the location of use. No OFG activity would take place in designated wilderness areas.

Proponent	Activity	Requested Service Days	Location
Adventure Powersports Rentals	Snowmobile guide/delivery - Watercraft delivery	100	Cle Elum Valley from Cooper Bridge to Sac Sno Park - Speelyi, Wish Poosh and Kachess Campground boat launch
Cascade Powder Cats	Backcountry ski/snowshoe trips - Avalanche education courses	50	Mt. Margaret, area east of Cold Creek, Red Mountain, Esmerelda Peaks, Silver Creek
BC Adventure Guides	Backcountry ski/snowshoe trips - Avalanche education courses	190	Mt. Margaret, area east of Cold Creek, Red Mountain, Esmerelda Peaks, Silver Creek
Boulder Creek Enterprises	Snowmobile outfitter & guide, delivery of mountain bikes, scooters, canoes and kayaks	600	Cle Elum Valley
Reds Fly Shop	guided fly fishing day trips	160	Cle Elum and Cooper River

Sahaptin Outfitters	Guided Snowshoe Hikes. Guided Cross Country Ski Tours Guided Backpacking Trips Day Hiking Guided Mountain Biking trips	122 winter 184 summer **306 Total**	Across the district
Adventrepreneur	whitewater kayaking - mountain biking	20	Cooper River, Cle Elum River, Kachess Lake areas

Required Mitigations

1. **River Access**
   a) Permittees will not create access points along streambanks and shorelines for boat launch (put-in) and landing (take-out)
   b) No modification to living vegetation or woody debris within Riparian Reserves or within wetted width of stream/river channels is permitted for the purposes of launching rafts or kayaks, creating open waterways for floating rafts/fishing boats or whitewater kayaking, or for ease in take-out.
   c) OFGs will use existing trails when accessing put-in and take-out points. There will be no new trail construction.

2. **Campsites in Riparian Reserves**
   a) All camp locations will be in existing disturbed campsites. No new disturbance is permitted. The outfitter will report campsite use annually as part of their final use report.
   b) If the Forest Service determines that existing campsites need to be closed to protect resources, any sites may be prohibited from use by the permittee and alternate sites may be designated by the Forest Service.
   c) Hazardous material handling or storage (including fuel) will be located at least 200 feet from lakes and streams.

3. **Leave-No-Trace**
   a) Outfitters-guides will follow Leave-No-Trace principles
   b) Outfitter-guides will review Leave-No-Trace practices with clients. Specific educational tools to be employed will be detailed in operating plans.
   c) Outfitter-guides will not allow activities which
      a. cause any new exposed roots, or damage any trees
      b. create any drainage features
      c. dig latrines within 200 feet of surface water(see sanitation section below)

3. **Campsite Use Limitations**
   a) Sites will be available on a "first-come, first-served" basis for either commercial or non-commercial camping purposes. No outfitter shall move or remove any other

parties' equipment at camping sites. All equipment and materials will be removed from campsites at the end of each trip.

4. Campfires and Firewood

a) No standing trees, including snags, will be cut or damaged, nor will any material be attached to trees with nails or wire. If an immediate, unavoidable safety hazard is posed the outfitter-guide should select an alternate site and notify the Forest Service of the hazard as soon as possible.

b) Firewood should be brought to campsites rather than collected on site and firewood storage in campsites is prohibited.

5. Regulations

a) All outfitter-guides and clients are subject to the same rules and regulations that pertain to the non-guided public. Outfitter-guides shall review with clients pertinent regulations and appropriate use practices, including those posted at trailheads and/or referenced in the operating plan. This applies to clients who are accepting delivery of motorized and non-motorized recreational equipment as well as to guided groups.

6. Trails

a) Permitted use will be limited to existing trails. Constructing, placing or maintaining any kind of trail or other improvement on National Forest System land without a special use authorization, contract, or approved operating plan is prohibited (36 CFR 261.10a).

b) Trail maintenance work needed for operations will be restricted to the maintained Forest Service system trails and access trails to established camps, unless prior approval is granted. Maintenance will be consistent with Forest Service trail standards and requires prior Forest Service approval and will be coordinated with the trails manager at the district office.

c) Mountain bike trail use - The outfitter-guides will keep annual records of the trail networks on which they guide, including dates of rental and numbers of clients on those dates. They will submit this information in an annual report to the US Forest Service. The Special Use Permit Administrator will involve Recreation Staff and the District Hydrologist in the review of trail use and trail conditions.

d) If trail use involves using degraded trails, the Forest Service will consider entering into a trail maintenance agreement with the outfitter- guides for them to maintain functioning trail drainage features to prevent erosion and transport of sediment into creeks and fishbearing streams.

7. Sanitation and Litter

a) All human excrement and toilet paper will be disposed of properly by burying it in a hole at least 6 inches deep and 200 feet from any water source, or by packing it out. A slit trench or latrine may be used where there are more than 12 person days in a camp, or if a guide determines that clients lack judgment to properly use holes. Slit trenches will be completely covered over and camouflaged when camp is vacated. Slit trench creation and use shall be reported annually to the Forest Service.

b) Outfitter-guides will implement sanitation measures from the North Cascades Grizzly Bear Recovery Plan, to avoid attracting bears (black or grizzly) to campsites. These measures entail storing food, garbage, pet food, and any other bear attractants in bear-proof containers,

or suspending them between trees, far away from campsites. The Forest Service will provide OFGs with brochures describing the required sanitation measures.

8. Party Size

a) Party size will be designated in the outfitter-guide operating plan and may be modified from year to year.
b) The selection of campsites must appropriately consider party size.
c) The Forest Service may impose party size limitations for resource protection.

9. Aquatic Resources and Fishing

a) The permit holder will ensure that outfitter-guide personnel will be appropriately trained in how to identify bull trout and bull trout redds so they can be avoided.
b) Outfitter-guides who provide angling services or activities shall provide fishing regulations and bull trout identification information to personnel and clients as well as educate clients about catch and release techniques that minimize stress and injury of fish. Salmonid redd identification and avoidance practices will also be shared with clients.
c) The permit holder will be required to provide catch records of suspected bull trout to the permit administrator. If the outfitter guides employees or clients catch a fish which is suspected to be a bull trout, the permit administrator is to be notified as soon as possible and within one week. Suspected bull trout should be photographed if possible, using techniques that minimize potential stress and injury and increase the likelihood of positive identification (i.e., (1) try to keep the fish submerged (at least partially) while photos are taken, (2) cradle the fish in your hands or a knotless net, don't hold it by the gills, (3) take photos quickly, especially if the fish is removed from the water, (4) compose the photos so the dorsal fin and back are clearly visible, and (5) release the fish quickly and gently). Bull trout and eastern brook trout look very similar, and hybrids can be difficult to identify confidently. When in doubt, take a picture as described above, and release the fish. The photograph shall be provided to the District Fish Biologist within one week of the occurrence. There are frequent misidentifications of bull trout and this measure seeks to ensure correct identification of fish.
d) The Forest Service may request a demonstration of education methods and catch and release skills.

10. Motorized Scooter Rental

a) Outfitters who provide delivery of motorized scooters shall expressly prohibit off road travel by motorized scooters on National Forest lands. They shall educate clients about motorized vehicle use regulations and provide Motorized Vehicle Use Maps (MVUMs) to clients (once they become available from the Forest).
b) No refueling is permitted on NFS lands.

11. Invasive Species

The objectives of the following measures are to prevent the establishment and spread of aquatic invasive species (AIS) in the analysis area. The FS is obligated to determine the risk of introducing, establishing, or spreading invasive species associated with any proposed action, as an integral component of project planning and analysis, and where necessary provide for alternatives or mitigation measures to reduce or eliminate that risk prior to project approval (FSM 2903). The following measures ensure compliance with this directive.

a) Washington State law requires that boats and other trailered equipment used in an aquatic environment should be free of aquatic animals and plants whenever removed from a water body in order to avoid transport of invasive species to a new water body (RCW 77.15.253 and 77.15.290).
b) Precautions will be taken by outfitter-guides to prevent the introduction and spread of (AIS) on National Forest System land. Outfitter-guides and clients shall prevent the transport, introduction, and spread of AIS by following the guidelines in the attached document titled Outfitter Guide AIS Management Measures.
c) Outfitter-guides who provide motorized or non-motorized watercraft and water based services (fishing and any boating services) shall provide aquatic invasive species (AIS) regulations and AIS identification information to all personnel and clients.
d) Outfitter guides will be responsible for inspecting motorized and non-motorized watercraft for AIS when removing them from the water (every occurrence), and prior to initiating any launch if the watercraft has been used in an area off the Forest or is being moved from one water body to another within a 5 day period.
e) Outfitter guides are obligated to report any occurrences of detected AIS to the permit administrator as soon as possible and within 1 week as well as follow local, state, and any federal reporting requirements.
f) If outfitter guides use any watercraft or fishing gear in AIS infected waters they are required to thoroughly decontaminate all vessels and equipment as prescribed in the Outfitter Guide AIS Management Measures document or an alternate method which has been approved by the FS. Failure to comply with this measure may result in termination of the permit.
g) Additional measures will be added to permits as needed if AIS populations become established in areas which are being accessed by permittees.
h) The Forest Service may inspect water craft being utilized by outfitter guides for AIS and request a demonstration of AIS prevention practices from personnel.
i) An annual report of AIS prevention measures taken and inspections conducted will be submitted to the permit administrator.
j) Before entering Forest Service lands, proponents should take care to clean boots, bike tires, vehicle tires and undercarriages of all mud and plant material to reduce the risk of dispersing noxious week seed and material.

12. **Boat Identity for Outfitter-Guides** - All watercraft will be marked with company names and an individual boat number to aid in compliance checking of operations. The marking will be described in the annual operating plan.

13. **Winter Motorized**
    a) Snowmobiles will only be warmed up on trailers, in the Sno-Park parking lot or on the groomed trail itself and not in ungroomed areas adjacent to the Sno-Park that represent riparian meadow areas (ex. Blewett Pass Sno-Park).
    b) Refueling is permitted at Sno-Parks and outfitter-guides are to report on volume of fuel which is transported per visit. They will also be required to have adequate on-site storage, spill containment response materials and to demonstrate spill response procedures.
    c) No maintenance of snowmobiles will be performed in Sno-Parks.

14. Watercraft rental, boat delivery and pickup, as well as shoreline operations for customer service.

a) Shoreline canoe and kayak launching or landing will all take place at the designated boat launch at Cooper Lake to prevent damage to riparian soils and vegetation. No staging is permitted.
b) When watercraft is not being actively launched or landed, watercraft must remain on the outfitter guide's trailer and not be staged or stored temporarily.
c) Outfitter/Guides will be required to conduct all business operations for watercraft rental off of the National Forest System lands to prevent damage to riparian resources. Permittee will only be permitted to deliver and pickup watercraft from Forest Service facilities for which they have pre-arranged rental agreements. Advertising, soliciting or staging canoes and kayaks on the shoreline to respond to on-site recreationist interest in boat rental, is not permitted.
d) The permit does not provide for boat inventory to be staged or stored during the day on vegetated ground adjacent to the parking lot and boat launch.
e) When boats are unloaded at the boat launch, awaiting client arrival, they will remain within the disturbance perimeter of the designated boat launch facility, and not impede the use of the facility by other visiting public.
f) All boat launching and landing activities on Cle Elum Reservoir and Cooper Lake will take place at the established and designated US Forest Service boat launch facilities.
g) The permit holder shall disclose to the US Forest Service the number of days of overnight rental and use vs. day use, and potential destinations being used as overnight dispersed camping.
h) All fueling, maintenance and service for motorized watercraft will take place off of National Forest System Lands.
i) The permit holder shall educate clients about the need to limit speed (and therefore wake damage) along shoreline areas, and to report any erosion or unstable conditions that they or their clientele encounter along shorelines'

15. Recreation

a) Any camping areas will be approved on a case-by-case basis prior to use
b) All permit holders' vehicles must display the proper permit for the location and season (Northwest Forest Pass, Sno-Park Permit, snowmobile registration, etc.) If any permittee proposes to take more than six clients at a time to the Sno-Parks, they must work out an agreement with Washington State Parks to pay a share of the grooming and/or plowing.

16. Wildlife

a) See required grizzly bear sanitation measures above.
b) Permits will be written with the flexibility to require OFGs to avoid known raptor nests, nests of harlequin ducks or common loon, den sites, rendezvous sites, mapped mountain goat wintering areas, Survey and Manage mollusk and amphibian sites, or areas with potential for unusual bear activity, if notified to do so by the Forest Service.
c) OFGs will not camp (in winter) within in ¼ mile of areas used by wintering mountain goats, and will report winter sightings of mountain goats to the Forest Service.
d) OFGs will educate their clients about identification of grizzly bears and gray wolves, and report sightings of these animals promptly to the Forest Service. The Forest Service will provide OFGs with educational brochures about these species, to share with clients.

e) OFGs will promptly report all adverse encounters with any bear, to the Forest Service.
f) OFGs will inform clientele who rent personal watercraft about proposed shoreline or area closures.
g) Winter use of trails in the Table Mountain area entails travel through EW-1 management areas. In EW-1, winter use will be confined to designated routes.

17. Monitoring

Monitoring and evaluation leads to improved management and informed management decisions. Monitoring helps determine how the forest plan and NEPA decisions are being implemented and whether assumptions made in the planning process are valid. Monitoring and evaluation are key elements in adaptive management, allowing us to measure whether or not we are being effective in meeting or moving toward our desired conditions within the appropriate timeframes. Monitoring will occur annually through mandatory outfitter and guide inspections, as outlined in the Forest Service Handbook (FSH 2709.14_50) by the Special Use Permit Administrator. In addition:

a) OFGs will annually submit trail and campsite condition reports to the Forest Service.

CHAPTER 3 – Environmental Consequences

This chapter characterizes the physical, biological, social, and cultural environments of proposed permit areas and discloses potential changes to those environments due to implementation of the proposed action (issue 5-10-year permits for each of the 7 Outfitter and Guide [OFG] applicants). A *No Action* alternative is also analyzed for comparison. Direct, indirect, and cumulative effects (defined in the GLOSSARY at the end of this Chapter) are considered for each affected resource area.

About Cumulative Effects

The cumulative effects analyses in this EA rely on current environmental conditions as a proxy for the impacts of past actions. This is because existing conditions reflect the aggregate impact of all prior human actions and natural events that have affected the environment and might contribute to cumulative effects. This approach is consistent with the June 24, 2005 memorandum from the Council on Environmental Quality (CEQ), which states, "agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." It is also consistent with Forest Service National Environmental Policy Act (NEPA) Regulations (36 CFR 220.4(f)) (July 24, 2008). Therefore, the analysis of past and present actions in this section is based on current environmental conditions.

For proposed outfitter and guide (OFG) activities, the list of past, present, and reasonably foreseeable activities and projects that Interdisciplinary Team (IDT) members considered for possible cumulative effects include public use of National Forest System roads and trails (winter and summer), public use of existing dispersed campsites, past grazing practices, and recent and ongoing restoration projects (Cle Elum River Floodplain Restoration Project: Upper Cle Elum River and the Cle Elum Floodplain Restoration Cooper Bridge Project (U.S. Forest Service 2010 and 2006, respectively).

Regulatory Framework: Federal Laws, Direction, and Policy

Inventoried Roadless Areas and Potential Wilderness Areas

The permit areas for the 7 proposed outfitter and guide operations encompass many different forest management allocations, however, no activities are proposed in congressionally reserved areas (designated wilderness). Four of the 7 permits, however, would entail guided activities on National Forest System Lands within one or more Inventoried Roadless Areas (IRAs) and also within Potential Wilderness Areas (PWAs) acreage outside of IRAs.

No road construction or tree removal may occur within IRAs. There are no regulatory requirements for PWAs, other than to consider and disclose the effects of proposed management actions.

Wild and Scenic Rivers

The Wild and Scenic Rivers Act (1968) established the national Wild and Scenic River System. In 1993 the Wenatchee National Forest conducted eligibility and suitability exercises and recommended nine rivers to Congress as candidates for inclusion in the Wild and Scenic River system. Two applicants (Red's Fly Shop and Adventrepreneur) propose guided activities on the Cle Elum River, which is recommended for inclusion in Wild and Scenic River System (Table 1). OFG activities would only occur on sections recommended for Scenic and Recreational designations. They would not be allowed to change either the recommended classification, or the Outstandingly Remarkable Values (ORVs) of any eligible river segment. The Wild, Scenic and Recreational segments of the Cle Elum River have ORVs for Scenery, Recreation, History and Cultural values.

Table 1. Recommended Wild, Scenic, and Recreational Classifications for the Cle Elum River.

River Name	Eligible Segment	Recommended Classification	River Miles
Cle Elum	Headwaters to Alpine Lakes Wilderness boundary	Wild	4
	Alpine Lakes wilderness boundary to above Lake Tucquala	Scenic	2
	Above Lake Tucquala to Lake Cle Elum	Recreational	18.5

Endangered Species Act

The Endangered Species Act of 1973 (ESA) and its implementing regulations require all federal agencies to conserve threatened and endangered species, to be consistent with Final Recovery Plans for threatened, and endangered species, and to consult with either the U.S. Fish and Wildlife Service or the National Marine Fisheries Service if actions that they fund, authorize, or carry out may adversely affect federally listed species. Pursuant to ESA, a separate Biological Assessment (BA) of this Project's effects to federally listed and proposed wildlife and fish has been prepared, and is incorporated by reference into this EA. A BA for federally listed plants is not required for this project (See Effects to Botanical Resources below).

Forest Planning Direction

As required by the National Forest Management Act, all permitted activities must be consistent with standards and guidelines established by the Record of decision: land and resource management plan Wenatchee National Forest (USDA 1990, hereafter referred to as "1990 Plan"), as amended by the following documents:

- Record of decision for amendments to Forest Service and Bureau of Land Management planning documents within the range of the northern spotted owl and standards and guidelines for management of habitat for late-successional and old-growth forest related species within the range of the northern spotted owl (USDI and USDA 1994) ("1994 ROD"). This decision established the Northwest Forest Plan, and overlaid new land management allocations (with a new suite of standards and guidelines) over those of the 1990 Forest Plan. Standards from both plans may apply. It also established the Aquatic Conservation Strategy (ACS) as the overarching approach for management of riparian areas. Management activities shall not prevent attainment of 9 ACS objectives listed in the 1994 ROD (page B-11).
- Record of decision Snoqualmie Pass Adaptive Management Area Plan (USDA Forest Service 1997) ("AMA ROD");
- Record of decision and standards and guidelines for amendments to the survey and manage, protection buffer, and other mitigation measures standard and guidelines (USDA and USDA 2001) ("S&M ROD").
- Pacific Northwest Region invasive plant program preventing and managing invasive plants record of decision (USDA Forest service 2005) ("2005 ROD").

Standards that Apply to More Than One Resource Area

Proposed outfitter and guide activities *collectively* encompass all land management allocations on the Cle Elum Ranger District, except Congressionally-designated Wilderness Areas. Applicable standards and guidelines are discussed under each affected resource area, along with the federal laws and policies

(Executive Orders) specific to each resource. Some applicable standards, however, pertain to more than one resource area, and are listed here to avoid repetition:

- Favor riparian dependent resources when conflicts occur in riparian management areas (1990 Plan pg. IV-84);
- Adjust existing dispersed recreational uses in Late Successional Reserve (LSR) where needed to ensure consistency with LSR objectives (1994 ROD page C-18);
- In Riparian Reserves, adjust existing dispersed recreational practices that retard or prevent attainment of Aquatic Conservation Strategy objectives (standard RM-2) (1994 ROD page C-34).
- In AMA, adjust existing recreational uses where needed to ensure consistency with Forest Plan standards and guidelines, as amended (1997 FEIS page 2-10).

Resource Areas

A. Water and Soils

Regulatory Framework

Forest Plan Standards and Guidelines

- The total acreage of all detrimental soil conditions should not exceed 20 percent of the total acreage within an activity area (including roads) (1990 Plan page IV-96).
- Manage activities in riparian management areas to meet or exceed State and Federal water quality standards (Plan pg. IV-84);
- Use Best Management Practices (BMPs) to ensure compliance with the Clean Water Act and Water Quality Standards for Surface Waters of the State of Washington (1990 Plan page IV-94).
- Maintain $\geq$ 90% vegetative ground cover provided by trees, shrubs, grasses, sedges and duff within the floodplain and true riparian zone.

ACS Objectives

No. 8, *Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation* (1994 ROD page B-11).

Federal Laws and Policies

- The Clean Water Act (CWA) (1972, as amended in 1987) established use of "best management practices" (BMPs) as the most effective means of preventing and controlling non-point-source pollution from forest land use activities, and also established the role of states in defining and managing water quality standards.
- Executive Orders 11990 Wetlands, and Executive Order 11988 Floodplains.

In general, the regulatory framework for water resources distills down to maintaining favorable conditions of stream flow in regards to water quality, quantity, and timing of flows, and meeting or exceeding Washington State water quality standards.

Methodology

To analyze effects on soil and water (and later in this chapter—fish and wildlife resources), OFG operations are divided into 5 types of activities

- Winter/non-motorized
- Winter/motorized
- Summer/non-water/motorized and non-motorized
- Summer/water/ motorized, and
- Summer/water /non-motorized

See Table 2 in Chapter 2 for detailed description of each OFG's proposed activities, and Appendix A for additional details and maps.

In this analysis, assumptions were made regarding how service days for each OFG would likely be distributed throughout the season of use, where the likely areas of use would be, and about connected activities that are not specifically listed as part of each OFG application. Examples of connected activities include equipment handling and management at delivery sites and customer support on Forest Service trails.

Existing Conditions

Water Quality (water temperature and turbidity/sediment)

Under the Clean Water Act, states are required to list water bodies in which beneficial uses are impaired (the "303(d) list"), and to identify the sources of pollution and amount of pollutant load reduction needed to meet water quality standards (Total Maximum Daily Load (TMDL). Washington State Department of Ecology (DOE) lists the Cle Elum River, Cooper River and tributaries to Kachess Reservoir and Upper Yakima River as impaired water bodies for water temperature. DOE recently initiated TMDL analysis of the Upper Yakima River Basin.

The West, Middle and North Forks of the Teanaway River are currently listed as a Category 4 (impaired water body with a completed TMDL). As a result, the Forest Service is required to implement shade allocations, control sediment sources, and maintain natural flow regimes in these waters.

Hydrology

The potentially affected water bodies and watersheds for the *summer-water motorized* and *summer-water non-motorized* activity groups are displayed in Table 2.

Table 2. Potentially affected water bodies for proposed OFG activities (summer). Direct and indirect effects on hydrology are analyzed for the potentially affected water bodies. Cumulative effects are analyzed for the affected HUC10 watershed.

Outfitter Guide	Summer Activities	Potentially Affected Water bodies	HUC 10-Watershed
Adventure Powersports Rentals	Water / Motorized	Cle Elum Reservoir	1703000101
		Kachess Reservoir	1703000103
Boulder Creek Enterprises	Water / Motorized	Cle Elum Reservoir	1703000101
	Water / Non-motorized	Cooper Lake	1703000101
Red's Fly Shop	Water Non-motorized	Cle Elum River (upper)	1703000101
		Cooper River	1703000101
Sahaptin Outfitters	Non-water Non-motorized	District-wide (streams, rivers, lakes, ponds with dispersed campsites)	1703000101 1703000102 1703000103 1703000104 1703000105
Adventrepreneur	Water Non-motorized	Cooper River	1703000101
		Cle Elum River (upper)	170000101

Geomorphology of the Cle Elum and Cooper River drainages (1703000101) is described in the Hydrology Specialist Report. Key findings are that the headwater streams in these drainages produce high magnitude peak flow discharges due to snowpack, storm events and steep stream channel gradients. Large amounts of sediment (bedload and finer) move through these streams annually and may be associated with debris avalanches and in-channel stream bank erosion and riparian landslides. High bedload movement is common in the largest streams, accumulating (aggrading) in the lower valley bottom reach (above the Cle Elum Reservoir). Large woody debris periodically accumulates on the floodplain, recruited from adjacent stream banks and upstream reaches, where it acts to provide localized grade control to the river. Woody material may be partially or almost entirely buried in gravel/cobble bars or captured in wood debris jams, which in turn causes localized deposition of coarse bedload (cobble/small boulder). Some of this surface material is transported downstream with each successive large flood, eventually reaching the delta at the head of the reservoir. Due to large bedload accumulation and low mid-summer flows, there are sections of the Cle Elum River where flow is lost to the streambed and to bar deposits. This sometimes results in discontinuous surface flow.

The Cle Elum and Kachess Reservoirs would be used for "summer-water, motorized" and "summer-water non-motorized" outfitter and guide activities. These reservoirs are part of the Bureau of Reclamations Yakima Project; designed to provide water storage to meet irrigation demands for downstream water right holders. On an average year, these reservoirs are filled to near capacity by early to mid-May. By the first of July, release of water exceeds inflows, exposing shoreline and deltas on both reservoirs. As the reservoir pool declines throughout the summer, resource damage has occurred when recreationists seeking the water's edge drive across the widening expanse of mineral soil. Damage to soil and vegetation has been particularly evident at the mouths of the Cle Elum River, Dry Creek, and Morgan Creek, and at the developed Wish Poosh boat launch. Closures have been implemented to restrict the operation of off-road vehicle travel between the full pool shoreline down to the low water shoreline, to protect wetlands and exposed mineral soil from erosion.

Riparian Soil and Vegetation Conditions

Riparian areas along the river corridors, reservoir shorelines and mountain streams are popular destination for the recreating public. Riparian areas comprise 3 to 5 percent of the total landscape but receive over 90% of all public recreational use (unpublished report, analysis file).

Since 1996 the Cle Elum Ranger District has recognized that public use of riparian areas was in places, leading to severe degradation of riparian soils and vegetation, particularly along the Cle Elum River. From the Reservoir north to French Cabin Creek Bridge, the west bank of the Cle Elum River was almost entirely denuded, with rutted soils and a spider web of user-created roads. The Forest Service took action by protecting areas with important ecological functions (riverine wetland complexes, stream banks, floodplains, side-channel habitats, and cool water refugia). Barrier rocks were embedded to restrict off-road motorized travel, and portable toilets installed to address sanitation problems. Closure orders were written to protect shorelines around the mouths of Morgan Creek and Dry Creek, to protect riparian vegetation, soils and wetlands. Large boulders were placed to confine OHV travel to acceptable routes. Boulders were also placed at head of the Reservoir at the mouth of the Cle Elum River. The effectiveness of these efforts has declined recently, due to lack of maintenance and boulder movement by the public.

In 1998-99 the District acquired private timberland parcels along the Cle Elum River and with it came dispersed recreation problems. The Forest Service launched the Respect-the-River Program in the Cle Elum and Teanaway River Watersheds to specifically address these issues. Rangers engaged in one-on-one contact to educate the public and document riparian conditions, as well as human behaviors and attitudes. The program included an extensive inventory of soil and vegetation disturbance along the Cle Elum River, which became the basis for comprehensive riparian restoration efforts. The Phase I Cle Elum Floodplain Restoration Project was implemented in 2005 and 2006. The Cle Elum River Floodplain Restoration: Upper Cle Elum Valley Project was initiated in 2010, and is ongoing. These projects entailed road redesign, and campsite restoration and relocation to restore riparian soil and vegetation conditions and functions. There is still much work needed from the reservoir upstream to just above Red Mountain Campground on the west-side of the river, as this area is severely degraded due to losses in riparian vegetation, severely soil compaction, displaced and rutted riparian soils, and water quality issues.

Effects of the Alternatives, by OFG Activity Group

No Action

<u>All Activity Groups</u>

Due to ongoing public use of shoreline areas and Riparian Reserves, existing conditions for soil and water resources would persist as is. Degraded areas are unlikely to improve without an active restoration program.

Summer operation of boat and watercraft rental on lakes and reservoirs, as well as mountain bike rental on forest system trails would not occur under this alternative. Development or expansion of dispersed recreation sites along the Riparian Reserves would not occur as a result of boat and watercraft rental by OFGs, resulting in improved retention of LWD in localized areas within Reserves, and protection of the function of hydrologic features and riparian soils and vegetation. Mountain bike rental and use on FS system trails would not occur, particularly on those trails showing signs of tread degradation. This would lower potential future cumulative impact to water quality and need for monitoring and additional mitigations.

Proposed Action

<u>Winter Non-Motorized</u> *(Cascade Powder Cats, BC Adventure Guides, and Sahaptin Outfitters)*

There are no foreseeable environmental effects on water quality, or the hydrologic and soils environment, from this type of OFG activity. All operations would be guided, and would generally occur overtop a well-developed snowpack, on and off of groomed winter trails. The established roads and winter Sno-Parks that would be used for winter access and parking are already used by the broader winter recreating public, and the low numbers of winter service days proposed by these outfitter/guides (337 total) would not contribute to any measurable changes in water quality, flow regimes or condition of riparian soils or vegetation.

In the absence of any measurable direct or indirect effects on soil and water, there would be no cumulative effects to soil and water resources from this type of OFG activity.

Winter Motorized *(Adventure Powersports and Boulder Creek Enterprises)*

Two OFGs would deliver rental snowmobiles to Sno-Parks, and would also conduct guided snowmobile trips out of Sno-Parks, using the groomed trail system. The two operators have submitted proposals with widely different scales of operation (55 service days for Adventure Powersports, and 600 service days for Boulder Creek Enterprises). Because all guiding activities would occur over firm snowpack, and primarily on established groomed routes, the potential for new ground disturbance, and new impacts to soils, riparian vegetation or hydrology is low. A potential impact to soils, however, could stem from unauthorized off-trail snowmobile use during early and late season shallow snowpacks, particularly in flat open areas around Sno-Parks where riders often seek to warm up their machines before embarking on groomed trails. That impact would be effectively mitigated by required measures listed in Table 3.

Table 3. Potential Impacts to soil and water resources from the winter motorized recreation activity group and required mitigation that prevents or minimizes the effect. The mitigation number corresponds to the required mitigation list in Chapter 2.

Potential Impact without Mitigation	Required Mitigations (BMPs) to Prevent or Minimize Impact
Early season snowmobile riding over weakly developed snowpack (< 12 inches of dry, uncompacted snow, with saturated or unfrozen underlying soils) may contribute to soil compaction as the weight of machine and rider are transmitted to an unfrozen soil surface.	13a. Rental snowmobiles shall only be warmed up on trailers, in the Sno-Park parking lot, or on the groomed trail itself and not in ungroomed areas adjacent to Sno-Parks (typically, a riparian meadow (ex. Blewett Pass Sno-Park). Effectiveness: This requirement would prevent rented snowmobiles from contributing (in early and late winter) to damage to riparian vegetation or detrimental soil compaction in riparian areas adjacent to Sno-Parks. (ACS Objectives 4, 5, 7 and 8)
Fuel storage and dispensing at Sno-Parks creates a potential for hazardous spills that may pollute nearby water bodies.	13b. OFGs would be required to report the volume of fuel to be transported and stored on site, and to provide (in advance) a plan for spill response and containment. Equipment needed for spill response must be available on site, whenever stored fuel is present. 13c. No maintenance of snowmobiles would be performed in Sno-Parks. Effectiveness: These two measures would minimize the potential adverse effects on water quality from accidental fuel spills at Sno-Parks. (ACS Objectives 4)

Cumulative Effects: With required mitigations, there would be no measurable direct and indirect effects to soils, riparian vegetation, and water resources from winter, motorized OFG activities; therefore, there are no cumulative effects associated with this particular activity. Summer / Non-Water / Motorized and Non-motorized (Sahaptin Outfitters, Adventrepreneur, and Boulder Creek)

Summer Trail Use (Guided and Unguided Equipment Rental)

Sahaptin Outfitters would conduct guided hiking and backpacking trips using Forest Service System trails and existing dispersed campsites. The permit area would be district-wide, outside of designated Wilderness. With 60-service days the entire allocation of service days could be depleted in as few as 2-3 weekends (with an overnight stay), or 5 day trips. This level of use is small—almost negligible—when compared to public summer use of Forest Service System trails on the Cle Elum Ranger District. Sahaptin's guided use of trails for hiking and backpacking would not affect trail conditions or water quality.

Adventrepreneur (20 service days) and Sahaptin Outfitters (1/3 of 184 service days) would conduct guided mountain biking trips. Boulder Creek Enterprises would deliver mountain bikes for unguided use on NFS trails (50 service days). All operations would only be permitted at those trails legally open for mountain bike use. Service days may be evenly distributed over the entire 20-week summer season, or concentrated over 5 to 8 weekends; which would add 16 to 25 additional mountain bikes to a trail network, per weekend.

All existing mountain bike trails enter Riparian Reserve and some trails closely parallel or cross streams at multiple locations. The Teanaway, Kachess Lake Trail networks and Silver Creek Trails are examples. In some sections of these trails, treads are rutted and improperly drained, and these conditions are resulting in sediment delivery. At the proposed level of use by Adventrepreneur, effects from OFG activity would be small, and may not be distinguishable from that of the general public. Over time (1 to 10 years), however, a cumulative effect on trail condition and water quality may result from guided and unguided mountain biking trips, in combination with ongoing public use of these trails. Combined activities may accelerate rutting, erosion of trail tread, and sediment delivery, particularly on trail segments with poor drainage.

The OFG reporting requirement (Table 4) would help identify problem areas on trails, allowing the Forest Service to prioritize trail maintenance needs, and take corrective actions (temporary or permanent trail closure (to all public use), and/or trail relocation. An alternative would be to enlist willing OFGs in trail maintenance agreements for the trails they wish to use. The Special Use Permit Administrator would involve Recreation Staff and the District Hydrologist in an annual review of OFG Trail Condition Reports.

Non-Trail Use: Boulder Creek would rent motorized scooters for operations only on Forest Service System roads (220 service days). Refueling is the primary concern regarding this activity. Mitigations are listed in Table 4.

Use of Existing Dispersed Campsites

Proposed use of existing dispersed campsites would not result in new ground disturbance, but may contribute to ongoing degradation of riparian soils and vegetation at existing dispersed campsites, particularly if OFGs repeatedly use the same campsites within a season, or from season to season.

Table 4. Potential impacts and required mitigations associated for guided use of trails, motorized and non-motorized (mountain bike) rentals and dispersed campsites.

Potential Long-term Impact	Required Mitigations (BMPs) to Prevent or Minimize Impact
Over time, OFG use in combination with public use of some of the more popular dispersed campsites may expand the area of disturbed soil and cause loss of riparian vegetation and coarse woody debris within the Reserves.	16a. OFGs would be required to report conditions on the trails and dispersed campsites that they use. At a minimum, an annual report would be submitted, listing the dates of trips and numbers of clients per trip, trails used and locations of campsites used, descriptions of problem areas encountered on trails (e.g., deep ruts, mud holes user-built go-arounds, blowdown blocking trails), and conditions at dispersed campsites (user-built access to water, bank stability, availability of firewood, evidence of vegetation removal, accumulations of garbage and human waste, no. of fire rings present, and proximity to other campsites). Effectiveness: With declining workforce and budgets, and in the face of increasing public use, the Forest Service must prioritize its annual trail maintenance work, and seek grant funding to implement more extensive trail repairs. Regular condition reports from OFGs would surface problems on trails and dispersed camping areas sooner, enabling the Forest Service to plan and effect repairs more quickly. (responds to ACS Objectives # 4, 5, 6, 7 and 8)
Combined use of certain trails by OFGs and their clients and the general public may over time contribute to deterioration of these trails, with formation of deep ruts, mud holes, and user-built go-arounds that can cause sediment delivery.	6d. If OFGs continue to use degraded trails, the Forest Service would consider entering into a trail maintenance agreement in which the outfitter- guide would maintain functioning trail drainage features and prevent erosion and transport of sediment into fish bearing streams. An alternative would be to seasonally restrict trail use (by OFGs and the public), until needed repairs can be made. Effectiveness: As regular users of certain trails, OFGs would be highly attuned to trail conditions, and could ensure that the trails they use are maintained throughout the season. The Forest Service would typically inspect and log out a trail once per season, at best. Trail conditions would improve with assistance from OFGs, reducing the potential cumulative effects. (responds to ACS Objectives # 4, 5, and 8)
Refueling of motor scooter rentals on National Forest lands.	10b. No refueling will take place on NFS lands. Equipment will be delivered or enter USFS lands with adequate fuel and be returned to the OFG's facilities for any necessary fueling. Effectiveness: This eliminates the OFG need for fueling mitigations and spill containment and cleanup. (responds to ACS Objective #4)

Cumulative Effects: Combined use of existing dispersed campsites within riparian corridors by OFGs and the general public would result in a cumulative effect to soils, vegetation and potentially water quality. See the wildlife section of this EA for additional discussion of potential cumulative effects to riparian habitat. The extent and magnitude of cumulative effect would vary widely, depending on the total amount and duration of use, accessibility, proximity to other campsites, and site conditions (vegetation, soils, integrity of stream and riverbanks, etc.). Generally, one would expect degraded conditions to persist at these sites, with pockets of barren and compacted ground that may expand over

time, locally depleted coarse woody debris around campsites, and user-built pathways to nearby water sources. Within 1 to 10 years, there is potential for some of the most heavily used campsites to exceed the Forest Plan soil standard for no more than 20% of an activity area in a detrimental soil condition. Again, the required campsite condition report for OFGs would help identify areas where cumulative use is causing soil and water impacts, alerting the Forest Service that corrective action may be needed. The Forest Service response may include temporary or permanent closure of dispersed sites to all public use, soil and water restoration, or more comprehensive planning with site design to accommodate higher levels of use.

Summer / Water / Non-Motorized (Adventrepreneur, Red's Fly Shop, and Boulder Creek Enterprises)

1) Guided Operations

Adventrepreneur and Red's Fly Shop both require access to rivers and streams to conduct their proposed OFG operations. Sufficient flow is also required to move rafts and kayaks unimpeded downstream.

Adventrepreneur is requesting only 20 service days which equates to 3-6 clients on 3-6 days of use, or 1 to 3 weekends during the operating season. Kayak dispersed camping at Cooper Lake and whitewater kayaking of Cooper River, with a designated put-in at the boat launch and take out at Salmon la Sac Trailhead would not result in any detrimental impacts to riparian soils, vegetation or water quality.

In the past, non-FS trails have been used for launching kayaks on the Cooper River. User-built trails can lead to accelerated surface soil erosion and sediment delivery. Existence of non-FS trails may change in the future as restoration projects occur. The nature of whitewater kayaking depends on the ability of the boater to safely navigate chutes, rapids and low falls. Large woody debris (logs or woody debris in the river channel) can create hazards for kayakers. This wood is important, however, for river channel function. No removal of woody debris for purposes of river running would be authorized under this OFG permit.

Red's Fly Shop is requesting 160 service days for float fishing from a raft and wading. During early to mid-summer and later, rafters may encounter insufficient water depths to allow for a continuous free-floating fishing experience. Rafts may run a-ground during low flow and guides and their clients may need to portage boats and gear over or around gravel bars.

Those who fish from rafts often prefer streambanks and water bodies free of obstructions, including low hanging limbs, streambank logs (sweepers) and log jams. No modification to vegetation—living or dead—in floodplains or wetted channels would be authorized under the OFG permit.

Effects from both outfitter-guides accessing the river may include localized stream bank erosion, potentially resulting in sediment delivery. Some disturbance to streambed gravels may result from wading but this activity would not destabilize streambed materials. Effects would be minimized by required mitigations (BMPs) in Table 5 (next page).

2) *Equipment Rental and Delivery (Boulder Creek Enterprises)*

Boulder Creek Enterprises would deliver and rent non-motorized watercraft (canoes and kayaks (250 service days), on Lake Cle Elum and Cooper Lake. This activity could result in additional 12-25 boats per weekend on the water, if service days were distributed across 10 popular weekends.

An assumption here is that boat inventory will be on-site while awaiting client pick-up, and returned to the drop off point following the rental period. The concentrated use of shorelines for watercraft rental, boat delivery and pickup, and customer service has the potential to affected riparian vegetation, soils and water quality. Effects would be mitigated as indicated in Table 6.

Table 5. Required mitigations (BMPs) to reduce impacts of Summer / Water/ Non-motorized OFG activities. These BMPs would apply to guided white-water kayaking trips on the Cle Elum River, and guided raft and "walk and wade" trips on the Cle Elum and Cooper Rivers.

Potential Impact	**Required Mitigations (BMPs) that Reduce Impacts**
User-created take-in and take-out points along rivers and lakes and user-built access trails may result in loss of riparian vegetation, streambank or shoreline erosion, bank erosion and instability, and sediment delivery.	1a. Permittees will not create new access points along stream banks and shorelines for boat launch (put-in) and landing (take-out) other than those depicted on project maps.
	1c. User-created trails will not be constructed for "put-in" or " take-out" locations
Those who fish, kayak, and raft on rivers where coarse woody debris naturally forms large log jams may seek to break up log jams, reducing instream structure for fish and coarse wood essential to floodplain functions, and disturbing bedload laden with wood.	1b. No modification to living vegetation or woody debris within Riparian Reserves or within wetted width of stream/river channels for purposes of launching rafts or kayaks, creating open waterways for floating rafts/fishing boats or whitewater kayaking, or for ease in take-out
Effectiveness: These measures would protect current functioning streambanks, shorelines, and stream and floodplain characteristics. ACS objectives # 3, 4, 5, 6, 7 and 8	

Required BMPs would prevent new ground disturbance within Riparian Reserves, from this activity. OFG activity at boat launches would not be discernible from that of the general public.

In the absence of any new disturbances to the Riparian Reserves, there would be no cumulative effects associated with this type of activity.

At this time, outfitter/guide watercraft rental and delivery would be conducted primarily for "day-use". Rental for multiple days is assumed to be incidental to the primary operation of a permit. Multi-day/overnight use is reasonable to assume in the future, however, as businesses/clients come to see rental watercraft as a means to access and experience remote shoreline dispersed camping. Overnight use would have greater implications for riparian ecosystem health and water quality, due to increasing disturbances at existing sites and creation of new dispersed campsites along shorelines and at mouths of streams. It may result in increased riparian soil compaction and riparian vegetation impacts (brown-out) along shorelines, loss of organic material along shorelines due to firewood consumption at campsites, and human waste contamination

This use may be addressed in the future either through additional conditions on the permit. This analysis is not establishing or approving any additional dispersed camping facilities along shorelines, for use by watercraft rental clients.

Table 6 Required mitigations (BMPs) to reduce potential impacts from proposed delivery of non-motorized watercraft at Lake Cle Elum and Cooper Lake.

Potential Impact	Required Mitigation (BMP) to Prevent or Minimize Impact
Loss of riparian vegetation at shoreline staging areas, due to trampling.	14a. Shoreline canoe and kayak launching or landing will all take place at the designated boat launch at Cooper Lake to prevent damage to riparian soils and vegetation.
	14b. When watercraft is not being actively launched or landed, watercraft must remain on the outfitter guide's trailer and not be staged or stored temporarily on riparian vegetation on National Forest lands.
	14c. Outfitter/Guides will be required to conduct all business operations for watercraft rental off of the National Forest System lands. Permittee will only be permitted to deliver and pickup watercraft from Forest Service facilities for which they have pre-arranged rental agreements. Advertising, soliciting or staging canoes and kayaks on the shoreline to respond to on-site recreationist interest in boat rental, is not permitted.
	14d. When rental boats are located on-site and awaiting the client's use, they will either remain on the outfitter/guide's trailer/truck, which will be parked within the perimeter of the facility parking lot or boat launch, or they will unloaded on the ground at the boat launch itself. The permit does not provide for boat inventory to be staged or stored during the day on vegetated ground adjacent to the parking lot and boat launch.
	14f. For lake shore operation at Cle Elum Reservoir, all boat launching and landing will take place at the established and designated US Forest Service boat launch facilities and designated dispersed sites at Speelyi Beach, Morgan and Dry Creek sites.
OFG operation may impede public use of boat launches, displacing the public to undisturbed shorelines areas for boat launch.	14e. When boats are unloaded at the boat launch, awaiting client arrival, they will remain within the disturbance perimeter of the designated boat launch facility, and not impede the use of the facility by other visiting public.
Clients who rent canoes and kayaks may camp overnight in shoreline areas, and repeated use may result in soil erosion and loss of riparian vegetation.	14g. OFGs will annually disclosure to the US Forest Service the number of days of overnight rental and use vs. day use, and potential destinations being used as overnight dispersed camping.
Effectiveness of BMPs: These measures would effectively confine the area of impact within Riparian Reserves to existing areas of disturbance. No. 16 is a monitoring requirement that would allow the Forest Service to gauge the effects of boat launch operations and dispersed camping on shorelines, by OFG clientele. ACS Objective #'s 4, 5, 6 and 8	

Summer – Water/Motorized Recreation *(Adventure Powersports, Boulder Creek Enterprises)*

Proposed delivery of motorized watercraft may result in direct and indirect effects to soil and water resources.

Adventure Powersports requested 45 service days on the Cle Elum and Kachess Reservoirs. If use were dispersed over 5 to 8 weekends it would result in 5 to 9 additional personal watercraft on the water, per weekend. Even if all the use occurred at once, the number is relatively low and would not likely result in enough wake erosion to affect shoreline stability, or water quality.

Boulder Creek Enterprises requested 500 service days of motorized use on Lake Cle Elum. If use occurred over 5 to 8 weekends in summer, it would add approximately 90 to 110 personal watercraft to Lake Cle Elum each weekend. This level of use has the potential to impact soil and water resources on Lake Cle Elum, but effects would be mitigated as indicated in Table 7.

Cumulative Effects: Because required mitigations listed above would effectively prevent or minimize direct and indirect effects to soil and water resources around Lake Cle Elum and Lake Kachess, there would be no measurable cumulative effect associated with the summer/ water/ motorized activity group.

Table 7. Potential impacts to soil and water resources from proposed delivery of personal watercraft (jet skis and motor boats) on Lake Cle Elum and/or Lake Kachess, and required mitigations to prevent or minimize effects.

Potential Impacts to soil and water, without mitigation	**Required Mitigation (BMP)to Prevent or Minimize Impact**
Shoreline soil compaction and surface soil erosion as boat launch is attempted during reservoir drawdown and lowered pool levels.	14f. Launch watercraft only at hardened boat launch ramps and when these no longer provide access to the sufficient water depth to launch a boat, due to reservoir drawdown, boat launching will end at that location for the season. (does not include Speelyi, Dry and Morgan Creek sites)
Physical damage to riparian plants, soils and wetlands due to shoreline activities	14b & d. When watercraft are not being actively launched or landed, they must remain on the outfitter guide's trailer and not be staged or stored temporarily on vegetated riparian areas. Maintain tow vehicle and trailers on established boat launch ramps to prevent soil disturbance and erosion.
Fuel storage, fuel dispensing in motors and incidental spills that contaminate riparian soils or water quality.	14h. All fueling, maintenance and service for motorized watercraft will take place off of National Forest System Lands. Applies to personal water craft, power boats, and party boat rental and deliveries. If in the future an outfitter/guide wishes to provide re-fueling for clientele, the permittee would be required to formally request a change in permit conditions from the Forest Service Special Uses Administrator. Best Management Practices for Water Quality will become conditions of the permit; addressing the practices for fuel delivery and transport, quantities, handling, dispensing and spill containment and cleanup.
Watercraft delivery may result in delivery of invasive aquatic species to new areas.	11a & b. All watercraft would be washed prior to arrival on the National Forest, to remove any invasive aquatic plants or mollusks.

Watercraft delivery may increase dispersed recreation camping on shorelines, contributing to degraded riparian conditions at existing campsites, or to the establishment of new campsites. There may be brown out (removal of vegetation) along shorelines, firewood consumption at campsites (reducing coarse woody debris within Riparian Reserves), and threats to water quality, due to accumulation of human waste and trash within Riparian Reserve.	14g. The Forest Service anticipates that most of personal watercraft rentals would be for day use. The permittee would be required, however, to report annually on the number of watercraft "single day" use versus "multi-day" use rental agreements. In addition, they are to track and report general destinations for "multi-day" rental agreements. Monitoring by the U.S. Forest Service would determine whether shoreline dispersed recreation/campsites and riparian conditions can sustain continued use or whether adjustments are needed to manage riparian health and water quality. Actions may include temporary closure of shoreline sites, permanent closure and restoration of sites, adjustment in size or locations of sites and/or public education, with assistance from OFGs. This analysis is not establishing or approving any additional dispersed camping sites along shorelines for use by watercraft rental clients. If OFGs wish to establish such sites in the future, they may request an amendment to their permit, subject to new environmental analysis and additional conditions on the permit.
Localized areas may see an increase in shoreline erosion due to wakes from motorized watercraft.	14i. There is currently no information on shoreline vulnerability to erosion, or on sediment accumulation along shorelines, due to wake from personal watercraft use. OFGs would be required to educate their clients, however, about the need to limit speed (and therefore wake) along shoreline areas, and to report any erosion or unstable conditions that they or their clientele encounter along shorelines.
Effective of BMPs: Shorelines are vulnerable to increased soil erosion and wetlands located within the reservoir drawdown zone are vulnerable to damage from wheeled vehicle travel. Human uses have demonstrated extensive modifications and loss of function in Riparian Reserves The combination of above mitigation measures will protect water quality and the Riparian Reserves in areas where they are currently functioning appropriately, and prevent further degradation in other areas. ACS objective # 3, 4, 5, 7 and 8.	

Consistency Finding for Soil and Water Resources

The Best Management Practices (required mitigation measures) listed in Chapter 2 (and above) ensure that issuance of OFG permits would meet all applicable standards and guidelines for management of soil and water resources, in the Okanogan - Wenatchee National Forest Plan (1990), as amended by the Northwest Forest Plan (1994). Require mitigation and BMPs would prevent new disturbance to soils and vegetation within Riparian Reserves, therefore proposed OFG activities would not prevent attainment of ACS Objective No. 8, *Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation*.

Segments of the Cle Elum River, Cooper River, Waptus River, and tributaries to the Kachess Reservoir are listed by Washington DOE as impaired for water temperature. The impaired segment of the Cle Elum River is well downstream of the analysis area for proposed OFG operations. Issuance of outfitter-guide special use permits would not have an effect on stream temperature on this localized reach or at the 6th or 5th HUC scale. Therefore, the proposed action (issuance of all 7 OFG permits) would conform to the Clean Water Act.

B. BOTANICAL RESOURCES

Threatened, Endangered, and Sensitive (TES), and Survey and Manage (S&M) Species

Regulatory Framework

The Forest Plan requires that all projects with potential to alter the habitat of Threatened, Endangered, Sensitive, and Proposed (TESP) plant species, be inventoried to determine if TESP plants are present in the project area. If Sensitive plant species are present, a biological evaluation is prepared and the project modified as needed to ensure that it would not jeopardize the continued existence of a sensitive species (FSM 2670.22).

Under the Endangered Species Act, preparation of a BA is required if a project may adversely affect a federally listed plant.

The Northwest Forest Plan (USDA and USDI 1994), as amended (2001 ROD) includes survey requirements for Survey and Manage (S&M) botanical species (certain vascular plants, lichens, bryophytes and fungi). Projects must be modified to protect known sites for some S&M species.

Methodology, Existing Conditions, and Effects of the Alternatives

The local Forest Service Botany Database and the Washington Natural Heritage Program database were reviewed to identify known sites within the seven proposed permit areas for outfitter and guides. This search revealed that proposed permit areas collectively encompass one Federal Sensitive Candidate species, 10 state sensitive species, and 4 Survey and Manage Species, and 1 species that is a state sensitive and survey manage species.

Because there is no new ground disturbance associated with these OFG operations, no additional field surveys were required or conducted.

Effects of Both Alternatives and Consistency Findings for TES Plants and S&M Botanical Species

Neither alternative would affect known TES plant sites or known S&M botanical species sites. Winter activities would not affect TES or S&M botanical species. Summer activities would not result in new ground disturbance, and would not take place near known sites. If new sites are detected in locations potentially affected by OFG activities, OFGs would be notified and required to avoid these sites.

In the absence of any direct and indirect effects, there would be no cumulative effects on rare botanical species.

Proposed OFG operations are consistent with all Forest Plan standards and guidelines for management of special status botanical species. They would not result in downward trends that would lead towards federal listing of Sensitive Plants, and would not affect federally listed plants.

Invasive Plants

Regulatory Framework

Current management direction for invasive plants comes from the 2005 Record of Decision, Preventing and Managing Invasive Plants (USDA 2005). The Wenatchee Forest Plan requires a prevention plan that can be developed from the Okanogan and Wenatchee National Forests Weed Management and Prevention Strategy and Best Management Practices as well as standards provided by the Region 6 Invasive Plant Management EIS (USDA 2002). The Federal Noxious Weed Act establishes policy for the prevention and

control of invasive plants, supported by Executive Order 13112 (USDA 1999), establishing a National Invasive Species Council for invasive plant management.

Methodology

Road surveys documenting invasive plant species and percent infestation were conducted in 2006-2012 and entered into the Forest Service Natural Resource Information System (NRIS). The risk of invasive plant spread is based on the current amount of ground disturbance, acres of current known invasive plant infestations, in relation to proposed OFGs activities.

Existing Conditions, Effects of the Alternatives, and Consistency Findings

The relationship between transportation systems and the spread of invasive plants in forest ecosystems is best understood from published literature that is reviewed in the white paper on causal mechanisms of invasive plant spread (Kimberling et al. 2004). State-listed noxious weeds have been documented along many of the Forest Service System roads and at trailheads utilized by the public and proposed for use by the OFG applicants.

The likelihood of undesirable plant species, including invasive weed species spreading from the proposed OFG activities of all action alternatives is high because there are undesirable plant species located immediately adjacent to the activity areas; however, there shall be no newly disturbed ground resulting from the OFG activities. Control measures are essential to prevent the spread of undesirable plants or noxious weeds within the activity areas. Possible adverse effects on site and possible expansion of infestations within the activity areas could occur if permittees park in undesignated parking areas. Therefore, the use of Early Detection Rapid Response (EDRR) should be implemented in all of the proposed alternatives. Permittees shall also be required to park only in designated parking areas to prevent the spread of noxious weeds.

Alternative 1-No Action

Direct and Indirect Effects – The current vegetation regime would be maintained in all of the respective permit area. The current level of public use, however, would increase the number of new infestation of invasive plants due to the dispersal mechanisms of many invasive plants. Recreational road uses on old logging roads and unused spurs would likely continue at their current rate. As a result of these continued activities in the project area, the current infestations of invasive plants would continue to spread over time and the risk of new invaders would remain high.

Alternative 2 – Proposed Action

Direct and Indirect Effects -- The likelihood of undesirable plant species (especially invasive weed species) spreading within the permit area would increase slightly with proposed OFG activities, because there are undesirable plant species located immediately adjacent to areas of proposed use. Control measures are essential to prevent the spread of undesirable plants or noxious weeds. Required mitigations (14j) would reduce this risk.

Cumulative Effects: A cumulative effect in the form of elevated risk of weed spread would result from proposed OFG activities in combination with ongoing public use of trails, roads, and shoreline areas. Noxious weed seeds can be spread by car tires, bicycle tires, shoe tread, and even clothing. Currently, herbicides are also being used to reduce known noxious weed populations in some areas on National Forest Service land analyzed in the 1999 Noxious Weed FEIS and Roaring Thin Restoration EA (USFS 1999, USDA 2008), and on some nearby private lands. These efforts may locally reduce some of the cumulative risks.

Consistency Finding for Invasive Plants

OFG permits would require cleaning of boots, bike tires, vehicle tires, and undercarriages, to remove mud and plant materials and reduce the risk of weed spread; therefore the proposed action is consistent with Forest Plan standards and guidelines for management of invasive species.

C. WILDLIFE

Regulatory Framework

The National Forest Management Act ("NFMA") directs the U.S. Forest Service to provide for the continued viability of all native and desired non-native wildlife, at approximately their present distributions, within each Planning Area (National Forest). It also established "Management Indicator Species" (MIS) as the tool for evaluating projects on National Forest System lands, and for monitoring the viability of wildlife.

Executive Order 13186 (Protection of Migratory Birds) require federal agencies to consider the effects of their actions on migratory land birds.

Forest Service manual (FSM) 2670 requires managers to ensure that their actions do not result in downward population trends that would lead towards federal listing of "Sensitive Species" in each Forest Service Region. This direction also ensures conformance with NFMA.

Consistent with the Endangered Species Act, a separate Biological Assessment has been prepared and is incorporated by reference into this EA.

Forest Plan Standards and Guidelines

Forest-wide Standards

1. Protect known survey and mange sites from disturbance (1994 ROD Page C-6);
2. Protect all known active nest and roost sites of raptors (LRMP page IV-81);
3. Maintain or enhance "limited habitats" (including but not limited to cliffs, caves, talus, ponds, marshes, wetlands, and areas of colony nesting species, meadows, and watering sites) (LRMP page IV-81 – IV-82).
4. Maintain or enhance deciduous or mixed conifer/deciduous habitat (typically, riparian areas) (LRMP page IV-81).
5. Discourage activities in key mountain goat winter and kidding range from Dec. 1 until July 1 (LRMP page IV-83).

Standards for Specific Management Areas (1990 Forest Plan):

9. In mapped deer and elk winter range (EW-1 management areas), confine human activities to designated corridors from December 1 to April 15, and restrict activities as needed to allow big game to fully utilize habitat.
10. In key big game habitat/unroaded management areas (EW-3), ensure that motorized recreational activities are compatible with big game habitat management.
11. In RE-2 management areas, minimize or prevent wildlife harassment in calving, fawning, and selected nesting areas.
12. In ST-2 management areas, regulate human activities where necessary to prevent habitat degradation and wildlife harassment.

Approved Recovery Plans: .OFG activities must conform to approved recovery plans for grizzly bear (USDI 1997) and northern spotted owls (USDI 2011), and the Lynx Conservation Assessment and Strategy, as amended in 2006. These documents are discussed in the effects sections for each OFG activity group, and consistency finding for species.

Methodology, Scale of Analysis, and Organization of this Report

Assessment of habitat conditions in proposed permit areas is based on numerous field visits by this writer over the last 28 years, aerial photo interpretation using recent satellite imagery, and GIS modeling of effects from existing linear recreation routes. Direct and indirect effects for guided activities are assessed across each operator's proposed permit area, and for unguided activities, across the likely area of use. Habitat effects are also assessed over short, mid, and long-term periods (after a single trip, one season of operation, and 10 years (the maximum length of proposed permits), respectively). Cumulative effects are assessed at the watershed scale for past, present, and reasonably foreseeable actions.

Each proposed outfitter and guiding operation was screened for activities that may physically affect wildlife habitat, or pose a new or higher level of disturbance to wildlife than occurs now (Table A.1 in the Wildlife Specialist Report). The screening indicated that for analysis of effects to wildlife, OFG activities could be grouped into the same 5 categories used for soil and water analysis. Effects are then summarized by species, with Consistency Findings at the end of this section.

Species Analyzed in this Report

All 10 MIS for the Wenatchee National Forest (1990 LRMP page II-15 and FEIS page III-48) are potentially affected by one or more of the proposed outfitter and guide operations (Table 8, and Table B.1 in the Appendix B). Effects on MIS are believed to reflect effects on a much broader array of wildlife that use the same habitats.

Table 8. Potentially affected habitats and/or management indicator species (MIS) from one or more of the proposed outfitter and guide operations.

Habitat	Associated MIS
Riparian/deciduous forest habitat	Beaver, ruffed grouse
Shrub- and grasslands, meadows, and edge habitats	Rocky Mountain elk, mule deer
Standing and down decayed wood structure	Primary cavity excavators ("PCEs")
Dense late successional mixed conifer forest (with large tree structure_	Northern spotted owl, American marten, three-toed woodpecker, (pileated woodpecker)
Cliffs and rims	Mountain goat

In addition, the project has the potential to impact the following "Special Status Species":

- Federally Listed and Proposed Species: grizzly bear (*Threatened)*, gray wolf (*Endangered*), Canada lynx (*Threatened*), northern spotted owl (*Threatened*), marbled murrelet (*Threatened*) and California wolverine (*Proposed*).

- Pacific Northwest Sensitive Species: mountain goat, white-headed woodpecker, harlequin duck, bald eagle, common loon, great gray owl, and Pacific fisher.

The Project will not impact any other Sensitive Species, and Survey and Manage mollusks and amphibians documented or suspected on the Cle Elum Ranger District, for reasons documented in Appendix B, Table B.2 (either the activity would not affect habitat, and/or the activity is occurring outside the known range for that species). OFG permits would stipulate that operators would observe protection buffers for any newly discovered Survey and Manage sites, if notified to do so by the Forest Service (required mitigation no. 16b). With this provision, proposed OFG operations would not affect any known Survey and Manage mollusk and amphibian sites, now or in the future. They are not addressed further in the Report.

Viability of MIS

In April 2011, the Okanogan-Wenatchee National Forest reviewed the population status, distribution, and current risk factors for MIS, to determine if analysis and monitoring of habitat was an appropriate "proxy" for species, and to ensure that consistency with Forest Plan standards and guidelines was adequate for ensuring viability across the Forest planning area. *Status of Management Indicator Species on the Okanogan and Wenatchee National Forests April 2011 (U.S. Forest Service unpublished. report 2011)* is incorporated by reference into this Report. Findings for all the MIS potentially affected by this Project are addressed in the Wildlife Specialist Report. The report concludes that consistency with Forest Plan standards and guidelines is adequate to ensure viability of the following MIS: mule deer, Rocky Mountain elk, ruffed grouse, certain PCEs (downy woodpecker, hairy woodpecker, northern flicker, red-naped sapsucker, Williamson's sapsucker, three-toed woodpecker, and black-backed woodpecker), mountain goat, American marten, and beaver. There are some viability concerns, however, for northern spotted owl and pileated woodpecker, because even though suitable habitat is widely distributed, there are risk factors that limit habitat occupancy and demographic performance by these species. Populations are patchily distributed.

To address viability concerns for spotted owl, Forest Service actions must be consistent with the Final Revised Spotted Owl Recovery Plan (USDI 2011). To ensure viability of pileated woodpeckers, large cavity trees and snags should be protected, and access should be managed in source habitat (dense brush with large trees and snags for pileated woodpeckers) to reduce the negative effects of existing road and trail networks on large tree structure.

Existing Conditions and Effects to Wildlife, by OFG Activity Group

1. Winter – Non-motorized

Affected Area and Existing Conditions for Potentially Affected Wildlife

BC Adventure Guides requested 150 service days to conduct avalanche education courses, guided snowshoe and ski touring and winter instruction in the vicinity of Mt. Margaret, the area east of Cold Creek, and Silver Creek (Upper Yakima watershed) and Red Mountain (Cle Elum watershed), plus 40 service days for guided ski-touring at Esmerelda Peaks (Teanaway watershed). Activities would not be confined to the groomed trail system. Cascade Powder Cats requested 50 service days for avalanche education courses, guided snowshoe, ski touring, and winter travel instruction at the same locations. Their combined use would entail 240 service days per winter season. Overnight camping may occur, but would not typically entail building campfires. Sahaptin would conduct guided snowshoe and cross-country skiing trips on groomed winter routes in the Cabin Creek and Salmon la Sac Sno-Park areas (Cle Elum and Yakima watersheds), and the Pipe Creek in Swauk Creek watershed.

The potentially affected MIS wildlife in the Cle Elum and Yakima watersheds are mountain goat, American marten and northern spotted owl.

The potentially affected wildlife in the Teanaway and Swauk Creek areas include spotted owl, lynx, wolverine, and gray wolf.

Existing Conditions:

Spotted Owls: There are no known spotted owl nest trees near areas of proposed use, however, surveys are incomplete. Undetected owls may be present in the Cle Elum and Yakima watersheds.

Canada Lynx: The permit areas encompass all or parts of the Sasse, Silver, Keechelus, Teanaway, Taneum, and Table Mountain Lynx Analysis Units (LAUs). Proposed winter trail use would take place in mapped lynx habitat in these LAUs. On the Okanogan-Wenatchee National Forest, management activities in lynx habitat must be consistent with the Lynx Conservation Agreement and Strategy (LCAS) initially established in 2000, and amended in 2005 and 2006. The 2006 amendment, however, specifically excludes currently unoccupied lynx habitat on the south end of this Forest from the requirement to conform to LCAS. Any lynx use on this part of the Forest is believed to be from "dispersers", rather resident breeding animals. The key management concern in this area would be to provide foraging opportunities for dispersing lynx.

Lynx use has not been documented in the affected LAUs, but they potentially use these areas. The current road and groomed winter route density already exerts moderate levels of human influence (in the form of compacted snow) on lynx habitat within these LAUs (Table B.4, from Gaines et al. 2003).

Wolverine: Wolverine move over very large areas, and because they are large, Bear Management Units (BMUs, established under the North Cascades Chapter of the Grizzly Bear Recovery Plan) are used to assess impacts to wolverine. These permit areas encompasses two BMUs (Cle Elum and Swauk). The current network of groomed winter routes within both BMUs already exerts a moderate level of human influence on winter habitat for wolverine in both BMUs (Table B.4). Groomed routes do not occur near likely denning habitats for wolverine, however, off-trail snowmobile activity in high elevation forests near tree-line and tree-less basins (alpine cirques) could be a deterrent to wolverine use in winter.

There are no wolf dens or rendezvous sites near areas of proposed use.

Guides would be required to implement "Leave No Trace" camping techniques, therefore potential effects to habitat would stem only from "chronic" snow compaction, if any.

Effects of the Alternatives

No Action

On the west side of the Cle Elum Ranger District, a small percentage of winter recreationists engage in over-the-snow travel beyond groomed and designated winter routes. If permits were not issued to these particular OFGs, then there would be no additional impacts to wintering wildlife beyond impacts that already occur due to use of the existing groomed and winter routes by the general public. The overall level of human influence on winter habitats for mountain goats, spotted owl, American marten, and wolverine would remain at current levels (moderate).

Proposed Action

Direct and Indirect Effects

Habitat: Guided trips on groomed winter routes (Sahaptin) would not result in new snow compaction, or loss of winter habitat structure for prey under snow. Guided off-trail activities have a potential to create new areas of compacted snow, and if this compaction persists, it would reduce or eliminate subnivean (below snow) spaces used by the small mammal prey of American marten, Canada lynx, and wolverine.

Large areas of compacted snow could result in reduced foraging opportunities for all of these predators. These OFGs, however, would not necessarily utilize the same routes or campsites, would go out with small groups, and would not likely make more than one or two trips per week, reducing the likelihood of persistent snow compaction in any one locality. Each trek would probably not accrue to more than one acre of new snow compaction –an insignificant amount at the LAU or BMU scale.

The activity would not affect habitats used by mountain goats.

Disturbance: Guided trips on groomed winter routes would not result in new disturbance to lynx, wolverine, gray wolf, marten, or mountain goats. The presence of small groups of people engaged in cross-country over the snow travel would pose a brief new disturbance to any wildlife that are present, including mountain goats, spotted owl, wolverine and American marten. The effect would likely be brief localized displacement for the duration of the disturbance. The impact to marten, wolverine, and spotted owls would probably be confined to individual animals encountered on the trek (and a spotted owl may not even be displaced by the quiet passage of people). If selected routes are in view of and within ¼ mile of cliffs or saddles used by mountain goats, displacement may affect several animals, or even a herd. Winter displacement is particularly problematic, because of the energy expenditure required for mountain goats to move away from disturbance. These OFGs would therefore be required to move away from areas where mountain goats are sighted, and to report sightings to the Forest Service to assist with mapping of mountain goat winter use areas.

Cumulative Effects

Off-trail over-the-snow activity by OFGs in combination with public winter use on and off the groomed trail system would result in a cumulative effect in the form of snow compaction, to American marten, spotted owl, wolverine, and mountain goats. The fractional increase in snow compaction resulting from authorized backcountry OFG activities would not be discernible at the LAU scale (for lynx) and BMU scale (for wolverine), given the current levels of snow compaction associated with groomed routes. The winter human influence ratings would remain at the "moderate" levels in the affected LAUs for lynx, and in the Cle Elum and Swauk BMUs for wolverine.

2. Winter / Motorized (Guided Snowmobile Day Trips, Snowmobile Delivery)

Affected Area and Existing Conditions for Potentially Affected Wildlife

In the Cle Elum watershed (winter permit area for Adventure Powersports and Boulder Creek Enterprises), there are currently 50 miles of groomed snowmobile trail, 4 miles of track-set ski/snowshoe trail, 2 Sno-parks and 4 designated roadside parking areas. Current average daily use is 150 snowmobiles per day, increasing to a maximum of 600 snowmobiles on a peak use day. There are approximately 45 non-motorized users also using the same trail system on an average winter day. Sno-parks and parking areas fill to capacity during peak use. Most use is confined to groomed trails, however, certain high elevation basins with trail access are used for off-trail play and hill climbs on tree-less slopes, such as the Gallagher Lake area.

The Table Mountain system, located east of US-97 between Blewett Pass and Reecer creek, includes about 35 miles of groomed snowmobile trail, but only the main route between Blewett Pass and Reecer creek (15 miles long) is included in the requested use area. According to calculations made in the EA for expansion of the Blewett Pass Sno-Park, the average number of snowmobiles riding the Table Mountain system on a nice winter weekend day, with Blewett Sno-Park full, is about 152. This occurs on average 4 times per year.

In winter, the potentially affected wildlife in this permit area includes Canada lynx (Threatened), California wolverine (Proposed), and mountain goat (Pacific Northwest Sensitive and MIS).

Affected Environment for Lynx: See previous activity group.

Affected Environment for Wolverine: See previous activity group.

Affected Environment for Mountain Goat: Mountain goat winter ranges have not been mapped, but presumably encompass steep south-facing cliffs and high elevation forests adjacent to such cliffs. Winter and early spring use by goats has been documented in the Silver Creek Area, and around Davis Peak (upper Cle Elum Valley). Off-trail snowmobile activity in Silver Creek may pose a disturbance to wintering goats. The area is not accessed by groomed or designated winter routes.

Effects of the Alternatives

No Action:

Public use of the groomed trail system would continue at current levels, and would continue to exert a moderate level of human influence on winter use of habitat by Canada lynx, wolverine, and mountain goat, in the requested permit areas.

Proposed Action:

Direct and Indirect Effects

Habitats: Proposed outfitter and guide use of groomed winter routes would slightly increase the number of snowmobiles using the groomed trail system (1% increase from Adventure Powersports, 13% increase from Boulder Creek Enterprises, for a combined increase of 14%), but these increases would not result in a *new* impacts to winter habitats for lynx, wolverine., or mountain goat The additional use would not change the existing densities of groomed routes, the amount of compacted snow within LAUS or the Cle Elum BMU, or general patterns of winter human use. Therefore, increased human use would not result in *new* impacts to habitats for mountain goats, wolverine, or Canada lynx.

Disturbance: The additional human presence and snowmobile noise from OFG activity would not change ambient noise levels in designated winter trail corridors. It would not result in new disturbance to lynx, wolverine, or mountain goats within the permit area.

Cumulative Effects

In the absence of any measurable effects to habitat for lynx, wolverine, or mountain goat from proposed OFG use, there would be no cumulative effects associated with this particular OFG activity. Effects of the existing winter trail system are already reflected in the affected environments for each species.

3. Summer / Non-Water / Motorized and Non-motorized

Motorized Activities

The only motorized non-water activity is proposed delivery of motor scooters to licensed drivers, in the Cle Elum Valley. The rental contact would stipulate that all use is confined to existing open National Forest System roads. The requested number of service days for this activity is negligible in comparison to existing motorized use of open roads in the Cle Elum Valley, and the incremental addition of noise from this activity would not change ambient noise conditions for wildlife. Effects are the same for the No Action and Proposed Action alternatives: there would be no new ground disturbance, no habitat effects, and no new disturbance to any wildlife from this activity. In the absence of direct and indirect effects, there would be no cumulative effects, beyond noise disturbance resulting from the current road system. See further discussion of current ambient noise conditions in the next section.

Non-Motorized Activities

Affected Area and Existing Conditions for Potentially Affect Wildlife

Adventrepreneur requested up to 20 service days for guided mountain biking trips on the Little Kachess trail (out of Kachess Campground) to the Kachess River, and then open National Forest System roads over Cooper Pass to Cooper Lake. Camping would occur at existing dispersed campsites around Cooper Lake. Sahaptin Outfitters requested to use most National Forest System trails outside of wilderness, for guided summer hikes and backpacks (250 miles on non-motorized trails and 400 miles of motorized trails. Sahaptin camping would also be confined to existing dispersed campsites (See map in Appendix A). The total number of summer service days would be 184).

The Sahaptin permit area encompasses habitats used by all Forest MIS, and potentially by all of the special status wildlife species known to occur on this district (Appendix B). Proposed use of trails would not entail removal of vegetation or new ground disturbance, but proposed use of existing dispersed campsites may entail activities that affect the surrounding forest. Therefore campsite conditions are the focus of habitat analysis for this activity.

Use of existing dispersed campsites for overnight camping typically entails firewood collection, and more often than not, this activity is occurring near streams, and in relatively dense forest (people usually seek shade and water for summer camping). Some camping also occurs in meadows, and on ridgelines and in saddles. The potentially affected habitats (and their respective MIS) are riparian forest (beaver, ruffed grouse), standing and down decayed wood structure (primary cavity excavators), dense late successional forest habitats (northern spotted owl, American marten, three-toed woodpecker, and pileated woodpecker), cliffs and rims (mountain goats, who also use high elevation saddles) and early successional habitat (deer and elk). In addition to spotted owl and mountain goat, the potentially affected special status species are marbled murrelet, harlequin duck, bald eagle, peregrine falcon, grizzly bear, gray wolf, Canada lynx, California wolverine, and Pacific fisher. Camping activity in riparian and dense forests also has the potential to affect key habitat structure for certain migratory land birds.

The existing road and trail network has already influenced wildlife use of all these habitats to varying degrees. Recreation route densities within Riparian Reserves are high in all watersheds of the Cle Elum Ranger District (Table B.5), indicating that a high percentage of the available riparian habitat in each watershed is already subject to human disturbance, due to the high densities of open roads and trails. The percent of riparian habitat that is within the *zone of influence* of an open road or trail—and therefore subject to physical impacts from firewood collection, snag removal, soil compaction, and vegetation removal, as well as edge effects—is 4.5% (low) in the Cle Elum watershed, 14.9% (low) in the Yakima watershed, 99.8% (high) in Swauk-Naneum watershed, 11% (low) in Taneum-Manastash watershed, and 14.8% (low) in Teanaway watershed (Sources: Gaines et al. page 82, Environmental Assessment for the Walter Springs Project (USFS 2012), and the wildlife analysis file).

Heavily-used dispersed campsites typically exhibit lower densities of down wood than surrounding forest, as users collect and consume the nearest available firewood, year after year. Levels of depletion vary with the intensity of use (size and no. of dispersed campsites in an area) and duration that it has been used (years, sometimes decades), and the natural rate of snag and down wood recruitment at each particular site. For this analysis, an assumption is made that past and present firewood collection has generally depleted snags and logs in the vicinity of most campsites, degrading habitat structure for wildlife (snags, logs, understory vegetation). The effect is localized and rarely extends to the entire stand.

The exception is where roads closely parallel streams and rivers with flat or low gradient floodplains, providing easy access to highly desirable places to camp. On the Cle Elum Ranger District, large clusters of dispersed campsites have become established in some roaded Riparian Reserves. In addition to reduced densities of snags and logs, these high use riparian areas often exhibit vegetation loss, proliferation of invasive weeds, soil compaction and erosion, proliferation of user-built roads, stream

bank erosion, and sanitation problems (garbage and human waste). In several instances, the Forest Service has responded with comprehensive restoration efforts. The Cle Elum Floodplain Restoration: Upper Cle Elum Valley Project (Decision Notice 2011), the Cle Elum Floodplain Restoration Project (Decision Notice 2006), North Fork Teanaway Campsite Restoration (Decision Memo 2004), the Boston-Man Buck and Pole Fence Construction Project (Decision Memo 2000), and North Fork Teanaway Dispersed Recreation Site 21 Restoration Project (Decision Memo 2000) are examples of Forest Service restoration efforts in heavily used dispersed camping areas within Riparian Reserves.

Effects of the Alternatives:

No Action

No priority use outfitter and guide permits would be issued to the proponents. Public use of the existing trails and dispersed campsites would continue at current levels, and OFGs would likely continue with activities are annual permits. Degraded habitat conditions for wildlife –in the form of reduced snag and log densities, and reduced understory vegetation—would continue to characterize the immediate area around existing campsites, but would rarely rise to a stand-level impact. Long-term camping in dense riparian forests reduces large snags and logs that are important to pileated woodpecker and Williamson's sapsucker, and other habitat structure that is important to migratory land birds, such as subcanopy foliage (important to yellow warblers), dense shrub patches (important to willow flycatcher), and multi-layered stand structure (important to hermit thrush) (Altman and Homes 2000, and Altman 2000).

Proposed Action

Direct and Indirect Effects:

Habitats: Proposed use of existing trails and roads by OFGs would not affect forest vegetation, therefore this activity would not physically affect habitats used or potentially used by spotted owl, marbled murrelet, great gray owl, harlequin duck, bald eagle, peregrine falcon, Pacific fisher, or migratory land birds. It would not affect critical habitat for spotted owls (USDI 2012).

Firewood consumption around dispersed campsites, however, would degrade important habitat structure for these species. The proposed use of existing dispersed campsites (184 days per year) by Sahaptin is a fraction of the overall use that already occurs at these sites, and although this use would contribute to the depletion of snags and logs, the impacts on snag and log densities from guided camping would not be distinguishable from those of the general public. Low densities of snags and logs would continue to characterize the immediate areas around campsites, but would rarely affect snag and log densities at the stand level. The result would still be a chronic degraded condition for wildlife that use snags or down logs (all woodpeckers). The impact would be to individuals or pairs, not populations.

Forest inventory data indicates that in unmanaged forest, levels of down wood retention (in these forested habitat types) are highly variable across the landscape, and that a small percentage of the landscape is likely to have low densities of snags and logs, naturally (Source: DecAID syntheses for east-side mixed conifer and montane mixed conifer forest habitat types, 2009). Nevertheless, the desired level of down wood retention within Riparian Reserves is higher than for upland areas, and localized depletion of snags and logs around dispersed campsites in Riparian Reserves is a concern when it accrues to a stand-level impact.

Proposed use of existing dispersed campsites is somewhat self-regulating, in that areas that are too depleted of firewood will be passed over in favor of the next suitable campsite. The campsite condition reporting requirement for outfitter and guides would help the Forest Service identify problem sites, so that appropriate actions may be considered. Those actions may include anything from temporarily closing a site to overnight use, to comprehensive planning for a "quasi-developed" dispersed camping area, with designated campsites and access roads (similar to recent and ongoing projects along the Cle Elum River, and earlier efforts in the Teanaway. Efforts of this magnitude would be subject to new and separate

environmental analysis). Any future restrictions on use of a particular site or area would apply to all users of these sites, including outfitter and guides.

Effects to Core Area and Security Habitats: An important distinction between guided camping activities and those of general public is that outfitter and guides would be required to implement sanitation measures for grizzly bear. On the Cle Elum Ranger District, all National Forest System land north of Interstate 90 is part of the North Cascades Grizzly Bear Recovery Zone, and provisions of the Grizzly Bear Recovery Plan (North Cascades Chapter) apply to this Project. Sanitation measures would be required across the entire district to reduce the likelihood of adverse encounters between humans and black bears and grizzly bears. Outfitter and guides would also be required to promptly report adverse encounters with any bears, and any observations of grizzly bears, allowing a prompt Forest Service response as needed. Outfitters and guides would also provide a valuable service – distributing brochures that educate clientele about identification of bears, and camping etiquette in bear country.

Guided travel on established trails and guided camping trips at established sites would not result in a net loss of core area for grizzly bears, and is consistent with the Grizzly Bear Recovery Plan.

Guided activities would not affect road and trail densities, and therefore would not result in a loss of security habitat for gray wolf or wolverine. Because they would not affect existing human use patterns, they would not alter the availability of prey, and would not reduce predaceous foraging opportunities for gray wolves or wolverine.

Disturbance: All of the roads, trails, groomed winter routes, and dispersed campsites that would be used by OFGs and their clientele are existing routes that are already used by the general public (see the Effects Analysis for Recreation, in Chapter 3). These corridors are characterized by elevated ambient noise levels compared to the surrounding forest. Outfitter and guide use would not be distinguishable from that of the general public, and would not alter the ambient noise levels of high use road and trail corridors. Use of existing routes and campsites would not pose a new disturbance to wildlife.

Forest Plan standards and guidelines require that active nests of raptors and known Survey and Manage sites be protected from human disturbance. Some known nests are located near trails, and if public or outfitter and guide use of these trails poses an unacceptable risk of disturbance to nesting raptors, then the Forest Service may elect to temporarily close these trails to all use, to prevent disturbance during the nesting period. Any restrictions on public use would also apply to outfitter and guides.

In EW1 areas (key big game winter range), outfitter and guides would follow established groomed winter routes, as required by the Forest Plan.

Effects from Disturbance: This OFG activity would not result in new disturbance to known nests or dens of threatened, endangered, or sensitive species. If new nests or dens are detected, and protection is needed, then district would sign the area as temporarily closed to all users, not just outfitter and guides.

Cumulative Effects

A cumulative effect would result from the combined use of existing dispersed campsites by the general public and these OFGs. The effect would be chronically low densities of snags and logs around established dispersed camping areas, mostly in dense late successional and/or riparian forest habitats. The duration of the effect would vary by site, but could potentially last for the duration of the OFG permit (up to 10 years) and beyond. The effect would also be reversible, if use were eliminated or reduced, allowing natural processes to replenish the availability of snags and logs. The required OFG campsite condition report would alert the Forest Service if campsites are staring to exhibit resource damage due to overuse, allowing the Forest Service to take action.

4. Summer/ Water / Non-motorized

Affected Area and Existing Conditions for Potentially Affected Wildlife

The OFG activities in this group include guided float and "walk and wade" fishing trips on the upper Cle Elum River, float fishing trips on the Cooper River between Salmon la Sac Campground and French Cabin Creek, and guided white-water kayaking trips on the Cle Elum River. It also includes delivery of non-motorized watercraft to Lake Cle Elum and Cooper Laker (125 service days for delivery of canoes to both lakes). Those who rent canoes are expected to paddle around all of Cooper Lake and the lower reaches of the upper Cooper River above Cooper Lake.

Activities on or near rivers would entail use of established "take in" and "take out" points on both rivers, and use of footpaths between established parking areas and pullouts, and water. The OFG would be required to remove all monofilament line used during fishing and would not remove any vegetation from river banks. The only potential effect is disturbance to wildlife that uses riparian forests, due to noise intermittent human presence.

The potentially affected wildlife are ruffed grouse and beaver (MIS for riparian forests), spotted owl, marten, and three-toed woodpeckers (MIS for dense late successional forest habitat), and harlequin duck, bald eagle, and peregrine falcon (Sensitive species that nest and/or forage in riparian forest habitats along rivers), migratory land birds associated with riparian and dense late successional forests. The entire permit area is designated critical habitat for the northern spotted owl (USDI 2012). The area also provides suitable habitat for Pacific fisher, a Pacific Northwest Sensitive species that historically occurred here, but is now believed to be extirpated.

Affected Environments: Harlequin ducks are known to nest in riparian forest adjacent to the Cle Elum and Cooper Rivers, and to rear their young on both rivers.

Dense late successional habitat occurs along both rivers, providing nesting-roosting-foraging (NRF) habitat for spotted owls. All of the available habitat is or was recently occupied by nesting spotted owls, but there are no known nest trees on or near the banks of these rivers. American marten, three-toed woodpeckers, and fisher use or potentially use the same habitat.

Both bald eagles and peregrine falcons nest in proximity to these rivers, and bald eagles are known to roost and forage along the entire length of the Cle Elum River. Peregrine falcons also nest in this watershed, and probably forage for waterfowl or passerines along both rivers.

Effects of the Alternatives

No Action

No priority use outfitter and guide permits would be issued to the proponents. The general public is drawn to these rivers due to ease of access, the breadth of the riparian floodplain providing opportunities to camp, and spectacular scenery. The Cle Elum River Floodplain Restoration: Upper Cle Elum Valley Project (U.S. Forest Service 2010) is ongoing, and will designate acceptable roads, parking and camping areas, and access points along the Cle Elum River, from Salmon la Sac Campground north to Hyas Lake. This Project will change the way people recreate along the Cle Elum River, reducing user- built roads and trails, and reducing human impacts to shoreline vegetation and river bank structure. A similar effort has already been completed in the vicinity of Cooper Bridge. These changes have or will benefit all riparian dependent wildlife, by preserving large trees, stabilizing eroding banks, and restoring vegetation to denuded riparian areas targeted for restoration. Use of the area by harlequin duck, bald eagle, and peregrine falcon, however, would continue to be limited by the high level of human activity that already occurs on these rivers, in summer.

Proposed Action

Direct and Indirect Effects

Habitat: Harlequin ducks may become entangled in monofilament fishing line. The priority use permit for fly fishing would require collection and removal of all monofilament line used on guided trips, and would provide an important service by educating clients about the importance of removing all monofilament line left along rivers, streams, and lakes (Gaines et al. 2003 pages 31-32). There would be no other physical effects to dense late successional habitat structure potentially used by northern spotted owl, marten, three-toed woodpecker, fisher, and migratory land birds. There would be no physical effects to designated critical habitat for spotted owls.

Disturbance: There may be brief and inconsequential loss of foraging opportunities for wildlife that used dense late successional habitat adjacent to these rivers (spotted owl, marten, and three-toed woodpecker), due to intermittent human presence at take-out points, but it would not impair their ability to survive and reproduce.

Harlequin duck hens with broods are sensitive to human disturbance (Gaines et al. 2003), and may be displaced down or upstream by intermittent OFG activities (guided rafting, walk-in fly fishing, and guided kayaking), but the displacement would be temporary and localized, given the small number of service days that were requested by these OFGs. The displacement would not likely impair juvenile survival, and would not result in a population level effect to harlequin ducks.

The presence of rafters and fly-fishermen would likely result in brief localized displacement of eagles and falcons from the river, and slight loss of predaceous foraging opportunity. The impact would be confined to individual birds or pairs, and is not expected to affect nesting success or rearing activities by either species.

Human activities on the rivers would not likely affect spotted owls. Intermittent human presence on the river banks (at take-outs and put-ins), however, may displace owls or interrupt foraging opportunities for any owls present. Brief displacement would not impair their ability to survive and reproduce. There would be no effect to NRF habitat structure from the proposed OFG activity, and no effects to designated critical habitat for spotted owls.

Cumulative Effects

Both the Cle Elum and Cooper River corridors are heavily used by recreationists in summer, and this activity in combination with the proposed outfitter and guide activity results in a potential cumulative effect from human disturbance to all wildlife that use these riparian forest corridors. At the watershed scale, however, this OFG activity would not be distinguishable from that of the general public, due to the high levels of dispersed camping and roads that already occur along these rivers. In the two affected watersheds (Upper Cle Elum and Upper Yakima north of Interstate 90), 54 and 61% of all riparian reserve acreage exhibits road densities at or above 2 miles per square mile; roading of this magnitude indicates a high level of human influence on riparian habitats for wildlife (Gaines et al. 2003).

5. Summer / Water / Motorized

Affected Area and Existing Conditions for Potentially Affected Wildlife

Proposed equipment delivery by Boulder Creek Enterprises would take in the upper Cle Elum Valley: (350 service days for delivery of personal watercraft (jet skis) to Wish Poosh Boat Launch, Speelyi Beach, Morgan Creek and Dry Creek (all on Lake Cle Elum), and 150 service days for party boat delivery on Lake Kachess. Clientele would park in existing parking areas at these locations.

Affected Areas: Clients are expected to disperse across Lake Cle Elum and Lake Kachess, and to utilize shoreline areas for picnicking, particularly where there is open beach or where bluffs afford views of the lakes and surrounding mountains.

Required Mitigations: The OFGs would be *required* to inform clientele about any lakeshore closures by the Forest Service (such as a bald eagle nesting closure on the west side of the Lake Cle Elum), and any campfire restrictions. They would also be required to inform all clientele (jet ski users and canoeists) that removal of shoreline vegetation or beaver dams is strictly prohibited on National Forest System land, that entry into any tributary streams by jet skis is strictly prohibited, and that wake from jet ski and motor boat use shall not result in damage to shorelines, shoreline vegetation, or shoreline private property. Clientele who violate these measures and cause resource damage may be cited by the Forest Service and/or Sheriff, and fined.

Jet ski rentals on Lake Kachess would not occur after Labor Day. Kachess Campground typically closes on or shortly after Labor Day weekend, but there is a resource reason for curtailing jet ski rentals at that time: bull trout congregate in fall near the mouth of Box Canyon Creek (a tributary to the upper lake), awaiting rains that will allow them migrate upstream to spawn. Boats are generally prohibited from upper Lake Kachess by low water levels at that time of year, but jet skis are a potential source of harassment to bull trout congregating at the mouth of Box Canyon Creek. In addition to curtailing Jet Ski rentals, the Forest Service would post educational signing to discourage motorized use of the upper Lake area by the general public, after Labor Day.

With these provisions, OFGs would be providing a valuable public service – educating clients about ways to recreate around water without causing resource damage or wildlife harassment, and the potential consequences for those who cause resource damage.

Existing Conditions and Potentially Affected Wildlife: Waterfowl that use large bodies of open water and forested lakeshore habitats—and their avian predators—are potentially affected by this OFG activity. Nesting bald eagles and peregrine falcons, common loon, and harlequin ducks are all known to use the affected lakes and shoreline areas, and/or their tributary rivers and streams.

Loons nest on floating mats of vegetation, and the likelihood that loons nest here is somewhat reduced by the dramatic declines in water level during typical summer drawdowns (water level in both lakes is controlled by dams built principally to store water for irrigation).

Shoreline habitats for waterfowl are already subject to a high degree of human influence due to the high densities of roads and trails that occur nearby. In the Cle Elum watershed (encompassing Lake Cle Elum and Cooper Lake), 44% of all available nesting habitat for waterfowl and colonial nesting birds is within the potential zone of influence of an open road or trail. A value of 42% was reported for the Yakima watershed (encompassing Lake Kachess) (Gaines et al. 2003, page 84). Road influences include loss of shoreline vegetation, snags, and logs that provide hunting perches for hawks and eagles, nesting structure, and nesting and rearing cover for waterfowl, and resting sites in fast current for harlequin duck. Roads also create edge effects that reduce habitat effectiveness for land birds and other wildlife that use these riparian forests.

Effects of the Alternatives

No Action

No priority use outfitter and guide permits would be issued to the proponents. Jet ski and motor boat use by the general public (and those with homes on the lake) would continue to occur on Lake Cle Elum and Lake Kachess, contributing to widespread dispersed recreational use of shoreline areas around both lakes. Although the number of users may increase over time, the additional use is not expected to result in establishment of new dispersed recreation areas. All accessible shoreline areas probably already receive some type of recreational use now.

Proposed Action

Direct and Indirect Effects

Habitat: Jet skis and motor boat use that produces high or frequent wakes may disrupt nesting by loons, by swamping nests and damaging the vegetation that binds the nest platform. If nesting loons are confirmed and wake is deemed a risk to nesting activity, then the Forest Service has the option to work with county officials to impose a no-wake buffer using signs or buoys. Such a restriction would apply to all jet skis and motor boat users, including those who rent from OFGs. Such a restriction would affect a small fraction of the lake areas available for recreation. With this option available to the Forest Service, the physical risk to nesting habitat for common loon resulting from OFG delivery of watercraft would be reduced or eliminated.

The educational efforts by OFGs may help reduce risk of resource damage to the affected shoreline areas. Where educational efforts fail, the option of legal enforcement would still remain available to the Forest Service.

Disturbance: Jet ski and motor boat use is likely to displace waterfowl from the middle of these lakes and from high use shoreline areas, intermittently reducing predaceous foraging opportunities for nesting peregrine falcons and bald eagles. Waterfowl would be displaced temporarily into areas with fewer disturbances, on the south end of Lake Cle Elum, and the Cle Elum and Cooper Rivers (except on weekends, when dispersed camping and day use along both rivers also poses a high level of disturbance in the Riparian Reserve).

Cumulative Effects

A cumulative effect results from recreational use made possible by proposed watercraft delivery and current use of shoreline areas by the general public. Many of the affected areas are already influenced to a high degree by the proximity of open roads and trails, and although use stemming from OFG activity would not be distinguishable from that of the general public, there would be a slight increase in the numbers of visitors to existing sites. The cumulative effect would be *persistence* of degraded conditions (including reduced shoreline vegetation, reduced densities of snags and logs, accumulation of garbage, and human waste) at high use sites, for the duration of the permit and beyond. It is not expected to rise to a stand-level impact.

We know of no future actions or activities that in combination with proposed OFG use would result in additional cumulative effects to shoreline or open lake habitats for waterfowl, bald eagles, or peregrine falcons.

Summary of Effects to Wildlife and Consistency Findings, By Species

Deer and Elk

A potential impact to deer and elk would stem from disturbance associated with guided winter trips (motorized) on groomed routes through deer and elk winter ranges in the on Table Mountain. In EW1 areas, this OFG activity would be confined to existing designated and groomed winter trails, as required by the 1990 LRMP. The OFG would also be required to observe any additional restrictions posted by the Forest Service, for the general public.

Another potential impact would stem from guided summer use of open roads and trails district-wide (Sahaptin, Adventrepreneur), with dispersed camping at existing sites, in riparian areas and meadows likely to be used by deer and elk (Sahaptin). Guided trips on open roads and trails would not result in habitat effects or new disturbance to deer and elk. If the existing use of roads and trails poses an unacceptable level of disturbance to deer and elk (for example, in EW-3 calving areas on Table Mountain), then these routes may be temporarily closed to all public and OFG use, by the Forest Service.

With these provisions, proposed OFG activities would not affect habitat for deer and elk, would not result in new or unacceptable levels of disturbance to deer and elk, and would be consistent with all Forest Plan standards for management of big game in EW1, EW 3, RE-2, and ST-2 management areas).

Mountain Goat

There is potential for disturbance to wintering mountain goats from the following OFG activities:

- guided winter snowmobile trips on (and snowmobile delivery to) the existing groomed trail system in the Cle Elum and Yakima watersheds (Adventure Powersports, Boulder Creek Enterprises);
- guided non-motorized snowshoe and cross-country trips on designated and groomed routes in the Teanaway (Sahaptin);
- guided off-trail winter mountaineering trips (non-motorized) in the Cle Elum and Upper Yakima watersheds (BC Adventure Guides, and Cascade Powder Cats).

Guided trips on existing routes would not be distinguishable from the general public, would not physically affect mountain goat habitat, and would not result in new disturbance to wintering goats. OFGs engaged in winter mountaineering would be required to avoid areas with wintering mountain goats.

OFGs would be encouraged to report mountain goat sightings, to assist in mapping of winter use areas. They would also be required to observe any future restrictions posted by the Forest Service for the general public, including those posted to protect key mountain goat kidding areas between December 1 until July 1 (Forest-wide standard no. 6).

With these provisions, proposed OFG activity is consistent with Forest Plan standards and guidelines for management and protection of mountain goats.

Ruffed Grouse, Beaver, Harlequin Duck, Common Loon, Peregrine Falcon, Bald Eagle, Migratory Land birds (Species that use riparian forests and forested shoreline areas)

Potential impacts stem from the following OFG activities: guided summer use of road and trails, with overnight camping at existing dispersed campsites (Adventrepreneur, Sahaptin), guided activities on water—specifically, the Cle Elum and Cooper Rivers (Red's fly-Fishing, Adventrepreneur), and water craft delivery at beaches and boat launches on Lake Kachess, Lake Cle Elum, and Cooper Lake (Boulder Creek Enterprises, and Adventure Powersports).

Disturbance stemming from intermittent human presence in riparian forests along rivers and shorelines, may result in brief and localized displacement of riparian dependent wildlife. Use of existing roads, trails, dispersed camping areas, and landings on the big lakes, however, would not result in *new* disturbances to any wildlife. Use of undesignated take-outs on the Cle Elum and Cooper River may pose a new disturbance, but the effects would be extremely localized, and inconsequential to the small number of animals that would be temporarily displaced.

The only potential habitat effects would stem from firewood collection at existing dispersed campsites in riparian forest and shoreline areas, and from unguided use of personal watercraft on the big lakes. OFGs would be required to report conditions at dispersed camping areas they use to the Forest Service, so that problems (sanitation, garbage, denuded areas, scarcity of firewood) are surfaced, and corrective actions may be considered (The Forest Service may close and/or rehabilitate sites, as needed to meet ACS objectives, and standards and guidelines for riparian reserves (RM-2), riparian management areas (forest-wide standards nos. 3, 4, and 5 on page 2 of this report, LSR (no. 7), and AMA (no. 9)). OFGs would also provide a valuable service: informing clientele who rent personal watercraft about any posted shoreline closures and campfire restrictions, prohibitions on use of personal watercraft in tributary rivers, and on removal or damage to shoreline vegetation or beaver dams. OFGs would also help educate users about avoiding harassment to wildlife (migrating bull trout in upper Kachess Lake, nesting bald eagles on

Lake Cle Elum, consistent with Forest-wide standard no. 2 (EA page 29), and the importance of removing monofilament line along rivers, streams, and lakes). Ultimately, personal watercraft users are responsible for their actions, but OFGs operations would increase their awareness.

With these provisions, and based on the limited physical effects of OFG activities on riparian habitats, the absence of substantial new disturbances to wildlife, and the educational services that OFGs would provide, proposed OFG activities are consistent with all Forest Plan standards and guidelines for management of riparian resources, and objectives of the ACS. They would not impair the viability of ruffed grouse and beaver (MIS for riparian habitats). OFG activities would not result in down ward population trends that would lead to federal listing of Sensitive Species (peregrine falcon, bald eagle, common loon). They would not entail removal of riparian vegetation important to migratory land birds, and are therefore consistent with Executive Order 13186 (Protection of Migratory Land birds).

Primary Cavity Excavators and White –headed Woodpecker

Potential impacts to habitat stem from firewood collection at existing dispersed campsites (Adventrepreneur, Sahaptin), and from firewood collection by personal watercraft clientele on lakes (Boulder Creek Enterprises, and Adventure Powersports). These activities would primarily occur in the riparian forest habitats (addressed in the previous section). OFG activities would contribute to persistent low densities of snags and logs at existing dispersed campsites, but they would also report conditions at these campsites, enabling the Forest Service to take action where necessary. Generally, the impacts to snags and down wood habitats would be confined to the immediate vicinity of campsites, degrading but not removing habitat at the stand level. It may affect individual birds or nesting pairs (causing brief and localized displacement and loss of foraging opportunity), but would not impair their ability to survive and reproduce. There would be no population level impact. OFG activity would not result in a downward population trend that would lead to federal listing of white-headed woodpecker (a Pacific Northwest Sensitive species). It would not affect the viability of pileated woodpecker populations on this Forest.

Northern Spotted Owl (and Critical Habitat for Spotted Owl) , America Marten, Three-toed Woodpecker, Pileated Woodpecker, Pacific fisher, Great Gray Owl (species that use dense late successional forest habitats or structure)

Potential impacts to dense late successional habitat stem from firewood collection at existing dispersed campsites (Adventrepreneur, Sahaptin), and from firewood collection by personal watercraft users on the shorelines of lakes (Adventure Powersports). These affected areas are also riparian habitats (addressed previously). OFG activities would contribute to persistent low densities of snags and logs at existing dispersed campsites, but they would also report conditions at these campsites, allowing the Forest Service to take action where necessary. See effects to riparian dependent wildlife, above.

All of the OFG activities that would take place in summer potentially result in disturbance to species that use dense late successional habitats (except fisher, which are not current present in any proposed permit area). Proposed use of existing roads, trails, and dispersed campsites would not pose a *new* disturbance to any wildlife, and is unlikely to cause displacement or impair survival of affected animals. There are no known spotted owl nests or great gray owl nests near trails, roads, or dispersed campsites proposed for OFG use. Owls move, however, and if a new nest is detected in an area that is likely to be disturbed by OFG activity, the Forest Service may impose a temporary closure on all use (OFG and public) to protect the nesting pair from disturbance. With this provision, proposed OFG activities are consistent with Forest-wide standard no. 2 (protect known active nest and roost sites of raptors).

Based on the limited effects to dense late successional habitat structure, the opportunity to address habitat problems surfaced by OFGs through campsite condition reporting, and the limited potential for new disturbance to wildlife, proposed OFG activity may impact but would not likely adversely impact American marten, three-toed woodpecker, and pileated woodpecker, and great gray owl. It would not

affect the ability of any affected great gray owls to survive and reproduce, and would not result in downward population trend toward federal listing of this Pacific Northwest Sensitive species. Because it would contribute to the degraded habitat conditions for spotted owls around existing dispersed campsites, it may affect, but would not likely adversely affect northern spotted owl, and designated critical habitat for spotted owls (USDI 2012).

Wide-Ranging Carnivore Group (gray wolf, wolverine, grizzly bear, and Canada lynx)

A potential impact to Canada lynx and wolverine would stem from snow compaction resulting from the following OFG activities: guided snowmobile day trips (and snowmobile delivery) to groomed winter routes (Adventure Powersports and Boulder Creek Enterprises), guided winter non-motorized trips (Sahaptin, district-wide use), and guided winter mountaineering trips (non-motorized) in the upper Cle Elum and upper Yakima watersheds (BC Adventure Guides and Cascade Powder Cats). Use of existing groomed routes would not result in *new* snow compaction or loss of foraging opportunity for lynx or wolverine. Off trail winter mountaineering, however, may result in a small amount of new snow compaction (temporary), localized displacement of wide-ranging carnivores due to intermittent human presence, and a slight loss of predaceous foraging opportunities for any carnivores that happen to be in the area. The effect to such wide-ranging species would be small and inconsequential.

Sahaptin's proposed use of groomed trails on the east side of the district has the potential to disturb wintering deer and elk, and gray wolves. Because this OFG activity would be confined to existing groomed and designated routes, however, it would not pose a new disturbance to wolves or their ungulate prey.

All of the summer OFG activities also have a potential to disturb and displace all of the wide-ranging carnivores, and their ungulate and small mammal prey. Because they will be confined to existing open roads, trails, and dispersed camping areas, they would not pose a *new* disturbance. OFG activities would not affect core area for grizzly bears within the North Cascades Grizzly Bear Recovery Zone, and would not affect security habitat for gray wolves or wolverine.

OFGs who lead overnight summer camping trips would be required to implement sanitation measures to prevent adverse encounters with grizzly and black bears, as required under the Grizzly Bear Recover Plan, North Cascades Chapter (USDI 1997). With the provision for implementing sanitation measures for grizzly bears, proposed OFG activities may affect but would not likely adversely affect grizzly bears, and are consistent with the Recovery Plan.

Based on the absence of new disturbance to lynx, gray wolf, and wolverine, proposed OFG activities may affect but would not likely adversely affect these three species.

D. AQUATIC SPECIES

Management Direction and Regulatory Framework

Wenatchee National Forest LRMP as amended by 1994 ROD

The primary objective for riparian areas is to maintain and enhance long term productivity to provide for riparian dependent resources including water quality and fish (USDA Forest Service 1990a: pages IV-40 & 41). The objective for this project in regard to fish habitat is to maintain fish habitat capability, including habitat quantity and quality, at or above existing levels.

A Wenatchee Forest Plan standard with implications for fish is to maintain low fine sediment levels (<20% surface fines); (USDA Forest Service 1989 pages 4-30 -32).

The 1990 Forest Plan requires implementation of Best Management Practices (BMPs) to ensure consistency with the Clean Water Act. See previous effects analysis for water resources.

The LRMP was amended by the 1994 ROD, however administratively withdrawn areas and all other LRMP standards and guidelines apply where they are more restrictive or provide greater benefits to late-successional and old-growth forest related species than other provisions of the NW Forest Plan standards and guidelines.

Under the Northwest Forest Plan, the purpose of the Aquatic Conservation Strategy (ACS) is to restore and maintain the ecological health of watersheds and aquatic ecosystems. Management activities in Riparian Reserves may not retard or prevent attainment of 9 ACS objectives listed in1994 ROD (page B-11

The four major components of the ACS (Riparian Reserves, Key Watersheds, watershed analysis, and watershed restoration) provide the basis for protection of watershed health. See the 1994 ROD for detailed descriptions of each.

Endangered Species Act (ESA) of 1973 (as amended) (EA page 14).

Pursuant to ESA, a separate Biological Assessment of the Project Effects to federally listed fish and designated critical habitats has been prepared, and is incorporated by reference into this EA.

Pursuant to ESA, all projects and permitted activities must be consistent with approved Recovery Plans for Oregon chub, and Bull Trout. Recovery planning is underway for Chinook salmon and steelhead. Habitat must be managed to meet habitat and population objectives as listed in these recovery plans.

Magnuson-Stevens Fishery Conservation and Management Act (MSA) of 1996 as amended.

§ 305(b)(2) of the MSA directs that "Each Federal agency shall consult with the Secretary with respect to any action authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken, by such agency that may adversely affect any essential fish habitat identified under this Act."

The MSA implementing regulations (50CFR part 600), specifically §600.920(a) states that "Federal agencies must consult with NMFS regarding any of their actions authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken that may adversely affect EFH.

Federal agencies are to minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat (MSA §303(a)(7)).

Wild and Scenic Rivers Act (previously discussed on page 13)

Executive Order 12962, Recreational Fisheries (1995)

Federal agencies shall, to the extent permitted by law and where practicable, and in cooperation with States and Tribes, improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities by:

(a) developing and encouraging partnerships between governments and the private sector to advance aquatic resource conservation and enhance recreational fishing opportunities;
(b) identifying recreational fishing opportunities that are limited by water quality and habitat degradation and promoting restoration to support viable, healthy, and, where feasible, self-sustaining recreational fisheries;
(c) fostering sound aquatic conservation and restoration endeavors to benefit recreational fisheries;
(d) providing access to and promoting awareness of opportunities for public participation and enjoyment of U.S. recreational fishery resources;
(e) supporting outreach programs designed to stimulate angler participation in the conservation and restoration of aquatic systems;
(f) implementing laws under their purview in a manner that will conserve, restore, and enhance aquatic systems that support recreational fisheries;

(g) establishing cost-share programs, under existing authorities, that match or exceed Federal funds with nonfederal contributions;
(h) evaluating the effects of Federally funded, permitted, or authorized actions on aquatic systems and recreational fisheries and document those effects relative to the purpose of this order; and
(i) assisting private landowners to conserve and enhance aquatic resources on their lands.

Executive Order 13112, Invasive Species (1999)

Directs Federal agencies to: (1) identify actions that may affect status of an invasive species; (2)(a) prevent introduction of such species; (b) detect and control such species; (c) monitor population of such species; (d) provide for restoration of native species; (e) conduct research on invasive species and develop technologies to prevent introduction of such species; (f) promote public education of such species; and (3) not authorize, fund, or carry out actions likely to cause the introduction or spread of invasive species in the United States or elsewhere unless the benefits of the action clearly outweigh the harm and the agencies take steps to minimize the harm.

Analysis Methods

Stream habitat and biological surveys have been completed for many of the fish bearing streams within proposed permit areas. Forest Service data on pool frequency, pool quality, surface fines, woody material quantity, and fish species composition and distribution was utilized in this analysis.

Watershed Analysis was reviewed to gain the larger scale historical background condition and identify concerns with existing natural watershed processes and watershed recommendations.

Existing data from the Okanogan Wenatchee National Forest Geographic Information System (GIS) database was queried for historical and current fish distribution. Critical habitat and ESA fish distribution maps from NMFS and USFWS were also reviewed.

Effects to the fishery resource are directly and indirectly related to changes in water quality, and physical watershed processes. This analysis of effects to fish relies on the Hydrology Specialist Report, discussed previously in Chapter 3.

Existing Conditions and Effects of the Alternatives

The level of detail in the following topics is commensurate with the level of risk posed by OFG activities. Risk is based on the proximity of the project elements to fish, fishery sensitivity or importance, and intensity of the effects on the fisheries resources.

1. Fish Habitat Complexity

The quality and quantity of fisheries habitat is widely variable across the Cle Elum Ranger District. Many areas provide high quality and valuable habitat for fish and other aquatic species. There are lakes, streams, and reservoirs on the District. There are areas where conditions are degraded by both anthropogenic and natural causes.

Habitat frequency/quality, substrate condition, and distribution barriers are all variable across the district. Changes to these habitat elements can have an impact on fish and aquatic resources. Some areas on the district are functioning well, while others are in a degraded state.

As a result of the multiple locations of proposed activities a range of conditions could be described for these habitat elements. Proposed OG activities would not result in changes to fish habitat complexity.

2. Water Quality for Fish

Water quality is also variable across the Cle Elum Ranger District. The existing condition for water quality in proposed permit areas was described previously under Effects to Soil and Water. None of the proposed OFG activities would result in a measurable change in water quality or effects to fish.

3. Fish Biological Parameters

Commonly observed species such as rainbow trout, cutthroat trout, and sculpin are present on the Cle Elum Ranger district. The district also is home to two ESA protected species; Middle Columbia Steelhead and Columbia River Bull trout. Some areas of the District, including areas where activities are proposed, have instances of non-native species like brook trout and lake trout.

Life History Stages
All life history stages are present for all species.

Local Population
Species status:

Bull Trout (*Salvelinus confluentus*)**:**

The Columbia Basin Distinct Population Segment (DPS) of bull trout was listed as Threatened by the USFWS June 1, 1998. The bull trout in the Yakima River drainage are included in this population segment. The coterminous United States population of the bull trout *(Salvelinus confluentus)* was listed as threatened on November 1, 1999 (64 FR 58910). The bull trout was initially listed as three separate Distinct Population Segments (DPSs) (63 FR 31647, 64 FR 17110). Although this rule consolidates the five bull trout DPSs into one listed taxon, each is unique and significant. These DPSs are treated as interim recovery units for Section 7 purposes until an approved recovery plan is developed.

<u>*Subpopulation Size*</u> - Little is known of the historic range of bull trout in the Upper Yakima watershed. The historic abundance of the species is also unknown. Currently bull trout populations are depressed within the upper Yakima. Populations have been isolated above dams at Kachess, Keechelus and Cle Elum Lakes. Bull trout numbers within the mainstem upper Yakima, below the dams, are unknown but numbers appear to be very low. There are small populations in Kachess and Keechelus Lakes. In both lakes spawning appears to be limited to one or two streams: Gold Creek in Keechelus and Box Canyon Creek and the upper Kachess River in Kachess.

The genetic characteristics of bull trout in the watershed were analyzed by Reiss (2003). Box Canyon bull trout appear to be closely related to the two other known populations in the Upper Yakima: Mineral Creek and Gold Creek. There is an opportunity for gene flow between the Box Canyon and Mineral Creek populations, but the Kachess and Keechelus dams prevent interaction with the Gold Creek population. The genetic clustering of these populations indicates that they may have functioned as a metapopulation historically.

Based on the chronically low numbers of fish encountered in the index reaches, the status of the stock is considered to be "critical" by the Washington Department of Fish and Wildlife (WDFW 1997).

In all the fish sampling that has occurred in the Upper Yakima through studies associated with the Yakima-Klickitat production project only a few bull trout have been found in the mainstem Yakima (including one below Easton Dam), a very few in the North Fork Teanaway and Jungle and Jack Creeks, and one adult fish trapped in 1995 in Swauk Creek near the mouth, well below the National Forest boundary.

Bull trout historically were found throughout the Cle Elum drainage. The population is now severely depressed. Migratory and/or resident populations in the Cle Elum below Waptus must be extremely small. In the fall of 2004 and 2005 one large redd was observed each year in the Cle Elum River between Silver Creek and Tucquala Lake. Because no fish were observed, it was not possible to determine if these were bull trout redds. However, timing was within the time span of other bull trout spawning periods occurring in the upper Yakima watershed (T. Mayo, personal observation 2004, 2005). Status of the stock has been listed as "unknown" by the Washington State Department of Fish and Wildlife, because of the small amount of information available on the stock in the Cle Elum drainage. Due to the apparently very small population bull trout are considered **functioning at unacceptable risk.**

Growth and Survival – Bull trout were historically found in all subbasins on the Wenatchee National Forest. However, currently very little is known about the existing bull trout population in the Cle Elum Drainage. Bull trout populations appear to be very low in the watershed and are therefore **functioning at unacceptable risk.**

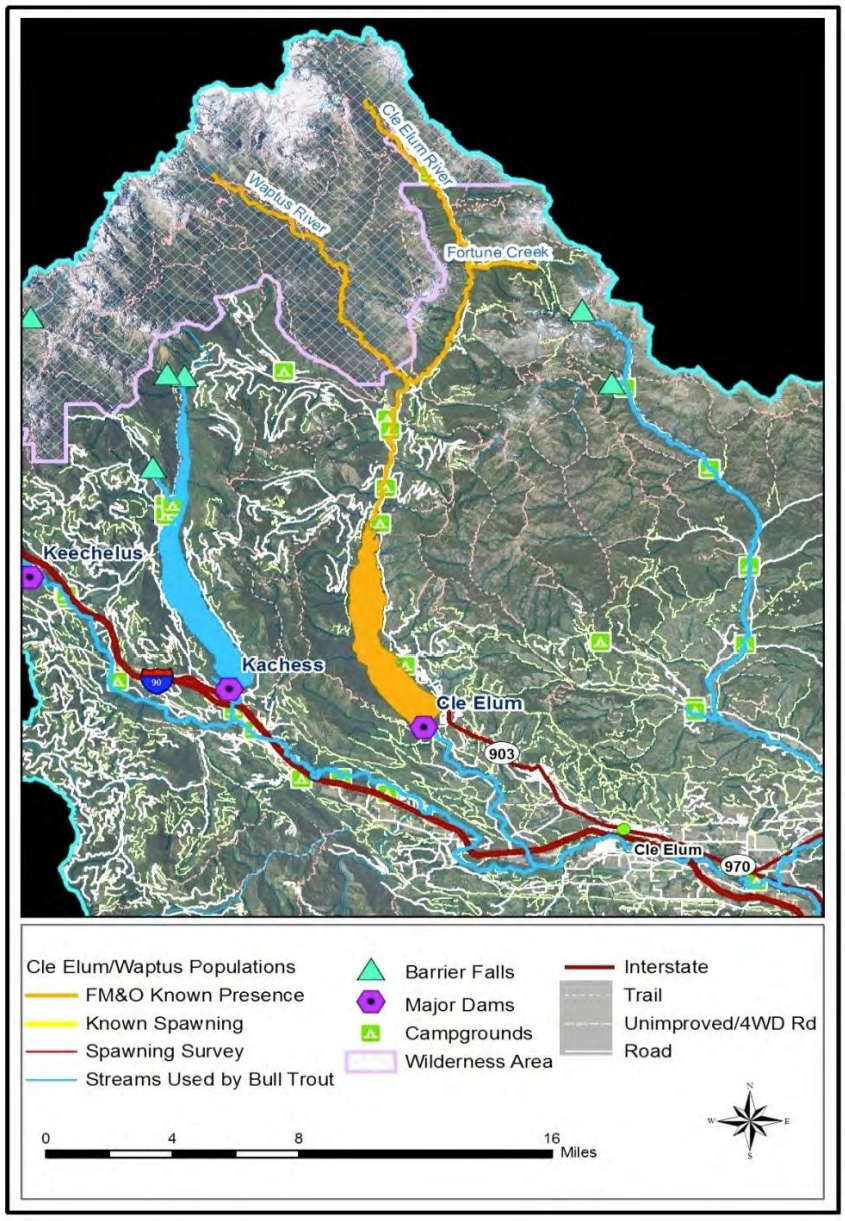
Life History Diversity and Isolation - Bull trout are found in a variety of habitats ranging from small headwater streams and large rivers to lakes. Some fish may remain in headwater streams, migrating short distances to spawning sites. Other fish may migrate relatively long distances into small streams to spawn from rivers or lakes. These fish may spend two to four years in their natal streams before migrating into larger river or lakes. The migratory form is present in the watershed but in what appears to be extremely low numbers and the population is isolated above a Bureau of Reclamation dam at River Mile 8.2 of the Cle Elum River. This reservoir was historically a lake and likely maintained an adfluvial life history form of bull trout. Low numbers of fluvial bull trout are found below the dam on the Cle Elum River but the dam prevents their migration into the upper Cle Elum. The bull trout population is **functioning at unacceptable risk.**

Persistence and Genetic Integrity - Dams have isolated bull trout populations in Keechelus, Kachess and Cle Elum lakes. The numbers in these populations are low with the majority of the spawning occurring in one stream per system. Lake trout in Cle Elum Lake and brown trout in the Cooper River (Cle Elum River tributary) may pose a threat to the few bull trout in the Lake Cle Elum River system. Bull trout populations in the Kachess and Keechelus watersheds are genetically similar (Reiss 2003) which supports prior to the construction of barrier dams that there was connectivity between these two watersheds via the Yakima River. Bull trout in the Teanaway watershed appear to be genetically unique from other Upper Yakima populations suggesting this population may have always been an isolated resident population or they have suffered a severe bottleneck (Reiss 2003). Bull trout numbers in the rest of the Upper Yakima appear to be very low. Bull trout are considered to be **functioning at unacceptable risk.**

Bull Trout Critical Habitat

The U.S. Fish and Wildlife Service has designated critical habitat for the Columbia River Basin Distinct population segments of bull trout. Critical habitat refers to specific geographic areas that are essential for the conservation of a threatened or endangered species and which may require special management considerations. There is designated critical habitat in Lake Cle Elum, the Cle Elum River, Cooper Lake, Cooper River, and Kachess Lake.

Bull Trout in the Cle Elum drainage



Westslope Cutthroat Trout (*Onchorhynchus clarki lewisi)***:***

Westslope cutthroat trout occur throughout the Yakima River Basin. They were previously listed on the Regional Forester's Sensitive Species List.

Westslope cutthroat trout can exhibit several life histories. They can migrate between lakes and streams, between small tributaries and main rivers, or remain non-migrating residents of tributary streams. Spawning generally occurs in spring through summer.

The origin of westslope cutthroat trout in the Yakima watershed has been in question. There has been widespread releases of hatchery cutthroat trout in central Washington since the early 1900's, including westslope cutthroat primarily from the Twin Lakes and Chelan/Stehekin in central Washington. In 1998 a genetic and phenotypic study of native trout in the Yakima was sponsored by the Bonneville Power Administration (Trotter et al 1999). Resident trout were collected from ten streams throughout the Yakima subbasin. The streams were chosen based on several criteria including a review of historical fish stocking records to eliminate drainages where hatchery fish had been planted, no lakes in the headwaters of the drainage and sample reaches upstream of any known influence of anadromous salmonids. No fish were collected from the Cle Elum River or any of its tributaries. However, the study did find five out of the ten streams sampled contained genetically pure westslope cutthroat trout. This finding supports the earlier suggestions (Behnke 1992, Probstel and Noble 1994) that the range of westslope cutthroat extends into central Washington State westward to the Cascade crest which would indeed include the Cle Elum watershed.

In 2000 additional genetic sampling was conducted on resident trout populations in the Yakima subbasin. Fish were collected from the West Fork Teanaway River, Nile River and Stafford Creek. To evaluate the influence of hatchery introductions, allozyme allele frequencies of fish from these streams were compared with those of the Twin Lakes hatchery stock. Six arrant alleles were detected in the samples that were not present in the Twin Lakes stock. Based on these data, it is highly unlikely that these populations were the result of stocking from the Twin Lakes Hatchery and is compelling evidence that they are representative of native westslope cutthroat populations in the Yakima basin (Howell et al 2003).

Cutthroat trout are native to the watershed and are widely distributed throughout the drainage. Introduction of exotic trout and char may have displaced cutthroat trout from some historic habitats but their range may have been expanded somewhat through stocking of high lakes of westslope cutthroat from Twin Lakes (Wenatchee Subbasin).

Redband trout (*Onchorhynchus mykiss gairdneri)*

Redband trout are also native to the watershed. As with the westslope cutthroat population, redband population may have been impacted with the introduction of non-native trout and char. The status of the native redband populations is not known given the introduction of non-native rainbow trout throughout the watershed.

Aquatic Invasive Species – there are no documented instances of AIS in the project area.

Effects of the Alternatives

No Action

Under the no action alternative no priority use outfitter and guide permits would be issued to the proponents. There would be no effects to fish habitat complexity, water quality, or biological parameters from the existing condition.

Proposed Action

1. Fish Habitat Complexity

Direct and Indirect Effects to Fish Habitat Complexity by Outfitter Guide activity type are displayed in the following tables.

Winter Non-Motorized Recreation/Education	Guided ski/snowshoe trips, avalanche education courses, and winter travel instruction. Routes may vary from trip to trip and are not confined to groomed winter routes.
Effects to Habitat Frequency/Quality	Due to the nature of these activities and the season of use, there would be effects on habitat.
Effects to Substrate Condition	Based on the hydrology report there would be no effects to substrate condition.
Effects to Distribution Barriers	No barriers would be created or removed
Effects Determination for this activity	No Effect to PETS fish/aquatic species or resident fish if all protective measures, BMPs, and mitigations as prescribed by the hydrologist are incorporated into the permits.

Winter Motorized Recreation	Guided activities – snowmobiling that is confined to existing Forest Service System groomed winter routes. Parking would be confined to Sno-Parks and designated parking areas. This category also includes snowmobile delivery to the groomed trail system for unguided activities.
Effects to Habitat Frequency/Quality	The nature of these activities and the season of use results in very low to no effects on habitat. Any effects are at a discountable level. For these permits there would be no direct effects to fish and aquatic species.
Effects to Substrate Condition	Based on the hydrology report there would be no effects to substrate condition that will have a resulting effect in fish and aquatic species.
Effects to Distribution Barriers	No barriers would be created or removed
Effects Determination for this activity	No Effect to PETS fish/aquatic species or resident fish if all protective measures, BMPs, and mitigations as prescribed by the hydrologist are incorporated into the permits.

Summer- Trail/Backcountry Recreation and motorized non-water recreation	Guided activities (hiking, backpacking, mountain biking) that are confined to existing Forest Service System trails and roads. Parking would be confined to established parking areas and trailheads. This category also includes delivery of rented motorized scooters for use on system roads.
Effects to Habitat Frequency/Quality	There would be no measurable effects or impacts which result in an effect to fish or aquatic species.
Effects to Substrate Condition	Based on the hydrology report there would be no effects to substrate condition that will have a resulting effect in fish and aquatic species.
Effects to Distribution Barriers	No barriers would be created or removed
Effects Determination for this activity	No Effect to PETS fish/aquatic species or resident fish if all protective measures, BMPs, and mitigations as prescribed by the hydrologist are incorporated into the permits.
Summer – Water, Motorized Recreation	Delivery of boats, personal watercraft (jet skis) to Kachess Lake Campground boat launch, Cle Elum Reservoir at Speelyi, Morgan Creek, Dry Creek and Wish Poosh boat launch.

	Delivery of personal watercraft would occur by a prearranged meeting location and time.
Effects to Habitat Frequency/Quality	See hydrology report for complete description of potential effects to shorelines, riparian soil and vegetation. The effects of these activities may result in impacts to individual fish but would be transient and minimal. The noise created by motorized watercraft can have an effect on fish as well. The effects of these activities are indiscernible from regular forest/lake use because the exact proportionality is unknown
Effects to Substrate Condition	There may be some minor impacts to lake edges which could result in localized and transient increases in turbidity which could affect individual fish if they were present in the area. This has a low likelihood of occurrence.
Effects to Distribution Barriers	No barriers would be created or removed
Effects Determination for this activity	May Affect, Not Likely Adversely Affect Bull trout and for MIS May impact individuals or habitat, but would not likely contribute to a trend towards Federal listing or loss of viability to the population or species resident fishes

Summer – Water, Non-Motorized Recreation	White water kayak trips, Cooper Lake and the Upper Cle Elum River. Guided, walk and wade fly fishing trips on the Upper Cle Elum River, Cooper Lake and Cooper River. Guided float fishing trips between Salmon la Sac Campground and French Cabin Creek as well as Cooper Lake.
Effects to Habitat Frequency/Quality	There are possibly temporary disturbances which could occur when water surfaces are disturbed and when floating boats are maneuvered.
Effects to Substrate Condition	There could be direct effects to riparian vegetation and in stream habitat when boats are launched and while walk and wade fishing is occurring. The scale of the impacts is very small and would result in localized impacts which are transient and likely to be immeasurable They would be of a low magnitude. Plants could be damaged and gravels could be displaced when walked on. Limited increases in turbidity could be observed but would not lead to increases in substrate embeddedness or habitat changes.
Effects to Distribution Barriers	No barriers would be created or removed
Effects Determination for this activity	Likely to Adversely Affect Bull trout and for MIS May impact individuals or habitat, but would not likely contribute to a trend towards Federal listing or loss of viability to the population or species resident fishes

2) Water Quality for Fish

See Effects to Soil and Water Resources for potential impacts to water quality. There may be some mild impacts to water quality and this report will speak to the effects of those on the fisheries and aquatic resources. Aspects of water quality that were considered are listed below.

Direct and Indirect Effects to Water Quality by Outfitter Guide activity type

Winter Non-Motorized Recreation/Education	Guided backcountry ski/snowshoe trips, avalanche education courses, and winter travel instruction. Routes may vary from trip to trip and are not confined to groomed winter routes.
Water Temperature	There are no activities planned which would result in a change to water temperature on a level that would affect fish or aquatic species.
Turbidity	There are no activities which would result in increases in turbidity which would result in an effect to fish and aquatic species.
Chemical Contamination	These activities would not result in an increased risk for chemical contamination which would result in an effect to fish.
Stream Peak and Base Flows	No changes in flows would be predicted so no effects to fish an aquatic species would occur.
Effects Determination for this activity	No Effect to PETS fish/aquatic species or resident fish if all protective measures, BMPs, and mitigations as prescribed by the hydrologist are incorporated into the permits.

Winter Motorized Recreation	Guided activities – snowmobiling that is confined to existing Forest Service System groomed winter routes. Parking would be confined to Sno-Parks and established parking areas. This category also includes snowmobile delivery to the groomed trail system.
Water Temperature	There are no activities planned which would result in a change to water temperature on a level that would affect fish or aquatic species.
Turbidity	There are no activities which would result in increases in turbidity which would result in an effect to fish and aquatic species.
Chemical Contamination	While snowmobiles carry fuel and may be refueled, there is a discountable risk to fish and aquatic species. Any refueling would be done in Sno-Parks, and no maintenance of equipment will be allowed in Sno-Parks.
Stream Peak and Base Flows	No changes in flows would be predicted so no effects to fish an aquatic species would occur.
Effects Determination for this activity	No Effect to PETS fish/aquatic species or resident fish if all protective measures, BMPs, and mitigations as prescribed by the hydrologist are incorporated into the permits.

Summer- Trail/Backcountry Recreation and motorized non-water recreation	Guided activities (hiking, backpacking, mountain biking) that are confined to existing Forest Service System trails and roads. Parking would be confined to established parking areas and trailheads. This category also includes delivery of rented motorized scooters
Water Temperature	There are no activities planned which would result in a change to water temperature on a level that would affect fish or aquatic species.
Turbidity	There are no activities which would result in increases in turbidity which would result in an effect to fish and aquatic species.
Chemical Contamination	none
Stream Peak and Base Flows	No changes in flows would be predicted so no effects to fish an aquatic species would occur.
Effects Determination for this activity	No Effect to PETS fish/aquatic species or resident fish if all protective measures, BMPs, and mitigations as prescribed by the hydrologist are incorporated into the permits.

Summer – Water, Motorized Recreation	Delivery of boats and personal watercraft (jet skis) to Kachess Lake Campground boat launch, Cle Elum Reservoir at Speelyi, Morgan Creek, Dry Creek and Wish Poosh boat launch. Delivery of personal watercraft will occur by a prearranged meeting location and time.
Water Temperature	none
Turbidity	Review the hydrology report for a description of effects to turbidities. There is no expectation for effects to have other than a transient and occasional effect on individual fish which may be present in the immediate areas. This effect would be temporary in nature and fish would likely leave areas of increased turbidities.
Chemical Contamination	No re-fueling is proposed in the permit application. Personal water craft do have emissions, and can have petro chemical residue on them. No maintenance of watercraft will be included in this permit. For a full analysis of the potential for chemical contamination please review the hydrology report. There is no expectation that contaminants would be introduced in a manner that results in an effect to fish.
Stream Peak and Base Flows	No changes in flows would be predicted so no effects to fish an aquatic species would occur.
Effects Determination for this activity	May Affect, Not Likely Adversely Affect Bull trout and for MIS May impact individuals or habitat, but would not likely contribute to a trend towards Federal listing or loss of viability to the population or species resident fishes

Summer – Water, Non-Motorized Recreation	White water kayak trips, Cooper Lake and the Upper Cle Elum River. Guided, walk and wade fly fishing trips on the Upper Cle Elum River, Cooper Lake and Cooper River. Guided float fishing trips between Salmon la Sac Campground and French Cabin Creek as well as Cooper Lake.
Water Temperature	No activities would result in a change in water temperature.
Turbidity	Review the hydrology report for a description of effects to turbidities. There is no expectation for effects to have other than a transient and occasional effect on individual fish which may be present in the immediate areas. This effect would be temporary in nature and fish would likely leave areas of increased turbidities.
Chemical Contamination	There is no expectation for chemical contaminants to be introduced associated with these activities.
Stream Peak and Base Flows	No changes in flows would be predicted so no effects to fish an aquatic species would occur.
Effects Determination for this activity	Likely to Adversely Affect Bull trout and for MIS May impact individuals or habitat, but would not likely contribute to a trend towards Federal listing or loss of viability to the population or species resident fishes

3) Fish Biological Parameters

Life History Stages – There is the potential that all life stages could be affected by the activities as described above as both lake and stream environments are potentially affected. The effects are small, many of them are discountable, and those that are not are localized, transient, and would only affect individuals.

Effects to Population – There are no expectations for effects at the population scale for any species with maybe the exception of bull trout. The bull trout population in the Cle Elum system is poorly understood. Some activities could result in effects to bull trout individuals. For most activities there are no effects. For a couple of activities there may be an affect which cannot be discounted. Activities such as fishing and walking in creeks where bull trout are present may have an effect. One component of the Adventrepreneur permit includes walking across Box Canyon Creek to access the Little Kachess trail. If bull trout were present at the time the creek was crossed, they may be temporarily displaced. The bull trout utilize this habitat later in the summer and into the fall so the likelihood of presence is diminished since the OG activities are likely to occur early in the spring and summer. See the next section "Other Effects" for a description of the effects of fishing on bull trout.

Food Supply-there are no effects which would lead to a change in the food supply and result in an indirect effect to fish.

Aquatic Invasive Species (AIS) – Multiple proposed activities can provide for introductions or transport of AIS. If conservation and management measures are incorporated into permits, and permit holders comply with the measures, the risk of contamination of National Forest waters is reduced. There is an existing risk from current non-guided recreational usage that will continue regardless of the issuance of these permits. The introduction of AIS can have multiple biological implications. They range from changes in water quality and displacement to reductions in habitat, or direct mortality. None of the effects are positive for native aquatic species.

4) Other Effects – direct effects from recreational fishing

One of the permit applicants is seeking to attain a permit for guided fishing trips. These include both walk and wade fishing trips, and float fishing trips. Recreational fishing has a direct effect on fish. They can be killed, injured, harassed, and displaced as a result of fishing activities. Resident fish would be negatively affected by this activity. The Cooper River, Cooper Lake, and Cle Elum River are designated critical habitat for bull trout, and are considered to be occupied at very low densities. Relatively little is known about the bull trout that inhabit the Cle Elum Lake watershed and its associated subwatersheds. It is uncertain if a viable adfluvial bull trout population still inhabits Cle Elum Lake; it is also unknown if a resident component exists in the upper Cle Elum River, although that is possible. Further investigation is warranted (YBTAP, 2012). The likelihood that a bull trout would be encountered is low, but not discountable.

Guided Fishing Trip Types	Location	Service days proposed
Walk and Wade	Cooper River Upper Cle Elum River	30 50
Guided Float trips	Cooper Lake Upper Cle Elum River(between Cooper Lake and Cle Elum River)	40 40
	Total	160 days

There are a total of 160 service days proposed for fishing these waters. That amount of fishing effort may result in the disturbance of individual bull trout or the unintentional catching of a bull trout. Any effects to individuals of that population could have an effect on the entire population because the population is so small. A biological assessment has been completed for this project and a determination of May Affect Likely to Adversely Affect bull trout has been reached as a result of these fishing activities.

Cumulative Effects

Non-outfitted recreation use is expected to increase over the next 10 years. An increase in non-commercial recreation use combined with commercially outfitted use at levels proposed here would result in conditions that are similar to the current condition. Outfitters and guide services will be restricted to established trails and roads, and existing campsites. The creation or expansion of existing areas of impact will not be permitted.

Trail maintenance would continue as it does now and drainage structures would be maintained on trail treads. Expansion of the existing trail network by permittees would not be permitted.

The Forest Service would continue to work with the Washington Department of Fish and Wildlife to provide information about fishing activity and to provide information to anglers about fishing regulations and species identification where listed bull trout are present in the analysis area. Commercial outfitters would help with this effort by ensuring that clients are knowledgeable about fishing regulations and species identification.

This action would permit outfitter use with the same effects to aquatic and riparian resources as is currently occurring. Impacts would continue to occur to localized areas that are well dispersed and represent a small fraction of the entire analysis area. Given the large size of the analysis area, compared to the little amount of impacted area, cumulative impacts to fish would be too small to meaningfully measure or detect.

Overall, aquatic and riparian conditions would be maintained at the reach, 6th and 5th field scales. Through passive restoration could improve over time. Aquatic and riparian conditions are functioning at variable levels across the analysis area and permitting the outfitter guide activity would not meaningfully retard or prevent their functions. Therefore, there would be little to no negative cumulative effect.

Conclusions and Consistency Findings

Based on direct, indirect and cumulative effects described above, proposed OFG activities (except guided fishing) would not affect fish and aquatic species habitat or biological parameters. The nature of these activities combined with the season of use and the scope of permits are unlikely to result in any measurable habitat degradations. The general recreating public uses the forest for these same activities and the amount of use proposed by OFGs is minor in comparison. OFGs would also help educate their clients about responsible Forest use.

The determination of may affect, likely to adversely affect bull trout is based solely on 160 service days of guided fishing trips in waters where bull trout have been documented.

The project is consistent with applicable standards and guidelines for aquatics Forest Plan standards and guidelines. BMPs to protect water quality have been integrated into project design. The project was considered at all scales and found consistent with ACS when all mitigations and conservation measures are implemented. Proposed OFG activities would not move aquatic conditions outside the range of natural variability. The baseline would be maintained and activities would not retard the attainment of the ACS objectives.

The Project is consistent with the ESA. A separate Biological Assessment determined that project may adversely affect bull trout, due to potential effects from guided fly-fishing. Formal consultation with the U.S. Fish and Wildlife Service has been initiated for this activity, and will be completed prior to a decision for this particular permit.

The Project would not affect Essential Fish Habitat, and is consistent with the Magnuson-Stevens Conservation and Management Act (MSA).

Executive Order 12962 (Recreational Fishing): The project will not affect fish stocks to a degree where it would result in a decrease in recreational fisheries.

E. RECREATION

Regulatory Framework

Management objectives for commercial outfitter and guide activities was described previously in Chapter 1 (Background and Purpose and Need).

Proposed activities fall within the scope of existing authorized recreation uses. Permit holders would be required to use existing roads and trails, would be required to observe all existing or new closures for resource concerns. For the complete list of required mitigations and BMPs, see Chapter 2.

Methodology and Organization of This Section

Effects to recreation are analyzed by OFG activity group.

Effects Analysis, by OFG Activity Group

Winter Motorized (Adventure Powersports; Boulder Creek Enterprises)

Existing Conditions

Capacity for winter activities is determined by available parking in Sno-Parks. District personnel determined that parking is currently at or below capacity for all potentially affected Sno-Parks.

The Cle Elum Valley includes 50 miles of groomed snowmobile trail, 4 miles of track-set ski/snowshoe trail in Salmon la Sac Campground, 2 Sno-Parks (Salmon la Sac and French Cabin Creek), and four designated areas beside County Road 903 for roadside parking. Salmon la Sac Campground is a designated non-motorized area, plus there are two "voluntary non-motorized areas' within two miles. Snow ranger counts indicate that on average weekend days there are about 50 snowmobile vehicles (trucks carrying snowmobiles or trucks pulling snowmobiles on trailers) parked in the valley, along with 15 single vehicles (cars). Snowmobile vehicles carry an average of three snowmobiles each, giving an average of 150 snowmobiles on the system on an average weekend day in the winter. Cars carry an average of 3 people, who are generally skiers or snowshoers, resulting in an average of around 45 non-motorized users on the system on a weekend day. On a nice winter day with good snow, all available parking spaces are filled, there can be up to 600 snowmobiles out on this system, along with around 100 non-motorized users. This situation occurs maybe once per winter.

The Table Mountain system, located east of US-97 between Blewett Pass and Reecer creek, includes about 35 miles of groomed snowmobile trail, but only the main route between Blewett Pass and Reecer creek (15 miles long) is included in the requested use area. According to calculations made in the EA for expansion of the Blewett Pass Sno-Park, the average number of snowmobiles riding the Table Mountain system on a nice winter weekend day, with Blewett Sno-Park full, is about 152. This occurs on average 4 times per year.

The Taneum Creek system, located south of I-90 includes about 75 miles of snowmobile trail served by 3 Sno-parks and 2 undesignated parking areas. Total parking capacity is 70 vehicles or 210 snowmobiles, plus maybe another 30 snowmobiles ride out of seasonal cabins located around the area, but snow ranger observations are that these parking areas are almost never full. Sno-Park and on-snow counts indicate that there are maybe 150 snowmobiles riding the system on a nice winter day.

Effects of the Alternatives

No Action

Some of OFG services would continue to be provided in certain areas by MotorToys, (the one existing permitted snowmobile guiding/delivery service on the District). Past experience has shown that illegal guiding/delivery services may spring up to meet the demand, when legal guide services are not available. This brings with it host of problems: resource impacts, conflicts with other recreationists, public safety can be compromised due to substandard equipment, etc. The no-action alternative would do nothing to mitigate these problems.

Alternative 2 (Proposed Action)

Because Sno-Parks are currently being used at or below capacity, they would be able to absorb the proposed commercial OFG use. There would be no impacts to other users of these Sno-Parks.

The proposed action would result in the proponent's vehicle including trailer taking up approximately 3 "snowmobile vehicle" parking spaces on each of the days he proposes to operate. He would deliver an average of 2 clients on snowmobiles (55 service days requested divided by 32 weekend days per winter) on these days. Assuming that this use is divided between the Cle Elum valley, Table Mountain, Taneum

Creek, this equates to well under a 1% increase in use in each of these areas. Even if all his use ends up in the Cle Elum valley, this is still only a 1% increase in the number of snowmobiles on those days.

Cumulative Effects: When added to the clients proposed by Boulder Creek enterprises for the same area, together they total an average 14% increase in the number of snowmobilers on a weekend day when both businesses are delivering clients. Realistically, Boulder Creek 's clients would often use the trails in the lower Cle Elum valley (Bear/Corral loop, highway trail, etc.), while Adventure Powersports' clients would mostly use the trails in the upper Cle Elum valley, Table Mountain, and Taneum Creek, so they will not often be in the same place at the same time. Since there are no other guide services that use the Taneum or Table Mountain systems, there are no cumulative effects for those systems.

Winter Non-Motorized (Cascade Powder Cats, BC Adventure Guides, backcountry use)

Existing Conditions

The backcountry areas described in their proposal (Mt. Margaret, area east of Cold Creek, Red Mountain, Esmerelda Peaks, and Silver Creek) are characterized by patches of dense alpine forest interspersed with open meadows. It is these open hillside meadows that are the destinations for backcountry skiers, including the proponents of this project. The experience they are seeking may be characterized as the thrill of skiing on an untracked powder slope following a long arduous trek up the hill, often several miles. Because backcountry skiing requires a great deal of skill, knowledge, and fitness, relatively few people engage in the sport, as compared to other winter activities. Anecdotal reports from local backcountry skiers indicate that on a typical weekend day with good snow, a party of backcountry skiers will encounter, on average, one other party in these areas. Average party size is 4 skiers. On weekdays, or under less-than-ideal snow conditions, it's rare for a backcountry skier party to see anyone else. Because of the highly-dispersed nature of backcountry skiing it is difficult to estimate the total number of users, but a "thumbnail" estimate based on discussions with users indicates there may be a total of 10 parties (40 skiers) total in the 5 areas described above on a nice winter day with good snow. The areas proposed herein rarely, if ever, see snowmobile use.

Effects of the Alternatives

No Action

Under this alternative, no priority use outfitter and guide permits would be issued to the proponents. People looking for a guided backcountry skiing experience would not find it on the Cle Elum District. This public demand would remain unfulfilled. There would be no increase in the number of skiers in these areas beyond the number of unguided-individuals using these areas. Illegal guiding may or may not materialize.

Alternative 2 (Proposed Action)

The proponent proposes to add 4 skiers to one or more of these areas, an average of 12 days per winter (50 service days were requested. No party size was specified, so 4 is assumed for purpose of this analysis). This represents a 10% increase in the number of skiers using a given area on a weekend day with good snow, but this still represents only 44 skiers, which would not appreciably alter the experience each is seeking.

Cumulative Effects: Cascade Powder Cats and Backcountry adventure guides together could add up to 14 skiers to an area on a given day, or a 35% increase. But this still only represents a total of 54 skiers, which would still not appreciably alter the experience.

Sahaptin Outfitters (Winter / non-motorized / use confined to existing winter routes)

The proponent has requested use of "all the Sno-Parks that are administered by the Forest Service", as a base to lead day-long snowshoe and cross-country ski trips. These Sno-Parks would be Blewett Pass, Reecer Creek, Swauk Campground, Pipe Creek, French Cabin, Salmon la Sac, Taneum, Cabin Creek, Price Creek, and Gold Creek. These access a total of about 300 miles of snowmobile trails, and 60 miles of cross-country ski trails.

Existing Conditions – Winter

Ten out of the 60 miles of cross-country ski trail are heavily-used groomed trails in the Cabin Creek area, 4 miles of groomed trail are moderately-used trail in Salmon la sac campground, and the remaining 46 are more lightly used marked trails in the Swauk and Table Mountain areas.

Effects of the Alternatives – Winter

No Action

No priority use outfitter and guide permits would be issued to the proponents. People seeking a guided ski trip or snowshoe trek would not find it on the Cle Elum District. This public demand would remain unfulfilled. Existing recreation patterns would continue.

Alternative 2 (Proposed Action)

Proponent proposes to 122 service days in the winter. If 80% of this use occurs on the weekend, this equates to an average of three additional users on the winter trails per weekend day (32 weekend days December-March). Effects on the trail system, parking, and user experience, including cumulative effects, are negligible, assuming the aforementioned mitigation measures are implemented.

Summer / Non-motorized (Sahaptin, Adventrepreneur

Adventrepreneur would use FS Trail No, 1312 (Little Kachess) and No. 1315-(Kachess Ridge, aka Silver creek) for guided mountain-biking trips.

He also proposes to ride along various open Forest roads in the area. All roads open to vehicles are open to mountain bikes as well. The proponent also proposed to use existing recreation sites for accessing the trails and waterways for these trips.

Sahaptin Outfitters has requested to use on many system trails on the Cle Elum District, outside of wilderness, for day hikes and backpacks. This amounts to about 250 miles of non-motorized trails, and 400 miles of motorized trails.

Existing Conditions

It is not practical to attempt to describe every trail here, but in a general sense, these trails see far less hiking use than the wilderness trails. Anecdotal observations by field staff estimate that approximately 60-70% of the hiking use occurs in wilderness, with the remainder taking place on the trails the proponent proposes to use.

The Kachess Lake Trailhead that Adventrepreneur would use for guided mountain biking is located within Kachess Campground. The campground, including the boat launches and trailheads, is under Granger-Thye Permit for operation by a concessionaire. The concessionaire charges a day-use fee for use of facilities by means of requiring all parked vehicles to pay a day use fee. Entry into the campground by bike or foot is permitted and currently requires no fee.

Effects of the Alternatives –

No Action

People seeking a guided hike would not find it on the Cle Elum District. This public demand would remain unfulfilled. Existing recreation patterns would continue.

People seeking guided mountain biking would not find it on the Cle Elum District. This public demand would remain unfulfilled. Existing recreation patterns would continue.

Alternative 2 (Proposed Action)

Capacity for summer activities was reviewed by district personnel and determined that the proposed uses would not have a significant impact on current uses by the general public. The types and locations of the proposed activities are not in high use areas and are not expected to create resource or social concerns.

Sahaptin proposes to use 184 service days in the summer. If 80% of this use is on the weekends, this equates to an average of 5 users per weekend day (40 weekend days June-October). Effects on the non-wilderness trail system, parking, and user experience, including cumulative effects, are negligible, assuming the aforementioned mitigation measures are implemented.

Given that the Adventrepreneur is only requesting 20 service days, which includes both the mountain biking and river rafting parts of his business, plus the fact that he has specified that his maximum party size will be 5 guests, his effect on both the trail system itself, and the experience of other users will be negligible.

Cumulative Effects: Although another OFG (Mountain High Sports) is already permitted to conduct guided hiking and skiing on established trails in the Sahaptin permit area, no cumulative effect would result due to the negligible impacts from Sahaptin.

As there are no other permitted mountain bike guide services in the Cle Elum Ranger District- either existing or proposed, there would be no cumulative effects on recreation from guided mountain biking.

Summer Water/Non-Motorized (Adventrepreneur, Boulder Creek Enterprises)

Boulder Creek Enterprises is proposing to delivery of canoes and kayaks to Speelyi, Wish Poosh Campground boat launch, Morgan and Dry Creeks. Adventrepreneur would conduct guided kayaking trips on the Cle Elum and Cooper Rivers.

Existing Conditions

Owhi boat launch is a small boat launch serves Cooper Lake, a small non-motorized lake. The launch is primarily native material with some concrete traction at the water's edge. The site is day use only with no other developed structures. There is currently no fee for this site. Boat launch parking is limited and can reach close to capacity. The boat launch is adjacent to Owhi Campground. The campground is concessionaire operated and requires fee for use. Other areas around Cooper Lake have dispersed recreation sites that are moderately used by recreationists.

Wish Poosh Boat Launch is located within Wish Poosh Campground. The campground, including boat launch, is under Granger-Thye Permit for operation by a concessionaire. The concessionaire charges a day-use fee for use of facilities by means of requiring all parked vehicles to pay a day use fee. The boat launch area parking can reach full capacity on summer weekends. Throughout the summer the reservoir is drained and the water level of Lake Cle Elum can drop significantly. When the water level drops to about 145,000 acre-feet the boat launch is closed to all use. Some years the lake reaches this level as early as late July and other years the water level never drops to this level. It is highly variable and cannot be predicted.

Speelyi Beach is located on the south end of Lake Cle Elum. It has small parking lot next to the beach area and a parking area across the street. A short boat launch is paved and when the water level is high it can be used as a direct launch to the water. As the water level drops, visitors may drive their vehicles on to the beach to get to the water level. Motorized vehicle use on the beach is only permitted for ingress and egress. Many will launch boats and other watercraft from the beach area. There is currently no fee for this site.

Morgan and Dry Creek dispersed sites allowed for water and beach access to Lake Cle Elum. They are also popular dispersed camping areas throughout the summer. When the water level is high there is limited parking and turn around in these locations. As the water level drops, visitors may drive their vehicles on to the beach to get to the water level. Motorized vehicle use on the beach is only permitted for ingress and egress. Many will launch boats and other watercraft from the beach area. There is currently no fee for these sites.

Effects of the Alternatives

No Action

No other OFG currently provide a canoe delivery service, and if the priority use permits is denied, then this demand would go unmet.

Alternative 2

Proposed delivery of canoes from established boat launches would not affect other users of these sites. In the absence of direct and indirect effects, there would be no cumulative effects associated with this activity. Given that the Adventrepreneur is only requesting 20 service days, which includes both the mountain biking and river rafting parts of his business, plus the fact that he has specified that his maximum party size will be 5 guests, effects from guided kayaking would be negligible. There would be no cumulative effects from this activity.

Red's Fly Fishing

Existing Conditions

The Upper Cle Elum River area is a popular dispersed recreation area. Many will camp or hike near or along the river. There are multiple trailheads located along the road paralleling the river including Davis/Paris Creek, Scatter Creek, and Tucquala Meadows (also known as Cathedral/Deception).

The stretch of the Cle Elum River from the Salmon La Sac Bridge to Lake Cle Elum has a very short season when flow is high enough for rafting. In some sections the water can be rough, whitewater and only a handful of whitewater kayakers and rafters use the stretch during these high flows.

The Owhi boat launch is described in the previous section. The boat launch is adjacent to Owhi Campground. The campground is concessionaire operated and requires fee for use. Other areas around Cooper Lake have dispersed recreation sites that are moderately used by recreationists.

The lower Cooper River flows from Cooper Lake to the Cle Elum River. There are limited easy public access points to the river. A road bridge close to the mouth of the river has limited roadside parking and walk down access to the river. All other access is by foot off of the Cooper River Trail. In spots, there is a drop off between the trail and the river.

Effects of the Alternatives

No Action

No priority use outfitter and guide permits would be issued to the proponent. Existing conditions would not change. There would be no authorized guided fly fishing trips on National Forest within the Cle Elum Ranger District. Visitors wishing to take professional lessons would continue to find guide services that operate on waterways outside of the Cle Elum Ranger District.

Alternative 2 (Proposed Action)

Overall, Reds Fly Shop requested 160 users days spread out over the locations of the Upper Cle Elum River, Cooper River, Cooper Lake and Cle Elum River from Salmon La Sac to the Cle Elum Lake. The proposal states a 2-5 party size for the guided trips. Depending on actual party size, this would add about 32 to 80 guided fly fishing trips to the Cle Elum and Cooper areas. Spread out over the summer season it would account for about 1 to 5 trips per week. The outfitter has proposed to meet their clients off site and drive them to the area. This should minimize the impact on the parking capacity at the site.

About half of the trips proposed are walk and wade along the Upper Cle Elum River and Lower Cooper River. These trips would spread out their use away from developed recreation sites and would not impact other recreationists in the area. The rafting and boating trips would not have a major impact on the use of the area by other recreationists.

Cumulative Effects

The Upper Cle Elum Floodplain project will begin implementation in the summer of 2014. The project will be improving the riparian areas along the Upper Cle Elum River and move some dispersed recreation sites further from the water. In addition, there are three sites where the road will be relocated further from the Cle Elum River. This project could change the existing public access to the water in some locations. Depending on the final outcomes of the project Reds Fly Shop may need to find alternate access points to the river.

Summer/Water Motorized **(**Adventure Powersports, Boulder Creek Enterprises

Existing Conditions

See previous section for a description of the Wish Poosh, Speelyi, and Owhi boat launches, and Morgan and Dry Creek dispersed sites. .

Within Kachess Campground there are two boat launches for public use. One is a multi-lane paved launch at the south end of the campground and another is a smaller single lane, gravel hand carry launch at the north end of the campground. The campground, including the boat launches and picnic areas, is under Granger-Thye Permit for operation by a concessionaire. The concessionaire charges a day-use fee for use of facilities by means of requiring all parked vehicles to pay a day use fee. The boat launch area parking regularly reaches capacity on summer weekends. Throughout the summer the reservoir is drained and the water level of Lake Kachess can drop significantly. When the water level drops significantly both boat launches will be hand carry only. In the past 2-3 years the water level has not dropped to these levels with 2008 being the most recent year when this has occurred. From year to year the water levels are highly variable and cannot be predicted.

Effects of the Alternatives

No Action

No priority use outfitter and guide permits would be issued to the proponents. With no permit issued for watercraft delivery, there would be no change to existing conditions. Visitors wishing to boat on Lake Cle Elum, Lake Kachess, or Cooper Lake would need to bring their own watercraft. Rental options do exist in the neighboring communities for visitors who rent off of National Forest and transport the watercraft to

the lakes themselves. This may limit those visitors who do not have vehicles able to transport watercraft such as those with small vehicles or without the ability to tow a trailer.

Alternative 2 (proposed action)

The summer season typically lasts from late May to mid/late September. Most use on the Cle Elum Ranger District occurs on the weekends, so the majority of the deliveries would probably be clustered around weekend days. There are approximately 20 weeks during the summer season that boat and watercraft delivery would take place. With the peak summer visitor season over and water levels are down, October deliveries would be minimal. The majority of Outfitter Guide use would occur on approximately 8 weekends during the most popular season. Based on the season length and approximate minimum number of users per delivery, there could be an average of 40 deliveries per week during the peak 8 weekends. Delivery and pick up only are considered for permitted use at all sites. Deliveries will need to be prearranged off site, off of National Forest land. The water levels at Lake Cle Elum and Lake Kachess may drop throughout the summer. The boat launches are subject to close when the water levels drops below the paved launch pad.

A concessionaire currently operates both the Kachess and Wish Poosh boat launches. The current concessionaire Granger-Thye Permit is valid for 5 years starting with the operating season of 2012. When the permit expires at the end 2016, the FS has the option to renew the current permit for 5 years or solicit for new bids for a new permit for the operation of the campgrounds (including boat launches). The current concessionaire is required to have a FS approved annual operating plan each year. This annual operating plan can change from year to year and could include, but not limited to, altering the fees, season dates, and rules for drop off/pick up. All deliveries and pick-up at concessionaire operated sites (Kachess and Wish Poosh) are subject to the rules and operating plans outlined in the Granger-Thye permit and other agreements between the concessionaire and the Forest Service.

Kachess and Wish Poosh boat launches operate at maximum capacity on most July and August weekends. All use and parking at the boat launches is first come/first serve. Any ability to deliver would be subject to the capacity of the boat launch. If the parking is at capacity, there may be the ability to drop off. Days when these boat launches are at or near capacity, outfitters may have limited opportunity to deliver to the boat launch. This is subject to change based on capacity at the boat launch, the concessionaire annual operating plan, and the discretion of the FS. When parking at the boat launches are full, all drop off would need to be immediate loading and unloading since there is no location at the boat launch for temporary parking. FS road 4900 and 4948 should not be used for parking. Outfitter delivery at the boat launch may increase use or displace some current recreation use on full capacity days.

All parking at any of the proposed sites is subject to first come first serve. No parking can be reserved or blocked off in advance. Outfitters will need to be aware that there is no exclusive use of these areas and should minimize the impacts they have on other recreationists.

Outfitter delivery at Kachess will probably be delivering to visitors already at the campground or boat launch. Of the 45 service days proposed that may include Kachess boat launch, there should be little impact to the amount of overall use at the boat launch. Since the 45 service days could also be spread out to other locations on Lake Cle Elum, the amount of additional use at Kachess would be small. There may be a slight increase in the amount of personal watercraft use by visitors to the campground and some increase of use of dispersed sites around Lake Kachess. Since the boat launch is already very busy on summer weekends, the addition of these trips spread out during the summer season would not affect the use of the boat launch. The impacts of this slight increase would be negligible and would minimally impact other recreationists using the campground, boat launch or lake.

The majority of proposed deliveries would occur in the Cle Elum Valley mostly accessing Lake Cle Elum. Wish Poosh, Speelyi, Morgan Creek and Dry Creek all launch into Lake Cle Elum. Under the proposed service days, Lake Cle Elum could see an average of 26 deliveries for motorized watercrafts and

14 deliveries for non-motorized watercrafts per weekend during the peak 8 summer weekends. Nearby Cooper Lake is only open to non-motorized use and would have many of the non-motorized watercraft deliveries. If boat launch parking is full, outfitters are not allowed to use the parking or other facilities at neighboring Owhi Campground. By delivering watercraft to those who do not own or bring boats or personal watercraft, there would be an increase in the amount of water craft use on Lake Cle Elum and Cooper Lake. These services have been limited in the past, so this will open up a new recreational opportunity for many users.

Outfitter delivery at Speelyi, Cooper Lake, Morgan Creek, and Dry Creek will probably be delivering to local residents, visitors staying in the Cle Elum/Roslyn area, and campers/day users already visiting the Cle Elum Valley. Overall, the outfitters will probably be serving those who are already visiting the Cle Elum Valley area, but it may increase use at these specific locations. Since many of these locations have limited capacity, the outfitter use may displace some of the current recreation use at these sites. As the water level drops throughout the summer, the site capacity for Speelyi, Morgan and Dry Creeks drastically increases, minimizing the amount of displacement.

Cumulative Effects

There have been no outfitter permits for delivery of watercraft in the past or present for Lake Cle Elum, Lake Kachess, or Cooper Lake. In the future, the Yakima Basin Integrated Water Resource Management Plan proposes to raise the level of Lake Cle Elum by 3 ft. The Plan has targeted the raising of Lake Cle Elum as one of the early action plans that would start planning in year one. This would impact the shoreline and could result in closing or changes to some or all of the beach access and boat launches on Lake Cle Elum including Wish Poosh, Morgan Creek, Dry Creek, and Speelyi.

Consistency Findings

Proposed outfitter-guide activities would encourage dispersed recreation as suggested in the Forest Plan (page IV-31). New outfitter-guide services such as delivery of watercraft and guided fly fishing would expand the types of recreation opportunities available to the public across the Cle Elum Ranger District. It would also expand the availability of other services such as snowmobile rental and guided trips. These private businesses with help meet the public demands of these outdoor experiences.

The activities of the outfitter-guides would be operating in the spectrum from Semi-Primitive Non-motorized to Urban in the Recreation Opportunity Spectrum (ROS). None of the proposals occur in designated Wilderness, limiting the amount of use in Primitive areas. With the proposed mitigations the activities proposed are appropriate within the ROS.

F. HERITAGE RESOURCES

Cultural resources are the material remains of human history. In many cases, these remains are our only link to past activities and life ways of indigenous and non-indigenous (e.g. Euro-American) settlers. The Okanogan-Wenatchee National Forest defines cultural resources as a locus of purposeful and interpretable human activity containing physical manifestations of that activity (i.e. one or more features with or without artifacts; one or more formal tools found in association with other cultural materials; diverse cultural materials in densities beyond the level of one or a few lost artifacts; or physical manifestations of human activity that in the professional opinion of an archaeologist are indicative of purposeful human activity). These resources are typically at least 50 years old and are considered valuable if they have yielded or could yield scientific or scholarly information important in prehistory or history. The following section summarizes the existing condition information, along with the direct, indirect and cumulative effects from the Cle Elum Outfitter and Guide Permit Environmental Analysis report (R2013061703020). Reference information is contained in the full specialist report in the analysis file.

Regulatory Framework

The *National Historic Preservation Act* (NHPA) of 1966 (16 U.S.C. 470), as amended, is the foremost legislation that governs the means to identify, administrate, and preserve objects and landscapes significant to cultural and social heritage for the enrichment of future generations. Implementing regulations that clarify and expand upon the NHPA include 36 CFR 800 (Protection of Historic Properties), 36 CFR 63 (Determination of Eligibility to the National Register of Historic Places), and 36 CFR 296 (Protection of Archaeological Resources). The Pacific Northwest Region (R6) of the Forest Service, the Advisory Council on Historic Preservation (ACHP), and the Washington State Historic Preservation Office (SHPO), signed a programmatic memorandum of agreement (PA) regarding the management of cultural resources on National Forest system lands in 1997. The 1997 PA outlines specific procedures for the identification, evaluation, and protection of cultural resources during activities or projects conducted on Forest Service lands. It also establishes the process that the SHPO utilizes to review Forest Service undertakings for NHPA compliance.

The *National Environmental Policy Act* (NEPA) of 1970 is also a cultural resource management directive as it calls for agencies to analyze the effects of their actions on sociocultural elements of the environment. Laws such as the National Forest Management Act (NFMA) of 1976, the Archaeological Resources Protection Act (ARPA) of 1979, the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990, and Executive Order 13007 (Indian Sacred Sites) also guide Forest Service decision-making as it relates to cultural resource management.

The Okanogan and Wenatchee National Forest Land and Resource Management Plans (1989, 1990) tier to the previously mentioned laws and corresponding Forest Service Handbook and Forest Service Manual direction as it sets forth resource management goals, objectives, and standards. Forest-wide management standards that are pertinent for this cultural resource effects analysis include:

- Conduct a professionally supervised cultural resource survey on National Forest lands to identify cultural resource properties. Use sound survey strategies and the Okanogan-Wenatchee National Forest Cultural Resource Inventory Survey Design and site location predicative model.
- Evaluate the significance of sites by applying the criteria for eligibility to the National Register of Historic Places (Parker and King, 1998).
- Consider the effects of all Forest Service undertakings on cultural resources. Coordinate the formulation and evaluation of alternatives with State and Federal agencies, and with leaders and the Tribal Historic Preservation Officer (THPO) of American Indian tribes with historic ties to the project planning area.

Consultation with Tribes

Many of the previously described laws, regulations, and directives instruct the Forest Service to consult with American Indian tribes, the State, and other interested parties on the cultural resource management process. Consultation with the tribes on the Cle Elum Outfitter and Guide Permit Environmental Analysis has been conducted in accordance with NHPA, NEPA, and Executive Order 13175 "Consultation and Coordination with Indian Tribal Governments". Government to Government consultation letters were sent to the Confederated Tribes of the Colville Reservation and the Yakama Nation on July 28, 2012. To date, there have been no concerns raised from the tribes during scoping regarding the effects of grazing activities on cultural resources.

Existing Condition and Effects of the Alternatives

The Outfitter and Guide Permit analysis area of potential effect (APE) includes all National Forest system lands administered by the Cle Elum Ranger District that are within the designated boundary established for this project. The cultural resources effects analysis, including

cumulative effects, focuses on cultural resources identified within the project boundaries. The proposed action would not have indirect effects (i.e., visual, auditory, atmospheric) on cultural resources that are outside of the proposed project areas.

Cultural resource identification efforts in the APE have focused on three primary types of resources: prehistoric archaeological sites, historic archaeological sites, and traditional cultural properties (TCPs), which are valued places to contemporary Indian and non-Indian communities. Cultural resource identification efforts have included literature reviews, traditional cultural properties research, Geographic Information Systems (GIS) analysis, and consultation with American Indian tribes that are historically associated with the area.

A cultural resource literature review was completed for this project using information found in archaeological and historical site records filed at the Department of Archaeology and Historic Preservation (DAHP), and the historic and anthropological documents, survey reports and site records available in the Okanogan-Wenatchee Heritage Program Library. The specialist report was reviewed by the Forest on August 23, 2013. Thirty (30) cultural resource sites and isolated occurrences are located within the vicinity of the proposed use areas. No activities are expected to cause ground disturbance or otherwise directly, indirectly or cumulatively affect cultural resources located on the Cle Elum Ranger District.

Consistency Finding

Heritage and Tribal interests are regulated by federal laws that direct and guide the Forest Service in identifying, evaluating and protecting cultural resources. The Okanogan-Wenatchee National Forest Plan tiers to these laws. Therefore the proposed alternatives meet Forest Plan Standards and comply with federal regulations. With the completion of the cultural resources inventory under the terms of the 1997 PA with Washington SHPO and by providing the interdisciplinary team with appropriate input per NEPA, all relevant laws and regulations have been met.

H. OTHER REQUIRED DISCLOSURES

Reserved Indian Rights and Forest Service Trust Responsibility
The Project Area is located on lands ceded to the U.S. government under the 1855 Yakima Treaty. As such, members of the Yakama Indian Nation retain certain rights and privileges, including "the exclusive right to take fish in all streams...; the right to take fish at all usual and accustomed places, in common with the citizens of the Territory, and of erecting temporary houses for curing them, together with; the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land." These reserved rights are still exercised by tribal members today under tribal regulations and remain enforceable under the supremacy clause of the U.S. Constitution until extinguished by Congress.

Outfitter and guiding activities would not affect the rights and privileges granted to the Yakama Nation. The planning area is also within the traditional use area of the Confederated Tribes of the Colville Reservation. The project would not affect or preclude their use of the area.

Protection of Floodplains and Wetlands (Executive Orders 11988 and 11990)
Because of required BMPs, proposed OFG activities would not result in new disturbance to floodplains or wetlands.

Prime Rangeland, Farmland and Forestland
The Project would not affect prime rangelands, grasslands, or forestlands.

Wild and Scenic Rivers
Two OFGs (Adventrepreneur and Red's Fly Fishing) propose guided activities and/or equipment delivery on segments of the Cle Elum River that are recommended for inclusion in the National Wild and Scenic River System. The eligible area would be classified as "Recreational", and proposed OFG activities would not affect its eligibility for that designation.

None of the proposed OFG activities would change or degrade any of the Outstandingly Remarkable Values of the eligible river segments. Proposed activities would not be distinguishable from use that is already occurring by the general public.

Social Groups, Civil Rights, and Environmental Justice
Civil rights would not be impacted by proposed OFG activities. All outfitter and guide permit holders are responsible for following all laws pertaining to civil rights. The US Department of Agriculture prohibits discrimination in its employment practices based on race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital and family status.

Executive Order 12898 (59 Fed, Reg. 7629, 1994) directs Federal agencies to identify and address, as appropriate, any disproportionately high and adverse human health or environmental effects on minority and low-income populations. The project would not affect low income or minority communities. The proposed action would not have disparate effects on any consumers, minority groups, women, civil rights, or social/ethnic groups.

***Inventoried Roadless Areas, Potential Wilderness Areas, and Wilderness Study Area*s**
The Permit Areas for Boulder Creek Enterprises, Cascade Powder Cats, BC Adventure Guides, Sahaptin, and Adventrepreneur encompass Inventoried Roadless Areas (IRAs) and also Potential Wilderness Areas outside of IRAs, but proposed OFG activities would not entail construction of new roads or trails and would not entail tree removal. Permitting proposed OFG operations would not affect roadless character, Inventoried Roadless Areas, Potential Wilderness Areas, or Wilderness Study Areas.

Energy Requirements and Conservation Potential
In regard to national and global petroleum reserves, the energy consumption associated with this project would be insignificant.

Climate Change
The scale of treatments under the proposed action would not affect climate or the trajectory of climate change.

Irreversible and Irretrievable Commitment of Resources
An irreversible commitment of resources cannot be regained, such as extinction of a species or the removal of mined ore. An irretrievable commitment is one that can potentially be regained, such as the temporary loss of timber productivity in a power line corridor. There are no known substantial irreversible or irretrievable commitments of resources that would result from the proposed action.

Scientific Uncertainty
There are no scientific uncertainties surrounding the effects analyses presented in this EA. The identified risks from proposed actions are not unique or unprecedented, and planned mitigation measures in response to these risks have been widely implemented across the Forest, and are known to be effective.

Compliance with Laws, Regulations, and other Executive Orders

NEPA at 40 CFR 1502.25(a) states "to the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with other environmental review laws and executive orders." Laws and executive orders were considered in this analysis, as follows:

Endangered Species Act
The Forest Service prepared a Biological Assessment (BA) of the Proposed Action's effects on federally listed wildlife and fish. Level I review of the BA was completed in August 2013. The BA determined that proposed OFG activities "may affect but would not likely adversely affect" northern spotted owl and its critical habitat, marbled murrelet, grizzly bear, and gray wolf, and may adversely affect bull trout—due to potential effects from guided fly fishing by one of the seven OFG applicants. There would be no effects to critical habitat for bull trout. Informal consultation for 6 applicants, and formal consultation for the 7th, is underway and will be completed prior to signing decisions.

National Historic Preservation Act
The Forest Service completed an extensive literature review for cultural resources in the proposed use areas. Thirty (30) sites were found to be located in the vicinity of proposed APE. However, the project includes provisions for protection of any new sites discovered during implementation. With planned mitigations, no sites eligible for historic protection would be affected by the project.

Clean Water Act
Based on required BMPs, the project is consistent with the Clean Water Act.

National Forest Management Act
Pursuant to NFMA, the project would incorporate mitigations that ensure compliance with all amended Forest Plan standards and guidelines.

Forest Service Roadless Conservation Rule (USDA 2000)
Several permit areas encompass Inventoried Roadless Areas, but OFG activities would not entail construction of roads or tree harvest. They are consistent with the Roadless Conservation Rule.

Migratory Bird Treaty Act and Executive Order 13186 – Protection of Migratory Landbirds
Proposed outfitter and guide activities would not result in new disturbance to habitats for landbirds, and is consistent with the Migratory Bird Treaty Act and Executive Order 13186 for the Protection of Migratory Landbirds.

Executive Order 13112 (Invasive Species) and the Federal Noxious Weed Control Act of 1974 (as amended)
The project includes required mitigations and best management practices that will minimize the spread of terrestrial and aquatic invasive species. It is therefore consistent with the Executive Order and federal law pertaining to management of invasive species.

GLOSSARY

Direct effects are those that occur at the same time and place as the initial action.

Indirect effects are caused by the action but occur later in time or are spatially removed from the action.

Cumulative effects are a combination of direct and indirect effects of the proposed action, combined with the effects of past, present, and reasonably foreseeable future activities undertaken by either the Forest Service or other parties.

ACRONYMS

CEQ – Council on Environmental Quality

CWA – Clean Water Act

EO – Executive Order

ESA – Endangered Species Act

FSH – Forest Service Handbook

FSM – Forest Service Manual

CFR – Code of Federal Regulations

MSA – Magnuson-Stevens Fishery Conservation and Management Act

NEPA – National Environmental Policy Act

OFG – Outfitter and Guide

YBTAP - Yakima Basin Bull Trout Action Plan (2012)

Chapter 4 - Consultation and Coordination

INTERDISCIPLINARY TEAM MEMBERS who planned the project and contributed to the preparation of this EA:

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The Forest Service consulted with the following TRIBAL GOVERNMENTS and FEDERAL and STATE AGENCIES during development of this EA:

TRIBAL GOVERNMENTS:
Yakama Nation
Confederated Tribes of the Colville Reservation

FEDERAL, STATE, AND LOCAL AGENCIES:
United States Fish and Wildlife Service, Wenatchee Office
NOAA National Marine Fisheries Service

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