

**BIOLOGICAL ASSESSMENT  
FOR THREATENED, ENDANGERED  
AND CANDIDATE PLANT AND  
ANIMAL SPECIES**

***PAHVANT INTERAGENCY FUELS  
REDUCTION PROJECT***

**FILLMORE RANGER DISTRICT**

**FISHLAKE NATIONAL FOREST**

Approved By: /s/ Stan Andersen Date: 4-10-03  
Wildlife Biologist

# I. INTRODUCTION

The purpose of this Biological Assessment is to analyze and evaluate the potential effects of the Pahvant Interagency Fuels Reduction Project on the threatened, endangered, and candidate plant and animal species which occur or have habitat within the analysis area. The analysis area is located on the west side of the Pahvant Mountain Range, the area considered in this document is the lands managed by the Fillmore Ranger District, Fishlake National Forest within the analysis area. The names and status of the species and the occurrence of suitable habitat within the analysis area are shown in Table 1. This Biological Assessment also documents the potential effects and determines if formal consultation with the U.S. Fish and Wildlife Service (USFWS) is warranted.

Table 1. Names, status, and occurrence of suitable habitat for threatened, endangered, and candidate plant and animal species known or suspected to occur on the Fishlake National Forest.			
SPECIES	STATUS	SUITABLE	HABITAT UNSUITABLE BASED ON THE FOLLOWING
Western Yellow-billed Cuckoo ( <i>Coccyzus americanus</i> )	Candidate	X	
San Rafael Cactus ( <i>Pediocactus despainii</i> )	Endangered		This species is endemic to Emery and Wayne Counties, Utah and has been found on the Loa Ranger District on the very southeast corner of the Forest (Rodriguez, 2002).
Bald Eagle ( <i>Haliaeetus leucocephalus</i> )	Threatened	X	
Utah Prairie Dog ( <i>Cynomys parvidens</i> )	Threatened		Basic habitat requirements considered for the Utah prairie dog are deep, well-drained soil, and vegetation low enough so that prairie dogs can see over or through, and suitable forage. Moist forage available throughout the summer is also needed. These conditions are not present in the analysis area.  Analysis area is outside of the potential suitable habitat for this species (Rodriguez, 2002).

Last Chance Townsendia ( <i>Townsendia aprica</i> )	Threatened		This species is endemic to central Utah in Emery, Wayne, and Sevier counties on the extreme east side of the Forest (Rodriguez, 2002).
Mexican Spotted Owl ( <i>Strix occidentalis lucida</i> )	Threatened		This species is not recognized by US Fish and Wildlife Service as occurring in Millard County, Utah (Rodriguez, 2002; and FWS, 2002).
Maguire Daisy ( <i>Erigeron maguirei</i> )	Threatened		This species is endemic to Emery and Wayne Counties, Utah and has been found on the Loa Ranger District on the very southeast corner of the Forest (Rodriguez, 2002).

## II. DESCRIPTION OF THE PAHVANT INTERAGENCY FUELS REDUCTION PROJECT

The Fillmore Ranger District is proposing to treat hazardous fuel accumulations along the western slope of the Pahvant Mountain Range. There are 5 treatment units with approximately 7,270 acres proposed for treatment throughout the analysis area, as a connected action an additional 7000 acres and 2 units proposed on BLM Lands within the analysis area. Treatment methods would include hand thinning of pinyon and juniper trees and prescribed burning, the proposed action is to treat 40-80% of the acres within the units (see Table 3).

The analysis area is located between Cove Fort on the south and Scipio on the north, and east of Interstate 15 on National Forest System and BLM Lands (See vicinity and treatment map). The treatment units are scattered from Meadow Canyon to Scipio.

Measures have been formulated to mitigate the possible adverse impacts that may occur from implementing the proposed action alternative. Project Specific Mitigation include:

Prior to any ignition, a prescribed fire burn plan would be prepared and approved by the appropriate Forest Service or BLM officials. The prescribed burn plan would describe methods and conditions under which prescribed burning would occur in order to accomplish project objectives. Close adherence to the prescribed fire burn plan is required to accomplish project objectives and insure the safety of those implementing the project.

Grazing pastures within treatment units would be rested from livestock grazing for a minimum of two grazing seasons following a prescribed burn in that unit. Pastures would be rested for an additional season(s), where necessary to allow plants to rejuvenate. The Fillmore Ranger District staff would outline the grazing procedures that would be implemented during this time period.

Where necessary, hand or "black" lines would be constructed along the perimeters of treatment units in order to contain prescribed fire within the treatment units. Hand lines and black lines are created by removing vegetation along a line by hand tools or hand burning, respectively. These lines would be constructed prior to the implementation of treatments that involve the use of prescribed burning.

Low-to-moderate intensity prescribed fire would be used in order to promote the creation of a mosaic burn pattern of burned and unburned vegetation, and to protect soil resources.

No fire lines would be constructed through known significant heritage sites. A minimum 100-foot buffer of untreated vegetation would be left around significant heritage sites. Vegetation may be cleared along the perimeter of the 100-foot buffer to exclude fire or reduce fire intensity. Prior to ignition, an archeologist would assist fire personnel to identify any other appropriate protection measures.

Any tree cavities that are observed during the thinning of pinyon and juniper trees will be retained for cavity nesting bird species.

Where necessary, treated areas may be seeded to promote recovery of ground cover to protect soil resources. Seed mixes may be comprised of grass, forbs, and shrubs. Only noxious weed free seed mixes would be used.

**Table 2. Vegetation types affected by the proposed action, percentage and acres treated compared to the analysis area.**

<b>Vegetation Types</b>	<b>Number of Acres in Treatment Units</b>	<b>40-80% of Acres Treated</b>	<b>Total Number of Acres in Analysis Area</b>	<b>Percentage of Acres Treated Compared to Analysis Area</b>
Aspen	0	0	10,948	0.0%
Communities	0	0	1768	0.0%
Cropland	0	0	23,400	0.0%
Gambel's Oak	4547	1819-3638	72,413	2.5-5.0%
Mountain Mahogany	0	0	19,102	0.0%
Mountain Shrub	0	0	555	0.0%
Pinyon/Juniper	6604	2642-5283	56,733	4.7-9.3%
Riparian	32	*0	2066	0.0%
Sagebrush/Grass/Forb	3144	1258-2515	70,573	1.8-3.6%
Semi-desert Shrubs	0	0	14	0.0%
Spruce/Fir	0	0	29,903	0.0%
<b>Total</b>	<b>14,329</b>	<b>5719-11,436</b>	<b>287,475</b>	

\* No acres in the riparian area will be treated.

**Table 3. Treatment Unit Name, Acreage, Vegetation, and Treatment Method.**

Unit Name	Legal Location	Unit Size (acres)	FS Acreage	BLM Acreage	Vegetation Types	Primary Treatment Methods
Grabalt	Sec 31-32, T.18 S., R.2 W.; Sec 25-26, 35-36, T.18 S., R.3 W.; Sec 1-4, T.19 S., R.3 W.	2,352	914	1,438	78% pinyon-juniper 20% Gambel oak 2% sagebrush/grass/forb	Cutting & burning by hand
Wild Goose	Sec 22-27, 35-36, T.19 S., R.3 W.	1,578	1,578	N/A	58 % pinyon-juniper 42% Gambel oak	Burning by hand or aerial ignition device
Holden Springs	Sec 6-9, 17-18, T.20 S., R.3 W.; Sec 12, T.20 S., R.4 W.	1,943	N/A	1,943	68% pinyon-juniper 32% sagebrush/grass/forb	Cutting* & burning by hand
Pioneer	Sec 31-33, T.20 S., R.3 W.; Sec 4-6, 8-9, T.21 S., R.3 W.	1,603	1,149	454	38% pinyon-juniper 33% Gambel oak 29% sagebrush/grass/forb	Cutting* by hand, burning by hand or aerial ignition device
Frampton Heights	Sec 1, 12, T.21 S., R.4 W.,	490	N/A	490	65% pinyon-juniper 35% sagebrush/grass/forb	Cutting and piling*, pile burning by hand
Horse Hollow	Sec 35-36, T.21 S., R.4 W.; Sec 1-2, T.22 S., R.4 W.	1,434	1,434	N/A	51% pinyon-juniper	Burning by hand or aerial ignition device

Meadow	Sec 7-8, 18-20, 29-32, T.22 S., R.4 W.; Sec 3-4, T.23 S., R.4.5 W.; Sec 13, 24-26, T.22 S., R.5 W.	4,929	2,195	2,734	43% Gambel oak 35% sagebrush/grass/forb 22% pinyon-juniper	Cutting* by hand, burning by hand or aerial ignition device
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\* Cutting on BLM portions of these units was analyzed in 1999 by the BLM in the Holden, Frampton, and Meadow Environment Assessments.

### III. CURRENT MANAGEMENT DIRECTION

Current policy as stated in the Forest Service Manual 2670 (USDA Forest Service 1995) includes the following direction:

1. Place top priority on conservation and recovery of endangered, threatened, and proposed species and their habitats through relevant National Forest System, State and Private Forestry, and Research activities and programs.
2. Establish through the Forest planning process objectives for habitat management and/or recovery of populations, in cooperation with States, the Fish and Wildlife Service (FWS) (or National Marine Fisheries Service (NMFS)), and other Federal agencies.
3. Through the biological assessment process, review actions and programs authorized, funded, or carried out by the Forest Service to determine their potential for effect on threatened and endangered species and species proposed for listing.
4. Avoid all adverse impacts on threatened and endangered species and their habitats except when it is possible to compensate adverse effects totally through alternatives identified in a biological opinion rendered by the FWS; when an exemption has been granted under the act, or when the FWS biological opinion recognizes an incidental taking. Avoid adverse impacts on species proposed for listing during the conference period and while their Federal status is being determined.
5. Initiate consultation or conference with the FWS or NMFS, when the Forest Service determines that the proposed activities may have an adverse effect on threatened, endangered species; is likely to jeopardize the continued existence of a proposed species; or result in the destruction or adverse modification of critical or proposed critical habitat.
6. Identify and prescribe measures to prevent adverse modification or destruction of critical habitat or other habitats essential for the conservation of endangered, threatened, and proposed species. Protect individual organisms or populations from harm or harassment as appropriate.

The Forest Service follows a two-tier planning process. The first tier, the Fishlake Land and Resource Management Plan (Forest Plan); the second, the site-specific project planning level which is represented by the Environmental Assessment (EA).

The Forest Plan was prepared in accordance with the National Forest Management Act of 1976, the regulations in 36 CFR 219, and the National Environmental Policy Act of 1979, The Fishlake Forst Plan was approved in June 1986.

A goal documented in the Fishlake National Forest Land and Resource Management Plan (USDA Forest Service 1986) is to "identify and improve habitat for sensitive, threatened, and endangered species including participation in recovery efforts for both plants and animals". In addition the Plan states, "Current habitat of threatened and endangered species will be maintained. No adverse effects from management activities will be allowed". General Direction in this Plan states, "Maintain habitat for viable populations of existing vertebrate species. Habitat for each species on the Forest will be

maintained by protecting at least 40 percent of the ecosystems for existing species. Proper juxtaposition of ecosystems must be considered. Manage and provide habitat for recovery of endangered and threatened species. Do not allow activities that would negatively impact endangered, threatened, or sensitive plant or animal species. Follow direction in recovery plans."

The areas identified as potential burn areas fall within the following Forest Plan management areas:

Management Area 6B: Management emphasis is on intensive grazing management systems are favored over extensive systems. Conflicts between livestock and wildlife are resolved in favor of livestock.

The project proposal to do mechanical treatments and prescribe burn in this Management Area is compatible with the direction found in the Forest Plan.

## **IV. CONSULTATION AND FIELD REVIEW TO DATE**

Field surveys were completed for the analysis area to analyze habitat for wildlife species specific to this project in 2002. As a result of these visits and through consultation with state and federal agencies the bald eagle and western yellow-billed cuckoo are the only species considered to have habitat within the analysis area.

A letter was received from Harry Maddux, Field Supervisor for the U.S. Fish and Wildlife Service, in March 2003 identifying the Threatened, Endangered, Candidate, and Proposed species which may occur within the area of influence of the proposed action. Species identified in the letter included: Bald eagle, Utah prairie dog (the reasons for not considering this species are discussed in Table1), and western yellow-billed cuckoo.

David Tait, botanist for the Fishlake NF, was also contacted about impacts to any T&E plant species. There are no known T&E plants or habitat within the analysis area (Tait, 2003).

## V. HABITAT DESCRIPTION FOR THREATENED, ENDANGERED OR CANDIDATE SPECIES.

For a detailed description the life history and habitat requirements of the bald eagle and western yellow-billed cuckoo, refer to the *Life History and Analysis of Endangered, Threatened, Candidate, Sensitive, and Management Indicator Species of the Fishlake National Forest* (Rodriguez, 2002) in the project record.

## VI. EXISTING ENVIRONMENT

### **Bald Eagle**

Bald eagles are only known to occur on the Fishlake National Forest in the late fall, winter, and early spring months. Bald eagles have been observed mainly in the valleys below the Forest, primarily feeding on carrion such as deer and rabbits. Bald eagles have also been observed perching in large trees in canyon entrances. Based on field reviews and winter raptor surveys winter roosting and foraging habitat is available throughout the analysis area for the Pahvant Interagency Fuels Reduction Project.

### **Western Yellow-billed Cuckoo**

Potential nesting and breeding habitat can be found within the analysis area along the perennial streams, namely: Pioneer Creek, Chalk Creek, Meadow Creek, and Corn Creek. Portions of these streams are below 7000 feet with cottonwood/willow overstory, and dense brushy understories. The elevation figure of 7000 feet was agreed upon by Ron Rodriguez and Dr. Frank Howe (personal communication, 2002) as the area that may have habitat for this species and would be surveyed; this was a conservative agreement as the elevational habitat figure may be closer to 6000 feet. Extensive wildlife surveys were conducted specific to this project in 2002 (surveys in project record). These surveys were conducted to determine the riparian guild (Management Indicator Species for the Fishlake National Forest) present within the treatment units, no western yellow-billed cuckoos were observed in these studies.

## VII. EFFECTS OF THE PROPOSED ACTION

### **Bald Eagle**

#### Direct and Indirect Effects

There are no known bald eagle roost sites within the analysis area, there are riparian corridors with large cottonwood trees, but no specific areas that are known where eagles congregate. These areas will not be affected by the proposed action, since riparian areas are not to be treated. There are no small reservoirs that occur within the analysis area, therefore, this type of foraging habitat will not be affected. Direct effects to bald eagles will not occur because all activities described within the

proposed action would be conducted during the spring, summer, and early fall months, when eagles are not present in the area.

Indirect effects could occur as a result of prescribed fire. Following a burn the grazing units affected would be rested for two growing seasons, this should provide the establishment of some plant species, some of these areas may be reseeded to quicken this process. Treatments would decrease habitat and hence populations of some prey species, especially small mammals, as woody debris is burned. Openings created by prescribed fire could create additional habitat, or improved habitat for other prey species. The creation of early seral species will help create size, age, and species diversity important in maintaining a functioning ecosystem.

As a potential unknown effect the area would remain susceptible to a large destructive wildfire where the lighting sequence and area burned could not be managed and more of an impact would occur. If a high-intensity wildfire were to occur, foraging habitat could be moderately altered, depending on the area and acreage burned; revegetation time would be longer due to potential hydrophobic sterilization of the soil.

### **Western Yellow-billed Cuckoo**

#### Direct and Indirect Effects

There will be no direct effects to nesting or breeding habitat, there are 32 acres of riparian vegetation within the treatment units, however none are proposed to be treated (see Table 2. - Vegetation Types). It could be possible for these riparian areas to receive some smoke from the prescribed burn portion of the project, this could cause the nest to be abandoned. However, the prescribed burns would probably occur in early spring or late fall when cuckoos are not potentially present (cuckoos potentially arrive mid-June and leave by late-August). There should also be no effects to foraging area habitat, since these birds forage within riparian areas.

As a potential unknown effect the area would remain susceptible to a large destructive wildfire where the lighting sequence and area burned could not be managed and more of an impact would occur. If a high-intensity wildfire were to occur, nesting, breeding, and foraging habitat would be moderately altered if riparian areas were burned; revegetation time would be longer due to potential hydrophobic sterilization of the soil.

## **Cumulative Effects**

The cumulative effects analysis area (CEA) consists of the Pahvant Mtn. Range (an area of approximately 400,00 acres). This area was identified based on the species being evaluated in this document and also on their expected use (winter months for bald eagle, and summer months for western yellow-billed cuckoo). The CEA includes known or potential use by bald eagle and western yellow-billed cuckoo for potential or known habitat or occurrence within the analysis area.

The cumulative effects being described include past, present, and reasonably foreseeable future actions. These effects would include:

- Vegetation treatment projects
- Cattle grazing
- Recreational activities
- Wildfires

## Various special uses

Vegetation treatment projects include: chaining of pinyon and juniper trees, noxious weed control, pinyon and juniper thinnings, prescribed burns, Mormon Cricket control, and BLM proposed projects.

Chaining projects were completed on numerous acreages (7000-10,000 acres) of public lands mostly in the 1970's or before. These projects were done by dragging a heavy anchor chain between two large bulldozers to uproot mature pinyon and juniper trees. Following the chaining most of these areas were reseeded with a variety of native and non-native plant species. These projects were done primarily across the foothills of the Pahvant Mountain Range on areas with gentle slopes. The projects were primarily done to increase the amount and quality of forage for livestock but also had beneficial effects for many wildlife species including bald eagle.

Noxious weed control has been implemented and is ongoing within the analysis area when needed to control these undesirable species. This is a requirement of the State of Utah to control these plants. Certified applicators apply chemicals or biological control agents to site specific locations. These spot treatments have minimal effects on bald eagle and cuckoos.

Thinning projects have been completed in recent years (<10 years), these projects are designed to remove the small pinyon and juniper trees that are re-establishing within the previously chained areas. Initially many of the chaining projects had too large of openings than preferred by big game, these thinning projects are designed to leave some pockets of trees to allow travel corridors and hiding/thermal cover for wildlife. These projects are beneficial to most wildlife species in general by keeping the areas productive by providing forage for many wildlife species, and not becoming closed canopy pinyon-juniper with few understory plants. Riparian areas have not been thinned so these project have had no impact on potential cuckoo habitat, and probably a minimal positive effect on bald eagles.

Prescribed burns have been accomplished within the analysis area in recent years (<10 years). Most of these burns have been small in size (<250 acres), many of these burned areas have been seeded following the burns. These smaller burns have opened up decadent areas dominated by seral pinyon and juniper trees to provide foraging areas for wildlife. The effects of these projects on bald eagle and cuckoos would be similar to those described in the action alternative.

Mormon Cricket control has been implemented for the past 2-3 years and is ongoing on public and private lands within the analysis area. Specific environmental assessments have been prepared by the Forest Service and BLM prior to baiting crickets. The impacts to wildlife are minimal when the bait is applied as specified; the affects to wildlife has been analyzed is the Environmental Impact Statement produced by Animal Plant Health Inspection Service (APHIS) entitled *Rangeland Grasshopper and Mormon Cricket Suppression Program* (see pages 29-35 of this document). Control of crickets can increase the amount of forage and cover available to wildlife that would be eaten by crickets if untreated.

Associated with the project is a proposal by the Fillmore BLM Field Office to treat 5 units within the same analysis area, some of these units are adjacent to the Forest Service units. These treatments would thin pinyon and juniper trees and prescribe burn approximately 7000 acres. These projects would treat 40-80% of the treatment units (see Table 3 - Proposed Action). The effects of these actions would be similar as described in this document.

Cattle grazing has occurred for over 100 years within the analysis area and treatment units. Standards and guidelines for livestock grazing have been established in specific plans and are administered by rangeland specialists. Generally these plans permit moderate grazing utilization levels and incorporate a deferred or rest rotation system to allow for improved plant vigor and residual biomass. Livestock grazing has also provided water sources across allotments from water troughs, pipelines, and stock ponds. These additional water sources have expanded wildlife habitats into areas that were limited by watering places historically. The riparian areas that are near to treatment units receive little or no grazing use due to grazing restrictions in these areas. Grazing does occur near riparian areas higher up in the canyons however this would be at elevations greater than 7000 feet elevation which is above the range of the western yellow-billed cuckoo (personal communication between Ron Rodriguez and Dr. Frank Howe, 2002). Moderate grazing pressures would probably have a negligible effect on bald eagles.

Recreational activities occur across the analysis area such as: camping, hunting, fishing, day use activities, and All-Terrain Vehicles (ATV) riding.

Camping is a on ongoing activity primarily in summer and early fall months, there are five picnic grounds and one campground on Forest Service System lands within the analysis area. These sites have removed small parcels of land from use by some wildlife species. Activities associated with campers may have short-duration disturbance impacts on wildlife in general and on the bald eagle or cuckoos specifically causing these species to temporarily avoid areas where humans are present.

Hunting is permitted across the analysis area during specific hunting seasons, hunting is managed by the Utah Division of Wildlife Resources (UDWR). Activities associated with hunting may have short-duration disturbance impacts on sensitive wildlife species. Most hunting seasons are in fall months after the cuckoo has migrated. Legal huting activities may have short-duration disturbance impacts on wildlife in general and on the bald eagle specifically.

Fishing occurs on perennial stream within the analysis area. The fishing limits are regulated by the UDWR. Activities associated with fishing may have short-duration disturbance impacts on any threatened, endangered or candidate wildlife species.

Many day use activities occur throughout the analysis area such as picnicking, sight-seeing, shed hunting, horseback riding, etc. These activities are short duration by definition and the impacts of such to cuckoos or bald eagles are minimal causing these species to temporarily avoid areas where humans are present.

ATV riding is a popular activity by many local residents and others that come from all over the United States to experience trails open to ATV's. A national ATV jamboree occurs in June each year attracting 250-400 ATV riders (a separate Environmental Assessment for this event has been prepared). The impacts to cuckoos or bald eagles would be short-duration from this activity.

Many wildfires have occurred throughout the analysis area. The Pahvant Mountain Range is a fire adapted ecosystem, and there have been numerous wildfires historically. In the past 10 years there have been a few large fires within the analysis area: Adelaide Fire in Kanosh Canyon burned over 16,000 acres, Dog Valley Fire east of Cove Fort burned 2,000 acres, Meadow Bench Fire east of

Meadow burned 300 acres, Swains Fire east of Holden burned 10,000 acres, Shingle Mill Fire and Black Cedar Fires east of Fillmore burned about 1000 acres each. Many of these fires destroyed large tracts of important wildlife habitat because they burned in summer months when they could not be controlled. Many of these burned areas were seeded following the fires and now provide quality forage for many wildlife species and potential prey species for the bald eagle. Some of these fires also burned riparian areas which may have had a negative effect on potential cuckoo habitat.

Special uses occur throughout the analysis area such as: firewood and post cutting, municipal water developments, small mining claims, irrigation diversions, outfitter and guide operations, etc. Special uses such as these are authorized by Special Use Permits; usually these permits require a separate environmental assessment which disclose the impacts from these activities. Most of these uses have been authorized for many years and the impacts to wildlife have already occurred.

The effects of the activities listed above, in combination with the proposed project are not expected to cause measurable changes to the species discussed in this document. The action alternative would not adversely affect population numbers or viability of the western yellow-billed cuckoo or bald eagle. The activities listed above are not expected to increase as a result of this action. Some activities such as grazing, and recreational uses are likely to decrease after a burn. This decrease in use would likely be short in duration (2-5 years) until re-vegetation occurs.

## VIII. DETERMINATION AND RATIONALE

### Bald Eagle

As a result of this assessment and its requirements, it is determined that the Pahvant Interagency Fuels Reduction Project **May Effect - Not Likely to Adversely Affect** the bald eagle. The rationale for this determination was made for the following reasons:

1. Bald eagles are known to winter in a variety of habitats including pinyon-juniper communities, removal of vegetation from a prescribed burn or mechanical treatments could cause an indirect effect from a decrease in prey populations from a loss of woody debris from a prescribed burn, this would be a short term impact (2-5 years) until re-vegetation occurs.
2. There are no known bald eagle roost sites within the analysis area. National Forest System lands within the analysis area have some perennial streams with large trees such as cottonwoods that bald eagles generally use as perching trees. These areas will not be affected by the proposed action.
3. There are no small reservoirs that occur within the analysis area, these types of areas would not be affected by the proposed action.
4. All activities described within the proposed action would be conducted during the spring, summer, or early fall months, when eagles are not present in the area.
5. Openings created by prescribed fire could create additional habitat, or improved habitat for prey species. The creation of early seral species will help create size, age, and species diversity important in maintaining a functioning ecosystem. This could result in improved foraging habitat for bald eagles.
6. A prescribed burn will be implemented in a mosaic burn pattern where 40-80% of approximately 14,329 acres (FS and BLM treatments combined) would be treated (~5719 to 11,436 acres) from an 287,475-acre analysis area. This will leave approximately 275,000 acres of the analysis area untreated and available to be utilized by this species.

7. The treatment units are widely scattered within the 287,475-acre analysis area, leaving many areas untreated and available for habitat needs. In addition to these acres there are many thousands of acres available to this species outside of the analysis area.
8. The analysis area does not contain any designated critical habitat for the bald eagle.
9. The proposed treatments should reduce the risk of wildfire, which may have a more negative effect on wintering habitat and prey species, in the drainages treated (approximately 2-4% of the analysis area).
10. There are no adverse cumulative effects of this project on the bald eagle.

### **Western Yellow-billed Cuckoo**

As a result of this assessment and its requirements, it is determined that the Pahvant Interagency Fuels Reduction Project **May Effect - Not Likely to Adversely Affect** the western yellow-billed cuckoo.

The rationale for this determination was made for the following reasons:

1. There will be no direct effects to nesting or breeding habitat, there are 2066 acres of riparian vegetation type within the analysis area and 32 acres of riparian vegetation within the treatment units, however none are proposed to be treated.
2. There should be no effects to foraging area habitat, since these birds forage within riparian areas. The prescribed burn units are a minimum of 100 feet from any perennial stream and most are more than 500 feet from a stream.
3. It would be possible for these riparian areas to receive some smoke from the prescribed burn portion of the project, which could have a negative affect on any cuckoos that would be present.
4. The prescribed burns would typically take place during spring or early fall months, when western yellow-billed cuckoos are not present in the area (cuckoos potentially arrive in mid-June and depart late-August). Also, mechanical thinning of pinyon and juniper trees would not occur in riparian areas.
5. The proposed treatments should reduce the risk of wildfire, which may have a more negative effect on cuckoo habitat and prey species, in the drainages treated (approximately 2-4% of the analysis area).
6. There are no adverse cumulative effects of this project on the western yellow-billed cuckoo.

## **IX. MANAGEMENT RECOMMENDATIONS**

The following management recommendations are made:

1. A mosaic burn pattern should be designed and implemented by the burn boss and ignition specialists. This pattern will provide islands and patches of vegetation, leave hiding cover, foraging areas, and create an edge effect that will be beneficial to many wildlife species.
2. Report and record sightings of threatened, endangered, candidate, and proposed species and implement appropriate protection measures as stated in the recovery plans and conservation strategies.

3. Continue cooperation with U.S. Fish and Wildlife Service in the recovery efforts of all threatened, endangered, candidate, and proposed species.
4. No mechanical or prescribed burn treatments would be implemented within riparian areas.

## **X. LITERATURE CITED**

- Personal communication between Ron Rodriguez (Dixie/Fishlake NF) and Dr. Frank Howe (UDWR) on the habitat requirements of western yellow-billed cuckoo. April, 2002.
- Rodriguez, Ronald L., Version 2.0, October 2002. Life History and Analysis of Endangered, Threatened, Candidate, Sensitive and Management Indicator Species of the Fishlake National Forest. 134 pages
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- USDA Forest Service. 1986. Fishlake National Forest Land and Resource Management Plan. Richfield, UT.
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- USFWS. 1983. Northern States Bald Eagle Recovery Plan. USFWS, Denver, CO.
- USFWS. 2002. Federally Listed and Proposed Endangered, Threatened, and Candidate Species and Habitat in Utah by County.

# MAPS