

Environmental Assessment to Authorize  
a Term Special Use Permit  
for operation of  
Cascade Canopy and Zipline Tours  
and approve an  
Amendment to the Forest Plan  
Fremont-Winema National Forests  
Klamath Ranger District

**Legal Description:** T. 36 S., R. 6 E., WM., Sec. 10, SW ¼SW ¼ and Sec. 15, NW ¼

## Introduction

The Forest Service 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 the proposed action and alternatives. Additional documentation, including more detailed analyses of project-area resources, is located in the project record located at the Klamath Ranger District Office in Klamath Falls, OR.

## Purpose and Need

The purpose of this environmental assessment is to determine whether or not to authorize a term special use permit for the operation of a canopy tour and Zipline per 7 CFR 2.60; 36 CFR part 200, subpart B, under the authorities of June 4, 1897 (16 U.S.C. 551), *the Organic Act*, and term permits under the Act of March 4, 1915, 38 Stat. 1101, as amended, 70 Stat. 708 (16 U.S.C. 497). The requested location is the site of the former Tomahawk Ski Bowl located at the junction of Highway 140 West and Rocky Point Road, Klamath County, Oregon.

The need to consider this proposal is the result of a submitted application for a recreational zipline in this area and the Forest's responsibility to review and respond to such proposals (36 CFR 251.50, Subpart B). Several private sites were considered, but later determined not to meet the requirements for topography and vegetation. A review of the former Tomahawk Ski Bowl site confirmed that the topography, forested stand conditions, and location would best meet the technical and business plan requirements for the proposed use. A proposal was submitted to the Fremont-Winema National Forests in August, 2012 and was subsequently accepted for review.

The Land and Resource Management Plan, Winema National Forest (Forest Plan) (USDA, 1990) identifies a recreational goal of providing for a variety of quality recreation experiences (Forest Plan, p. 4-13).

The project is within lands covered under the *1994 Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl and the associated Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl (Attachment A)* , commonly referred to as the Northwest Forest Plan (USDA & USDI, 1994).

### **Proposed Action**

A detailed description of the Proposed Action is presented below, under Alternatives (p. 3).

### **Decision Framework**

The Forest Supervisor is the Responsible Official for this project. Given the purpose and need, the Responsible Official will review the proposed action and decide whether or not to issue a special use permit for the Cascade Canopy and Zipline Tours, as described.

### **Public Involvement**

The project was first published in the Schedule of Proposed Actions in January 2012.

On April 9, 2013, an interdisciplinary team of resource specialists from the Fremont-Winema National Forest and the Klamath District Ranger along with a representative from the Klamath Tribes Heritage Resources Department met on site with the applicants to review the proposal as it would be implemented.

A scoping package for this project was sent to individuals, organizations, and other agencies on August 2, 2013. Several people responded.

While most replies were favorable to the project, there were some concerns. These included:

- administration of the permit, particularly with restoration of area to natural conditions if the permit ends for whatever reason
- fire control mitigations
- infrastructure requirements, such as new roads, parking, and maintenance
- cable suspension and attachment to trees
- tree removal and modification of the forest structure
- impacts of platform and tower construction, equipment needed
- effects of the project on northern spotted owls, deer, bald eagles, and fishers
- traffic concerns and impacts related to the number of people, cars and noises; size and configuration of the parking area; pollutants from vehicles; and turn lane or signage planned

Canopy tours guide visitors through the canopy so the objective is to leave as much of the forest alone as possible and only remove trees or limbs where absolutely necessary. The permit to the applicant would be for their exclusive use only. No other special use permits

would be allowed within the area delineated for the zipline tours. Hunting would not be allowed in this proposed activity area.

The special use permit requires the applicant to develop an operating plan prior to opening the facility and an emergency spill plan would be included.

The effects to resources, including the viewshed,, are discussed in the Environmental Consequences of the Proposed Action starting on page 9.

## **Alternatives**

### **No Action Alternative**

Under the no-action alternative, the special use permit to operate a zipline canopy tour would not be authorized. The planning area would continue to function as it does now with certain management including fire suppression, public safety, special use administration of the current communication facilities including access maintenance, and protection of resources according to the general Forest Management Goals and Objectives specific to the designated Management Areas. The 76 acres associated with the proposed action would remain MA 9B and a Forest Plan Amendment to change those acres to MA2B would not be implemented.

### **Proposed Action**

The applicant, Roe Outfitters LLC, is proposing to develop the Cascade Canopy and Zipline Tours project on the site of the former Tomahawk Ski Bowl. The Tomahawk Ski Bowl was once widely used by area residents and visitors until the lack of consistent snow levels kept its operators from running an economically viable operation. The Tomahawk Ski Bowl was authorized for operation in 1956 and opened for operation in 1960 (Herald and News, Klamath Falls, OR, January 1, 1960, p. 3A) with a 2,250-foot Poma lift providing a 630-foot vertical rise that could accommodate 650 skiers an hour (Sports Illustrated Archives, December 17, 1956). The Tomahawk Ski Bowl closed in 1984 leaving an established driveway, parking area, power source and access roads. Current use of the site includes a cellular tower lease area under special use authorizations by the Fremont-Winema National Forests, and the Tomahawk Trailhead and trail that is accessed from the northwest corner of the existing parking lot. See map, Appendix A.

### **Location**

The proposed site for the Cascade Canopy and Zipline Tours project is off Highway 140 West across from the Rocky Point Road turn-off in T. 36 S., R. 6 E., WM., Sec. 10, SW1/4SW1/4 and Sec. 15, NW ¼, and is approximately 76 acres in size. Forest Service Road 3600-190 provides access from Highway 140 into the parking lot and proposed administrative facilities for the Project.

The site of the proposed project is within the Rocky Point (north of proposed area), Odessa (east of proposed area), and Mountain Lakes (west of proposed area) communities. State Highway 140 bounds the areas to the east, north and south. The area is frequently used by off-highway vehicles and target shooting enthusiasts. The recent Motor Vehicle Use Environmental Assessment does not identify this site for such use but the easy access off Highway 140 within a densely populated rural area makes it difficult to prohibit this type of use. Forest Service and private cinder pits are located on the west side of the proposed project area.

In December 2006, US Cellular communication facilities' installation was approved, following analysis documented in a Decision Memo, *US Cellular Tomahawk Cell Tower* Fremont-Winema National Forests, Klamath Ranger District, Klamath County, OR signed by then Acting District Ranger, Richard H. Kehr.

US Cellular constructed a communication site (tower and shelter) in September, 2007 at the top of Tomahawk Mountain. Conventional power and phone utilities were installed to the top of Tomahawk with US Cellular's project. Verizon and AT&T operate cellular facilities using US Cellular's Tomahawk Mountain tower.

#### Project Description

Zipline tours consist of a series of steel cable lines (zips) suspended between trees, poles or towers which are traversed by participants on pulleys. The work activities would include installation of 8-14 ziplines of various lengths, 2- walking bridges and 2 training ziplines. Ziplines would be constructed by selecting trees as platforms, bolting trees to connect the line and anchoring trees using buried concrete blocks, helical ground screws or bolts in neighboring trees. Trees would be pruned and hazard trees removed when necessary according to International Society of Arboriculture and American National Standards Institute Z133 standards. A Zipline tour transitions into a Canopy tour as interpretive guides teach participants about the unique environment as they traverse the zips.

In the United States the Challenge Course industry began slowly developing in the 1980s and has been growing rapidly for about six years. The Challenge Course Industry has a well-developed set of standards established by the **Association of Challenge Course Technologies** (ACCT) which includes zip lines and ropes course standards. The ACCT will provide the design, build and accredited operations training for Cascade Canopy and Ziplines. Once the ziplines are installed, the ACCT provides ongoing inspection, maintenance and training services.

The proposed administrative facilities, which would be located in the former Tomahawk Ski Bowl parking area, include:

Parking: The parking lot at the base of Tomahawk Mountain would be improved for participants' use; the boundary may be better defined with larger rocks or other natural

material from the surrounding area. This could reduce current unauthorized all-terrain-vehicle use in this area. A turnaround already exists, ensuring easy traffic flow.

Registration: A mobile office structure would be sited adjacent to the parking area for processing paperwork and registering guests. Power is already established on site. A power pole and meter would be reinstalled. Backup power would be provided by one or more generators.

Pole Barn: A 20 ft. x 20 ft. (approximately) concrete pad would be constructed with a pole barn style cover to allow an appropriate space for gear distribution, putting on gear, completing safety checks, and finalizing preparations for the canopy tour.

Additional Facilities: Portable toilets would be provided adjacent to the registration area. Long term plans envision replacing the portable toilets with one or more vault toilets. A fire pit for special events and warming area for colder months would be established adjacent to the registration area. A comfort zone of picnic tables and benches would also be available in the registration area.

Training Course: One or two low level zip lines would be constructed near the registration area for participant safety and training purposes.

### Course Access

Participants would be driven approximately one mile up the existing access road to the south to the first zip line platform located near the already established cellular site at the top of Tomahawk Mountain. The access road loops around at the top providing for easy turnaround of vehicles. A second route runs up the west side of the former Tomahawk ski hill which could provide additional access to both the course beginning point and locations throughout the course. The primary access road, approximately one mile, would need improvements to the road surface and appropriate drainage features. Motorized use of this road would be for permitted use only and its designation under the Forest's Motor Vehicle Use Map would not change.

### Course Description

The Cascade Canopy and Zipline Tours course would consist of 8 to 26 features. The preliminary phase design includes 11 zips, two walking bridges and two training zip lines. Each zipline would begin from a ground or tree platform. The exit zipline would also include an area of benches and a small pole barn style cover for guests waiting for escort to the parking area.

### Tour Description

All tours would be by reservation only. Each tour group would consist of 4 to 12 guests accompanied by two guides. One would be a certified lead guide. Guests would check in at

registration then move to a gear up area where they would be fitted with a harness and helmet. Guests would then participate in a group safety and training talk followed by a practice session provided by their lead guide. The tour group would be escorted by their guides to the beginning of the canopy tour either by 4-wheel drive vehicle or multi-passenger all-terrain-vehicle (ATV). One guide always goes ahead on each zipline in order to facilitate participant reception at the end of each zip at the next platform. The other guide facilitates the movement of each guest at the beginning of each zip from that platform.

### Safety

All guides and staff are trained in ACCT and the applicant's safety policies. All lead guides would be certified, which includes training in best safety practices.

### Tour Length

Each tour would take approximately two hours from start to finish including the gear and safety talk.

### Season of Use

Dates of operation would be from March through December with the highest volume of people from April through October, running up to 12 tours each day with 4-12 people per tour. It is anticipated that July and August would be the busiest months, with potentially 1,250 people expected to take the zipline tour (10 – 100 people per day) in each of those months. December would be the least busy, with an anticipated 500 people on the ziplines,

### Build Time

Once the course design is finalized, the actual onsite build time would take approximately 6 to 8 weeks.

### Project Design Features and Mitigation Measures

The following design features and mitigation measures will be implemented as part of the proposed action to reduce effects of the action on resources.

1. The *Winema Land and Resource Management Plan (LRMP)* (4-48) lists limited operating periods for species of concern. Any new raptor nest sites located will also be protected as shown in the LRMP.
2. Other measures to protect habitat for species of concern and to meet standards and requirements of the Northwest Forest Plan and the Winema Land and Resource Management Plan include any trees felled should be left in place to provide for hiding cover and foraging and resting habitat.
3. Actions conducted or authorized by written permit by the Forest Service that will operate outside the limits of the road prism (including public works and service contracts), require the cleaning of all heavy equipment (bulldozers, skidders, graders, backhoes, dump trucks, etc.) prior to entering National Forest System Lands.

4. Inspect active gravel, fill, sand stockpiles, quarry sites, and borrow material for invasive plants before use and transport. Use only gravel, fill, sand, and rock that are judged to be weed free by District or Forest weed specialists.
5. If noxious weed sites are discovered within the project area, report the sighting to the West Zone Botanist. The site will be reviewed on the ground and invasive plant prevention practices will be developed as appropriate. This area will be monitored for noxious weeds as part of the Forest's invasive plant detection and monitoring program.
6. Consider adding re-vegetation measures to the site management plan. Where needed, areas could be seeded or planted with native species to reduce bare ground, lowering the risk of introduction of noxious weeds and reducing erosion.
7. To limit impacts to sensitive fungi, as much as possible, limit removal of mature trees from the site. If a tree is deemed a hazard and must be felled, leave it on site as downed woody debris, if possible.

### **Plan Amendment**

Approval of the special use would require a non-significant amendment to the Winema LRMP to designate approximately 76 acres (1.4%) of approximately, Bald Eagle Replacement Habitat (Management Area 9B) as MA 2B Developed Recreation, Moderate Level Development. There are approximately 5403 acres of MA 9B on the Klamath Ranger District and 12,038 acres designated as MA 9B on the Winema National Forest (Winema LRMP, 1990). Seventy-six acres represent approximately 1.4% on the District and 0.63% on the Forest removed as this replacement habitat. This amendment would more accurately reflect the existing use and recreation facilities on site that include the Tomahawk Trailhead and Trail, parking area, road, utilities remaining from the former Tomahawk Ski Bowl and the proposed recreation activities at this location. The desired future condition for MA 2B of a natural-appearing forest environment along with the current condition and expected implementation conditions would maintain potential replacement habitat.

### **Environmental Consequences**

This section summarizes the physical, biological, social and economic environments of the affected project area and the potential changes to those environments due to implementation of the no-action and proposed action.

The following resource specialist reports prepared for this project are incorporated by reference in this EA: Cascade Canopy and Zipline Wildlife Report, Cascade Zip Lines and Canopy Tours Fisheries Biological Evaluation/Assessment, Botany Biological Evaluation and Botany

Report, and Heritage Resources Programmatic Agreement Project Certification Report. These reports are available for review as part of the project record.

### **No-action Alternative**

The effects of not taking any action would result in the area remaining in its current condition. US Cellular would continue to operate a cellular tower at the top of Tomahawk Mountain. The area would remain designated as Management Area (MA) 9B, Replacement Habitat for Bald Eagles in Matrix and managed as such. A non-significant forest plan amendment to the Winema National Forest LRMP would *not* be approved to designate approximately 76 acres (1.4%) of approximately 5403 acres on Klamath Ranger District of MA 9B, Bald Eagle Replacement Habitat as MA 2B Developed Recreation, Moderate level Development.

### **Recreation and Special Uses**

The Tomahawk Trailhead, trail, and associated facilities would be continue to be managed as part of the Forest's trail system as a recreational resource. Additionally, the area would continue to be used by off-highway vehicles and target shooting enthusiasts.

### **Heritage Resources**

A review of the records indicated that the area had been previously surveyed and was certified under the **2004 Programmatic Agreement Project Certification Form**. The no-action alternative would have no additional effects on Heritage resources.

### **Visual Resources**

If no action were to occur on the site, the immediate foreground view would remain the same.

### **Silviculture**

A no-action alternative would eliminate installing infrastructure, cables or hardware into or on some of the trees. No trees would be limbed or felled to create an unobstructed pathway through the canopy. The forest structure would remain the same, experiencing natural changes.

### **Botany**

One noxious weed was observed in the project area. This site would be added to the annual program of work to treat and monitor. Permitted access to the area would remain the same and the current ongoing unauthorized use of the site would continue, which could increase the potential for spread of the noxious weed observed or introduction of other invasive species.

Habitat for fungi would not decrease within the project area as no trees would be cut and there would be no ground disturbance.

## **Fisheries**

Because there is no aquatic habitat present, there is no change to conditions and no effect.

## **Wildlife**

### Northern spotted owl

Under the No Action alternative, no zipline construction would be implemented so no hazard trees would be removed or limbs pruned, there would be no increased human activity, and management area designations and direction would remain as is.

Implementation of the No-Action Alternative would have *no effects on spotted owls or their habitat* because there would be no actions taken.

### Fisher

Under the No Action alternative, no zipline construction would be implemented so no hazard trees would be removed or limbs pruned, there would be no increased human activity, and management area designations and direction would remain as is.

Implementation of the No Action Alternative would have *no effects on fishers or their habitat* because there would be no actions taken.

### Bald Eagle

Under the No Action alternative, no zipline construction would be implemented so no hazard trees would be removed or limbs pruned, there would be no increased human activity and management area designations and direction would remain as is, i.e. there would be no proposed Forest Plan amendment. Implementation of No-Action Alternative would have *no effects on bald eagles or their habitat* because there would be no actions taken.

### Management Indicator Species and Other Species of Concern

Under the No Action alternative, no zipline construction would be implemented so no hazard trees would be removed or limbs pruned, there would be no increased human activity and management area designations and direction would remain as is.

Implementation of No-Action Alternative would have *no effects on management indicator species or other species of concern or their habitat* because there would be no actions taken.

## **Proposed Action**

Under the Proposed Action, the Special Use Permit would authorize construction and operation of the Cascade Zipline and Canopy Tours on the project site, as described under Alternatives. A non-significant forest plan amendment to the Winema National Forest LRMP would be approved to designate approximately 76 acres (1.4%) of the approximately 5403 acres on the Klamath Ranger District of MA 9B, Bald Eagle Replacement Habitat, as MA 2B Developed Recreation, Moderate level Development. Additionally, US Cellular would continue to operate a cellular tower at the top of Tomahawk Mountain.

### Recreation and Special Uses

Implementation of the proposed action would increase recreational opportunities in the area. The Forest Plan amendment would allow for management of the 76 acres as a recreation management area (MA 2B). Site modification would be moderate, providing for a roaded, natural recreation setting.

### Heritage Resources

The Zone Archaeologist concluded from the proposed activities as reviewed and discussed during the field trip that a resurveying of the site would not be necessary. The site had previously been surveyed for the installation of the cellular tower and for the Buggy Salvage Timber Sale. The Forest Archaeologist concluded an Appendix B report to the State Historic Preservation Office (SHPO) would be sufficient. The Appendix B report documents there are *no effects* to cultural resources and is in compliance with the National Historic Preservation Act, Section 106.

### Visual Resources

Motorists traveling west along Highway 140 at 55 mph would have limited views of the proposed project structures. Platforms installed within tree canopy are prefinished metal with pressure treated wood decking and would blend in with the trunk and branch tones of the Ponderosa pine trees. The zipline cables are installed within the canopies of the trees and would not be visible to the motorist in the short time Hwy 140 parallels the north facing section of Tomahawk Mountain where most of the ziplines will traverse the contour of the slope.

Because very few trees will be removed with the proposed action, the viewshed will be minimally affected and a roaded natural recreation setting will remain.

### Silviculture

Following the discussions during the field trip to the proposed project site, the assistant silviculturist did not expect any effects to the forest resources from the project. Any trees that would be cut would most likely be small white fir trees and would be left on site. Trees identified for attaching platforms, ziplines or used as anchors to those primary trees would be identified for soundness and receive regular safety and equipment reviews as part of the requirements specified by the ACCT. Very few trees may need to be removed or limbed to allow for passage of guests along the cables. This is expected to be minimal in order to maintain the forested canopy. Any trees that would need to be cut would be left on site. Heavy equipment is not needed to install the infrastructure; ATVs can be used to carry materials and equipment from point to point.

## Botany

The management designation in the project area is Bald Eagle Replacement Habitat in Matrix (9B MAT). The area is mixed conifer, with some large trees greater than 120 years old. The area as a whole does not meet the definition of old growth according to the *Standard and Guidelines for the Amendments to Survey and Manage* (Exhibit C, glossary). Therefore, surveys are not required. There are no known sites of sensitive or survey and manage species in the project area. One noxious weed, scotch broom was observed in the project area. No other known sites of invasive plants or noxious weeds are present.

R6 Sensitive Fungi: *Boletus pulcherrimus* and *Hygrophorus caeruleus*. These fungi are mycorrhizal and can associate with white fir, but are not exclusive to white fir as a host. They could be detrimentally affected by the loss of host trees, removal of potential host trees, and ground disturbance. If present in project area, there could be detrimental effects from removal of mature or immature trees (actual or potential hosts) from the stand. Because there is suitable habitat for these fungi outside the project area, very few trees are expected to be felled, and ground disturbance would be minimal after the initial construction of the zipline, this project will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population (MIIH) for these species.

## Fisheries

### Listed Fish Species

There is no current or historic presence of listed species within the project area therefore; the proposed action will have **no effect** (NE) on federally listed Lost River and shortnose suckers and bull trout .

### Designated Critical Habitat for Listed Fish Species

There is no aquatic habitat present, especially habitat designated as critical for listed fish species under the ESA. Therefore there is no potential to affect any of the primary constituent elements of critical habitat for listed fish species and the proposed action will have **no effect** (NE) on designated critical habitat for federally listed Lost River and shortnose suckers and bull trout .

### Sensitive Aquatic Species

There is no current or historic presence of sensitive aquatic species within the project area therefore the proposed action will have **no impact** (NI) on Region 6 sensitive aquatic species.

## Wildlife

Range maps were consulted in *Birds of Oregon* (Marshall et al. 2003) and *Land Mammals of Oregon* (Verts and Carraway 1998). Unless otherwise noted, species and habitat characteristics are derived from these two sources. Effects determinations are based on a species' typical

habitat use. Only those species for which the project may affect individuals or their habitat are discussed.

### Northern spotted owl

There is dispersal habitat within the project area. There is some nesting, roosting, and foraging (NRF) habitat adjacent to the project area; however, the project is not within Critical Habitat. There are no known nest sites or activity centers within or adjacent to the project.

***Disturbance:*** The closest spotted owl activity center is approximately 1.7 miles from the project area. The habitat adjacent to the project area as well as the habitat around the activity center has been surveyed yearly by the Oregon Cooperative Wildlife Research Unit. No nests or resident birds have been found within 1.2 miles of the project area to date, thus, it is unlikely that any new sites have been missed near the project area. If any new sites are located within the 0.5 miles disturbance distance (LRMP 1990) of the project, prior to or during project implementation and yearly use, the District Ranger and Forest Biologist will be notified to determine further action. If a nest is located within 0.25 miles, the US Fish and Wildlife Service will be contacted to determine if there is a need to initiate Section 7 consultation.

While there is a potential that some birds could collide with the new zipline cables, guy wires, and the power pole installation at the parking lot or other infrastructure, it is not expected to be a significant concern if at all. According to the experience of the Arborist associated with this project, there haven't been any known occurrences of collisions with birds and the zipline infrastructure on other similar projects.

***Habitat:*** The forest within the proposed zipline area is identified as dispersal habitat for spotted owls. In the course of project layout some trees may need to be felled for safety reasons or construction purposes. However, it is expected that these trees would be scattered throughout the project area and would be few in number as the stand is healthy and the project objective is to provide a "forested" view for the tour (Arborist's report in the project file). Pruning of limbs or parts of branches along the zipline route may also occur. The objective of the project is to provide a "natural" setting for the zipline experience as well as doing a Canopy Tour, so the canopy needs to remain as much intact as possible. As a result, it is not expected there would be many trees that would be felled. Any felled trees that are 12 inches in diameter or greater at their small end should be left in place as down woody material (LRMP, 1990) for prey species habitat. Because of the above mentioned reasons, the function of the dispersal habitat is expected to be maintained.

Implementation of the Proposed Action, along with, past, current, and foreseeable future activities, are not expected to add any additional effects to northern spotted owls or their habitat on the landscape.

Implementation of the Proposed Action would have *no effects on spotted owls or their habitat* because the physical character of the dispersal habitat is not expected to change, zipline activities would occur during the day when spotted owls are not typically active and there is no known nest or activity center at or within 1.2 miles of the project.

## Fisher

There is dispersal habitat within the project area. A fisher was detected on a camera station located within the project area in the fall of 2013 as part of a fisher survey on the Klamath District. Male and female fishers have been detected on multiple occasions in 2007 and 2011 to the north and northwest of the community of Rocky Point (US Fish & Wildlife Service, 2013) approximately 0.6 miles away, so there is a potential that the Zipline project area is within a fisher home range. There are no known den sites within or adjacent to the project area.

***Disturbance:*** Currently there is evidence of unauthorized ATV use in and adjacent to the parking lot, although it is not known how much. Implementation of this project would result in significant increased human activity, with the initial layout and project construction, including adding vault toilets at a later date, then daily use of the ziplines on an annual basis during spring, summer and fall. As a result, this may preclude fisher use of the area as a travel corridor or foraging area during the day, but may be less likely to avoid the area at night.

***Habitat:*** The understory is fairly open and devoid of the denning and resting characteristics preferred by fisher, which is complex physical structure characteristic of late-successional forests, including large trees and snags, coarse down woody debris and other complex structure near the ground, with multiple-layered vegetation. See the spotted owl section for effects of pruning and tree removal as this would have the same habitat effects for the fisher. Felled trees left on the ground may also provide potential resting habitat.

Implementation of the Proposed Action, along with, past, current, and foreseeable future activities, would increase human activity during the day for most of the year, which may preclude fisher use of the area during the day, however, is not expected to affect fisher user or the function of fisher habitat in the surrounding landscape.

Because of the historic sightings near the project area, a fisher sighting within the project area, and the anticipated increase in human activity, implementation of the Proposed Action *may impact individuals or their habitat (MIIH), but would not likely contribute to a trend toward federal listing or loss of viability to the population or species.*

## Bald Eagle

There is bald eagle use and potential roosting habitat and a travel corridor within the project area. There are no known bald eagle nests within the ¼ mile Winema LRMP (pg. 4-48) disturbance distance of the proposed zipline project area.

***Disturbance:*** There are 2 (1 inactive for the last 3 years and 1 active) nest sites within 0.5 miles of the project area. Use of the project area in 2013 by 2 individual bald eagles was observed above the canopy and in 2012 and 2013 signs of bald eagle use near the inactive nest tree were observed (US Fish & Wildlife Service, 2013), so there is a potential that a new nest could be discovered. If any bald eagle nests within the 1/4 mile Winema LRMP protection buffer distance are located prior to or during project implementation and its yearly use, the District Ranger and the Forest Wildlife Biologist will be notified to determine further action. If a new nest is located within 660 feet, the US Fish & Wildlife Service will be

contacted to determine if actions are needed to prevent disturbance or “take”, as defined and provided for in the Bald and Golden Eagle Protection Act.

Currently there is evidence of unauthorized ATV use in and adjacent to the parking lot, although it is not known how much. Implementation of the Zipline project would result in significant increased human activity, with the initial layout and project construction, including adding vault toilets at a later date, then daily use of the ziplines on an annual basis during spring, summer and fall during bald eagle breeding season. As a result, this may preclude bald eagle use of the area as a travel corridor, roosting area, or future nest site.

There is a potential that individual birds could collide with the new zipline cables, guy wires, and the power pole installation at the parking lot. However, if bald eagles would use the area, the majority of bald eagle use is expected to be above the canopy. Since the objective of the project is to provide a “natural” setting for the zipline experience as well as doing a Canopy Tour, the cables, wires, etc. that will support the infrastructure will be below the canopy. As a result, above canopy collisions are not expected to occur.

**Habitat:** In the course of project layout some trees may need to be felled for safety reasons and/or construction purposes. Because of this, some existing perch and future eagle nest trees may be felled. However, it is expected that these trees would be scattered throughout the project area and would be few in number as the stand is healthy and the project objective is to provide a “forested” view for the tour. Pruning of limbs or parts of branches along the zipline route may also occur to allow for the zipline path. When compared to the number of trees available as habitat in the surrounding area, any removal of potential perch or future nest habitat would be insignificant on the landscape.

***Proposed Forest Plan Amendment to Management Area (MA) 9B: Bald Eagle Replacement Habitat:***

The proposed Zipline Project area is within the Winema LRMP Management Area 9B, which is bald eagle replacement habitat and a subset of MA 9 (9A, 9B, and 9C), bald eagle habitat. There are approximately 14,054 acres of MA 9 on the Klamath Ranger District. The goal of MA 9 is to maintain, enhance, and provide nesting, foraging, and winter roosting habitat for bald eagles consistent with the Pacific States Bald Eagle Recovery Plan (1983) and Working Implementation Plan for the Bald Eagle Recovery in Oregon and Washington (January 1989). The *National Bald Eagle Management Guidelines* (USFWS 2007) replaced the 1983 and 1989 documents referenced in the LRMP in preparation for the delisting of bald eagles from the Federal List of Endangered and Threatened species on June 28, 2007 by the Department of the Interior.

The management strategy for MA 9 is not compatible with the proposed project. Because of this, a non-significant forest plan amendment is proposed to the Winema Forest Plan to designate approximately 76 acres (1.0%) on Klamath Ranger District of MA 9B, Bald Eagle Replacement Habitat as MA 2B Developed Recreation, Moderate level Development.

Standards and guidelines # 2 under Wildlife and Fish for MA 9B states “Replacement stands shall be developed and managed to occur on at least 50 % of each contiguous 40-acre tract to ensure uniform distribution of habitat throughout the management area” (p. 4-148, Winema Forest Plan). On the

Winema National Forest, there are approximately 10,204 acres (not including the overlapping MA 8 Riparian Areas on the Chiloquin RD) designated as MA 9B and approximately 8,115 (~ 80%) acres on the just the Klamath District.

Seventy six acres of the Zipline project fall within Replacement Habitat Tract ID #15, which is a total of approximately 406 acres. The project is roughly in the middle, so with the change in management direction, 76 acres would be removed as bald eagle replacement habitat. This would split the tract almost in half. The south eastern half would be approximately 211 acres, while the northwestern half would be approximately 119 acres. Although the original tract would no longer be considered contiguous in the terms of the management area designation, this equates to 81 percent of the original tract which would continue to be managed as bald eagle replacement habitat. This would be well above 50 percent of the original tract managed to ensure uniform distribution, as well as the 2 new tracts are greater than 40 contiguous acres.

With the change in designation there would be approximately 8, 039 (~79%) of Bald Eagle Replacement Habitat remaining on the Klamath Ranger District.

Changing 76 acres of Bald Eagle Replacement Habitat to Developed Recreation, Moderate level Development with the expected increase in human activity may preclude bald eagle use of the area as a travel corridor, roosting area, or future nest site.

The proposed Forest Plan amendment to change the management designation of MA 9B Bald Eagle Replacement Habitat to MA 2B Developed Recreation, Moderate level Development would not violate the Winema LRMP Standards and Guidelines because the remaining replacement stands would continue to be managed on greater than 50 percent of the original tract, the 2 remaining tracts would be greater than 40 acres in size, and there would continue to be uniform distribution of replacement habitat throughout the management area landscape.

Implementation of the Proposed Action, along with, past, current, and foreseeable future activities, would increase human activity during the day for most of the year, which may preclude bald eagle use of the area as well as approximately 76 acres would no longer be developed or enhanced as replacement habitat for bald eagle nesting, roosting, and perching needs, however, is not expected to affect the function of bald eagle habitat or use on the landscape.

Because of the above mentioned reasons, implementation of the Proposed Action *may impact individual bald eagles or their habitat (MIIH), but would not likely contribute to a trend toward federal listing or loss of viability to the population or species.*

#### Management Indicator Species and Other Species of Concern

Forest Planning regulations (36 CFR 219.19) require the identification and monitoring of management indicator species (MIS). These species were selected during Forest Plan development because their population changes were believed to indicate the effects of management activity. These selected MIS reflect a mix of federally listed or sensitive species; species commonly hunted, fished or trapped; nongame species of special interest; and

additional plant or animal species selected because their population changes were believed to indicate the effects of management activities on other species of selected major biological communities or on water quality. Management Indicator Species are listed below. The effects of the project are addressed by habitat use below.

As the Klamath Ranger District falls within the lands covered by the Northwest Forest Plan, known sites of wildlife species listed in the 2001 Record of Decision (ROD) must be protected from disturbing management activities, known as the Survey and Manage provisions. There are no known sites pertaining to listed wildlife species within the project area. Pre-disturbance activities are not required as the planned activities are not “likely to have a significant negative impact on the species’ habitat, its life cycle, microclimate, or life support requirements” (USDA, USDI 2001). Most of the animals listed as in the Survey and Manage category are included in the R6 Sensitive Species List or on other lists already discussed in this report. Other wildlife species are also discussed in the NWFP, primarily animals associated with snags and old growth mixed conifer or ponderosa pine forests.

The Forest Service has an agreement with Partners in Flight (PIF) to develop a strategy for achieving functioning ecosystems for landbirds. The local species are described in Partners in Flight’s *East-Slope Cascade Mountains Bird Conservation Plan* (2000).

The 1988 amendment to the Fish and Wildlife Conservation Act mandated the USFWS to “identify species, subspecies, and populations of all migratory non-game birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973.” The USFWS developed the document *Birds of Conservation Concern* (BCC) to carry out this requirement, and recommends that the lists contained in BCC be consulted in accordance with Executive Order 13186, “Responsibilities of Federal Agencies to Protect Migratory Birds.” Part of the process was delineating Bird Conservation Regions (BCRs). Because of its location on the eastern edge of the Cascade Mountains and the habitat types contained within or near the project area, the BCRs relevant for the Klamath Districts include BCR 5 (Northern Pacific Forest), and BCR 9 (Great Basin).

Management Indicator Species, species identified for Survey and Manage provisions, and bird species from the PIF Conservation Plan and the BCRs that are known to inhabit the Klamath Basin and the southern Cascade Mountains are identified in the Wildlife Report, located in the Project Record.

### ***Canopy/Forested Habitat***

***Disturbance:*** Implementation of this project would result in significantly increased human activity, with the initial layout and project construction, including adding vault toilets at a later date, then daily use on an annual basis during spring, summer and fall. As a result, this may

preclude use of the area as a travel corridor, foraging area, or for future nest sites by species such as MIS species such as the goshawk, Northwest Forest Plan species such as the pygmy nuthatch, and song/migratory birds such as Williamson's sapsuckers and olive-sided flycatchers. If any nests or dens are located prior to or during project implementation and yearly use, the District Biologist will notify the District Ranger to determine what steps if any, need to be taken.

There is a very small potential that initially some birds could collide with the new zipline cables, guy wires, and the power pole installation at the parking lot, but it is not expected that this would be a significant concern.

**Habitat:** While there are no identified trees proposed for felling, in the course of project layout, construction, and seasonal use, some trees may need to be felled for safety reasons and/or construction purposes. However, it is expected that these trees would be scattered throughout the project area and would be few in number, as the stand is healthy and the project objective is to provide a "forested" view for the tour. When compared to the number of trees available as habitat in the surrounding area, any removal of potential habitat would be insignificant. Any trees felled which are 12 inches in diameter or greater at the small end should be left in place for foraging habitat and hiding cover. Pruning of limbs or parts of branches along the zipline route may remove potential perches, but is not expected to significantly degrade potential nesting, foraging, or perching habitat as there is abundant habitat in the surrounding area.

*Open Areas that Produce Forage (Flowers and Berries)*

**Disturbance:** Implementation of this project would result in significantly increased human activity, with the initial layout and project construction, including adding vault toilets at a later date, then daily use on an annual basis during spring, summer and fall. The understory habitat would still be present, but the human use of the area may preclude some use of the area for foraging by songbirds/migratory species such as the Calliope's hummingbird.

**Habitat:** The open area where the parking and registration would be located is already disturbed with minimal foraging opportunities while the open/brushy area on the south side of the existing parking area is expected to be maintained as there is nothing planned for that area. Currently there is evidence of unauthorized ORV use in the area, which can be a noise disturbance as well as a habitat destruction concern. With the implementation of the Proposed Action, the current ORV use in the area is expected to be reduced as these areas are planned to be blocked with the improvement of the existing parking area and road. This would be a benefit to MIS species as well as the other species of concern as this should allow for re-vegetation of the ORV tracks.

Implementation of the Proposed Action, along with, past, current, and foreseeable future activities, would increase human activity during the day for most of the year, which may

preclude use of the area by some species, however, is not expected to affect the function of habitat on the landscape for MIS or other species of concern as minimal scattered trees and or limbs would be removed.

Implementation of the Proposed Action may have a negative effect or impact to individual MIS or other species of concern that utilize canopy/forested and open area habitats as a result of human presence and noise disturbance, although there is expected to be no significant effect to their physical habitat. It may have a beneficial effect on habitat and noise disturbance by restricting unauthorized ORV use in the area. Because of its small size and habitat is not expected to change, this project will not affect viability of MIS species or other species of concern on the Forest.

### **Agencies and Persons Consulted [36 CFR 220.7(b)]**

The applicant has consulted with the Klamath County Planning Department and been granted an approved Conditional Use Permit dated June 21, 2013.

The U.S. Fish and Wildlife Service (USFWS) were consulted informally on April 30, 2013.

The Klamath Tribes were consulted informally on April 30, 2013 and contacted formerly during the Opportunity to Comment period.

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