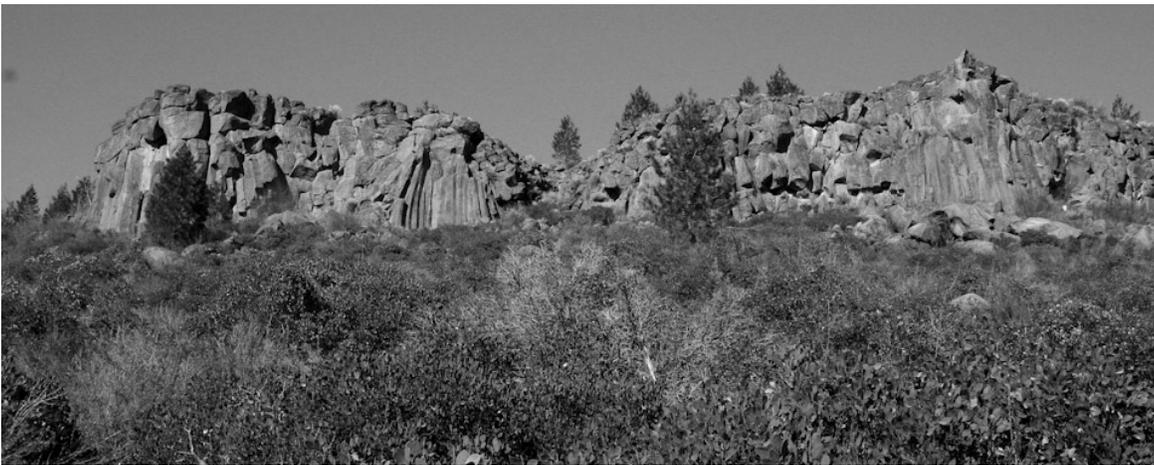


Environmental Assessment

Williamson River Cliff Area Project

Chiloquin Ranger District, Fremont-Winema National Forest
Klamath County, Oregon
T33S, R7E, Section 35, WM



Department of Agriculture, Forest Service
May 11, 2012



For more information contact:
William Ray, Jr.
38500 Hwy 97 N
541-783-4001
www.fs.fed.us/r6/winema

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Table of Contents

<u>Chapter 1 Introduction</u>	1
<u>Document Structure</u>	1
<u>Background</u>	2
<u>Need for Proposal</u>	2
<u>Proposed Action</u>	2
<u>Applicable Laws and Policy</u>	4
<u>Decision Framework</u>	6
<u>Public Involvement</u>	6
<u>Issues</u>	8
<u>Chapter 2 Alternatives, including the Proposed Action</u>	9
<u>Mitigation Common to All Alternatives</u>	14
<u>Comparison of Alternatives</u>	15
<u>Chapter 3 Environmental Consequences</u>	16
<u>Chapter 4 Consultation and Coordination</u>	56

CHAPTER 1

INTRODUCTION

Document Structure

The Forest Service has prepared this Environmental Assessment in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. This Environmental Assessment discloses the direct, indirect, and cumulative environmental impacts that would result from the proposed action and alternatives. The document is organized into five parts:

- *Introduction:* The section includes information on the history of the project proposal, the purpose of and need for the project, and the agency's proposal for achieving that purpose and need. This section also details how the Forest Service informed the public of the proposal and how the public responded.
- *Comparison of Alternatives, including the Proposed Action:* This section provides a more detailed description of the agency's proposed action as well as alternative methods for achieving the stated purpose. These alternatives were developed based on significant issues raised by the public and other agencies. This discussion also includes possible mitigation measures. Finally, this section provides a summary table of the environmental consequences associated with each alternative.
- *Environmental Consequences:* This section describes the environmental effects of implementing the proposed action and other alternatives. This analysis is organized by resource area. Significant issues will be addressed as they pertain to the specific resource area. Within each section, the affected environment is described first, followed by the effects of the No Action Alternative that provides a baseline for evaluation and comparison of the other alternatives that follow.
- *Agencies and Persons Consulted:* This section provides a list of preparers and agencies consulted during the development of the environmental assessment.
- *Appendices:* The appendices provide more detailed information to support the analyses presented in the environmental assessment.

Additional documentation, including more detailed analyses of project-area resources, may be found in the project planning record located at the Chiloquin Ranger District Office in Chiloquin, Oregon.

Background

The Williamson River Cliff Area contains unusual scenic, historical, and cultural resources that hold a significant value among the native people of the Klamath Basin and local recreationists. The cliff area is a popular area for hiking, rock climbing, sightseeing, photography, horseback riding, and camping (Figure 1). In 1995 a request was submitted for a special use permit for climbing related activities. At this time a cultural resource inventory was conducted. The results of the inventory included the discovery and documentation of cultural resources eligible for listing in the National Register. Monitoring of the cultural resources along the Williamson River Cliff Area has continued since their discovery.

Monitoring has revealed that the cultural features have been damaged or removed by people using the area. In 2007 the Forest Service and The Klamath Tribes agreed upon a restoration plan for the Williamson River Cliff Area. The restoration plan outlined a step-by-step process to help prevent further disturbance and restore natural integrity. Unfortunately, damage to cultural sites continued to occur. On December 14, 2009, a news release was sent to the public explaining that a temporary emergency closure was implemented to reduce the risk of additional damage to cultural resources within the Williamson River Cliff Area.

Need for Proposal

There is a need to prevent further damage to cultural resources and restore a natural appearing landscape in the cliff area. There is a long history of use of this area by the Klamath Tribes as an area for personal and spiritual renewal. This action is needed, because if no action is taken, remaining cultural resources could be damaged beyond recovery or eliminated. This action is responsive to the goals and objectives outlined in Management Area 4 and 4C of the 1990 Winema Land and Resource Management Plan (LRMP) and helps move the project area towards desired conditions described in that plan, which states these areas are to be protected and managed for recreation use substantially in their natural state and may be managed to foster public use and enjoyment.

Proposed Action

- Public access to sensitive resources in the Williamson River Cliff Area would be prohibited on approximately four acres of National Forest System land.
- The area of prohibited access would be closed through a Code of Federal Regulations forest closure order and would be delineated on the ground with barriers and signs. Public access would be allowed outside of the closure area for rock climbing, viewing, camping, photography, and other activities.
- Restoration work consisting of re-vegetating denuded areas would be completed within the project area.
- Rock climbing with existing protection (rock bolts) would be allowed east and west of the closure area. No additional fixed anchors would be installed without written authorization from the Forest Service. Some existing climbing routes and bolts may be removed based on input from the public.
- Public access would be from the north on Forest System Road (FSR) 9734.

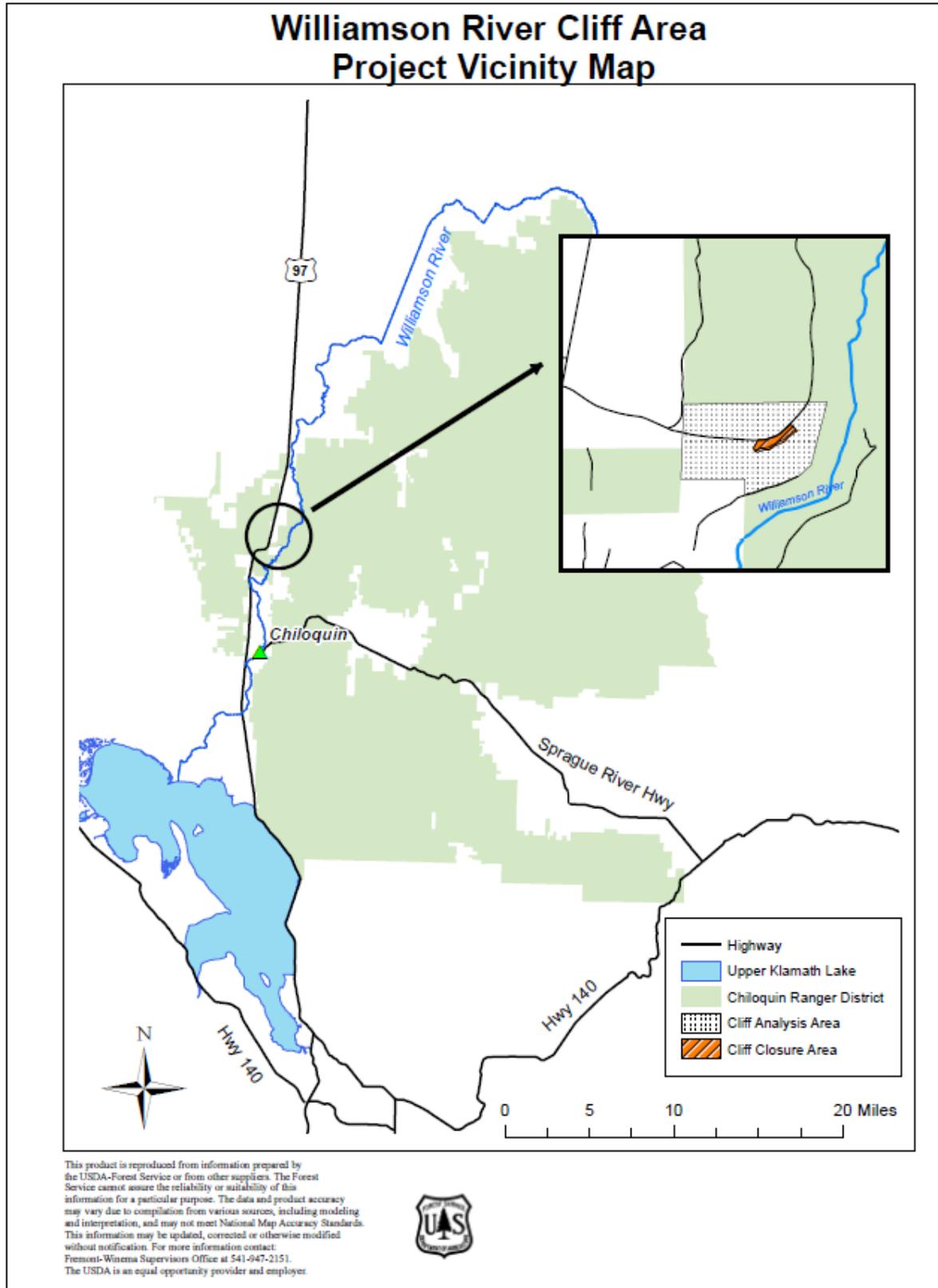


Figure 1. General location of the Williamson River Cliff Area project, Chiloquin Ranger District, Klamath County, Oregon.

- Trail access would be constructed for pedestrian use from FSR 9734 to the base of the cliff east and west of the closure area. An existing vehicle pull out area immediately west of the proposed closure area along FSR 9734, would be maintained to accommodate vehicle parking.
- A kiosk would be installed for interpretative and educational purposes on National Forest System land within T.33S., R.7E., Section 35, NE ¼.
- Adaptive actions would be implemented if monitoring reveals that sensitive resources continue to be impacted by people using the area. These actions would be increasingly restrictive and would likely be implemented in stages followed by regular monitoring to assess their success. They may include implementation of a closure order for a larger area within T. 33S., R.7E., Section 35, NE ¼. Public access to the general area may be limited to those with a written permit or special use permit. The most restrictive action that may be implemented is closing access to the entire cliff area. Closing or decommissioning FSR 9734 adjacent to and within one mile north of the cliff area would also be completed if needed to limit access.
- The site restoration plan developed with The Klamath Tribes would remain in effect.

Applicable Laws and Policy

National Historic Preservation Act of October 15, 1966 (16 USC, Section 470W(6))

This act declares a national policy of historic preservation (including identification, evaluation, recordation, documentation, curation, acquisition, protection, management, rehabilitation, restoration, stabilization, maintenance, research, interpretation, conservation, and education and training regarding the foregoing activities, or any combination of the foregoing activities (16 USC, Section 470W(8)). Section 106 of the NHPA provides procedures for federal agencies to follow in the event a proposal may affect a property on, or eligible for, the National Register. Section 106 requires government agencies to take in account the effects of their actions on historic properties and allow the Advisory Council on historic Preservation (ACHP) a reasonable opportunity to comment on such actions. The law does not require that effects on historic places be avoided; rather they must be considered in planning.

With specific regard to Indian tribes, the NHPA affords tribal members the opportunity to participate when an undertaking may affect properties of historic value to an Indian tribe on non-Indian lands. In addition, agencies must seek information from tribes likely to have knowledge or concerns about historic properties in the area.

American Indian Religious Freedom Act of August 11, 1978 (PL 95-341, 92 Stat. 469, 42 USC 1996)

This act recognizes the importance of traditional Indian spiritual practices and directs all federal agencies to ensure that their policies will not abridge the free exercise of Indian religions. This act declares a federal policy of protecting and preserving the right of American Indians to believe, express, and exercise their traditional religions, such as access to sites, use and possession of

sacred objects, and the freedom to worship through ceremonies and traditional rights. This statute has no specific implementing regulations or mandates of exclusive use.

Archeological Resource Protection Act of 1979 (16 USC, Section 470aa et seq.)

This act prohibits the unauthorized excavation, removal, or damage of archaeological resources on federal and Indian lands.

National Forest Management Act of October 22, 1976 (PL 94-588, 90 Stat. 2949; 16 USC 472 et seq.)

The National Forest Management Act (NFMA) implementation regulations provide for coordination of regional and forest planning with equivalent related planning efforts of other federal, state, local agencies, and Indian tribes. NFMA reinforces the importance of recreation in forest planning, stating that the forest plans “shall provide for multiple-use, sustained yield, and the coordination of recreation with other resources” (16 USC, Section 1604(e) (1)). The Winema LRMP establishes a programmatic framework specifically for managing National Forest lands within the Winema National Forest. The LRMP sets general and specific goals for management, and establishes standards and guidelines to follow in pursuit of these goals. The desired condition of the forest and its resources described in the forest plan set the stage for site-specific project planning. All projects must be consistent with the forest plan, as required by the NFMA.

Executive Order 13007, Indian Sacred Sites (May 24, 1996)

This Order states that agencies shall accommodate access to ceremonial use of Indian sacred sites by Indian religious practitioners and avoid adversely affecting the physical integrity of such sites. These goals shall be furthered to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions.

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments (November 6, 2000)

This order establishes regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, strengthens the United States government-to-government relationship with Indian tribes, and reduces the imposition of unfounded mandates upon Indian tribes.

U.S. Constitution, First Amendment (December 15, 1791)

This Constitutional Amendment states, “*Congress shall make no law respecting the establishment of religion or prohibiting the free exercise thereof.*” The First Amendment forbids the government from acting in a manner which would enforce the beliefs and strictures of any one religion above those of others.

Treaty of 1864 between United States and Klamath, Modoc and Yahooskin Band of Paiute Tribes (October 14, 1864)

Memorandum of Agreement between Klamath Tribes and USDA Forest Service (February 19, 1999)

Section VI Cultural Resources establishes consultation procedures for cultural resources.

Land and Resource Management Plan

The Winema Land and Resource Management Plan (Forest Plan) includes goals to protect lands with significant geologic, scenic, historic, cultural, botanic, or other unique characteristics, and where appropriate, recreational use and enjoyment. The Forest Plan directs where motorized recreation is compatible with Management Area objectives. The Forest Plan also states that user groups should be a part of an ongoing process to manage recreation opportunities to minimize conflict.

Decision Framework

Given the need, the deciding official will review the environmental analysis to make the following decisions:

- What, if any, Forest Plan amendments are necessary?
- What mitigation measures and monitoring activities are required?
- Which alternative will be implemented along with any modification?

Public Involvement

Public Scoping

The proposal for the Williamson River Cliff Area Project was listed in the Schedule of Proposed Actions on December 15, 2009. The proposal was provided to the public and other agencies for comment from December 11, 2009 to January 11, 2010. As part of the public involvement process, the agency informed adjacent landowners of the project planning process on December 11, 2009. The public was notified of the project with a scoping letter mailed to the Chiloquin Ranger District mailing list on December 11, 2009. An opportunity inviting public comment was published in the Herald and News, Klamath Falls, Oregon on December 14, 2009.

A total of twelve responses were received. One response supported the project. Eleven responses supported parts of the project, but objected to the restricted use of the cliff face area. Two of the eleven responses suggested other actions to mitigate the effects of restricting public access. These suggested actions were used to develop alternative 3. Many ideas and suggestions received from these letters may be used for developing an implementation plan at a later time. The implementation plan would be developed after the EA and Decision Notice are finalized and would include in part, direction on topics for education, etiquette for use, summary of restoration

actions, and schedule for completion and monitoring. All comments may be viewed in the project record found at the Chiloquin Ranger District.

Treaty Rights

The Treaty of 1864 established the right of taking fish and gathering edible roots, seeds, and berries on reservation lands. In 1981, the U.S. Circuit Court ruled that the Treaty of 1864 also included the right to hunt and trap on the former reservation. In 1984, the U.S. Circuit Court found that the Tribe is entitled to the amount of water necessary to support its hunting and fishing rights as currently exercised to maintain the livelihood of Tribal members, not as these rights were exercised by the Tribe in 1864.

Only an act of the United States Congress or a Court decision can influence the exercise of Treaty rights. Forest Service activities cannot change the reserved Treaty rights of the Klamath Tribes. Forest Service activities may have an indirect effect on treaty resources in the short-term, by changing the habitat. The proposed action may indirectly influence the actual exercise of the right to hunt, trap, fish, or gather, to the degree that a change in habitat affects treaty resources. Exercise of Treaty rights may be affected by a change in the mode or type of access to an area for reasons or circumstances such as safety, fire control or prevention, certain types of investigations or other reasons as stated in laws governing the access, use and occupancy of National Forest lands.

The Forest Service has a responsibility to honor Treaty rights. The protection of treaty-reserved rights is commensurate with protection of resources and the protection of habitats upon which treaty resources rely. Managing and protecting the elements of Treaty rights is a part of this responsibility as it is a part of multiple use management direction. None of the alternatives considered in the Williamson River Cliff Area Project will cancel the legal rights established by the Treaty.

Consent Decree of 1981

The Williamson River Cliff Area is within the former reservation boundaries of the Klamath Tribes. To facilitate the management of resources within the former reservation lands, the Consent Decree of 1981 was negotiated between the Klamath Tribes, the state of Oregon, and the United States of America. The agreement was a final settlement of the remaining issues in *Kimball vs. Callahan*. The agreement promotes sound and efficient management and conservation of fish and wildlife resources within the former reservation to ensure the future use of resources by both the Klamath Tribes and other publics. Some sections of the Consent Decree are specific to the state of Oregon, the Klamath Tribes, and the Winema National Forest, and therefore directly relate to the Williamson River Cliff Area Project. The U.S. Forest Service is a party to the agreement both as a trustee of tribal treaty rights and as the responsible agency for managing public lands. In accordance with the 1981 Consent Decree, the Forest Service has a legal responsibility to consult with the Klamath Tribes regarding land management activities on National Forest lands.

Klamath Tribes/Forest Service Memorandum of Agreement of 1999

The intent of the Memorandum of Agreement is to establish policies and procedures that implement a government-to-government consultation process between the two parties. The objective of the parties is to clarify, define and implement the government-to government consultation process between the USDA Forest Service on behalf of the United States, and the Klamath Tribes, regarding resources that Tribal members have utilized and provided stewardship for since time immemorial. Consultation with the Tribes on the Williamson River Cliff Area Project was conducted under the terms of the Memorandum of Agreement (MOA), with substantial participation from Tribal representatives. The MOA was signed on February 19, 1999, and amended on February 17, 2005.

Tribal Consultation

The Chiloquin District Ranger met with the Director of the Cultural Heritage Department on June 18, 2009 to discuss the latest monitoring report for the Williamson River Cliff Area, and to initiate a strategy for improved management of cultural resources in the area. The Klamath Tribes were formally notified of the Williamson River Cliff Area Project when the project was discussed at the tribal pre-SOPA (Schedule of Proposed Actions) meeting on November 10, 2009. The Chiloquin District Ranger met with the Director of the Cultural Heritage Department of the Klamath Tribes on November 16-17, 2009 to discuss the proposed actions and to review tribal concerns. Discussions occurred between the Chiloquin District Ranger and the Director of the Cultural Heritage Department on December 09, 2009 to discuss the scoping letter and news release for the Williamson River Cliff Area project. On January 15, 2010 the Chiloquin District Ranger and the Director of the Cultural Heritage Department met to review public comments received for the project, as well as discuss alternative actions.

A summary of the contacts made, information provided and technical consultation process with the Klamath Tribes for this project can be found in the Williamson River Cliff Area Project record located at the Chiloquin Ranger District.

Issues

Using the comments from the public, other agencies, and the Klamath Tribes the interdisciplinary team developed a list of issues to address. The Forest Service separated the issues into two groups: significant and non-significant issues. Significant issues were defined as those directly or indirectly caused by implementing the proposed action. Non-significant issues were identified as those: 1) outside the scope of the proposed action; 2) already decided by law, regulation, Forest Plan, or other higher level decision; 3) irrelevant to the decision to be made; or 4) conjectural and not supported by scientific or factual evidence. The Council on Environmental Quality (CEQ) NEPA regulations require this delineation in Sec. 1501.7, "...identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3)..." A list of non-significant issues and reasons regarding their categorization as non-significant may be found at the Chiloquin Ranger District in the project record.

The Forest Service identified two issues from internal scoping and from public comments. These issues include:

Issue 1: Excluding public access to four acres of the cliff area and a portion of the cliff face may reduce the suitability of the area for rock climbing.

Indicators that can be used to measure whether the issue can be remedied by implementing different alternatives or mitigation measures are:

- Number of acres closed to the public
- Net change in established climbing routes
- Number of quality of climbing routes

Issue 2: The construction of site improvements (trails, barriers, road relocation, and kiosk) may cause vegetation loss and soil disturbance.

Indicators that can be used to measure whether the issue can be remedied by implementing different alternatives or mitigation measures are:

- Developed trail length
- Soil disturbance area
- Impacted vegetation area

CHAPTER 2

ALTERNATIVES, INCLUDING THE PROPOSED ACTION

This chapter describes and compares the alternatives considered for the Williamson River Cliff Area project. It includes a description and map of each alternative considered. This section also presents the alternatives in comparative form, clearly defining the differences between each alternative and providing a clear basis for choice among options by the decision maker. Information used to compare the alternatives is based upon the design of the alternative and upon the environmental, social and economic effects of implementing each alternative.

Alternatives

Alternative 1 (No Action)

Under the No Action Alternative, current management plans would continue to guide management of the project area. No site improvements such as developed trails, barriers, or informational kiosks would be implemented to accomplish project goals.

- The area would be managed under latest direction;
- The current emergency closure order would be rescinded and the area would be reopened to public access;
- The current restoration plan would remain in effect (available at Chiloquin Ranger District);
- Fixed climbing anchors that remain in the cliff area may or may not be removed without further public review; and new fixed climbing anchors would not be allowed without authorization.

Alternative 2 (The Proposed Action)

- The central portion of the cliff would be closed to public access from FR 9734 to the base of the cliff (not including the talus area), approximately 4 acres.
- The area of restricted access would be closed through a closure order and delineated on the ground with barriers and signs. Public access would be allowed to the cliff area outside of the restricted area for rock climbing, viewing, camping, photography, and other activities.
- Restoration work consisting of re-vegetating denuded areas would be completed within the project area.
- Rock climbing with existing protection (rock bolts) would be allowed east and west of the closed area. No additional fixed anchors would be installed without written authorization from the Forest Service. Some existing climbing routes and bolts may be removed based on input from the public.
- Trail access would be constructed for pedestrian use from FSR 9734 to the base of the cliff east and west of the closure area. An existing vehicle pull out area immediately west of the proposed closure area along FSR 9734, would be maintained to accommodate vehicle parking.



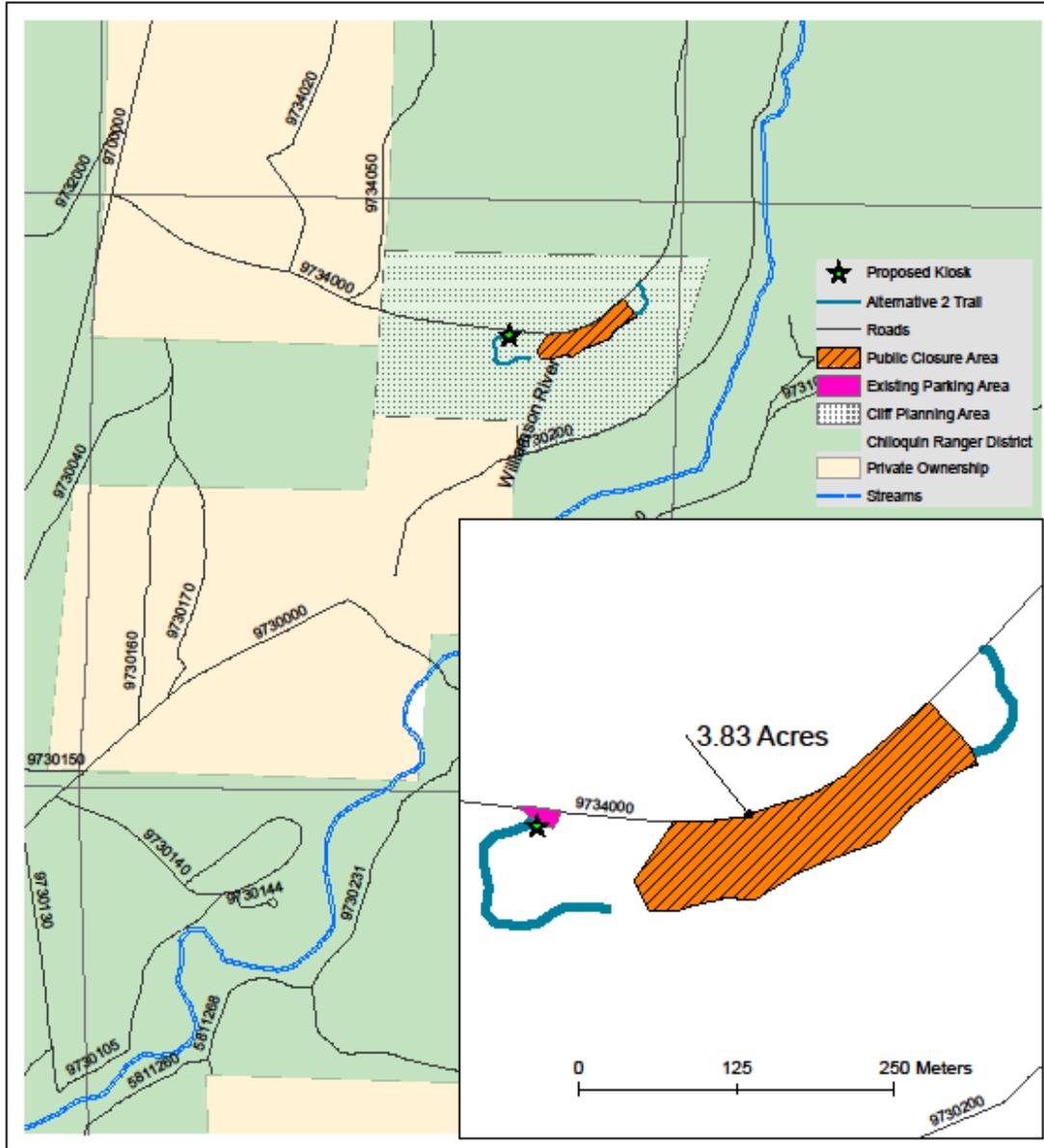
Figure 2. Example of area open for climbing under Alternative 2 – *The Proposed Action*. Williamson River Cliff Area, Chiloquin Ranger District, Klamath County OR.

- A kiosk would be installed for interpretative and educational purposes on National Forest System land within T.33S. R.7E., section 35, NE ¼.
- Adaptive actions would be implemented if monitoring reveals that sensitive resources continue to be impacted by people using the area. These actions would be increasingly restrictive and would likely be implemented in stages followed by regular monitoring to assess their effectiveness. Additional protection measures would include the following: 1) implementation of a closure order for a larger area within T. 33S., R.7E., section 35, NE ¼; 2) public access to the general area would be limited to those with a written permit or special use permit; 3) FSR 9734 would be closed or decommissioned up to and within one mile north of the cliff area.

Alternative 3 (No Top-out Policy)

- The southern closure area boundary would be at the top of the cliff edge 4.5 feet below the rim; approximately three acres would be closed to public access.
- No top-out policy; climbers would be allowed to climb on the cliff face directly below the closure area but not access the area above the cliff rim within the boundary of the closure area. Fixed anchors would be placed no closer than 4.5 feet below the top edge of the cliff face and would be authorized by the Forest Service.
- Trail access would be constructed for pedestrian use from FSR 9734 to the base of the cliff east and west of the closed area, and below the closed area to connect the trails from the east and west.
- Adaptive actions would be implemented based on results of monitoring. If monitoring reveals that sensitive resources continue to be impacted by people using the area, more restrictive actions would be implemented as outlined in Alternative 2. If monitoring reveals no additional impacts to resources and resource conditions improve, less restrictive actions may be allowed. Less restrictive actions could include allowing climbers to top-out in areas devoid of sensitive resources on the cliff top within the closure area.

Williamson River Cliff Area Alternative 2 Map



This product is reproduced from information prepared by the USDA-Forest Service or from other suppliers. The Forest Service cannot assure the reliability or suitability of this information for a particular purpose. The data and product accuracy may vary due to compilation from various sources, including modeling and interpretation, and may not meet National Map Accuracy Standards. This information may be updated, corrected or otherwise modified without notification. For more information contact:
 Forest-Winema Supervisors Office at 541-947-2151.
 The USDA is an equal opportunity provider and employer.

February 22, 2010

Figure 3—Proposed Action for the Williamson River Cliff Area. Chiloquin Ranger District, Klamath County, OR.

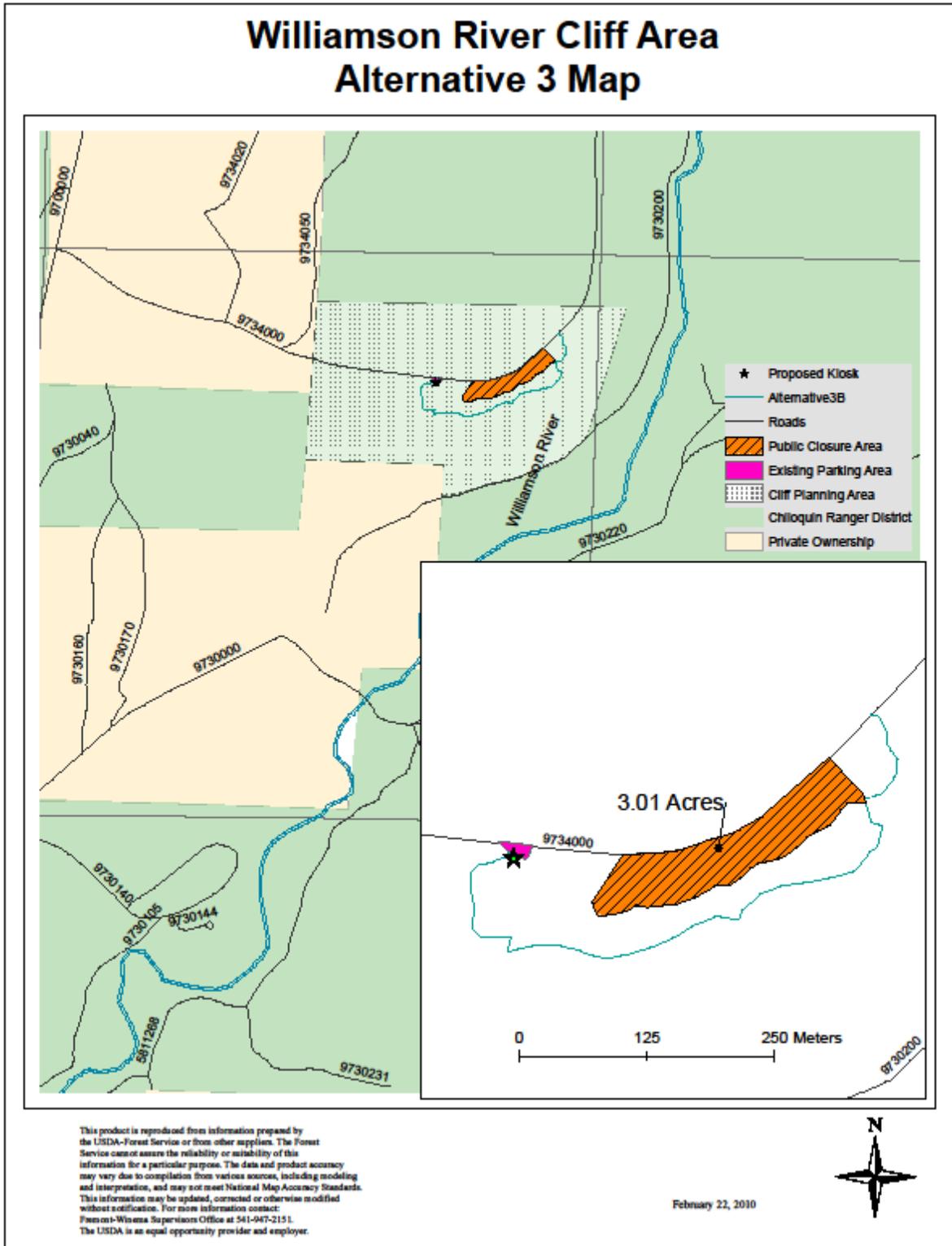


Figure 4—Map of Alternative 3 - No Top-out Policy, for the Williamson River Cliff Area. Chiloquin Ranger District, Klamath County, OR.

Mitigation Common to All Alternatives

In response to public comments on the proposal, measures were developed to mitigate all the potential plant, soil and wildlife impacts the various alternatives may cause. The mitigation measures would be applied to any of the action alternatives. The following prevention measures would be used to minimize the introduction of invasive plants, reduce negative effects to wildlife and habitat, and ensure protection of cultural sites within the project area.

Invasive Plant Prevention Plan

- Equipment used in the implementation would be washed prior to entry onto the Forest.
- Forest Service botanist would monitor for invasive species following ground disturbance caused by management actions. If invasive species are discovered, treatments and monitoring would occur according to the Forest's Invasive Plant Treatment FEIS.
- Native plants would be used in re-vegetation for restoration and rehabilitation.
- Forest Service botanist would verify that materials (plants or soils) used for fill, erosion control, restoration and rehabilitation efforts would be certified weed-free, or from weed-free sources. Forest Service Contracting Officer Representative would inspect all equipment used prior to entering National Forest land.

Wildlife Protection Measures

- If any nests or rookeries are found for species listed in Table 4-12 on page 4-48 of the Forest Plan, before or during project implementation, a district biologist would be notified so identification/status can be determined. If needed, appropriate species-specific seasonal restrictions as directed in the Winema Forest Plan would apply around any nest sites found during the life of the project.
- Should a nest or rookery be found prior to or during project activities within, adjacent, or near enough that activities could be a disturbance, a district wildlife biologist would immediately be notified and all activities would be halted until a determination can be made. If needed, the appropriate seasonal restrictions as per the Winema LRMP, page 4-48, would be in place or until fledging or non-reproduction can be determined. This would occur seasonally over the life of the project.
- If a flammulated or great gray owl nest is located within 0.25 miles of the project before or during implementation, a 0.25 mile seasonal restriction would be in place from March 1 – August 31 or March 1 – July 31, or until a district wildlife biologist can determine if the nest is active. This would occur seasonally over the life of the project. With the seasonal restriction in place, there would be no disturbance issue.

Cultural Resource Protection

- All known or discovered cultural resources would be avoided to prevent impacts. If previously undiscovered sites are found in the course of these activities, all activities in the vicinity of the site would cease and the site area would be protected until the site is recorded and evaluated by a qualified archaeologist.
- During restoration activities a Forest Service cultural resources technician or archeologist would monitor all ground disturbing activities.

- To help inform implementation of any of the adaptive management practices, a Forest Service cultural resources technician or archeologist would monitor and report any damage to cultural resources in the project area annually.

Comparison of Alternatives

This section provides a summary of the effects of implementing each alternative. Information in Table 1 is focused on activities and effects where different levels of effects or outputs can be distinguished quantitatively or qualitatively among alternatives.

	Alternative 1 No Action	Alternative 2 Proposed Action	Alternative 3 No Top-out Policy
Developed trail length	0	530 Feet	2040 Feet
¹ Soil disturbance area	7 Acres	.5 Acre	.2 Acre
² Area of impacted vegetation	7 Acres	0.1 Acre	.3 Acre
Number of acres closed to the public use	0	4	3
³ Number of established climbing routes	90	22	90
Change in number of established climbing routes	0	-68	0
⁴ Number of quality climbing routes	11	3	11

¹ Soil disturbance area for Alternative 2 and Alternative 3 were based on a trail tread width of four feet.
² Impacted vegetation for Alternative 2 and Alternative 3 were based on a six-foot vegetation clearing zone.
³ Information obtained from Williamson Cliffs of Klamath Falls, OR Climbers Guide by Bill Byrnes.
⁴ Climbing routes with a minimum four star rating as per Williamson Cliffs of Klamath Falls, OR Climbers Guide by Bill Byrnes.

Table 1—Comparison of Alternatives for Williamson River Cliff Area Environmental Assessment. Chiloquin Ranger District, Klamath County, OR.

CHAPTER 3

ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This chapter will present the existing condition of the project area and describe the environmental consequences of implementing the three management alternatives presented in Chapter 2. The existing conditions and environmental consequences sections were combined into one chapter for the Williamson River Cliff Area Project to lessen repetition, reduce the length of the document, and provide a format in which existing conditions can be easily compared with predicted effects.

This section describes the physical, biological, social and economic conditions that may be affected by the Proposed Action and its alternatives. As directed by the CEQ implementing regulations for NEPA, the discussion focuses on resource conditions in the Williamson River Cliff Area Project associated with the concerns presented in Chapter 1. The description of the affected environment succinctly describes the environment of the areas to be affected by the alternatives under consideration. Only those descriptions necessary to understand the effects of the alternatives are provided (40 CFR 1502.15). The discussion of environmental consequences forms the scientific and analytic basis for comparing the alternatives under consideration. Environmental consequences are discussed in terms of direct, indirect and cumulative effects (40 CFR 1502.16). Direct effects are caused by the proposed activities and occur at the same time and place (40 CFR 1508.8). Indirect effects are caused by proposed activities and occur later in time or further removed in distance, but are still reasonably foreseeable (40 CFR 1508.8). Cumulative effects result from incremental impacts of proposed activities when added to other past, present and reasonably foreseeable future actions regardless of what Agency or person undertakes such other actions (40 CFR 1508.7). Some resource conditions consider a larger area if predicted effects extend beyond the project area.

Vegetation

Introduction

Documented or suspected habitat for Federally-listed Threatened, Endangered, or Candidate plant species does not exist on the Fremont-Winema National Forest. Applegate's milkvetch, *Astragalus applegatei* is listed as endangered in Klamath County. This species is restricted to flat-lying, seasonally moist, strongly alkaline soils, historically characterized by sparse, native bunch grasses and patches of bare soil. This habitat type does not occur on the Forest. To date, no sensitive species have been located inside the project area. The project area contains potentially suitable habitat for one sensitive species, *Asplenium septentrionale*. This sensitive fern lives in crevices of basaltic rocks, which are present in the project area, but are not entirely accessible for survey. Individuals of this species could be present in such areas, although to date, have not been found on Chiloquin Ranger District. The closest site of any botany sensitive species is about 7.5 miles from the project area boundary, a site of *Astragalus peckii* (Peck's

milkvetch). Invasive plant species have not been found in or near the project area; the nearest sites are more than 1.5 miles away. The sites with spotted and diffuse knapweed occur along roadways. In general, invasive plants are less common in areas with pumice soils on the Forest. The project area has suitable habitat for a number of plant species of interest to the Klamath Tribes.

Existing Conditions

The forested area above the cliffs is described by the ponderosa pine/bitterbrush/needle grass plant association (Volland, 1988). The area to the north of FSR 9734 was planted in ponderosa pine subsequent to the Cave Mountain fire of 1959. Between FSR 9734 and the cliff area, the forest is more or less open with a fair amount of mature to decadent bitterbrush and greenleaf manzanita in the understory. The portion of the analysis area adjacent to and including the proposed closure area has many user-created routes and trails, which are now devoid of any vegetation. The cliff area is basalt outcrops, mostly less than 75 feet tall, with numerous cracks, fractures, overhangs, and boulder piles. The cliff area also has several user-created trails, mostly in gullies through breaks in the cliff face. The cliffs support some vegetation, which shows minor disturbance from trampling or erosion. The area below the cliffs is rocky and supports the growth of numerous shrubs including chokecherry, gooseberry, serviceberry, and wild rose. Below the rocks, the slope is a dense field of mature to decadent greenleaf manzanita and other shrubs.

Analysis of Direct and Indirect Effects

Alternative 1 (No Action)

Alternative 1 would not provide a way to direct foot or vehicle traffic in the project area, and dispersed recreation activities would continue to impact the area. Vegetation would not be allowed to recover and user-created trails could become more defined and/or continue to proliferate. One year of restricted access is not sufficient time for vegetation to recover in upland habitats like those found in the project area that have limited rates of plant growth. The Restoration Plan would remain in effect, including the directive to address the recovery of vegetation; however with continuation of foot and vehicle traffic, restoration efforts could be less effective.

The amount of area impacted by foot and off road motorized vehicles would be reduced because of foot trail construction to access the base of the cliff and implementation of the Forest's travel management plan and Motor Vehicle Use Map (MVUM). On existing climbing routes, vegetation would continue to be disturbed or displaced in places where climbing occurs. If present, habitat for *Asplenium septentrionale* may be affected by this on-going disturbance. Alternative 1 may impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species (MIIH). No known locations of *Asplenium septentrionale* occur in the climbing area, and suitable habitat also exists in other areas within the gorge.

In the cliff area, vegetation, including some cultural plant species, would continue to be disturbed or displaced along climbing routes, as well as at the base of the cliffs where foot traffic passes and vegetation has been removed to facilitate movement through the area.

The potential for invasive plant species introduction, as a result of dispersed recreation activities and transport of seed by people and vehicles, would persist. However, although there are non-native plants established in the area, to date there has not been a successful establishment of any invasive plant species. In addition, the risk is relatively low because invasive plants are not common in the vicinity of the project area and a large seed source is not present.

Alternative 2 (Proposed Action)

The amount of area impacted by foot and off road motorized vehicles would be reduced because of foot trail construction to access the base of the cliff and implementation of the Forest's travel management plan and Motor Vehicle Use Map (MVUM). This is expected to reduce the area of impact and possibly promote passive restoration of the user-created trails. In areas that are in need of active restoration, slight ground disturbance may occur in the course of planting native species or placing other natural materials such as mulch or rocks. In the area above the cliffs, shrubs may be pruned to remove decadent portions and stimulate new growth. Within a few years, diversity of native species and ground cover may increase as a result of these activities and a decrease in trampling from foot traffic in combination with a reduction in foot traffic and natural regeneration processes. Overall, re-focusing dispersed recreation activities to designated routes and trails should promote effective restoration efforts as compared to Alternative 1. An education feature on the kiosk could include vegetation disturbance caused by user-created trails, which may help reduce impacts to vegetation.

Trail construction would cause ground disturbance and removal of vegetation in the immediate vicinity of the trail, but once the trail is built the impacts on the surrounding vegetation from dispersed recreation should be reduced. The areas proposed for trail construction in Alternative 2 would be east and west of the closure area down to the rocks below the cliffs; this is a subset of the total length of trail proposed in Alternative 3. As part of the adaptive actions, closing a larger area or decommissioning FSR 9734 adjacent to and within one mile north of the cliff area would not impact any suitable habitat as the area is already disturbed, but over the long term, it is expected that it would lessen the disturbance associated with foot and vehicle traffic.

On existing climbing routes outside the proposed closure area, vegetation would continue to be disturbed or displaced in places where climbing occurs. For *Asplenium septentrionale*, individuals or habitat may be affected by this type of on-going disturbance, but the proposed closure area would lessen the amount of potential habitat impacted by climbing activities, compared to Alternatives 1 and 3. Alternative 2 would not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species (MIIH).

Cultural plants in and below the cliff area would have reduced impacts from removal, disturbance and displacement as a result of the closure area, as compared to Alternatives 1 and 3. Implementation of Alternative 2 would have the potential for invasive plant species introduction,

due to ground disturbance and transport of seed by foot traffic and vehicles into the project vicinity. Access restrictions in the central portion of the cliff site and limiting traffic to specific areas for parking and foot travel to trails would decrease the possibility of introduction of new invasive species in the closure area and increase the probability of detection through monitoring in the areas with directed traffic.

For vegetation in the project area, as well as *Asplenium septentrionale* individuals or habitat, may be impacted by the climbing or use of the area, but the proposed closure area would lessen the amount of potential habitat impacted by recreation activities, compared to Alternatives 1 and 3.

Alternative 3 (No Top-out Policy)

Alternative 3 would have the same impacts as Alternative 2 in terms of the parking and site access, and adaptive management.

Trail construction would cause ground disturbance and removal of vegetation in the immediate vicinity of the trail, but once the trail is built should lessen the impacts on the surrounding vegetation, as in Alternative 2. The additional area proposed for trail construction in Alternative 3 may be routed through the brush field below the rocks with access trails up to the rocks below the cliffs. If built, this would result in more ground disturbance and removal of vegetation than in Alternative 2.

The amount of potential *Asplenium septentrionale* habitat that may be impacted by climbing activities would be similar to Alternative 1. Alternative 3 may impact individuals or habitat of this species, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species (MIIH). No known locations of *Asplenium septentrionale* occur in the climbing area, and suitable habitat also exists in other areas within the gorge.

There are cultural plants in the rocky area below the cliffs, and the trail construction, if it occurs, could cause loss of individual plants. As Alternatives 1 and 3 would not limit access to the cliff face or area below, cultural plants in these areas would continue to be removed, disturbed, or displaced. These plants are present elsewhere on the Forest, but are not common elsewhere in the project area.

Effects of Alternative 3 on invasive plants would be similar to Alternative 2, except more ground disturbance is expected from a smaller restricted access area and additional length of trail construction. As such, the risk of introduction is slightly higher for Alternative 3.

Cumulative Effects Common to All Action Alternatives

Impacts associated with past and ongoing recreational activities have been described as direct and indirect effects. There are no other ongoing actions occurring in the planning area and no reasonable foreseeable future actions are proposed that overlap in space or time. There are no cumulative effects that impact vegetation.

Wildlife

Introduction

Species of concern known to inhabit the Upper Klamath Basin are listed in the wildlife specialist report found in the project record located at the Chiloquin Ranger District. 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. Species are only listed as present in the project area if an observation is on record at the Chiloquin Ranger District Office. Otherwise, effects determinations are based on a species typical habitat use. Species noted as not being present, or without habitat in the project area, will not be discussed in the detailed effects sections. Several species appear on multiple lists. The effects to a species will only be specifically commented on in the first section that it appears. There will be no impacts or effects from project implementation on species which are not present or which do not have habitat within the project boundary and they will not be discussed further.

Recommendations for potential mitigations to conflicts between wildlife habitat use and project work are listed in the mitigation section in Chapter 2. Tables 2 and 3, list Federal endangered, threatened and candidate terrestrial animals and Forest Service sensitive terrestrial animals, respectively.

Summary of Effects for Wildlife Species

Federally Endangered (E), Threatened (T), and Candidate (C) Terrestrial Animals				
Species	Species and/or Habitat Present	Alternative		
		1	2	3
Canada lynx (<i>Lynx canadensis</i>) (T)	No	NE	NE	NE
Mardon skipper butterfly (<i>Polites mardon</i>) (C)	No	NI	NI	NI
Northern spotted owl (<i>Strix occidentalis caurina</i>) (T)	No	NE	NE	NE
Oregon spotted frog (<i>Rana pretiosa</i>) (C)	No	NI	NI	NI
Pacific fisher (<i>Martes pennanti</i>) (C)	No	NI	NI	NI
Yellow-billed cuckoo (<i>Coccyzus americanus</i>) (C)	No	NI	NI	NI

Effects Determination Code for Federally Threatened or Endangered Species

NE = No Effect from the project on the species or critical habitat.

NI = No Impact from the project on the species or its habitat

Table 2 – Effects to Federally Listed Terrestrial Animals for the Williamson River Cliff Area Environmental Assessment. Chiloquin Ranger District, Klamath County, OR.

U.S. Forest Service Region 6 Sensitive Terrestrial Animals				
Species	Species and/or Habitat Present	Alternative		
		1	2	3
American peregrine falcon (<i>peregrinus anatum</i>)	No	NI	NI	NI
Bald eagle (<i>Haliaeetus leucocephalus</i>)	No	NI	NI	NI
Bufflehead (<i>Bucephala albeola</i>)	No	NI	NI	NI
California wolverine (<i>Gulo gulo luteus</i>)	No	NI	NI	NI
Chace sideband snail (<i>Monadenia chaceana</i>)	Habitat	MIIH	MIIH	MIIH
Crater Lake tightcoil snail (<i>Pristiloma arcticum crateris</i>)	No	NI	NI	NI
Evening fieldslug (<i>Deroceras hesperium</i>)	No	NI	NI	NI
Horned grebe (<i>Podiceps auritus</i>)	No	NI	NI	NI
Johnson's hairstreak (<i>Callophrys johnsoni</i>)	Habitat	NI	MIIH	MIIH
Lewis' woodpecker (<i>Melanerpes lewis</i>)	No	NI	NI	NI
Mardon skipper butterfly (<i>Polites mardon</i>)	No	NI	NI	NI

U.S. Forest Service Region 6 Sensitive Terrestrial Animals				
Species	Species and/or Habitat Present	Alternative		
		1	2	3
Modoc rim sideband snail (<i>Modanenia fidelis</i> ssp. nov)	No	NI	NI	NI
Northwestern pond turtle (<i>Actinemys marmorata marmorata</i>)	No	NI	NI	NI
Oregon spotted frog (<i>Rana pretiosa</i>)	No	NI	NI	NI
Pacific fisher (<i>Martes pennanti</i>)	No	NI	NI	NI
Pacific fringe-tailed bat (<i>Myotis thysanodes vespertinus</i>)	No	NI	NI	NI
Pacific pallid bat (<i>Antrozous pallidus pacificus</i>)	Habitat	MIIH	MIIH	MIIH
Purple martin (<i>Progne subis</i>)	No	NI	NI	NI
Red-necked grebe (<i>Podiceps grisegena</i>)	No	NI	NI	NI
Siskiyou hesperian snail (<i>Vespericola sierranus</i>)	No	NI	NI	NI
Tricolored blackbird (<i>Agelaius tricolor</i>)	No	NI	NI	NI
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	Habitat	MIIH	MIIH	MIIH

U.S. Forest Service Region 6 Sensitive Terrestrial Animals				
Species	Species and/or Habitat Present	Alternative		
		1	2	3
White-headed woodpecker (Picoides albolarvatus)	No	NI	NI	NI
Yellow rail (Coturnicops noveboracensis)	No	NI	NI	NI

Effect Determination Code for Forest Service Sensitive Species

NI = No Impact from the project on the species or its habitat

MIH = The project may impact individuals or habitat, but will not likely contribute to a trend toward federal listing or loss of viability to the population or species

Additional information pertaining to sensitive species can be found in the project record located at the Chiloquin Ranger District.

Table 3 - Effects to Forest Service Sensitive Terrestrial Animals for the Williamson River Cliff Area Environmental Assessment. Chiloquin Ranger District, Klamath County, OR.

Chace Sideband Snail

Existing Condition

The Chace sideband snail is commonly found in, or near rocky areas, talus deposits, and riparian areas. Woody debris are also known habitat. Habitat is associated with oak-mixed conifer in Southwestern Oregon and Northern California. This species is found on Medford BLM, Klamath, Rogue River, Shasta-Trinity and Umpqua National Forests, and suspected to occur on the Winema National Forest. While this species is only suspected to occur on the Winema, there is potential habitat on and around the cliff. No surveys have been conducted.

Analysis of Direct and Indirect Effects

Alternative 1

The rescinding of the closure order would once again allow public access to the entire cliff area including areas above and below the cliff. This could disturb/displace habitat/individuals. Adverse impacts to habitat/individuals could result from unrestricted use due to foot traffic and climbing. These actions may have a negative impact on individuals and habitat. Implementation of Alternative 1 may impact individuals or habitat, but is not likely to cause a trend toward federal

listing or loss of viability to the population or species because of the small area being impacted. There would be minimal negative impacts.

Alternative 2

Permanently closing approximately four acres of the cliff area from FSR 9734 to the base of the cliff would minimize potential disturbance/displacement of habitat, individuals, and potential destruction of individuals from foot traffic. This would benefit habitat and individuals. The vegetation restoration work is not expected to impact individuals or habitat as these areas would generally be outside of the rocky areas, which is preferred habitat. Installing a kiosk, maintaining the existing user created parking area, constructing a trail on either side of the cliff area, and putting barriers and signs to delineate the area of closure are not expected to impact Chace sideband snail habitat or individual snails as the locations would be outside of suitable habitat. The constructed trail could help direct foot traffic away from habitat. Keeping the restoration plan in effect would have the same impacts as Alternative 1. If needed, the adaptive actions of further restricting public access to a larger area or to the entire portion of the cliff area, would also benefit the Chace sideband snail and its habitat by further reducing the disturbance associated with foot traffic. Implementation of Alternative 2 may impact individuals or habitat, but will not likely contribute to a trend toward federal listing or loss of viability to the population or species, because of the small area being impacted, there would be minimal negative impacts, and there would be some beneficial impacts to individuals and habitat by protecting areas from human activities.

Alternative 3

Permanently closing approximately three acres of the cliff from FSR 9734 to the edge of the rim, and having a “No Top-out” policy, would not provide protection for potential habitat at the base of the cliff. Foot traffic and climbing would continue along the bottom of the cliff. This would potentially cause negative impacts to individuals under or behind surface rocks as well as displacing/disturbing habitat or individuals. The proposed trail location is expected to be outside of suitable habitat. There would be no negative impacts to habitat or individual Chace sideband snails, but may have a beneficial effect by decreasing the disturbance area from many user-created trails by directing traffic to developed trails. Installing a kiosk and barriers, placing signs to direct foot traffic, maintaining the existing user created parking area, and implementing adaptive actions would have the same effects as Alternative 2. Implementation of Alternative 3 may impact individuals or habitat, but will not likely contribute to a trend toward federal listing or loss of viability to the population or species because of the small area being impacted, there would be minimal negative impacts, and there would be some beneficial effects to individuals and habitat by protecting areas from human activities and directing foot traffic.

Johnson’s Hairstreak Butterfly Habitat and Use

Existing Condition

This species is also known as the mistletoe hairstreak butterfly because the caterpillars feed on dwarf mistletoe. Adults usually remain in canopy of old-growth and mature western hemlock, red fir, spruce and Douglas-fir forest (Miller and Hammond, 2007). Occasionally they forage nectar on dogwood, Oregon grape, ceanothus and pussy-paws (Pyle, 1981).

Analysis of Direct and Indirect Effects

Alternative 1

There would be no impacts to the Johnson's hairstreak or its habitat because there will be no action under Alternative 1.

Alternative 2 and 3

As part of the adaptive actions, closing or decommissioning FSR 9734 adjacent to and within one mile north of the cliff area would not further impact suitable habitat as the area is already disturbed, but it is expected that it would lessen the disturbance associated with vehicle and foot traffic. Implementation of Alternatives 2 and 3 may impact individual Johnson's hairstreak butterflies or their habitat, but will not likely contribute to a trend toward federal listing or loss of viability to the population or species because of the small area being impacted and there is abundant habitat in the surrounding area.

Pacific Pallid and Townsend's Big-Eared Bats

Existing Condition

Habitat for the Pacific pallid bat is usually associated with brushy, semi-arid terrain including sagebrush and juniper dominated areas as well as open large-diameter ponderosa pine stands (Cross, 1995). This species roosts in large diameter snags and live trees with deep furrowed bark, old buildings, tree hollows, creviced rock outcrops and feeds on the ground (Western Bat Group Workshop, 1998). This species was detected during a bridge survey on the Sprague River in 1994 and 2002 and Wright Spring in 1994. These sites are approximately 6 and 13 miles away from the project area.

No Townsend's big eared bats are known to occur on the Winema NF (Cross, 1995). Townsend's big-eared bats inhabit a wide variety of habitats from old-growth forests to extreme desert. They roost in buildings, caves, mines, rock crevices, and bridges. These bats feed primarily on moths, but will also eat beetles, true bugs, and flies. They capture prey in flight or by gleaning from foliage. Big-eared bats hibernate in winter and are not known to migrate long distances. These bats are very intolerant of human disturbance at either winter hibernacula or summer roosts (Csuti et al. 1997). There is potential Pacific pallid and Townsend's big-eared bat roosting and foraging habitat in the cliff area.

Analysis of Direct and Indirect Effects

Alternative 1

The rescinding of the closure order would once again allow public access to the entire cliff area. This would allow disturbance or displace habitat and or individuals. Adverse impacts to

habitat/individuals could result from unrestricted use due to foot traffic and climbing. Foot traffic and climbing could disturb a rock that a bat may be roosting behind or under. These actions would have a negative impact on individuals and habitat. Implementation of Alternative 1 may impact individuals or habitat, but is not likely to cause a trend toward federal listing or loss of viability to the population or species because of the small area being impacted.

Alternative 2

Permanently closing approximately four acres of the Cliff area FSR 9734 including the rim and to the base of the cliff would minimize potential disturbance/displacement of habitat and individuals including destruction of individuals from foot traffic and climbing on the majority of the cliff/rocky area. The vegetation restoration work is not expected to negatively impact individuals or habitat as these areas would generally be outside of the rocky areas, which would be the preferred roosting habitat. The restoration work is expected to benefit bats by increasing foraging habitat. Installing a kiosk, maintaining the existing user created parking area and putting barriers and signs to delineate the area of closure would not be expected to impact the bats or their habitat as the work would be in already disturbed areas.

Constructing a trail on either side of the cliff area could remove some foraging habitat for pacific pallid and Townsend's big-eared bats, but this is expected to be a minor impact to habitat and individuals as there would continue to be abundant habitat in the surrounding area. Constructing a trail would decrease the area of impacts from many user created routes. Keeping the restoration plan in effect would have the same impacts as Alternative 1. If needed, the adaptive actions would further restrict public access to a larger portion of the cliff area. These actions would benefit pacific pallid and Townsend's big-eared bat habitat and individuals by further reducing the disturbance associated with foot traffic and climbing. Implementation of Alternative 2 may impact individuals or habitat, but will not likely contribute to a trend toward federal listing or loss of viability to the population or species because of the small areas that would be affected, there would be little or no negative impacts, and there would be benefits by limiting human activities in the project area.

Alternative 3

Permanently closing approximately three acres of the cliff from FSR 9734 to the edge of the rim and having a "No Top-out" policy would not provide any protection for potential pacific pallid or Townsend's big-eared bat roosting habitat on or at the base of the cliff. Foot traffic and climbing would continue along the bottom and cliff face, having the potential to disturb any individuals under or behind surface rocks as well as displacing/disturbing habitat or individuals. Some foraging habitat could be removed with the construction of the proposed trail, but it would be outside of suitable roosting habitat, so there would be minimal negative impacts to habitat or individuals. Also, constructing a trail would decrease the area of impacts from many user created routes to a single maintained trail. Putting the kiosk and barriers in, using the adaptive actions, and maintaining the existing, user created parking area would be the same as with Alternative 2. Placing signs to direct foot traffic is not expected to impact foraging habitat and is expected to be outside of roosting habitat, so would not negatively impact individuals or habitat. Implementation of Alternative 3 may impact individuals or habitat, but will not likely contribute to a trend toward

federal listing or loss of viability to the population or species because there would be little or no negative impacts to individual bats or their habitat, because of the small area affected and there would be some benefits by limiting human activities in the project area.

Management Indicator Species (MIS)

Management Indicator Species and their respective habitats serve to show population and habitat trends for other species that use similar forest resources. The northern goshawk is the only MIS species listed in the Winema LMRP that has potential habitat within the project area.

Northern Goshawk

Existing Condition

Northern goshawks are found in mixed-conifer habitats and may also utilize open stands of lodge pole, ponderosa pine and aspen. Mosaic foraging areas include large trees, snags, and down logs interspersed with openings supporting a large range of suitable prey, especially species that are ground dwellers or occur near the forest floor. This species is often found in riparian areas, as the habitat type most likely to support their prey base of small mammals and birds. Nests are usually built in one of the largest trees within 20 – 40 acre dense patches of large old trees. There are no known nests within or near the cliff area.

Analysis of Direct and Indirect Effects to Northern Goshawk

Alternative 1

There would be no impacts to the northern goshawk or its habitat because there will be no action under Alternative 1.

Alternative 2 and 3

As part of the adaptive actions, closing or decommissioning FSR 9734 adjacent to and within one mile north of the cliff area would not impact any suitable habitat as the area is already disturbed, but in the long term, it is expected that it would lessen the disturbance associated with vehicle traffic.

Should a nest be found prior to or during project activities within, adjacent, or near enough that activities could disturb northern goshawks, a district wildlife biologist would immediately be notified and all activities would be halted until a determination can be made. If a goshawk nest is located within 0.25 miles of the project before or during implementation, a 0.25 mile seasonal restriction would be in place from March 1 – August 31, or until a district wildlife biologist can determine if the nest is active. This would occur seasonally over the life of the project. With the seasonal restriction in place, there would be no disturbance effect.

Winema LRMP Important Bird Species

The flammulated owl, great gray owl, and prairie falcon are listed as important bird species in the Winema LRMP. In addition to having potential habitat present, sightings have been documented near the project area.

Flammulated and Great Gray Owl

Existing Condition

The flammulated owl preys almost exclusively on insects and is a neo-tropical migrant. This species is a cavity nester, and is most closely associated with open ponderosa pine, but also nests in mixed coniferous stands dominated by ponderosa pine. The great gray owl nests in mature conifer stands with greater than 60 percent canopy closure, many leaning trees, and much dead and down material. The nest stands are generally within 1000 feet of a natural meadow or man-made openings larger than 10 acres (USFS, 2004). There are no known nests within or near the project area.

Analysis of Direct and Indirect Effects

Alternative 1

There would be no impacts to flammulated or great gray owls or their habitat because there will be no action under Alternative 1.

Alternative 2 and 3

If a seasonal restriction is put in place, there would be no disturbance. Activities under Alternatives 2 and 3 could disturb nesting owls if a nest is close enough to that activity. If a nest is found prior to or during project activities near enough that activities could be a disturbance, a district wildlife biologist would be determine effects before activities would be allowed to resume.

Prairie Falcon

Existing Condition

Common prairie falcon habitat is rim-rock and rock outcrops adjacent to open country. There is a known prairie falcon nest across the Williamson River, approximately one quarter mile from the cliffs. There is nesting, perching and foraging habitat within the project area.

Analysis of Direct and Indirect Effects

Alternative 1

The rescinding of the closure order would allow public access to the entire cliff area. After one year, the main portion of the cliff face and base area having reduced use, increased foot traffic and

climbing could disturb and or displace a falcon and destroy habitat so that this area would no longer be considered as suitable habitat by falcons. Allowing the restoration plan (systematic, detailed mapping; photographic documentation; integrity documentation; significance documentation; surface restoration; surface naturalizing; and monitoring) to remain in effect and removing the remaining bolts left in the cliff could temporarily disturb/displace individuals and destroy habitat as a result of foot traffic and actions associated with climbing. The restoration actions would have a short term negative impact on individuals and habitat.

Alternative 2

Permanently closing approximately four acres of the cliff area from FSR 9734 including the rim and to the base of the cliff would minimize potential disturbance/displacement of habitat and individuals as well as potential destruction of habitat from actions associated with climbing. This would benefit habitat and individuals by restricting human activities on a large portion of the cliff face and surrounding area. Constructing a trail could remove habitat and or temporarily disturb prey species and individual prairie falcons by the activities associated with constructing a trail. However, constructing a trail would decrease the area of impacts from many user-created routes to a single maintained trail, which would benefit prey habitat. Keeping the restoration plan in effect would have the same impacts as Alternative 1. Activities associated with installing a kiosk, the vegetation restoration work, putting barriers and signs to delineate the area of closure, and maintaining the existing parking area could temporarily disturb/displace individual falcons. If needed, the adaptive actions of further restricting public access to a larger portion of the cliff area would also benefit Prairie falcons and their habitat.

Alternative 3

Permanently closing approximately 3 acres of the cliff from FSR 9734 to the edge of the rim and having a “No Top-out” policy would not provide any protection for potential perching or nesting habitat on the cliff as climbing would continue. Climbing could destroy nesting or perching ledges. Climbing and foot traffic could also be a disturbance if a falcon is present. Activities associated with the construction of the proposed trail could temporarily disturb individuals resulting in temporary displacement or abandonment of the area. Impacts of putting the kiosk and barriers in, maintaining the existing parking area, and adaptive actions would be the same as with Alternative 2. Placing signs to direct foot traffic could temporarily disturb/displace any falcon that may be roosting or foraging in the area.

Species of Concern

Bird species from the Partners In Flight (PIF) Conservation Plan and the Bird Conservation Regions that are known to inhabit the Klamath Basin and the Cascade Mountains are the Brewer’s Sparrow, flammulated Owl, Northern Goshawk, and Prairie Falcon. More information for listed land birds of concern can be found in the project record located at the Chiloquin Ranger District. Coastal bird species are not included.

Brewer's Sparrow

Existing Condition

Brewer's sparrow habitat consists of big sagebrush and other shrublands where average canopy height is less than five feet. There is nesting and foraging habitat for the Brewer's sparrow within the project area.

Analysis of Direct and Indirect Effects

Alternative 1

The rescinding of the closure order would once again open the area up to increased activity above and below the cliff. This could disturb habitat and displace individuals as well as destroy habitat if the public removes vegetation to improve/maintain the user created routes as has occurred in the past. There is also potential for nests to be destroyed. Allowing the restoration plan (systematic, detailed mapping; photographic documentation; integrity documentation; significance documentation; surface restoration; surface naturalizing; and monitoring) to remain in effect and removing the remaining bolts left in the cliff could temporarily disturb/displace habitat and/or individuals as well as destroy nests that may be present in the underbrush. These actions would have a short-term negative impact on individuals and habitat; however there is abundant nesting and foraging in the surrounding area. Part of the restoration plan limiting vehicle access to the rim and site would have a positive impact by reducing vehicle traffic, resulting in less disturbance/displacement and/or potential loss of individuals and or habitat.

Alternative 2

Permanently closing approximately four acres of the Cliff area from FSR 9734 to the base of the cliff would minimize potential disturbance/displacement/destruction of habitat and/or individuals as a result of decreased foot traffic. This would protect habitat and individuals. The vegetation restoration work would benefit the Brewer's sparrow by increasing future nesting and foraging habitat. Installing a kiosk, maintaining an existing parking area, and putting barriers and signs to delineate the area of closure is not expected to impact the Brewer's sparrow or its habitat because the locations would be in an already disturbed area. These actions would further protect Brewer's sparrows and their habitat by restricting human activities. Constructing trail on either side of the cliff area could temporarily displace individuals and or remove habitat and disturb or destroy a nest, however constructing a trail would decrease the area of impacts from many user created routes to a single maintained trail. Keeping the restoration plan in effect would have the same impacts as Alternative 1. If needed, the adaptive actions of further restricting public access to a larger portion of the cliff area would also benefit the Brewer's sparrow and its habitat because there would be less foot traffic.

Alternative 3

Permanently closing approximately three acres of the cliff area from FSR 9734 to the edge of the rim and having a "No Top-out" policy would provide some protection of nesting and foraging habitat above the cliffs, but would not provide any protection for habitat at the sides or the base of

the cliff. Foot traffic and climbing would continue along the bottom so there would be the potential to disturb, displace, or destroy habitat and any nests that are in the brush or near the ground. Activities associated with construction of the proposed trail could disturb/displace or destroy habitat and individuals by clearing out the brush, however centralizing a trail is expected to decrease the area of impacts by providing a single, well maintained alternative to the current user created routes. The impacts for putting the kiosk and barriers in would be the same as with Alternative 2. Placing signs to direct foot traffic could temporarily disturb or displace individuals, but would help to minimize the area impacted by foot traffic.

Klamath Tribes Species of Concern

Because Chiloquin District is comprised mainly of lands that were formerly Klamath Indian Reservation lands, the Tribes' concerns for managing the forest are considered whenever actions are proposed on lands within the former reservation boundary. As part of the process, a list of wildlife species that the Tribes consider important as part of their heritage and as treaty resources was developed. These are the species known by the Forest Service to be of interest to the Klamath Tribes at this time. Other species may be of interest to the Tribes that the Forest Service is unaware of.

Blue Grouse and Western Tanager

Existing Condition

The habitat of Blue Grouse is coniferous forest and grass/shrublands near forest edges. Dwarf-mistletoe brooms in Douglas-/subalpine fir are often used for thermal protection. This species may also roost under snow in winter. Blue Grouse seasonally forage on arthropods, conifer seeds/needles/stems/buds, forbs and berries. The Western Tanager occupies open coniferous forests and mixed conifer-deciduous woodlands, especially Douglas-fir and ponderosa pine. This species avoids dense forest and non-forested areas. The Western Tanager is an opportunistic forager of insects, but may eat fruits and berries when available. There is potential nesting, roosting, and foraging habitat within the road decommissioning part of the project area.

Analysis of Direct and Indirect Effects

Alternative 1

There would be no impacts to the blue grouse and western tanager or their habitat under Alternative 1 because no activities would occur within existing habitat areas.

Alternative 2 and 3

As part of the adaptive actions, closing or decommissioning FSR 9734 adjacent to and within one mile north of the cliff area would not impact any suitable habitat. Foot traffic could cause some disturbance but there would be reduced contact with vehicles. Overall impacts would be

immeasurable.

Black Bear, Bobcat, Coyote, and Mountain Lion

Existing Condition

Black bears inhabit forested areas, particularly in vicinity of water. They tend to select early seral, brushy habitats and will also utilize wet meadows in spring and early summer. They seasonally forage on new grass and forbs, tree cambium, insects in rotting logs, acorns, nuts, berries, and occasionally eat fish, carrion or newborn ungulates. This species is dormant in dens under stumps or logs, or in other holes, usually well hidden by brush, from approximately October/November – March/April.

Bobcats inhabit all habitats except intensively cultivated lands and high altitudes where deep snow may exist. This species is more common in early successional stages where understory is dense and prey abundance is greatest. The most critical feature of habitat is ledges, or bogs, and proximity to escape cover. They prey on a variety of small mammals and birds.

The coyote is nearly ubiquitous in Oregon. Habitats range from grasslands and shrub-steppe to boreal forest, from wilderness to urban areas. This is generally an edge species not found in mature forests. Coyotes have a seasonal diet of rodents, rabbits, fruits, insects, deer and carrion.

Mountain lions range over broad areas and disperse long distances. This species is usually found in remote forested areas and often in dense vegetation, especially in winter. Mountain lions have a preference for mixed conifer and curly leaf mountain mahogany vegetation and steep, rugged terrain. They hunt prey from concealment. Prey species include deer, elk, porcupines, and small mammals. There is foraging habitat for these prey species within the project area. Mountain lions generally avoid areas with human impacts.

Analysis of Direct and Indirect Effects

Alternative 1

The rescinding of the closure order would once again open the area up to increased activity above and below the cliff. This could displace individuals as well as destroying habitat by the public removing it to improve/maintain the user created pathways. Allowing the restoration plan to remain in effect and removing the remaining bolts left in the cliff could temporarily disturb/displace prey habitat and/or individuals during the activities. These actions could also displace the individual predators, however, since black bears, bobcats, coyotes, and mountain lions all utilize a wide variety of habitat types and range over large areas, it is expected that the project area is not regularly visited, so there would be minimal impacts to individuals. Part of the restoration plan limiting vehicle access to the rim and site would have a positive impact by reducing foot traffic, resulting in less disturbance or displacement.

Alternative 2

Permanently closing approximately four acres of the cliff area from FSR 9734 to the base of the cliff would minimize potential disturbance/displacement/destruction of prey species habitat and/or disturbance of individual bears, bobcats, coyotes, or mountain lions as a result of decreased vehicle and foot traffic in the closure area. This would benefit habitat and individuals. Foot traffic and climbing would continue so there would continue to be the potential to disturb, displace, or destroy prey species habitat as well as disturb/displace any bobcat, bear, mountain lion, or coyote that might be in the area. The vegetation restoration work would benefit the black bear, bobcat, coyote, and mountain lion by increasing prey species habitat as well as hiding cover for the predators. Installing a kiosk, maintaining the existing parking area, and putting barriers and signs to delineate the area of closure is not expected to impact the black bear, bobcat, coyote, or mountain lion or its habitat because the location would be in an already disturbed area. These actions would further lessen the disturbance to bobcats, black bears, coyotes, and mountain lions and their habitat. Constructing a trail on either side of the cliff area could remove some prey species habitat; however constructing a trail would decrease the area of impacts from user created trails by providing a more centralized alternative to the user created trails. Keeping the restoration plan in effect would have the same impacts as Alternative 1. If needed, the adaptive actions of further restricting public access to a larger portion of the cliff area would also benefit the predators as well as the prey species because there would be fewer disturbances from vehicle and or foot traffic.

Alternative 3

Permanently closing three acres of the cliff area from FSR 9734 to the edge of the rim and having a “No Top-out” policy would provide some protection to predator and prey species habitat above the cliffs, but would not provide any protection for habitat on the sides or at the base of the cliff. Foot traffic and climbing would continue so there would continue to be the potential to disturb, displace, or destroy prey species habitat as well as disturb/displace any bobcat, bear, mountain lion, or coyote who might be in the area. Because black bears, bobcats, coyotes, and mountain lions all utilize a wide variety of habitat types and range over large areas, it is expected that the project area is not regularly visited and there is abundant habitat in the surrounding landscape, so it is expected there would be little to no impact to black bears, bobcats, coyotes, and mountain lions as a result of the activities associated with this alternative. Activities associated with construction of the proposed trail could disturb/displace or destroy prey species habitat and individuals by clearing out the brush, however centralizing a trail is expected to decrease the area of impacts by providing a single well maintained trail as opposed to the current user created routes. Impacts of placing the kiosk and barriers, and maintaining the existing parking area would be the same as with Alternative 2. Placing signs to direct foot traffic could temporarily disturb or displace prey species and predators.

Mourning Dove

Existing Condition

Likely habitat for Mourning Doves is open woodland to desert, near water. This species is abundant in grass, shrub, juniper-steppe, and agricultural areas, and less abundant in open

ponderosa pine forests, suburban and urban areas. They tend to frequent edges where trees are present. Mourning Doves are ground feeders, 99% of their diet is seeds. There is nesting, roosting, and foraging area within the project area.

Analysis of Direct and Indirect Effects

Alternative 1

The rescinding of the closure order would once again open the area up to increased activity above and below the cliff. This would allow for increased public access potentially resulting in the disturbance of individuals and the loss of foraging habitat by the public removing it to improve/maintain the user created pathways. Allowing the restoration plan to remain in effect and removing the remaining bolts left in the cliff and putting in new hardware could temporarily disturb and or displace individuals during the activity. There is abundant habitat on the surrounding landscape, so these actions would have minimal impacts to the morning dove or its habitat.

Alternative 2

Permanently closing approximately 4 acres of the cliff area from FSR 9734 to the base of the cliff would minimize potential loss of habitat and/or disturbance of individual mourning doves as a result of decreased foot traffic. This would benefit habitat and individuals. The vegetation restoration work would benefit the mourning dove by increasing foraging habitat. Installing a kiosk, maintaining an existing parking area, and putting barriers and signs to delineate the area of closure, is not expected to impact the mourning dove or its habitat because the location would be in an already disturbed area. These actions would further lessen the disturbance to mourning doves and their habitat. Constructing a trail on either side of the cliff area may remove some foraging habitat as well as temporarily disturbing or displacing individuals; however constructing a trail would decrease the area of impacts from user created routes by providing a single maintained trail. Keeping the restoration plan in effect would have the same impacts as Alternative 1. If needed, the adaptive actions of further restricting public access to a larger portion of the cliff area would also benefit the mourning dove and its habitat because there would be less human activities in the area. As part of the adaptive actions, closing or decommissioning FSR 9734 adjacent to and within one mile north of the cliff area would not impact any suitable habitat as the area is already disturbed.

Alternative 3

Permanently closing approximately three acres of the cliff area from FSR 9734 to the edge of the rim and having a “No Top-out” policy would provide some protection to foraging habitat above the cliffs, but would not provide any protection for foraging habitat and hiding cover on the sides and at the base of the cliff. Foot traffic and climbing would continue so there would continue to be the potential for disturbance, displacement of individuals or loss of foraging habitat and hiding cover as well as the destruction of potential nests that might be on bushes or in crevices in the cliff face. Activities associated with construction of the proposed trail could disturb/displace or

destroy nesting and foraging habitat or nests by clearing out the vegetation, however centralizing a trail is expected to decrease the area of impacts by providing a better alternative to the current user created routes. Impacts of placing the kiosk and barriers, and maintaining an existing parking area would be the same as with Alternative 2. Placing signs to direct foot traffic would have little to no impact to the mourning dove or its habitat as the signs would be very small and placed in the ground.

Mule Deer and Elk

Existing Condition

Mule deer occupy a wide range of habitat types. In general, they occupy more open but rugged areas. Fawning areas follow snowmelt, and are characterized by a dense shrub layer (near 40 percent), typically found on productive north slopes with less than 5 percent juniper cover (Miller, 1999). Forbs compose up to 50-75 percent of their summer diet, but only 10 percent in the winter. In winter, deer browse the new growth on twigs from plants with high fat content such as sagebrush, rabbit-brush, juniper, and bitterbrush and mountain mahogany. Mule deer winter range habitat is generally in the valley bottoms below 4500 feet, and usually includes big sagebrush, curly-leaf mountain mahogany, bitterbrush and some ponderosa pine.

Elk require a mosaic of early, forage producing stages and later, cover-forming stages of forest in close proximity. Diets in summer are almost evenly divided between grasses and sedges, forbs, and woody plants, with grasses being consumed more in the early summer, and forbs or browse species being consumed extensively in late summer. In winter, ponderosa pine can be up to 65 percent of their diet, but more normally sedges and grasses are in high proportions, and shrubs contribute relatively little to elk diets in winter. Approximately 90 percent of elk foraging areas occur within about 400 feet of cover that is sufficient to hide 90 percent of a standing elk at about 200 feet.

The proposed project area is considered to be summer range. There is no known calving or fawning areas within the project area.

Analysis of Direct and Indirect Effects

Alternative 1

The rescinding of the closure order would once again open the area up to increased activity above and below the cliff. This would allow for increased public access potentially resulting in the disturbance of individuals and the loss of foraging habitat and hiding cover by the public trimming or removing vegetation to improve/maintain the user created routes. Allowing the restoration plan to remain in effect and removing the remaining bolts left in the cliff could temporarily disturb and or displace individual deer and elk during the activity. Because there is abundant habitat on the surrounding landscape; these actions would have minimal impacts to mule deer or elk or their habitat. Part of the restoration plan limiting vehicle access to the rim and site would have a positive impact by reducing vehicle traffic, resulting in less manipulation and removal of foraging and hiding cover.

Alternative 2

Permanently closing approximately four acres of the cliff area from FSR 9734 to the base of the cliff would minimize potential loss of habitat and/or disturbance of individual deer and elk as a result of decreased vehicle and foot traffic in the closure area. This would benefit habitat and individuals. The vegetation restoration work would benefit the mule deer and elk by increasing foraging and hiding cover providing a small area of refugia from the climbing and recreational activities on the east and west sides of the cliff area. Installing a kiosk, and putting in rock barriers and signs to delineate the area of closure, is not expected to impact the mule deer or elk because the location would be in an already disturbed area. These installations would further lessen the disturbance to mule deer, elk and their habitat. Constructing a trail on either side of the cliff area could remove some foraging habitat and hiding cover, as well as temporarily disturbing or displacing individuals; however constructing a trail would decrease the area of impacts from the many user created routes by providing a single maintained trail. Keeping the restoration plan in effect would have the same impacts as Alternative 1. If needed, the adaptive actions of further restricting public access to a larger portion of the cliff area would also benefit deer and elk and their habitat because there would be less human activities in the area.

Alternative 3

Permanently closing approximately 3 acres of the cliff area from FSR 9734 to the edge of the rim and having a “No Top-out” policy would provide some protection to foraging habitat and hiding cover above the cliffs, but would not provide any protection for habitat on the sides or at the base of the cliff. Foot traffic and climbing would continue so there would continue to be the potential of loss of hiding cover and foraging habitat. Activities associated with construction of the proposed trail could disturb/displace individuals or remove hiding cover and foraging habitat by clearing out the vegetation, however centralizing a trail is expected to decrease the area of impacts by providing a single maintained trail as opposed to current situation of many scattered user created routes. The effects of placing the kiosk, barriers and signs to delineate the closure, and maintaining an existing parking area would be the same as with Alternative 2. Putting signs to direct foot traffic could temporarily disturb/displace individuals, but would not impact habitat as the signs would be small and limited in number.

Cumulative Effects Common to All Action Alternatives

Past, present, and on-going activities that have occurred near the Williamson River Cliffs project include: timber harvest, motor vehicle and horse traffic, hiking, and climbing of the cliff face. None of the past, present, on-going activities along with the proposed action would contribute any additional cumulative effects to any of the species discussed above. There are no future activities that would contribute to cumulative effects.

Snag and Down Wood Requirements

Alternative 1

No snags or trees would be removed for any of the proposed activities within the cliff portion of the project area, unless for safety reasons, a tree/snag is deemed a hazard.

Alternative 2 and 3

No snags or trees would be removed for any of the proposed activities within the cliff portion of the project area, unless for safety reasons, a tree/snag is deemed a hazard.

As part of the adaptive actions, closing or decommissioning FSR 9734 adjacent to and within one mile north of the cliff area would not impact any snag or down woody material as the area is already disturbed, but in the long term, if the road is closed, it is expected that it would lessen the concern for hazard tree identification and felling. If the road would be decommissioned, this could provide for future snags as the vegetation recovers.

If possible, fell any hazard trees or snags outside of the road prism, away from the road and leave to provide down woody material. As directed in the Winema LRMP, “Class I and II logs shall be left to maintain dead and down woody material habitat.” This material shall be left in the following numbers and size classes by working group: ponderosa pine – two or more logs per acre; twelve inches or greater at the small end, greater than eight feet long; lodgepole pine – ten or more logs per acre, six inches or greater diameter at long end, greater than eight feet long.

Other Raptors and Colonial Nesting Birds

Active roost and nest sites, including rookeries, are protected from disturbing human activities during their respective nesting seasons. There are no known raptor nests or rookeries within or adjacent to the project area.

Soils and Hydrology

Introduction

Williamson Cliffs is a flat lava flow with an abrupt cliff face, which is suitable for climbing, and overlooks the Williamson River. Colluvial materials cover a sedimentary layer under the lava flow. Where the general project area is closest to the Williamson River, below the cliff face and adjacent loose rock and soil, the materials are of mixed rock. No intermittent drainages, season long or seasonal streams occur within the project analysis area.

Existing Conditions

The soils, according to the 1979 Soil Resource Inventory are Mapping Units D1/D2. These soils formed on top of the cliff in excessively drained fine volcanic ash deposits with a 0 to 5 percent

slope. Mapping Unit 5 is located on the steep climbing face with slopes greater than 50 percent (Carlson, 1979). Soils in this unit are also excessively drained. A customized general soils map with interpretations was developed from Natural Resource Conservation Service data which confirms the description of the soils provided below (USDA , 2010).

Areas of local soil compaction, displacement, and reduced soil bio physical properties occur on top and below the cliffs. The exact extent of the soils disturbance has not been quantified. Observations during field visits note that reduced vegetative cover on top of the cliff has caused adverse effects to soils and user-created trails have caused local erosion of steep slopes between cliff sections. However, sediment does not reach any ephemeral, intermittent or perennial channel.

Analysis of Direct and Indirect Effects to Hydrological Resources

Common to All Action Alternatives

There would be no direct or indirect effects to the hydrologic resources of the Williamson River Cliff Area for any alternatives described in this document. Precipitation generally seeps directly into the ground through the excessively drained soils. The lower end of the climbing area is approximately 1000 feet from the Williamson River, and the project analysis boundary is about 500 feet from the river. The project area is not within any riparian areas, as no intermittent or ephemeral channels have been identified in the area nor is there hydrologic connection to the Williamson River. Generally, soil impacts associated with compaction, displacement, puddling, or potential for severely burned soils increase erosion but are not expected to be a problem with this action. Soil impacts in the cliff area are not likely to lead to sediment delivery into the Williamson River.

Analysis of Direct and Indirect Effects to Soil Resources

Alternative 1 (No Action)

Opening the Williamson River Cliff Area to public use after rescinding the closure order would result in recreational use in the area. As a result of continued use, soils processes would be hampered due to reduced vegetative cover and increased soil compaction. Localized erosion on the cliff face would continue.

Alternative 2 (Proposed Action)

Limiting public access in the proposed closure area would reduce the heavily used area by four acres and would increase the ability of natural soils processes to proceed in the closure area. There would be no negative direct or indirect effect on soil processes in the closure area. By confining access to the base of the cliff to trails, soil productivity would improve through reduced human traffic. Soil processes would continue to function and locally improve. Shrub density,

grass density, and vigor would improve with consequent improvement in the nutrient status and soil structure conditions. Numerous user-created trails on top, through, and below show signs of soil erosion. These user-created trails, when eliminated, would decrease potential for soil erosion.

Access would be directed to proposed trails thus minimizing soil compaction and soil erosion. The most user-created trails in the area would be allowed to recover through natural processes and through restoration efforts where needed. User-created routes would continue along the top of the cliff in the east and west portions open for climbing; however, the number of new user-created trails is expected to be reduced through education. To minimize erosion and impacts to soils, proposed trails are located along the most obvious routes. Constructed trails generally have a six foot wide affected area with the tread width of four feet. The amount of compacted soils caused by proposed trail construction under Alternative 2 would be .02 acre (600 feet of trail with a four foot tread width). Areas with heavily impacted soils would be reduced by implementing the proposed closure area and directing foot traffic to designated trails. Some small short term loss of soil functions could occur as a direct result of trail construction, however in the long term, soil functions would improve. Restoration work consisting of re-vegetating denuded areas and user defined trails would improve the ability of soil processes to function, although not by a substantial or easily measureable amount. Allowing use outside of the proposed closure area would have a minimal impact to soils and soil processes would continue to function. There would be limited negative direct or indirect effects on soil processes under Alternative 2.

Under Alternative 2, placement of a kiosk in the project area was proposed to educate and inform visitors. Installation of the kiosk or any other signage would have no measureable negative direct or indirect effects on soil properties.

Road use on FSR 9734 is not expected to increase and road maintenance would continue to reduce erosion effects from use.

Overall, it is anticipated that under Alternative 2, the soil resource values would be improved and protected to a greater degree than the existing condition (Alternative 1) through increased management of the present use. The four acre proposed closure would reduce use within the area. In the area surrounding the proposed closure, the traffic would be directed to the designed trails, reducing soil disturbance while still allowing rock climbing. Trail maintenance and repair would continue these beneficial effects.

Alternative 3 (No Top-out Policy)

All trails associated with this project would be constructed to Forest Service standards and guidelines with a tread width of four feet, which is identical to the east and west access trail proposed in Alternative 2. The affected width is considered six feet including one foot of vegetation brushing on each side of the trail. Where the trail tread is built, the soil productivity would be lost. The “no top-out” policy would improve soil productivity in the high use area above the cliff by limiting use. Human activity in the proposed three acre closure area would be reduced which would result in a slight positive improvement of soil productivity rates.

Immeasurable erosion would continue due to human activity on the cliff face below the proposed closure area.

Overall, it is anticipated that in Alternative 3 the soil resource values would be improved and protected to a greater degree than the existing condition (Alternative 1) through increased management of the existing use. The three acre proposed closure would reduce human use in the heavily impacted area. In the remaining acres the foot traffic would be directed to the constructed trails, reducing soils disturbance off trail, while still allowing rock climbing. Constructed trail length would increase compared to Alternative 2. Performing trail maintenance and repair would prolong the beneficial effects. See table 5 for a comparison of the alternatives.

Cumulative Effects to Soil and Hydrological Resources Common to All Action Alternatives

Impacts of past and continuing recreation activities have been described in the direct and indirect effects section. The amount of area impacted by foot and off road motorized vehicles would be reduced because of foot trail construction to access the base of the cliff and implementation of the Forest's travel management plan and Motor Vehicle Use Map (MVUM). There are no other ongoing actions in this area and no reasonable foreseeable actions are proposed. There will be no cumulative effects associated with other actions. The lack of hydrologic connectivity makes it unlikely that erosion generated from the cliff site would contribute any measurable detrimental contribution to water quality with other activities on private lands or National Forest System lands in the Williamson River drainage.

Heritage Resources

Introduction

The National Historic Preservation Act (NHPA) applies to all properties listed on the National Register, to properties formally determined eligible to be on the National Register, and to properties not formally determined eligible, but that meet specified eligibility criteria.

Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties, and to afford the Advisory Council on Historic Places (ACHP) a reasonable opportunity to comment on such undertakings. The NHPA requires federal agencies to seek comments from the public, Oregon State Historic Preservation Office (SHPO) and Indian Tribes. The purpose of Section 106 review is to avoid unnecessary harm to historic properties from federal actions. The statute requires full consideration of preservation values by federal agencies with the intent to balance preservation with the projected benefit of an undertaking. Section 106 of the NHPA provides a procedure for insuring that the requirements of the act are fulfilled. The NHPA is a procedural statute; it requires consideration of the effects of

an undertaking on eligible resources and does not require preservation in every case. Solutions resulting from the Section 106 review process can range from complete protection to destruction of a property. If the decision maker determines that it is in the public interest to sacrifice a historic property to the needs of the proposal, such an action is not prohibited by the NHPA.

Basically, if an undertaking could change the characteristics that qualify the property for inclusion in the National Register, for better or for worse, it is considered to have an effect. For the purpose of determining effects, alteration to features of a property's location, setting, or use may be relevant depending on a property's significant characteristics, and should be considered. If the undertaking could diminish the integrity of such characteristics, it is considered to have an adverse effect.

The Forest Service has determined that the proposed action constitutes an undertaking. The proposed undertaking responds directly to the issues under Forest Service jurisdiction related to the protection of these properties. The Klamath Tribes have been consulted in accordance with the NHPA Section 106 and memorandum of agreement.

The effects to components of the living culture are analyzed below. These components include the setting (physical setting including aesthetics/scenery), traditional uses (plant gathering, spiritual activities, and solitude), and access.

Existing Conditions

Cultural Resources

A cultural resource is located within the WRCA project area. The recorded and significant cultural resources are sacred sites to the Klamath Tribes. Cultural resource inventories and monitoring were conducted in the WRCA project area during the summers of 1993, 1995, 1996, and 2005-2010. A total of 100 acres have been adequately surveyed, representing 100 percent of the planning area. Surveys were conducted at the intensive level, consistent with Oregon SHPO standards for 100 percent coverage, for the area of potential effect. Because of extensive damage, a restoration plan was developed in 2005 in consultation with the Klamath Tribes. The plan consisted of the following actions: systematic detailed mapping; photographic documentation; integrity documentation; significance documentation; surface restoration and naturalizing; limiting vehicle access to the rim, and monitoring. Action items from that plan have been completed and monitoring prescribed in the plan has been completed each year. This annual intensive monitoring has revealed that over 50 percent of the cultural features have been either damaged or removed. Most of the cultural features suffered an irreplaceable loss, since the cultural features are no longer present.

Living Culture

Access is available to the site via FSR 9734 and a user created foot trail from above the cliff area down slope to the bottom of the cliff. Access is important, for without reasonable access the area is not available for use, particularly by tribal elders.

The Williamson River Cliff area represents a cultural landmark from time immemorial. Traditions involving the WRCA have been brought with the Klamath Tribes into modern times. The characteristics of this site that lend value and significance to the Klamath include its location on the landscape and uses. The setting is near and above Williamson River; its juxtaposition is in clear view of major peaks. Traditional activities practiced in present day include gathering plants and spiritual endeavors. The opportunity for solitude (lack of intrusion and quiet) is a key component of spiritual activities.

The distant landscape view is relatively unchanged to the unassisted eye. Peaks are easily visible on clear days and modifications to their appearance are not generally discernible. Within the mid range view from the WRCA, settlement and management activities can be seen and have modified the natural setting and are easily noticed by forest visitors. These include power lines with right of way clearing, a gravel pit, timber harvests, road construction, and community development.

Increased modern use has affected the tranquil setting of the area. Public use of the area by sightseers, rock climbers and others detract from the secluded prehistoric setting of the cultural resource. Historic and modern land development and recreational uses have introduced modern human presence and related activities into this traditionally sensitive setting.

Noise from modern uses include vehicle traffic from Highway 97 and FSR 9734, periodic trains in the canyon, and people pursuing recreation and forest management activities. The site's solitude is disturbed when people use the area for activities such as camping, rock climbing, photography, horseback riding, and OHV riding. Forest Service employees also access the area for management activities including site monitoring, compliance checks, and forest management duties.

Since the late 1950s and early 1960s, the WRCA has been an area for recreational rock climbing enthusiasts. The first written records of climbing taking place in this area are from local Klamath Falls climbers from the early 1970's. The Forest Service first became aware that local climbers had established unapproved, bolted routes in 2005. Since then, the unauthorized routes have been expanded to include many more bolted routes.

Within the WRCA project area, a two track native surface road has been established adjacent to FSR 9734, vegetation cut, a braided trail system established between the road and cliff area, and fixed anchors installed along the cliff edge and face. The numerous, unrestricted vehicle pull-outs leading to the rim's edge have modified and therefore, adversely affected the setting, feel and association of the area. The vehicle pull-outs have created a permanent modification to the vegetation component. The vehicle pull outs were closed in 2007 by placing boulders along FSR 9734, but has not been a complete deterrent to ATV and motorcycle use. In 2010, closure signs were installed to notify people of the forest closure order affecting the area and monitoring in that year found that more vegetation had been cut within the closure area.

Monitoring information defining the number of interactions between traditional practitioners and the public is not available. This information would be difficult to collect because of the sensitive nature of the pursuit of spiritual experiences by the Klamath traditional practitioners. Respect for the living culture expressed in these practices discourages pursuit of this information.

Existing analysis documented in the cultural resource record and monitoring reports states that the current condition of the WRCA is such that essential features are clearly recognizable and relevant relationships survive. Despite effects on its physical condition and setting, it continues to evoke cultural significance and spiritual importance. In the Klamath view, certain ongoing effects resulting from recreational use can be corrected so that the property retains its integrity. The WRCA is considered to be a cultural and spiritual area that has sustained itself even with the damages from recreational users. If the site is allowed to continue to degrade, however, on-site damage would impact the natural setting such that cultural and spiritual values would be lost.

Analysis of Effects

Alternative 1 – No Action

Direct & Indirect Effects

Cultural Resources

Impacts to cultural resources under the No Action Alternative would be expected to continue and degrade the resource, because the closure order would be rescinded and the public would be allowed to access the entire area with no restrictions. Based on numerous years of monitoring, the expectation of cultural resource damage is high.

Living Culture

Under the No Action alternative, recreational use of the whole site would continue. Unrestricted or uncontrolled access would result in the highest probability of the three alternatives that the setting of the project area would continue to be altered. Braided trails would remain in place or expand through unconstrained access, impacting the aesthetics of the setting. The natural setting would not reflect conditions conducive to support traditional spiritual activities. Degradation could reach the point that the site no longer provides cultural uses. Plant gathering activities practiced by the Klamath would likely be affected and spiritual activities and pursuit of solitude would likely continue to be impacted by public uses at current or higher levels. The presence of persons in the area could interrupt spiritual activities during a chance encounter.

Recreationists' conversations also contribute to the generation of noise. While these conversations are not a dominant noise source in the area, current noise levels affect use by the traditional Klamath practitioners and detract from the feel and association of the area, as the traditional uses are intended to occur during serene and tranquil periods. Horseback

riding and motorized vehicles contribute to the generation of noise and these activities can be the dominant noise source in the area.

The loss of additional cultural resources within the WRCA would further degrade the traditional and sacred significance to the Klamath Tribes. It is often the case that when large portions of cultural resources are lost the context and relationship to other cultural resources become diminished or lost. Such an outcome could occur to the Williamson River and Gorge area should loss of cultural resources continue.

Access would remain unchanged from the current situation, which would allow convenient access to the cliff area by all tribal members.

Alternative 2 – Proposed Action

Direct, Indirect and Cumulative Effects

Cultural Resources

Alternative 2 provides actions intended to decrease the risk of further adverse effects to cultural resources. The closure order around the cultural resource site would become permanent, therefore prohibiting recreational access into the closed area. Traditional practitioners within the Klamath Tribes would not be restricted from accessing the site and exercising traditional and cultural uses of the area.

Designated trails would be constructed and marked for the public to access areas open to public use. The trail construction would be designed to avoid cultural resources and monitored by qualified personnel, therefore there would be no effects. The new trail would improve access, which may increase use of the area. This increase in use could further increase the risk of violation of the closure order, which could adversely affect the cultural resources.

Construction of the information kiosk would provide education for the public about cultural resources. The education component provided by the kiosk would assist in enhancing the public's sensitivity and understanding of the importance and protection of cultural resources and their significance. The kiosk construction would be designed to avoid cultural resources and during installation would be monitored by qualified personnel; there would be no adverse effects to cultural sites.

There is a potential for adverse effects to occur if people do not adhere to the closure order. Full time monitoring or fool-proof barriers are not feasible to protect the site. The likelihood of impacts would be reduced by directing users away from the site through signing, limited barriers, and alternate developed trails in combination with the education component provided by the kiosk.

To determine the effectiveness of the closure area, the cultural resource would receive annual effectiveness monitoring to determine if cultural resources continue to receive damage or disturbance resulting in further adverse effects. Annual monitoring in 2010 found that the closure order had not been respected. Additional vegetation had been removed and fixed anchors installed on the cliff edge. Under the adaptive approach, if monitoring reveals continued adverse effects then additional restrictive measures would be implemented to prevent further damage to the cultural resource. The frequency of monitoring and enforcement actions may be increased the first two years until the level of violations decline and the risk to living culture and site features is acceptable. It is expected that the incidence of closure violations would decline over time with education and enforcement.

Alternative 2 would help to decrease the risk of further damage and adverse effects to the cultural resources below the level described for the no action alternative. By providing for avoidance of impacts to cultural resources and with public compliance with a permanent closure area, there would be no direct or indirect effects to the cultural resource. Therefore there would be no cumulative effects from this action. The Forest Service archaeologist has determined that there would be no adverse effect on the cultural resource under Alternative 2. This determination is based on adherence to the alternative as proposed. The Oregon SHPO has concurred with this determination.

Living Culture

Under the proposed action no changes would occur to the distant or middle ground view shed. Permanent designation of the four acre closure area would reduce physical intrusions by people compared to the no action alternative. Access outside the closure area would continue, including climbing routes east and west of the closure area. The potential for noise and physical intrusions to disturb tribal members exercising traditional practices would be lower than the no action alternative but still exist since much of the WRCA would remain open to public use and access.

Restricted use would lead to fewer associated impacts inside the closure area such as user created trails and alteration of native vegetation. Combined with the re-establishment of native vegetation, the scenery in the foreground would recover through natural process. Consequently, the setting would improve for traditional users.

Use displaced from the closure area would be directed to established trails with signs, located just outside the closure boundaries. Reconstruction or relocation of established trails to meet Forest Service standards would improve the access between the top of the cliff, the base of the cliff and the Williamson River. Focusing use with the construction of new trails would reduce the likelihood people would use past routes or create their own trails. This practice has been demonstrated to be effective in other areas (pers. comm., Climbing Conference 2010). Improved recreational access could increase the chance of disturbance to traditional practitioners through noise or presence.

Installation of an information kiosk would be noticeable but would be constructed of materials similar to those found in the surrounding landscape in order to not detract from the natural setting. Education and increased understanding by forest users who read the regulatory, interpretive, and educational information presented on the kiosk would contribute to the reduced likelihood that the closure area would be ignored and tribal members exercising traditional practices disturbed.

To monitor the effectiveness of this alternative, Forest Service management actions would include site feature monitoring at least once per year, random patrol by law enforcement officers, and inspection of management efforts including re-vegetation efforts, weed control efforts, and kiosk maintenance. A short-term effect on the feel and association occurs when individuals enter the cultural resource area. However, the short-term effect on the setting, feel and association of the WRCA would be outweighed by the long-term benefit to the property from management activities in all action alternatives.

Continued resource degradation of the project area cultural features revealed by monitoring would result in adaptive actions that would lead to mixed effects on the Klamath living culture as exercised by traditional practitioners:

- Closure of a larger area (up to the planning area shown in Figure 3, page 12) would reduce the area open to public use. The resulting reduced access would also reduce impacts to the setting and the experiences of tribal members exercising traditional practices. Access to the cliff area would not be affected for traditional practitioners.
- The possible establishment of a permit system for visitors, either individually or under special use permit for commercial operations, would increase the management controls and education opportunities for reaching users. These increased opportunities for education and control would be expected to reduce impacts to living culture.
- If monitoring revealed that violations of a larger closure area continued to occur due to vehicle access into the area, road decommissioning would be completed. Decommissioning FSR 9734 would also reduce vehicle access by tribal members who would want to pursue traditional practices at WRCA. Tribal members would have to access the area without a vehicle, which would present a hardship to elders.

The cumulative effects analysis for the living culture resource is bound spatially by the viewshed surrounding the cultural resource site on the cliff top. The temporal bounds include activities that have occurred since the settlement of European man. Past and current activities that contribute to the effects on the living culture associated with the WRCA include settlement, power line construction and right of way maintenance, timber harvesting, railroad grades (later converted to the current road system), and recreation. Past and current activities impact the setting by altering visual resources associated with the project area, primarily in the mid-ground view shed.

Recent and current public use activities that have affected the foreground include camping, OHV riding, hiking, horseback riding, and rock climbing. The main activity with lasting visual affects is FSR 9734. Fixed anchors placed for climbing use and safety remain in some

areas of the WRCA and contribute to visual impacts. Infrequent uses such as camping, hiking, horseback riding, OHV riding, and other dispersed uses have a temporary though real impact to living culture activities. The Forest Service's Williamson River Large Wood Project implemented in September 2011, required use of a helicopter to place dead trees in the river adjacent to the WRCA. The project did not exceed 30 days in duration; noise generated from the helicopter was temporary. No adverse effects from this activity were reported to the Forest Service.

Alternative 3

Direct, Indirect and Cumulative Effects

Cultural Resources

Under Alternative 3, climbers would not enter the cultural site. Impacts to existing features would be mitigated through avoidance. There would be a slightly higher risk of impacts to cultural resources under Alternative 3 than Alternative 2, but less than under the No Action alternative. This risk would be associated with climbers that did not respect the "No Top-out" policy and chose to top-out into the cultural site. This risk would be reduced by the closure order, information and education efforts, and physical barrier installation around the cultural site.

Living Culture

The effects of Alternative 3 would be similar to Alternative 2 with exception of effects associated with climbing access to the entire cliff face and construction of a trail along the bottom of the cliff. One notable difference would be the number of fixed anchors installed under Alternative 3 compared to Alternative 2. Climbing would be allowed on over 90 routes, same as the no action alternative. More fixed anchors would be placed and maintained than under Alternative 2. Not all climbing equipment visually blends into the rock. Camouflaged equipment exists that could replace the existing equipment and partially mitigate the visual effect; however, the physical effect of the climbing hardware would remain.

The closure on the cliff top would reduce potential effects to living culture associated with that area. Climbers using the entire cliff face would be more likely to disturb traditional practitioners engaged in spiritual practices than they would be under Alternative 2, but less than under the no action alternative.

Construction of a connecting trail along the bottom of a cliff face would reduce the likelihood of user created trails. The setting of the area would be impacted slightly by the presence of the trail, but the prevention of developing a braided trail system would limit those effects. The location of the trail would be close to traditional plants that occur in the area. The trail would improve access to the plants by traditional practitioners. Individual plants would possibly be impacted by foot traffic to and from the cliff area.

The traditional practitioners rely on a healthy native plants population for both medicinal and subsistence. The construction of the trail and subsequent human foot traffic would have an

effect on the native plants below the cliff area, because some users likely would not stay within the developed trail, but wander off the trail to areas where the native plants grow.

While hiking, picnicking, scenic viewing, stargazing and other low-impact activities present little to no threat to the physical integrity of the WRCA, the presence of people is objectionable to traditional practitioners. The presence of people can disrupt the solitude necessary for the traditional practices. To be in accordance with traditional Klamath practitioner's avoidance taboos, public users should not walk through the cultural resource. The closure and educational aspects of the kiosk reduces this potential conflict.

Cumulative Effects

The Klamath living culture is dependent on the health, access, aesthetic and visual quality. It defines a sense of place of the land and the water, plants and animals, which are interconnected to the Tribes web of life.

Over the last century and a half, the physical attributes of WRCA have been altered significantly with the modern transportation system; motorized 2- and 4-wheel vehicles have access to the rim's edge. Additionally, public use of the area by fishermen, sightseers, rock climbers and others, detract from the secluded prehistoric setting of the resource. While these innovations contribute to the needs of the dominate society, they have simultaneously detracted from the WRCA. Cumulatively, these effects threaten the integrity of the cultural resource more than they do individually, approaching a threshold. To insure that the threshold is not exceeded, negative effects to cultural resources and living culture need to be limited.

Recreation

Introduction

The Williamson River Cliff Area contains unusual scenic, historical, and cultural resources that hold considerable value among the native people of the Klamath Basin and local recreationists. The cliff area is visited by people pursuing spiritual experiences as well as recreational activities such as hiking, rock climbing, sightseeing, photography, horseback riding, and camping. The area has been recognized for its climbing opportunities since at least the 1970's. The area for this effects analysis is defined by the planning area shown in Figure 3, page 11.

Existing Conditions

The Williamson River Cliff Area is located relatively close to Klamath Falls making it easily accessible for day trips. Dispersed camping sites are readily available with flat ground that supports this type activity. The quality of rock and cliffs is good for rock climbing. Similar sites with these features that are accessible to the public are limited or non-existent in the South Central Oregon area. This is a relatively well known area to the climbing community, having been used for over 40 years.

The constructed improvements in this area are limited to a single lane road parallel to the cliff and one pull off loop for parking. Low standard trails have been constructed by individuals by clearing brush between the access road, the cliff edge, and the bottom of the cliff. Rock climbers have installed climbing protection features (bolts) into the cliff face. There are 22 routes in place for use by climbers on the east and west ends of the cliff face. An area approximately four acres in size above the cliff and the corresponding cliff face are temporarily closed to public access and use for climbing and other activities by order of the Forest Supervisor, Fremont-Winema National Forest. The closure order was implemented in November 2009. The purpose of the closure is to protect cultural resources from further damage. Site specific monitoring since 2005 has documented extensive damage to the cultural site by pedestrian intrusion. Impacts continue to occur. Monitoring completed in May of 2010 found that brush clearing has occurred through the cultural site and two new sets of bolts were installed in the cliff face immediately below the cultural site. Both of these activities occurred within the boundary of the forest closure order.

Management Direction

The Winema Land and Resource Management Plan includes goals to provide a broad spectrum of recreation opportunities while providing a safe and economic road and trail system that protects natural, cultural and social resource values. The Forest Plan is embodied by objectives, and standards and guidelines for managing specific land allocations (management areas). The Winema National Forest is comprised of 15 management areas (MA).

The Williamson River Cliff Area is located in MA 4 which is subdivided into four additional management areas, 4A, 4B, 4C and 4D, all of which are categorized as Unique Management Areas – places defined as having unusual scenic, historic, prehistoric, scientific, natural, or other special interest and that merit special attention and management. The Forest Plan directs that these areas be protected and managed for recreation use substantially in their natural state and that they may be managed to foster public use and enjoyment (Winema LRMP, 1990, 4-112).

The Williamson River Cliffs Area is located in MA 4C—Williamson River Gorge Scenic Area, an area of approximately 1,982 acres. The management goal for MA 4C is to maintain or improve the quality scenic and dispersed recreational values of the canyon (Winema LRMP, 1990, pp 4-116).

Winema LRMP standards and guidelines for MA 4C require that:

- Roded Natural recreation opportunity setting is provided
- Site-specific management plans are developed
- Vehicles, including off-road vehicles, be allowed only in designated areas

The Forest Plan utilizes the Recreation Opportunity Spectrum (ROS) system to help guide where motorized and non-motorized activities and opportunities can occur on the Forests. The Forest Service developed the ROS system to help identify, describe, quantify, and manage the variety of recreation settings available in National Forests. The ROS system use seven elements (remoteness, naturalness, facilities and site management, social encounters, visitor impacts, and

visitor management) to classify land on National Forests. These settings range from “urban” to “primitive” and make a distinction between motorized and non-motorized use. Both motorized and non-motorized use is available in Roded Natural settings.

Interaction between and among motorized and non-motorized users may be moderate to high in these settings. Conventional motor vehicle use is allowed and incorporated into construction standards and design of facilities. The roads and trails proposed for motorized vehicle use in the action alternatives are located primarily in roded natural settings. Table 4 displays management emphasis, land area and visitor use days of each ROS setting for non-wilderness management areas in the Winema National Forest.

Alternative 1 (No Action)

Under the No Action Alternative no management actions would be undertaken by the Forest Service. The existing temporary closure order would be allowed to expire and public use would not be restricted in the area. There would be no change to recreation opportunities since access to the area would return to preclosure conditions. The entire area above the cliff would be open for recreational activities without restrictions. Public use would not be displaced from the area and the full range of experiences would be available to the public. People would see no noticeable change in opportunities from those present prior to the implementation of the temporary closure order. Effects to cultural resources would be expected to continue to occur; see the effects analysis section on cultural resources for more discussion.

ROS Class	Acres	Class %	Recreation Visitor Days
<i>Nonwilderness</i>			
Primitive	0	0	0
Semiprimitive Nonmotorized	16,965	1.79	1300
Semiprimitive motorized	14,400	1.52	300
Roded Natural	739,736	78.06	227,000
Roded Modified	149,000	15.72	3800
Rural	24,500	2.36	214,000
Urban	0	0	0
Total	947,601	102.04 ¹	447,000

¹Class percentage total exceeds 100 due to rounding

²One recreation visitor day equals 12 hours of participation in a recreation activity.

Table 4- Acres and Recreation Use (1988) by ROS Class as modified from Winema LRMP, FEIS, 1990.

Visit Type	Visits (thousands)	90% confidence interval width (%) ^{*e}
Total Estimated Site Visits	323.6	13.2
Developed Day Use Sites	61.9	10.6
Developed Overnight Use Site	120.1	13.0
General Forest Areas	130.1	29.7
Wilderness	10.7	54.1
Special Events and Organizational Camp Use	0.7	0.0
Total Estimated National Forest Visits	296.2	13.9

^{*e} This value defines the upper and lower bounds of the visitation estimate at the 90% confidence level, for example if the visitation estimate is 100 +/-5%, one would say "at the 90% confidence level visitation is between 95 and 105 visits."

¹Site visit is the entry of one person onto a national forest site or area to participate in recreation activities for an unspecified period of time. The site visit ends when the person leaves the site or area for the last time on that day.

Table 5 -Visitation Estimate for Winema National Forest, 2009 period, Klamath County, Oregon.

According to 2009 National Visitor Use Monitoring (NVUM) results, between 100,000-160,000 site visits occurred in General Forest Areas ("undeveloped areas") of the Winema National Forest. These data are most similar to the recreation setting classification of MA 4C under the ROS system. Specific visitation data for MA 4C, however, is unknown.

Alternative 2 (The Proposed Action)

Alternative 2 would limit public access and experiences within the project analysis area. The current forest closure order would become permanent until canceled or modified through subsequent action. Barriers and signs would define the boundary of the closure area. People would not be able to engage in recreational activities within the boundary of the closure area (approximately four acres). These experiences would not be eliminated; they would be slightly changed by the restrictions. People would be able to engage in recreational activities from the top of the cliff in the areas adjacent to the closure area. Specific views from within the closure area would be lost to the public. Almost identical views would be available from the area immediately adjacent to the closure boundary. People would likely move up and down the canyon outside the closure area to enjoy these activities. They would likely visit the Oux Kanee site west of

Highway 97 as an alternative to the Williamson River Cliff Area. Oux Kanee is a developed day use area. Impacts to this site from uses displaced from the project area would be minimal.

Scenic quality of the area on top of the cliff would be changed to a slight degree by the installation of barriers around the closure area, an access trail to the base of the cliff, and an educational kiosk. Design criteria for each of these actions would incorporate natural materials and vegetative screening to reduce effects on views. The kiosk would be located outside primary sightlines to minimize viewing distractions. No impacts to visual quality would be expected from re-vegetating denuded areas. Limited features such as these are consistent with the Winema LRMP, as amended.

People would be able to pursue climbing activities in Williamson River gorge, but it would be changed from the current situation. The variety and number of routes available for climbers would be reduced over the No Action Alternative. Rock climbers would not be able to use the climbing routes within the closure area. Routes outside the closure area to the east and west would be available to climbers. The number of available routes would change from around 90 to 22. A reduction in number of available routes could mean some climbers would have to wait for other climbers to vacate routes before climbing, depending on the number of individuals or parties using the site at one time. The variety in climbing routes, and therefore experiences, would be reduced over the No Action Alternative. Reduction in the number of climbing routes would likely shift climbing activity away from the Williamson River Cliff Area. Some climbers would be displaced and would pursue climbing in other parts of the surrounding region or State. Climbers would not be expected to shift activities to a rock area access and upriver from WRCA due to less convenient access and grossly inferior rock quality for climbing.

Installation of trails connecting the top and bottom of the cliff would make it easier for people to move up and down between the top and bottom of the cliff area than under the current situation or No Action Alternative. Interpretive panels would enhance people's understanding of the setting and natural resources associated with the site. These opportunities would enhance recreational experiences and respect for other users over those available under the No Action Alternative.

Adaptive actions would be implemented based on semi-annual or annual monitoring of the area. Current monitoring of the cultural resource site is conducted at least once per year. Under Alternative 2, site monitoring would be completed once or twice per year. An increase in resource impacts, particularly any amount of additional impact to cultural resource features, would result in more restrictive management requirements. Implementation of a closure area more consistent with the analysis area boundary (within T. 33S., R.7E., Section 35, NE ¼), except by permit, would reduce public use of the area. Associated impacts on resources would be expected to decline.

Limiting use through a permit system (individual or special use permit) would restrict use over the No Action alternative and would provide a higher level of control over activities in the area. Many of the activities that would occur under the No Action Alternative could continue, but fewer people would be able to experience them. A special use permittee would be authorized to conduct trips into the area with groups of people. Group size would be limited during the permitting process and modified based on site specific monitoring of permitted activities.

Recreational experiences for some would possibly change from more of an individual or small party experience to that of a larger group.

The most restrictive action that may be implemented would be closing the area to all public access. FSR 9734 would be closed at the Forest boundary with private land with a gate or other barrier. The road would be decommissioned as much as one mile north of the cliff area if a gate or barrier proved ineffective. Closure of the entire area to public access would reduce the ease of access. Closing the area to public access would greatly reduce or eliminate impacts from human activities with the exception of occasional individuals that ignored the closure order. Opportunities for viewing, climbing, photography, camping, hiking, and other activities in the closure area would be lost for the duration of the closure.

Alternative 3 (No Top-out Policy)

Alternative 3 would include most of the same actions found in Alternative 2 with a slight change. Under this alternative, rock climbers would be allowed to climb throughout the entire face of the cliff. Climbers would not be allowed to top out onto the cliff top within the four acre closure area. The top of the cliff area extending down the face of the cliff 4.5 feet would be closed to rock climbing; all other areas would be open. An additional section of trail would be constructed along the cliff base connecting two trails planned from the top to the bottom, east and west of the closure area.

The effects to recreational activities would be the same as those described in Alternative 2 with the exception of rock climbing activities and trail access. Rock climbers would be able to experience 90 plus existing routes. Access to the full range of routes would be expected to accommodate the demand; use would not be shifted to other areas up or down the canyon or out of the area entirely. Monitoring would be conducted to determine impacts to resources and used to recommend continuation of uses or changes to management practices. Any new permanent bolts or fixed anchors would be required to be consistent with rock color to reduce impacts to scenic quality. Temporary anchors would be required on climbing routes where feasible. Additional trail constructed at the base of the cliff would improve access for climbers to the bottom of the cliff and to hikers along the river who want to access the cliff base. Hikes originating at the top of the cliff area would be able to experience a loop route. Improved access at the base of the cliffs could promote a small increase in pedestrian traffic from adjacent private lands between the cliff area and the river over that expected in the No Action Alternative.

Cumulative Effects Common to All Action Alternatives

There are no past activities in the analysis areas that would contribute to cumulative effects on recreational resources. Ongoing activities include recreation activities like camping, hiking, viewing, vehicle use, and rock climbing. These activities would continue at or slightly below levels in the No Action Alternative under Alternatives 2 and 3. Therefore, there would not be a cumulative effect adding to impacts from recreational activities.

A recent past action near the project area that may affect recreation resources, primarily impacts to scenic quality, is placement of large woody debris in the Williamson River to improve fish

habitat. The project design for wood placement placed whole trees, including root wads, along the river's edge jutting into the water. Tree placement was designed to appear natural; native materials were used. Impacts to scenic quality from the cliff area are minimal. When added to the expected scenic quality impacts from Alternatives 2 and 3, there is a very small, almost unnoticeable change in the scenery of the area over the No Action Alternative.

Other Disclosures

Energy

The activities under all the alternatives in this analysis would not require or induce unusual expenditures of energy. Implementation of adaptive actions could result in less overall expenditure of energy, but on a very inconsequential level. Energy consumption on a regional scale would essentially be immeasurable.

Effects on Laws, Regulations, Plans, Policies, and Procedures

This section includes a brief summary of those laws, policies, and executive orders that are relevant to the proposed actions considered in this environmental assessment.

Part 212-Travel Management: Subpart B, Designation of Roads, Trails, and Areas for Motorized Use

The action alternatives have identified a portion of Forest System Road 9734 that could be obliterated under an adaptive approach to achieving the purpose and need. The decision to implement road closure would be based on regular monitoring on the effects of public use on the resources within the project area. See alternatives two and three for more discussion.

Forest Plan Consistency

The action alternatives are consistent with the Winema National Forest Land and Resource Management Plan, as amended. No forest plan amendments are proposed or needed to meet the purpose and need for the project.

Clean Water Act

No activities planned under the action alternatives would impact water quality or quantity. See the hydrology section for further analysis on the impacts of activities within the alternatives on water resources.

Endangered Species Act

No threatened or endangered species would be impacted by activities proposed in the two action alternatives or the no action alternative. See the wildlife section of Chapter Three for more discussion.

Prime Farm Lands, Range Lands, and Forest Lands

There are no prime farm lands or range lands within the analysis area for this project. Prime forest land, as defined in the Secretary of Agriculture's memorandum, is not applicable to areas within the National Forest System.

Executive Orders

11988 & 11990 of May 24, 1977; Protection of Floodplains and Wetlands

The project location is not hydrologically connected to the adjacent floodplain. There are no wetlands within the project analysis area. There would be no impacts to floodplains or wetlands as a result of this project. See the discussion on hydrology in Chapter Three for more information.

12898 of February 11, 1994; Environmental Justice in Minority Populations and Low-income Populations

Executive Order 12898 directs the agency to identify and address, "as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations..." The intent of the order is to assure the fair treatment and meaningful involvement and consideration of all people. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from the execution of a federal actions.

One potential population, Klamath Tribes members, could be included in the categories identified in EO 12898 above. Consultation with The Klamath Tribes was conducted frequently for this project even before initiating the NEPA process. The effects of management actions considered under this project are described in the Heritage section of the analysis under the Living Culture section, pages 45-48. Based on this analysis there is no known potential for disparate or disproportionate effects on minority or low income populations.

Chapter – 4 Consultation and Coordination

The Forest Service consulted the following individuals, Federal, State, and local agencies, tribes and non-Forest Service persons during the development of this environmental assessment:

Interdisciplinary Team Members:

Brent Stroud
Lance Lerum
Lisa Lyon
Michael Boles
Missy Anderson

Shane Foster
Walt Lucas
William Ray, Jr.

Federal, State and Local Agencies:

Klamath County Commissioners
US Fish & Wildlife Service, Trish Roninger
US Fish & Wildlife Service - Ecosystem Restoration Office

TRIBES:

The Klamath Tribes Indian Game Commission
The Klamath Tribes

OTHERS:

Access Fund, Joe Sambataro, Greg Orton
Klamath Direct, Tom Burns
Klamath Siskiyou Wildlands Alliance, George Sexton
Oregon Wild, Eugene Office
The Ledge, Mike Angeli
Charles McDonald
Stephen and Flora Harris
Dr. Grover Shipman
Calvin Landus
Roy Hurst
Mike Cullers
Perry Cestnut
Brett Fisher
Cameron WOgan